The Northern New England Passenger Rail Authority (NNEPRA) has been awarded $20.8m for the Downeaster MBTA Track Improvement Project grant application submitted on April 4, 2011. U.S. Transportation Secretary Ray LaHood today announced $2 billion in high-speed rail awards as part of the Administration’s plan to transform travel in America.

Twenty-four states, the District of Columbia and Amtrak submitted nearly 100 applications, competing to be part of a historic investment that will create tens of thousands of jobs, improve mobility and stimulate American manufacturing.

This Project addresses capacity constraints in one of the most congested area of the Downeaster corridor and will improve reliability and ride quality while setting the stage for increased frequencies in the future.

“Competition for this funding was tough,” according to NNEPRA Executive Director, Patricia Quinn. “NNEPRA is grateful to the Federal Railroad Administration (FRA) for recognizing the importance of the Downeaster to Maine and our region by continuing to invest in our service. This is particularly important as demand increases and we continue to have one record-breaking month after another”. Fiscal year 2011 to date (July 2010-April 2011) Downeaster ridership is 8% greater than the same period last year, with a 12% increase in April alone.

Secretary Jeffrey Mullan of Massachusetts adds, “Massachusetts is very pleased to support the State of Maine and the Northern New England Passenger Rail Authority on this important project that will help all customers on the line, and that will be a measurable improvement to critical Downeaster service. We are particularly pleased that funding for this project is advancing an important element of the regional rail vision that was developed in cooperation with all of the New England states.”
NNEPRA thanks Maine’s Congressional Delegation, the Maine DOT and the Massachusetts DOT for their help and continued support of passenger rail investments.

**Summary of Downeaster MBTA Track Improvement Project**

The Downeaster operates along a 116-mile corridor over tracks owned by Pan Am Railways (PAR) and the Massachusetts Bay Transportation Authority (MBTA). Pan Am’s ownership extends 78 miles from the terminal in Portland to the Massachusetts state line. The MBTA owns the 38 miles of right-of-way within Massachusetts.

Nearly 65% of the delay minutes experienced by Downeaster passengers over the past years have occurred on the MBTA Line. A significant portion of the MBTA segment is constrained by 10.5 miles of single track which does not allow for the efficient movement of trains. The 10 daily Downeaster trains share that segment with 26 MBTA commuter trains and several Pan Am Railway freight trains.

The MBTA Project will provide a critically needed passing siding and increased Downeaster train velocities between Wilmington and Andover, Mileposts 15.7 to 20.4, as well as replace older rail with gas plant welds between Mileposts 27.2 to 32.3. The proposed improvements in Massachusetts will provide benefit to all rail operations on this constrained corridor.

The double track will alleviate a bottle neck which currently exists as eastbound and westbound trains approach the Wildcat Branch. The Downeaster faces this situation nearly every day. Currently, one train must make a reverse move after occupying the single track west of CPW-WJ on the Western route. This is cumbersome and creates a minimum delay of 3-5 minutes.

Following the completion of the Project it is expected that the minutes of delays experienced by Downeaster passengers will decrease significantly. The Project will also create more flexibility in schedules, and facilitate the eventual operation of an additional frequency.

**PROJECT ELEMENTS:**

**Work Element 1 – Grade Crossing Upgrades on Wildcat Branch, Milepost 15.7 to 17.3**

Three grade crossings will be completely rebuilt including automatic highway crossing warning systems. The three crossings include:

- Clark Street, Milepost 15.70
- Glen Road, Milepost 16.20
- Salem Road, Milepost 17.30
Work will consist of removing existing pavement and track structure, widening the roadway approaches to allow traffic islands to be placed on both sides of the crossing, new track structure through the crossings and new crossing surface installed. The warning systems will be upgraded to include four quadrant gates, new flashers, new instrument houses, cabling and adjusted start points. The upgrades will enhance the reliability of the operation and provide improved safety.

**Work Element 2 - Wilmington Junction to Tewksbury Road, Ballardvale - Milepost 17.5 to 20.4**

The approach to Wilmington Junction will be rebuilt to allow adding double track to both the Wildcat Branch and West Route at some time in the future. A 1,000 ft maintenance of way track at Wilmington Junction will facilitate quick egress and access of on-track maintenance equipment. Additionally, 14,100 feet of new second main track will be constructed from Wilmington Junction to Tewksbury Street grade crossing in the Ballardvale section of Andover.

**Work Element 3 - Rail Replacement of Older Rail that has Gas Plant Welds – Milepost 27.2 to 32.3.**

Significant portions of the Western Route between Lawrence and the State Line have approximately 54,000 track feet of rail rolled in the 1950’s that was welded into strings using a gas welding process. This Project will replace 25,650 track feet of this rail.

**Communication & Signal Improvements**

Communications and signal improvements are included in each of the previously defined work elements. The signal modifications include the installation of a new interlocking at Wilmington with two # 20 equilateral turnouts. The new interlocking will consist of three new signal housings with vital microprocessors, five new ground mounted signals, two new powered switch machines with helpers, one new powered switch for the MOW siding, and new signal cabling. Tie-in modifications for Wilmington Interlocking will also require modifications to Salem Street and Middlesex crossings on the West Route as well as replacement of Automatic Signal 169 on the West Route with a new Signal 161 due to the new interlocking. A new utility power source will also be required for the proposed power turnout snow melters. A new electric lock will be provided for the Georgia Pacific siding.

The proposed track modifications at Lowell Junction which include a new # 20 left hand crossover and a new # 15 right hand crossover will require three new signal housings with microprocessors, five new ground mounted signals, four new power switches (two with helpers), and new cabling for the additional equipment proposed. The five new signals include new signals on the outbound side of the Shawsheen River Bridge due to
the proposed # 15 crossover. The additional housings and equipment will tie into the
existing Lowell Junction signal equipment.

Highway crossing signal modifications will also be required for Clark Street, Glen Road
and Salem Road between MP 15.7 and MP 17.3. New signal crossing equipment,
including housings, gates, and cabling, will be required for Lowell Junction Road and a
private crossing due to the new second track and modifications at Lowell Junction.
Central control modifications will also be required to permit remote control of the new
Wilmington interlocking and the modified Lowell Junction.