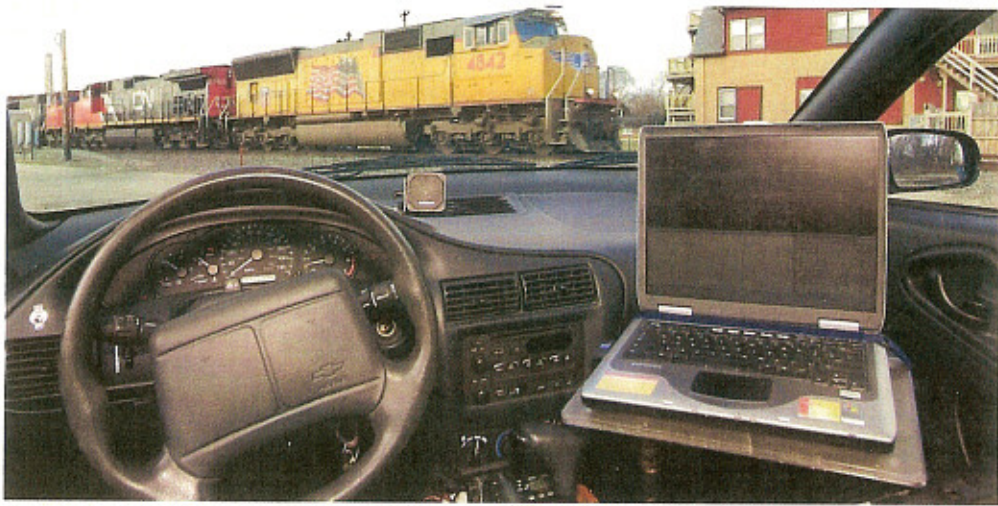


## Where are those darn trains?

ATCS Monitor makes finding trains easier than ever — almost like fishing in a barrel



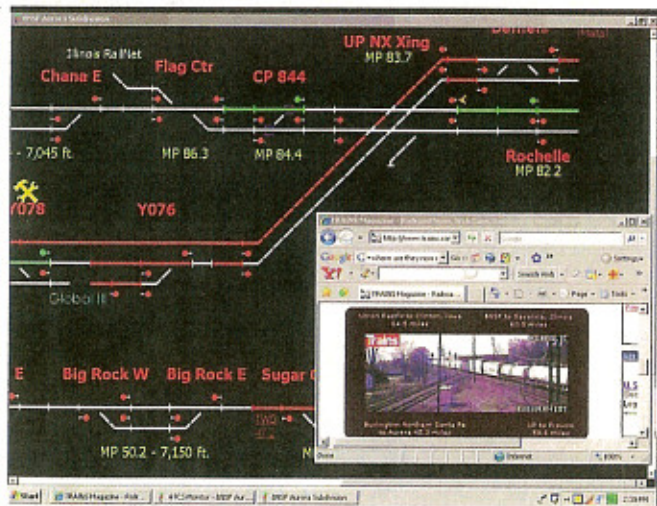
With Advanced Train Control System Monitor, you can pull over anytime, check where the trains are running, and get there in plenty of time to get the shot. It takes much of the guesswork out of the equation — but it won't help getting cloud-skunked. Sayre C. Kos

If you're anything like me, you tell skeptical friends and family that railfanning's a lot like fishing: Your rod and reel is your camera, and your fish-finder is, well, you have no train-finder ... until now.

ATCS (short for Advanced Train Control System) Monitor is a PC application that, by coupling your laptop to a modified scanner, allows you to watch train traffic on a simplified version of a train dispatcher's centralized traffic control screen.

ATCS Monitor is fast becoming a sub-hobby within railfan circles, just like monitoring conversations on the radio — perhaps because it's really no different from listening to your scanner. Instead of listening to dispatchers or train crews talk, you're "listening" to the data bursts being broadcast by control points (the location where switches and signals are remotely controlled by a dispatcher).

So what kind of information is contained in this data, these chirps and electronic burps? The in-field devices and base stations are sending two different kinds of messages: *indications*, displaying something like the presence of a train or the position of a switch, and *controls*, which request an action to be done in the field, like displaying a signal or lining a switch in a specific direction. Since ATCS Monitor



ATCS and TRAINS' Web cam make great on-screen partners. Sayre C. Kos

is a receive-only application, no interference with railroad operations is possible — it just provides another means of seeing that a train is coming, no different than using TRAINS' Rochelle Web cam or

listening to a defect detector announce a train's impending arrival. Railroads that use radio code line are aware of ATCS Monitor and, in fact, have used the program to their benefit. Signal maintainers

have used it to check on and troubleshoot their territories, while industry manufacturers like Wabtec have used it to test their product prior to installation in the field.

A key component to most every ATCS Monitor setup is the radio used to monitor the data frequencies. Because you're monitoring digital data, you'll get the best results when using unfiltered data from your radio. Therefore, to avoid being left with a signal distorted by audio filters and amplifiers inside the average scanner, you need to have a radio with a discriminator output installed by the manufacturer or "tap" the discriminator output yourself. For the soldering iron-challenged or those afraid of performing microsurgery on small electronics, you might seek help from a friend, a local ham radio outlet, or a commercial radio repair shop.

"Enough about how it works. Where can I get it?" Patience, young grasshopper. First, although railroads currently use radio code line in many areas — like CSX's Florence Division through Virginia and the Carolinas, and many portions of BNSF's Transcon between Chicago and Los Angeles — not all rail lines broadcast data that can be decoded with ATCS Monitor. The application works only with railroads that broadcast signal data on select radio frequencies using certain protocols, or sets of conventions and specifically formatted code.

ATCS Monitor is a useful tool when out in the field, but it's also an involved program and can be an intimidating challenge for first-time users. Also, while the application itself is free, the costs of monitoring data — including investments of time and money toward a PC, a modified radio, and cables — may not be for everyone. ATCS Monitor use requires skills and familiarity with computers beyond the casual armchair user. But, if you're comfortable with scanner equipment, downloading and installing software, and using Windows, then with some patience and maybe the assistance of others, you should be successful with this application.

One site you should visit is the ATCS Monitor "Wiki" at [www.atcsmonwiki.org](http://www.atcsmonwiki.org). This site, "a collaboration by many users of ATCS Monitor," will point you toward the ATCS Monitor Yahoo! Group, which you must join to obtain the program. Beyond that, the wiki offers advice on monitoring for your first time, instructions for navigating the software, and answers other frequently asked questions posed by other ATCS Monitor users, both new and expert.

Either way, it's worth a shot. And it can help make railfanning almost as easy as fishing in a barrel.