



Track Rehabilitation

PROJECT FACTS

Project Scope

The Alaska Railroad (ARRC) continues an aggressive track rehabilitation program in 2011 as part of an ongoing effort to upgrade the main line, sidings and yards from Seward to Fairbanks. The program calls for replacement of rail, ties and ballast in areas of critical need railbelt-wide. For engineering and maintenance purposes, ARRC divides the main line track into four districts:

- MP 0 (Seward) to MP 117 (south of Eagle River)
- MP 117 to MP 210 (north of Montana Siding)
- MP 210 to MP 345 (south of Denali Park)
- MP 345 to Eielson AFB

Project Cost and Funding

The 2011 track rehabilitation budget is funded with approximately \$14.2 million by the Alaska Railroad through the sale of revenue bonds that are backed by the Federal Transit Administration (FTA); by \$8.3 million in FTA grants (91% FTA and 9% ARRC); and by \$665,000 of internal ARRC funding. Funding supports:

- Replacing rail and eliminating joints (welding)
- Replacing wood ties
- Surfacing

Rail Program

Rail is replaced when it has worn away in curves, or when it has become severely battered



An Alaska Railroad crew installs new track that is improved with continuously welded rail and concrete ties.

in tangent sections. The 2011 Rail Program will replace worn rail joints with continuously welded rail (CWR). The conversion to CWR dramatically decreases maintenance costs, and improves ride quality. Focus will be on the corridor from Willow to Talkeetna and areas from Healy to Fairbanks. Work will include evaluation of track geometry and rail flaw detection.

Tie Program

The 2011 Tie Program calls for installation of up to 50,000 wood cross ties on the main line track. The Alaska Railroad tracks include nearly 2 million ties. Since 1996, ARRC has replaced nearly 850,000 ties — or just over 40% of all ties.

Heavy tie renewals in the late 1990s resolved critical main track issues; however, the tie population is generally old, so renewals are needed to keep up with the ongoing loss of older ties. Emphasis in 2011 will be from Milepost 64 (Portage)

to Milepost 88 (Indian) and from Milepost 136 (Birchwood) to Milepost 208 (Montana Siding).

Ballast Surfacing

The bed of a railroad track is comprised of several layers. The top layer is called ballast, which is made up of small, jagged rocks that fit snugly together, forming a stable bed that can withstand the tremendous weight of a train while still providing drainage. The 2011 Ballast and Surfacing Program calls for the use of about 70,000 tons of ballast rock. Surfacing will occur throughout all districts as needed, as well as behind the tie replacement program.

Shoulder Maintenance

ARRC is undertaking a shoulder maintenance program, from Eagle River to Fairbanks, to enhance track safety by providing the necessary embankment support for the rail and the heavier and faster moving trains used today. As necessary, culverts providing drainage from one side of the embankment to the other side would be extended. Shoulder maintenance will occur throughout all districts as needed.

