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# CHAPTER ONE

## Realistic models, realistic movements

Fig. 1-1: Action is at the heart of operation, but only when it adds a sense of purpose to the movement of cars and trains.

You're at the threshold of one of the most exciting adventures in model railroading, or any model-building hobby, for that matter: using your models in a manner that fully reflects their realism and capabilities. Model railroad equipment is, after all, designed and built not to gather dust on a mantelpiece but to run (fig. 1-1). Running trains realistically is called "operation," and it adds a lot of utility to your models at virtually no increased cost in time or money.

Fig. 1-2: Consider these two ways of describing the same photo, which shows what "operation" adds to a model railroad: (1) Train 261, the *Florida Perishable* from the Virginian & Ohio, eases to a stop at SN Cabin in Sunrise, Va. The units will cut off so the Allegheny Midland switcher can add a "hot" load to its consist. (2) An imported brass MP15AC pauses with a plastic boxcar as three plastic diesels go by a kitbashed tower on an HO model railroad.



### Increased realism

Realistic operation can greatly increase the overall realism of both your individual models and your model railroad as a whole. This is true even if you use ordinary, out-of-the-box models in a realistic and fascinating way to emulate the actions of full-size railroads. It's like an intense game of chess: After the game starts, you tend not to notice whether the rooks and knights are made of plastic or pewter or even sterling silver. Setting out a boxcar on a "hi-rail" Lionel O-27 layout requires the same moves and is therefore just as challenging and fun as on a finely scaled N or HO railroad (fig. 1-2).

Taking this analogy a step farther, one could enjoy a game of chess on a board drawn on a piece of cardboard with a felt-tip pen. Similarly, you can enjoy operation on an unscenicked or partially scenicked model railroad. Many modelers do just that for years—operation in and of itself really is that enjoyable! If you work

Fig. 1-3: Midland Road Mikado 639 on the Local North has set out carloads of kaolin and pulpwood on the Western Maryland interchange at North Durbin, W. Va. The WM's Mill Job will later switch the car into the Westvaco paper mill. Locating the mill on the WM instead of the AM thus added a job to each operating session. Moreover, having the free-lanced AM interchange with a prototype railroad added believability to the AM by locating it in time and space.



toward completing key trackwork before finishing even one major area of scenery, you can start to enjoy the railroad much sooner. You can also spot the operational shortcomings before scenery makes it difficult to adjust the track arrangement.

Moreover, having a friend or two, or ten, stop by for regular operating sessions (once a month is common, but many railroads are operated almost every week) virtually ensures faster progress on the railroad. You want to show the crew that new industry you're kitbashing, so you hustle to get it done and installed on the layout for

Friday night's session. And you can bet that they'll pester you until you install that "missing" crossover needed for runaround moves in one of your towns. They'll probably offer to help build it!

### How operation evolved

Operation evolved in step with the technical capabilities of our models. Just getting a locomotive running smoothly was once a major hurdle; today we can buy realistic ready-to-run locomotives that run like Swiss watches. Early car kits also took a lot of time to assemble and tune up, whereas today easy-to-build kits and even ready-to-use cars boast superb detail

and fidelity to prototype.

Early steps toward emulating railroad operation tended to focus on local or way freights where lots of the interesting switching action is. Locals stop at each town to switch industries, gathering "loose cars" and forwarding them to the next classification yard (fig. 1-3). There they are assembled into blocks for common destinations. The blocks are in turn assembled into trains headed to or toward that destination.

But locals are not the lifeblood of the railroad. Their work allows the stars of the show, money-making "through" and "fast" freights,