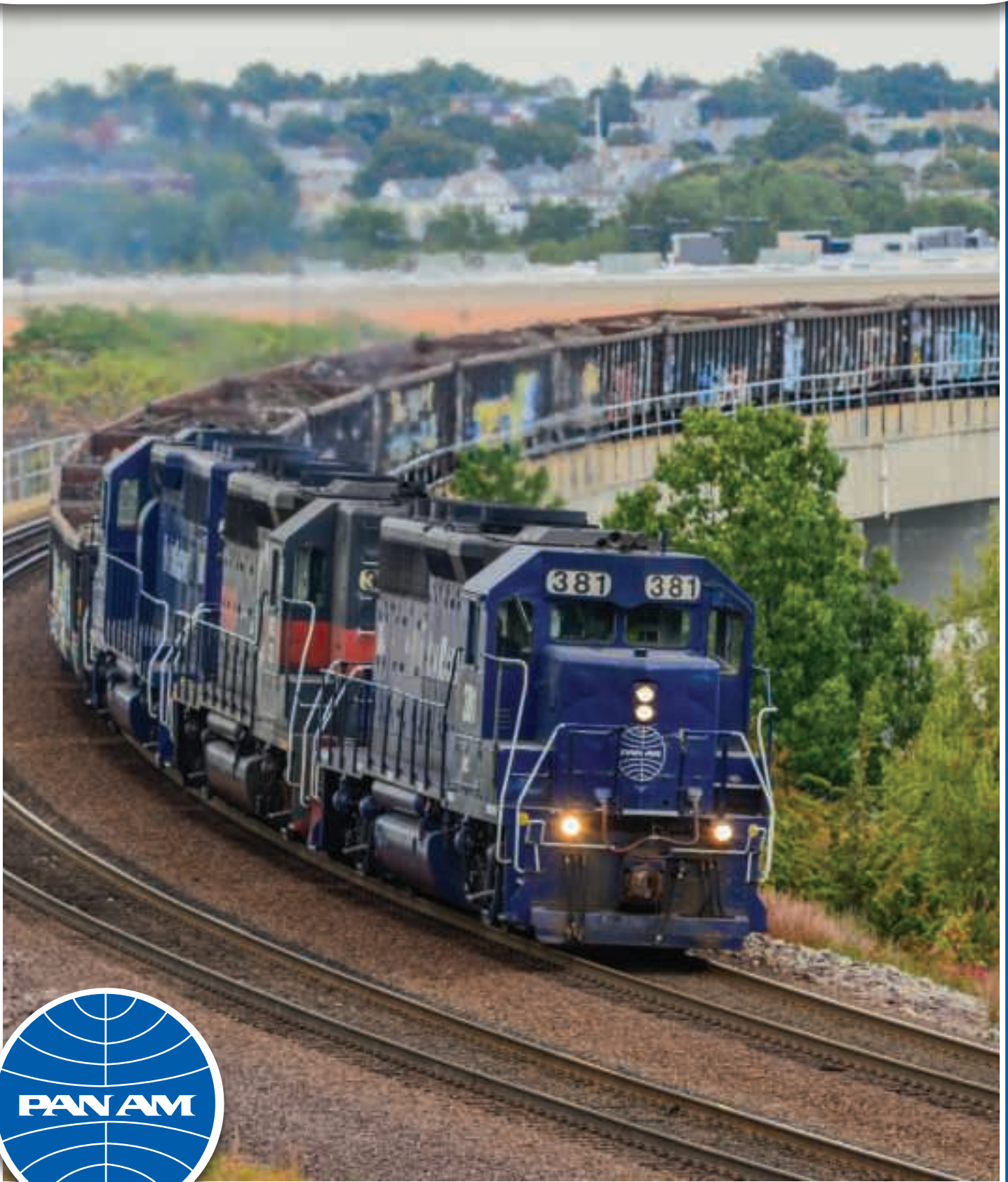


THE PAN AM CLIPPER

ISSUE ONE 2017



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The President's Message

As we begin 2017, this edition of the Clipper highlights some of the initiatives that we are undertaking to improve both the safety and performance of the railroad. While I trust that these articles will be informative, I also want to take this opportunity to summarize several other initiatives that are being undertaken to upgrade Pan Am's equipment and facilities.

First, 2017 will see the further expansion of the "MCrew" program that provides our train crews with tablets to monitor customer service requirements in real time. This program has been tested at select customer facilities, and as a result of its success it is being implemented throughout the system. We expect that customers will immediately see the benefits from this new technology. Information can be passed and updated more readily, ensuring that customers continue to receive the service that they have come to expect.


In addition to this technology, we have recently added twenty General Electric C-40-8 locomotives to our existing fleet. The addition improves our ability to move more tonnage with fewer locomotives. These new locomotives will also further our efforts to reduce the railroad's carbon footprint. Each locomotive comes with AESS technology that allows the locomotive to shut down while maintaining engine temperature and air pressure on the train. This technology will not only reduce carbon emissions, but will also improve efficiency by minimizing the amount of time idling and performing brake tests that historically delay train starts. These locomotives are now on the property, and we have made the necessary investments at Deerfield and Waterville to be able to fully integrate this power into our existing fleet.

We continue to investigate other ways to reduce fuel usage and idling by expanding the use of new technologies to better manage locomotive power. One such program that has been successful is the use of GATX "mother/mate" power to serve Sappi's Somerset Mill. The use of this technology allows for the operation of two locomotives with the same amount of fuel as one unit, without sacrificing tractive effort. This program has been so successful that Pan Am plans to add another "mother/mate" unit to local service in Nashua, New Hampshire this year.

Another technology that reduces locomotive idling as well as fuel consumption is the Supplemental Energy System. SES units maintain the temperature of locomotives while at the same time reducing noise and fuel usage that normally occurs during idling. This program has been successful over the past few years, and we have been in discussions with various state regulators regarding use of Volkswagen Settlement funding to procure more SES units. This settlement provides for funding of state programs to reduce carbon emissions, and Pan Am believes that its SES units meets the goals established by the states for utilizing settlement funds. While various states work to implement the VW Settlement, we will continue to work with the relevant agencies to identify ways in which Pan Am can participate in implementing new technologies to further reducing carbon emissions.

As always, we expect that we will face many challenges in 2017. However, I can assure you that the programs described in this edition of the Clipper have been chosen to best position Pan Am Railways to meet any such challenges.

Sincerely,



David A. Fink

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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.

IDEA SUBMISSION

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

CREDITS

Front Cover Photo: Pan Am symbol freight SALO (Salem to Lowell) crosses Draw 7 over the Mystic River from Everett to Somerville in October 2016 with 25 loads of dirt from the Wynn Boston Harbor construction project in Everett.

Printed by Flagship Press

Dangers of Trespassing

Dangers of Trespassing

Article and photos by Gordon Riordan

Every 94 minutes there is an incident with the railroad, and trespassing on the tracks has become a problem. Pan Am Railways does their share to educate the communities, through Operation Life Saver, providing equipment for first responders and fire training.



Here are recent examples of trespassers on the tracks. In the photo on the left, the father was on the side of the bridge taking pictures on active track, it had not occurred to him that a simple photo could have cost his entire family their lives. The photo on the right shows a student posing for high school photos. They were all educated as to why this is a problem, and thankfully the lesson was the only thing they experienced that day.

Darren Orf wrote a report in which he explains how silent trains can be. Railcars can be incredibly quiet. Tracks are designed to achieve the lowest coefficient of friction. Modern railcars glide with low friction, and crushed rock underneath tracks helps diminish the impact of sound. The tracks with continuous welded rail are even quieter, often times people cannot hear or feel a train coming at all. The Doppler Effect explains how sound changes pitch based on an observer's location relative to the sound's origin. Terrain itself can be a danger. If the train passes through a corridor of trees, they muffle the sound of the train, suppressing the noise. There are also incidents where people rely on a sound so loud that a vibration would be enough to catch their attention, which is why some incidents involve victims were wearing ear buds or headphones. The average railcar traveling at 50 mph measures in decibels between a loud voice and a shout.

Several thousand tons traveling at fast speeds would seem impossible to go unnoticed, but the false assumption claims lives every year.

**Reference: How Trains Can Be Silent Killers by Darren Orf 3-24-14*

Two Months on the Railroad

Two Months on the Railroad

Article by Ashley May

Never has my decision as an aspiring engineer been more solidified than after an incredible internship with Pan Am Railways. As a twenty year old college student, I often think about my future career path and the decisions I have made thus far. The decision to move from my college town in Columbia, Missouri to the Northeast for the summer was a chance of a lifetime.

College is the time where you truly blossom with whichever degree you choose. There is no doubt that professors teach work ethic, responsibility, and fundamental skills for engineers to succeed post-college. However, I have learned more in the past two months at Pan Am with hands on experience that will further enhance my academic discipline. I have taken it upon myself to learn more about a process not merely because I need to take a class on it; instead, I see it in the field and am intrigued to learn more.

At the beginning of the summer, I was prompted to keep a journal of my experience here so that later on I would be able to remember everything in detail. In a sense, my entries have made it difficult to pick some of my favorite experiences from this summer—each of them being so remarkable.

In early June, I took a trip to the Hoosick tunnel and the surrounding bridges in the area. I spent that evening researching the history of the tunnel. The railroad has so much history, and it interests me to find the original designs from structural engineers of the past. With a combination of the hundreds of year old designs, and current conditions (such as higher clearances, restrictions, etc.) this tunnel was what initially sparked my interest on these projects. I learned how the engineering department designs long term and short term projects, and also got to see how some of these plans were executed.

On my second week in Billerica, I was introduced to a side of the engineering department which particularly interested me: the signal department. Signals fascinated me because the entire railroad is dependent on their capability of running accurately. I watched the process of wiring a bungalow, and got to see the direct translation from AutoCAD plans to the real model. The knowledge that I acquired that day about signals benefited me greatly, and acted as a great transition to my next project.

A majority of my time here was devoted to updating the U.S. Department of Transportation Crossing Inventory. Considering I am not a native from the area, this familiarized me with every railroad where the street crosses in the New England area. As I was working on this project, I envisioned the different uses which this simple inventory form could be utilized. This form could be linked to a QR code in the bungalow so that workers can access quick information electronically on their smartphone, or perhaps incorporating this information into a database so that it could be found on an electronic map of the railroad. Accessibility of this information could be useful for unfortunate circumstances such as crossing incidents, which often needs to be found in a timely matter.

One morning in early July, I was asked to find information about a result from a Los Angeles Abrasion test. For the next couple hours, I was consumed with trying to understand the process of crushing rock to find the hardness, and fascinated by researching a conversion that would relate the hardness of the rock to a maximum strength of the steel.

I enjoyed my unique internship where I could spend time with people who specialize in the signal department, the design department, drafting, and project management. I am so much more knowledgeable about the railroad business after this summer. I am filled with gratitude for the opportunity which Pan Am has given me, and will miss the wonderful employees and friends that I have met this summer.



Training for the Future

Training for the Future

*By Jamie Robinson, Supt. – Training & Compliance
& John E. Dietz, Director of Operating Rules
(Photos by Alyssa Gerossie)*

Safety is paramount above all else at Pan Am Railways, and the hiring process is no exception. The application process for conductors includes, among other things, a background check, drug test and physical examination. Successful applicants then begin the training program.

Prior to 2015, trainees would be given two weeks of classroom instruction and were then released for on-the-job training (OJT) which had them working with mentor conductors in the field. They would then be brought back into class at intervals for additional training on air brakes, hazardous materials, operating rules and a final exam covering conductor certification requirements. They would go back into the field to finish up their physical characteristics familiarization and be given a field review of core-competencies before becoming fully certified as conductors and able to work on their own.

In 2015, this process was changed to move all the classroom elements to the beginning of the program in an effort to reduce disruptions to the OJT process. Safety is stressed at all levels during the instruction program focusing not only on proper procedures, but why they are important.

The first day of training begins with a welcome from Human Resources and an introduction to required policies, drug testing and the Employee Assistance Program. The Safety Department is next with an introduction to the Safety Rules and Hazard Communication.

Day two begins the six-day “RR 101” class – an introduction to the basic elements of railroading. Each student receives a handout containing the training materials for review. This class is designed for new employees with no railway background at all, but also serves as an in-depth review for anyone hired who already has a background. The goal is to identify the proper methods of accomplishing basic tasks; by performing tasks the proper way, the risk of incident or injury is always reduced.

RR 101 includes field training too. Some class time is spent in the field learning to identify track and switch elements, and to operate switches correctly. Two days are spent completely in the field learning to couple and uncouple railcars and locomotives, how to use the radio to communicate, how to hook up air hoses and how to mount and ride equipment. All of this focuses on safe work practices and procedures to enable the students to begin to build good habits.

RR 101 includes a number of written quizzes and culminates with a 100 question test.

The next two days are an introduction to the NORAC operating rules and the Pan Am Railways employee timetable. Students are taught how to use the timetable, how the Bulletin Order and Division Notices work (and how to maintain them) and are introduced to certain specific NORAC rules and how to study the signals in preparation for their signal test.

Students then spend one day on Hazardous Materials. This training includes documentation, placarding, train placement of hazmat cars and use of the Emergency Response Guidebook.

The next step is air brakes. Students spend five days on this, including field training. They learn principles (how and why air brakes work), telemetry requirements (telemetry is an electronic system that provides an engineer

continued

Training For The Future Cont.

with information about air pressure at the rear of the train, provides certain other capabilities, and is required under some conditions), freight car inspection and proper performance of air brake tests. Each segment of this training is verified with a written test.

NORAC operating rules follow air brakes. This seven day program builds upon the topics presented in the Introduction to NORAC class. The NORAC rules, signal indications, and Pan Am Special Instructions are thoroughly covered. The program also includes training on the Hours of Service regulation. Students are given daily practice quizzes on all of the material to help focus their skills. To become qualified on the operating rules, students are required to pass two final exams. One exam covers rules and special instructions; the second exam covers signals and requires a score of 100%. The classroom program wraps up with a one-day class covering the conductor certification regulation. This reviews all the requirements contained in the regulation as well as a number of general review questions covering elements the student has already been trained on.

Successful completion permits students to move forward to OJT with mentor conductors. This gives the students real-world experience practicing what they have learned. The learning curve for the students is still quite steep: they are seeing all of the rules, signals, air brakes, hazmat and their various procedures at work together. The student must assimilate this while also learning the physical characteristics of the railway and, at the same time, why the conductor does what he does. During OJT process, each student will meet regularly with the area Trainmaster and Road Foreman of Engines to review their progress so that any specific concerns can be addressed, any necessary corrections made and any knowledge gaps closed in a timely manner.

While all students learn at different rates, the expectation is that the student will be able to complete physical characteristics training for their territory in about four months. Each student must complete written physical characteristics tests for all segments of the main track in his territory and then, on completion of a satisfactory field review of core competencies and air brakes, becomes eligible for certification as a conductor and able to work on his own.

By providing the students with a solid base of good practices, regular monitoring and guidance, the Railway is assured of a high-quality work force to serve our customers and meet the demands of the future.



The class of April 20, 2015

Pictured (left to right): C. Hill (Dispatcher), S. Burgess, J. Brennan, S Cieri, J Kania (Marketing), D. McDermott, C Schreifels, C. Pepau, C. Moore, D Gipe, B. Arsenault



Braidon Arsenault adjusts a coupler



Jim Brennan demonstrates proper form dismounting a car



Chad Pepau kicks a car

Turning on the Intermodal Tap

Turning on the Intermodal Tap in Portland, Maine

Story and photos by Ben Vient



About 800 million gallons of water flow through Maine aquifers for the Poland Spring company each year. Since January 2016, containers full of that water flow south from Maine by rail. It began as Portland, Me., renewed its once prosperous port, “and new rail development became part of this renewal,” says John Henshaw, Executive Director of the Maine Port Authority. “We can attract more business to our port, if we have more shipping options.”

“We were trying intermodal years ago, and it didn’t go as well as we’d like,” says David Bernhardt, a 33-year veteran of Maine’s Department of Transportation, and currently Commissioner. “But we believe the different players are cooperating better now, and this new Poland Spring project is a good example to illustrate intermodal opportunities.”

Eimskip, an Icelandic shipping company, began carrying containerized cargo between Portland and Europe in 2013. The Maine Department of Transportation had prioritized \$40 million in state, federal and private funds to upgrade the International Marine Terminal (IMT), including the addition of 1,500 feet of track to connect with an existing Pan Am Railways main line nearby.

Poland Spring, one of Maine’s most iconic businesses, became the first to use the port’s intermodal rail option, including renting Eimskip containers.

“The rail option fit with our company’s interest in our environment,” says Christopher Haynes, Northeast Logistics Director for Nestle Waters North America, owner of Poland Spring. Commercialized since 1859 from the actual fresh water spring bearing the company’s name, Poland Spring exists in a water-rich area known since the times of Native Americans.

The company maintains three bottling plants in Maine: Poland Spring, Kingfield and Hollis, which is the largest bottled water facility in North America and second-biggest in the world.

“Getting all of our water west, south and north from Maine requires a lot of transportation,” says Haynes, who notes since the bottled water craze took off in the U.S. in the late 1990s, an increased number of trucks brought the product to market.

Reading about the development of Portland’s IMT, Haynes inquired about trial rail runs. “Poland Spring’s initiative, Haynes’ especially, really got this going, really opened our eyes to more of these possibilities,” Commissioner Bernhardt says.

Haynes’ trial runs proved successful in 2015, and in January 2016, Poland Spring began trucking palletized bottled water 20 miles from Hollis to the Portland IMT intermodal terminal. Some 45 containers are then loaded onto trains bound for Massachusetts three days a week: Friday, Saturday and Sunday.

In April 2016, Poland Spring expanded the initiative to bring an additional 60 containers by truck from Kingfield, Me., 45 miles to the Pan Am railyard in Waterville, Me., then by train 75 miles to Portland to join the train traveling south to Ayer, Mass. Here, trucks bring the pallets from the 105 weekly containers to area distributors.



“This arrangement between Poland Spring, the Maine Department of Transportation and Pan Am has proven successful,” says David Fink, President of Pan Am Railways. “It’s led us to discussions to expand south into New England and New York.”

In addition to the Ayer intermodal terminal, Pan Am, a Class II carrier, has built a new intermodal terminal in Mechanicville, N.Y., with its partner Norfolk Southern, westward along the upgraded Patriot Corridor. It hopes to attract Poland Spring and others to expand there with intermodal, enticed by rail’s generally lower transportation costs, since greater volume can be moved with less fuel and fewer workers.

“It makes sense for us to encourage more of these intermodal initiatives,” Fink says, “especially with companies such as Poland Spring that have environmental considerations as part of their branding.”

Haynes calculates that Poland Spring will move 4,600 containers from Maine by rail instead of trucks in 2016, a reduction of 500,000 road-miles and 5,400 metric tons of carbon emissions. The company estimates it’s the equivalent of removing 1,100 automobiles from the roads annually.

“People can see the congestion savings on the road,” says John Henshaw, explaining why the state is financially supporting rail projects like this through its Industrial Rail Access Program (IRAP), which grants up to 50% of estimated rail project costs. (Pan Am Railways received a \$201,060 IRAP grant for this project in Waterville, which it then matched.) “Heavy trucks damage our roads. We’re hoping our IMT development here can get more of the large companies to move to rail, and make the transport costs competitive for them to do so.”

“We can’t continue expanding interstates; what are we going to do?” Bernhardt asks. “We like to say we are ‘mode-agnostic’ in the Department of Transportation. But if we can all work together to improve the rail mode, we’ll do our part to push it for the benefits of everyone, including the public.”

In the summer of 2016, the federal government’s FASTLANE program awarded Portland’s IMT a \$7.7 million grant, to be matched with an additional \$7.7 million from state and private funds. Henshaw explains the money will be used to increase rail capacity by adding railcar storage track, and additional siding tracks for loading purposes. Currently, 10 cars can be loaded here at a time, which will be doubled after this expansion. The IMT will also solicit a bid for a new Mi-Jack RailPacker. Next year, a cold storage facility will break ground at Portland’s IMT, opening further intermodal and market possibilities.

“The Poland Spring project has proven this rail component can work well,” Henshaw says. “We hope these next developments will show everyone how intermodal can work better for our future.”

“This story originally appeared in the October 2016 issue of Railway Age.”

Going Green

Going Green

By Dana Banks

(Photos by Alec Droussiotis)

The Commonwealth of Massachusetts has set an expanded goal to install a total of 1.6 gigawatts (GW) of solar power in the state by 2020. To that end, the Department of Energy Resources (DOER) has begun implementing the Renewable Portfolio Standard (RPS) Solar Carve-Out II policy.

This policy outlines the criteria that projects must meet in order to be approved for solar generation development. The policy rates each project upon several factors including, but not limited to, development elements, usage of power generated, and reuse of undevelopable land.

Through the efforts of the Real Estate Division, Pan Am has successfully entered into an agreement with Syncarpha Capital, LLC to redevelop a portion of the Iron Horse Park Superfund Site into a 6 megawatt (MW), ground-mounted solar array. The project site encompasses a little over 25 acres and consists of an area designated as the Iron Horse Park Superfund Site, while the remainder is undeveloped forested area. A portion of the project was installed in the area identified as an asbestos landfill (also known as Area of Concern 6 of Operable Unit 3).





The project was designed to maintain the natural capacity of the area to recharge and filter stormwater by maintaining pervious surfaces and drainage patterns to the maximum extent practicable. The solar photovoltaic array consists of a metal framework that is either anchored to the ground surface using driven posts or concrete blocks in more sensitive areas.



Pan Am has been working in conjunction with the U.S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) to complete this project. At this time, the project is nearing completion. The installation of the ground framework and panels has been completed and only the electrical connections and access road are still remaining.



Let's just say...the future looks bright.

Industrial Rail Access Program

Industrial Rail Access Program

By Ted Krug

A valuable government program exists in both Massachusetts and Maine that can be utilized by rail shippers to help fund rail infrastructure improvement or expansion projects. It is appropriately named the Industrial Rail Access Program (IRAP), and it has been successfully used by Pan Am Railways, as well as many of our rail customers, for various projects over the last decade.

The IRAP programs in Massachusetts and Maine are very similar and share the same objective, to promote economic growth by expanding freight rail service. The idea behind IRAP is to create a public/private partnership to fund improvements to railroad infrastructure that results in the expansion of existing rail service or the generation of new rail service to freight customers. Railroads, rail shippers, or municipalities may apply for IRAP grants. The applications are reviewed through a competitive process and awards are made based on which projects demonstrate the most economic benefits. The applicant's commitment to make a financial match is required as part of the IRAP guidelines. In Massachusetts, a minimum match of 40% of the project cost is required, whereas in Maine a minimum match of 50% is required. The project match cost can be split as well, so in some cases the railroad and the shipper may both contribute financially to the project. The maximum amount of funding that either state's IRAP program will contribute to a project is \$500,000. The IRAP program director in Maine is Nathan Moulton and in Massachusetts the IRAP program is administered by Guy Bresnahan.

In the past five years, Maine IRAP funding has been used on a variety of projects that improved or expanded infrastructure on the properties of customers served by Pan Am Railways. Hillandale Farms in North Leeds, ME added track capacity and a second switch into our Rumford Branch using an IRAP project in which the match portion was funded by both Pan Am Railways and our customer. CHS in Biddeford and Casco Bay Steel in South Portland both recently constructed additional sidings at their respective facilities using IRAP funding, and both are now able to receive more railcars. Sappi North America has received multiple IRAP awards to both rehabilitate track and construct new sidings at their mill in Skowhegan. Most recently, Pan Am Railways was awarded an IRAP grant to rehabilitate the Waterville intermodal ramp with track strengthening, new lights, a yard air plant and water service line, and crossing reconstruction. This work will help accommodate the facility's increasing use as Poland Spring continues to ship water via intermodal containers from this location.

In Massachusetts, IRAP funding has been used for new rail siding construction and unloading improvements at Catania Spagna in Ayer, as well as a separate IRAP award for track rehabilitation on the existing loop track used to serve both Horizon Milling and Catania Spagna. Holland Chemical in Adams, MA received an IRAP award to construct a siding and unloading system. Another IRAP project is currently under construction as our track department installs a new switch to the Omnova Solutions siding off of the new station track at Wachusett. Omnova also received their own IRAP award to rehabilitate the remainder of their currently inactive siding. Pan Am Railways also recently received IRAP funding to strengthen the pavement on the intermodal ramp in Ayer. Once completed, this project will allow for the use of reach stackers on the intermodal pad, which will enable intermodal cars to be spotted for loading and unloading on Track 3, thus expanding the terminal capacity by 33%.



Pan Am Railways looks forward to continuing to identify potential IRAP projects in Maine and Massachusetts and to develop and submit successful applications. We are also exploring options for state grant funding of rail improvement projects in the other states in which we operate. We encourage our rail customers to explore these programs as well when expansion or rehabilitation projects are being considered.



Efficiency of Run-Through Power for Customers

Efficiency of Run-Through Power for Customers

By John Morris

Photos by Michael Peverett and Colin Buckowski

Pan Am Railways currently holds merchandise train run-through agreements with our Class I interchange partners, CSXT and NS. These agreements allow PAR to use the CSXT and NS locomotives that arrive in transit with the merchandise traffic to power the trains while they are on PAR property.

PAR also has power sharing agreements with connecting foreign railroads. In addition to NS locomotives being used in merchandise service on the PAS, PAR supplements the service with its own dynamic brake equipped six-axle fleet. By further augmenting the service with PAR locomotives, it allows both railroads the opportunity to swap out engines when they are a due periodic test or are in need of light repairs.

The efficiency of run-through power for our customers cannot be overstated. Transit times have been slashed. Locomotive power swaps at interchange points have been eliminated. Run-through trains now require fewer re-crews leading to lower levels of congestion on the rails.

Another added benefit is that the communication between our Class I interchange partners and PAR has improved. Daily conference calls have been implemented to ensure that all parties involved are in agreement with the plans for each train.

Prior to the establishment of run-through power, customer traffic that traveled from our East Deerfield, MA switching yard on the Pan Am Southern to Harrisburg, PA on the NS routinely saw an eight day transit from point to point. Since the inception of our run-through merchandise train with the NS, the transit has been reduced to an average of four days – effectively saving our customers 96 hours of transit time.

Customer traffic that traveled from our Portland, ME switching yard on the Springfield Terminal to Selkirk, NY on the CSXT previously incurred delays due to locomotive power swaps between the two carriers. The run-through merchandise trains (POSE – Portland to Selkirk and SEPO – Selkirk to Portland) that are strictly powered using CSXT locomotives have eliminated the need for a power swap, thus saving time and eliminating congestion at intermediate stations.

There is a substantial cost for Pan Am Railways to use the foreign locomotives on our property in run-through service. However, the financial burden incurred by PAR is outweighed by the benefit to our customers in terms of time and resources.





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