

RAILROADS

Grade: C

Overview

There are 1,162 miles of active railroad in Maine. State funding for joint rail initiatives including customer rail sidings and interchange improvements has made the system more efficient and productive. Further investment in railroads will facilitate higher use and reduce trucks on roadways. The pulp and paper industry is the primary customer of rail. Maine ranks 48th in nation in freight tonnage moved by rail.

Introduction and Background

Rail service is an under-utilized, but important component of the transportation mix in Maine and is particularly cost-effective when moving high-volume, low-value commodities over long distances. In 2005, Maine had just less than eight million tons of freight moved annually by rail, ranking it 48th in the nation just behind New Hampshire. The first railroad company in Maine was chartered in 1832. Bangor to Old Town was the first section of track completed in this timeframe. The peak mileage for track in service for freight and passenger rail was in the 1920s with over 2,300 miles. Since the 1920s, abandonment and removal of track has been the norm. Today, Maine has 1,162 miles of active railroad of which 66 miles is owned by the state.¹ The state owns an additional 254 miles of inactive track.

Maine is serviced by six private railroads, three of which form the core of the regional rail network: St. Lawrence & Atlantic Railroad (SL&A), Pan Am Railways (formerly Guilford Rail), and Montreal, Maine and Atlantic Railway (MMA). The state leases some of its track to private railroads such as the Maine Eastern Railroad and the Belfast and Moosehead Lake Railroad. Freight railroads are classified by the Federal Rail Administration (FRA) based on annual operating revenues as follows:

- Class I – annual revenues greater than \$258.5 million;
- Class II- annual revenues between \$40 million and \$258.5 million; and
- Class III- annual revenues under \$40 million.

MMA, Pan Am and SLA are all Class II railroads.

The Bangor and Aroostook Railroad was purchased in 2003 by Rail World, Inc. and renamed **Montreal, Maine and Atlantic Railroad** (MMA). MMA owns 504 miles of track in northern and central Maine from Van Buren to Searsport, several branches serving Caribou, Presque Isle, Easton and Houlton, and a line from Brownville Junction to the international boundary west of Jackman and on into Canada. MMA connects with nine Class I railroads outside of Maine and connects to Pan Am at the Northern Maine Junction outside of Bangor, with Canadian National (CN) at St. Leonard, New Brunswick, and with the New Brunswick Southern System at Brownville Junction, Maine.



¹ Complete New England Rail maps are available through MRG, Inc., P.O. Box 5494, Augusta, ME, 04332

Pan Am Railroad was originally known as the Maine Central Railroad and later as the Guilford Rail System. Based in Waterville, Pan Am's main freight line runs from South Berwick to Mattawamkeag with branches to most of the major paper mills. A critical link for Pan Am is not just their southern mainline, but also their connection to the Canadian provinces through the Eastern Maine Railroad. Pan Am owns a total of 372 miles of rail in Maine and connects to many Class I railroads, as well (CSX, Norfolk Southern and others). Pan Am also connects to the St. Lawrence & Atlantic system at Danville Junction.

The **St. Lawrence & Atlantic Railroad** (SLA) runs from Portland to Montreal, Canada and interchanges with the Canadian National Railroad (CAN). SLA has 85 miles of track in Maine. This railroad operates the 35-acre intermodal terminal facility in Auburn.

Other railways operating in Maine include Eastern Maine Railways (105 miles), Tuners Island LLC (2 miles) and Maine Eastern Railroad (93 miles) which lease railroad track from the state.

Condition and Adequacy

Currently, sections of Maine's active track will not support 286,000-pound rail cars that are becoming the standard with the Class I railroads. The ability to utilize consistent car types with Class I railroads would reduce handling costs and make systems more efficient. Upgrading the remaining track to accommodate the larger freight rail cars will require significant investment by both the Class II railroads and state/private partnerships. The issue is not only the track right of way (rail, ties, ballast, and substructure) but the ratings of many of the railroad bridges as well. To support the heavier cars, railroad bridges need to be certified to carry the additional weight, which will require time and resources. Currently, most of Maine's railroad bridges are rated for 263,000 pounds.

Funding by private rail companies for inspections and upgrades depends on the ability to guarantee a return on that investment through economic activity. As businesses that use the railroad grow, or as new businesses come into the state that will utilize rail, the need for the larger cars becomes more necessary and the cost for the improvements can be justified.

Bridge clearance restrictions surrounding the railroad also present an issue. Many bridges are unable to accommodate double-stack containers. Some are owned by the railroads themselves and carry the track structure itself but others are road bridges carrying vehicular traffic crossing over the railroad and are primarily owned and maintained by local, county, and state governments. As these bridges are owned and maintained by governmental bodies, they would be likely only be raised over time when the bridge is due for major rehabilitation or replacement. As both the Maine Department of Transportation (MaineDOT) and municipalities have a back-log of bridges in need of repair, increasing clearances on all these bridges would not likely occur in the short term, unless a specific initiative is undertaken in a certain corridor identified by the railroad owners as a priority.

SLA is fully cleared for double-stacked containers from Auburn to Montreal, Canada and beyond to the Port of Vancouver, Canada. From points in Canada, double-stacks can continue down to Chicago and points in the mid-western states. This bodes well for long-term rail freight growth in Auburn. MMA also has clearance for double-stack containers from Searsport to Montreal, Canada and then via Class I connections to points in the U.S. Midwest and Canada as well. Searsport's port facility requires upgrades in capacity in order to maximize opportunities of a growing containerized cargo market.

Pan Am recently announced a partnership with Norfolk Southern to improve the "Patriot Corridor" between Albany, New York and Boston, Massachusetts. Rail advocates in Maine say this partnership will provide a direct benefit to freight rail in Maine, even though double-stack clearance on Pan Am's rail line into Maine is not available.

The frequency and number of rail crossings inhibit the movement of both passenger and freight trains due to necessity to slow the train at these points. In some cases several roadways cross tracks in close proximity creating multiple crossing locations. Working with the local jurisdictions, as well as the MaineDOT, the elimination of these redundant at-grade crossings would provide for faster train travel and safer travel for pedestrians and vehicles, as well as reducing costs for maintenance. Maintenance of the 630 active at-grade crossings is critical. There are 430

crossings with active protection that include lights and gates or lights only. The cost to maintain the crossings is shared between the railroad owner and the state. The remaining 200 crossings have signs only. There have been a total of 15 crashes with vehicles using the crossings in the last five years (2003-2007).

The MaineDOT provided condition assessments for 230 of the 320 miles of rail that it owns.² Of the segments assessed, conditions were classified into three categories: 70 miles or 30.4 percent were good, 51 miles or 22.2 percent were fair, and 109 miles or 47.4 percent were poor.

Investment Needs

In recent years, there has been a major effort to create partnerships for investing and improving rail infrastructure in Maine. MaineDOT and private railroads are working jointly where both have interests on several capital projects around the state.

The 2005 MaineDOT State of the System (SOS) report recommended total investments for rail of \$7.6 million for the biennium, including maintenance of state-owned track at \$1.6 million, The Industrial Rail Access Program (IRAP) at \$4 million, and interchange projects at \$2 million per biennium. Currently, funding continues to fall short of this identified strategic need.

IRAP has been designed by the MaineDOT to encourage economic development and increased use of the rail transportation mode. Customers near the railroad apply to get a siding installed (track from customer to the mainline). MaineDOT IRAP will provide 50 percent match and customer provides the rest. The program has awarded \$1 million in late 2007 and has awarded an additional \$600,000 in projects in 2008. Currently the MaineDOT requests funding of approximately \$1 million per year for this program, though the SOS report recommended up to \$2 million per year to be an appropriate level.

According to the SOS report, \$1.6 million per biennium is needed to maintain the state's 300 track miles of railroad. Funding for the 2004-2005 biennial budget was \$300,000. The biennium budget for 2008-2009 is slated for \$1.45 million for maintenance of state-owned track, which should improve the condition of state-owned track in the short term.

The current biennium has budgeted \$2 million for other interchange and joint projects, including \$1 million for the MMA system.

In 2008, the state purchased the last remaining 5.2 mile section of the 50-mile Mountain Division between Portland and Fryeburg in order to preserve the corridor for future transportation use. This 5.2 mile section was purchased for \$800,000. An additional \$20 million would be required to repair the entire 50 miles of track to handle any potential train service (either freight or passenger). In 2007, a MaineDOT-funded report determined the entire corridor does not currently have the population density to support passenger rail, and the line may be able to support only seasonal freight service. A steady, long-term increase in fuel prices and population shifts could have a large impact on the corridor's potential.

MaineDOT's 2008-2009 biennial budget for funding crossing projects is \$3 million, including Federal Highway Administration (FHWA) funding of \$2.3 million. The FHWA allocation is intended to fund approximately eight to ten crossing improvement projects.

Conclusions and Recommendations

A comprehensive system-wide grade is difficult to determine because much of the system is privately owned and actual condition ratings are not available. Given the poor shape of state-owned rail lines, the state's rail network deserves a poor grade, though most of it is inactive. However, given current funding for maintenance this biennium,

² "Summary Condition of Maine's Transportation System and the related funding challenges", from Chip Getchell, MaineDOT, December 2007

conditions should improve in the short term. Joint initiatives with private railroads are important to assuring the system remains efficient and effective. With an identified \$3.3 billion gap in funding over the next 10 years for all of Maine's transportation needs, rail funding will be competing for resources. Maine ASCE gives Maine's railroads a grade of C.

Maine ASCE makes the following recommendations:

- Continue to fund and promote the siding program, IRAP;
- Continue to work with railroad owners on interchange projects to assure the system's smooth performance;
- Review all agency policies on raising bridges that pass over rail lines. By raising bridges to 20'6" to 22' height over the long term, double-stack trains will become the norm, increasing the efficiency and cost effectiveness of the system;
- Continue to invest in at-grade crossing improvements and advocate for increased levels of funding. Reviews with municipalities for redundant crossing locations and alternative traffic pattern opportunities should be undertaken to improve efficiency of system; and
- Develop policies to increase and improve intermodal freight transportation (ASCE policy statement 149)³.

Sources:

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³ http://www.asce.org/pressroom/news/policy_details.cfm?hdlid=138