

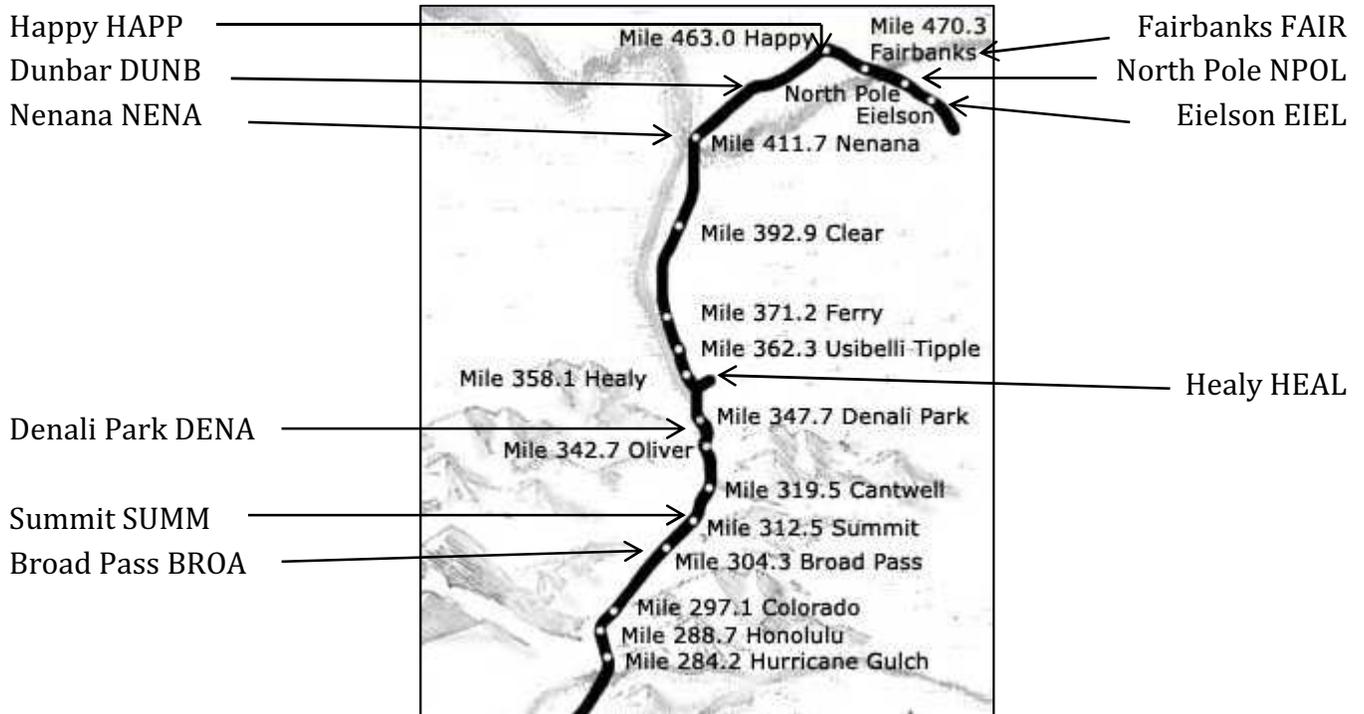
Tanana Valley Model Railroad Operations  
Based on  
Alaska Railroad Direct Traffic Control (DTC)

Much of the Alaska Railroad (including that portion between Hurricane and Fairbanks) operates under Direct Traffic Control (DTC). DTC is a system for authorizing track occupancy used on some railroads instead of or in addition to signals. It is known as "direct" traffic control because the train dispatcher gives track authority directly to the train crew via radio, as opposed to through wayside personnel via telephone or telegraph, as in train orders. In DTC, controlled tracks and sidings (those requiring authority from the train dispatcher to occupy) are divided into pre-specified blocks. Block limits are delineated by conspicuous signs along the tracks. Every portion of controlled track belongs to a block, since blocks are laid out back-to-back along the entire length of the rail line. ([https://en.wikipedia.org/wiki/Direct\\_traffic\\_control](https://en.wikipedia.org/wiki/Direct_traffic_control))

Trains operate under DTC only on main tracks. Trains in yards and on tracks other than main tracks operate under Rule 6.28 of the General Code of Operating Rules (GCOR): except when moving on a main track or on a track where a block system is in effect, trains or engines must move at a speed that allows them to stop within half the range of vision short of a train, engine, railroad car, men or equipment fouling the track, stop signal, or derail or switch lined improperly. This rule does not specify any maximum speed but requires the ability to stop short of practically everything.

DTC provides a way to operate the Tanana Valley Model Railroad under DCC in a manner that is prototypical for its location, is easily implemented with simple signage, is flexible in degree of complexity and number of operators, and requires very little paperwork. On the TVMRR, all main track and the Eielson Branch, along with their sidings, can be easily divided into prototypical blocks. Authority to occupy blocks could simply be given orally by a person acting as dispatcher, but giving authority using 3x5 cards will likely be less confusing at least in the beginning. As operators become more comfortable with a DTC operating scheme, greater complexity, finer block control, and additional prototypical railroad jobs are easily added. If there is sufficient interest, we can set up a person in the crow's nest room that would serve as dispatcher using handheld radios, headsets, or cell phones.

On the Alaska Railroad, block signs are lime yellow squares with block lettering posted at the beginning and end of each block. At least until we have worked the initial bugs out, the TVMRR can use similar signs made of paper and placed between the rails at block boundaries. See the back of this page for suggested major blocks and sample signs.



N	Eielson	EIEL	(staging)
	Happy	HAPP	(crossover)
	NORTH POLE	NPOL	
	<i>Northeast Yard</i>		(Rule 6.28)
	FAIRBANKS	FAIR	
	<i>Northwest Yard</i>		(Rule 6.28)
	<i>South Yard</i>		(Rule 6.28)
	Happy	HAPP	(crossover)
	Dunbar	DUNB	
	NENANA	NENA	NENA SDG
	HEALY	HEAL	LOVE SDG
	Garner	GARN	GARN SDG
	DENALI PARK	DENA	DENA SDG
	Summit	SUMM	
	Happy	HAPP	(crossover)
S	Broad Pass	BROA	(staging)

END  
DUNB  
BLOCK

BEGIN  
NENA  
BLOCK

