

TRAINS

of the 1970s

Special 2015

TRAINS of the 1970s • CLASSIC TRAINS SPECIAL EDITION NO. 16

Crisis and rebirth for America's railroads

Conrail's first year • Streamliner shadows
Steam in the South • Vintage diesels
Piggyback prosperity • and more!

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Chicago, July 1978: A Burlington Northern E9 and former Gulf, Mobile & Ohio F3 back their suburban consists toward Union Station as Amtrak trains make moves in the background. R. A. Caflisch, Helen Caflisch coll.



TRAINS **of the 1970s**

Crisis and rebirth for
America's railroads

Edited by Robert S. McGonigal

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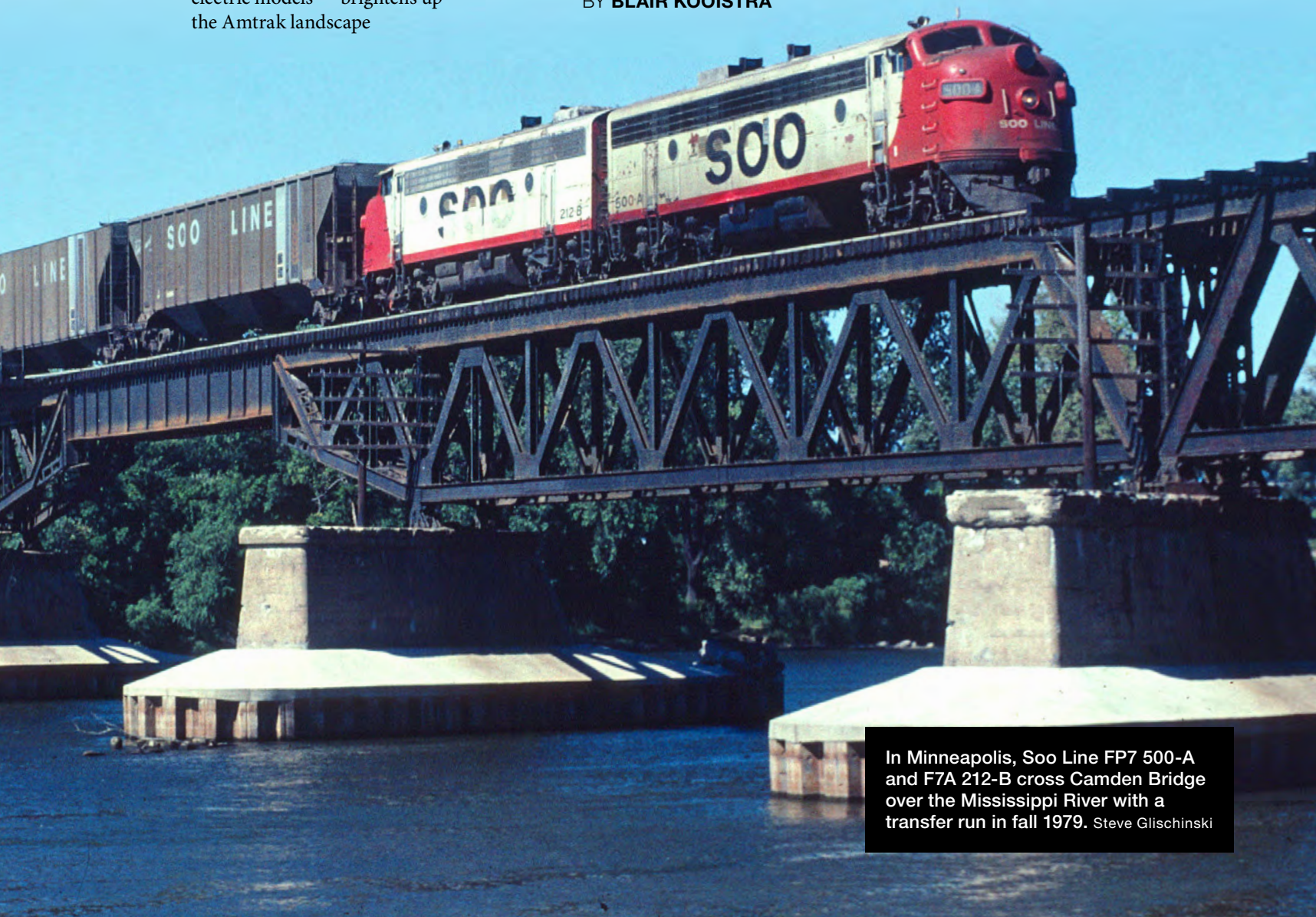
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In Minneapolis, Soo Line FP7 500-A and F7A 212-B cross Camden Bridge over the Mississippi River with a transfer run in fall 1979. Steve Glischinski

A time of crisis and rebirth

This is TRAINS OF THE 1970s, the fourth in CLASSIC TRAINS' series of decade-themed publications. Like its predecessors covering the 1940s, '50s, and '60s, this edition is composed mostly of articles from past issues of TRAINS magazine. The covers of the issues in which the stories were originally published appear at the start of each article. Most of these stories have been completely redesigned, with additional photos added, or with color photos in place of the original black-and-whites.

The 1970s were a fraught time for the railroads. Problems that had plagued the industry for decades — onerous government regulation, loss of traffic to highways, rising costs, passenger-service deficits, a changing industrial economy — came to a head. Mergers and other measures intended to combat the ills were proving to be ineffective or even catastrophic. Yet crisis has a way of focusing the mind, and people who believed in the inherent soundness of the flanged-wheel-on-steel-rail concept, and who recognized its importance to the nation, devised some inspired, though often painful, solutions.

For railfans it was a bittersweet era. As the wrenching changes took place before their eyes, they scrambled to savor passenger trains, once-proud railroad companies, and classic locomotives before progress swept away those beloved symbols of the industry's halcyon days.

The 1970s were a complex time. They were the bad old days, the last full decade of the "classic era," and the crisis point that set the stage for the strong, prosperous industry of today.

Robert S. McGonigal

TRAINS of the 1970s

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SD40-2s in various stages of completion fill the floor at EMD's La Grange (Ill.) plant. Introduced in 1972, the SD40-2 was one of the best selling diesels of all time. EMD

RAILROADS IN THE 1970s

CRISIS, RESPONSE, REBIRTH





Former Penn Central units of three builders move trains just east of Conrail's ex-PC/ NYC Maumee River bridge in Toledo on October 16, 1977. Eighteen-month-old Conrail has only just begun to clear up the Northeast railroad mess. John Uckley



Problems that had plagued America's railroads for decades came to a head in the 1970s. Though sometimes painful, the remedies set the stage for a new era of prosperity

BY H. ROGER GRANT

There may be truth in the saying that “the darkest hour is just before the dawn,” and in some ways that characterizes the American railroad industry in the 1970s.

This would be a decade of struggle — in fact, a decade of crisis. Gregory Maxwell, who as Erie Lackawanna president saw his railroad succumb to bankruptcy, later reflected about the 1970s: “It was one thing after another — the Penn Central failure, the real threat of nationalization, unreasonable state and federal regulation, rising fuel costs, runaway inflation, labor problems, that commuter train drain, deferred maintenance, increasing truck competition, the erosion of heavy industries, especially in steel, and even bad weather. Remember Hurricane Agnes in June of 1972? I really can’t list them all . . .”

No informed observer would challenge

Maxwell’s assessment. Jervis Langdon Jr., who in 1970 became president of Penn Central Transportation Co. and later senior trustee for the giant bankrupt road, succinctly summed up the decade this way: “Bad things just kept happening.”

Maxwell, Langdon, and others were correct. Bad news dominated the railroad industry. The decade began with some unfavorable reports. The rate of return on investments was a disheartening 1.73 percent, the lowest since the Great Depression. Even the “profitables” suffered. The big coal-carrying Norfolk & Western — which had been bolstered by its acquisition of competitor Virginian in 1959 and then by more traffic diversity and expansion in the 1964 merger of Nickel Plate, Wabash, and two smaller Class 1s — saw its operating ratio (costs to revenues) in 1970 stand approximately 10 points above the impressive

58 percent it had achieved in 1960. There was also a growing fear that nationalization might be in the offing, a topic that was repeatedly discussed in boardrooms and in the financial and industry trade press.

Then came the shocker. On June 8, 1970, Penn Central — created only 28 months earlier by the touted merger of two historic rivals, New York Central and Pennsylvania (with the troubled New Haven added at the beginning of 1969) — filed for bankruptcy. Here was a 19,459-mile railroad that was not only one of the largest corporations in America but also the primary freight carrier for more than half the people in the country, serving a dozen of the 20 largest metropolitan areas.

A combination of excessive regulation, modal competition, poor (even dishonest) management, limited pre-merger planning,

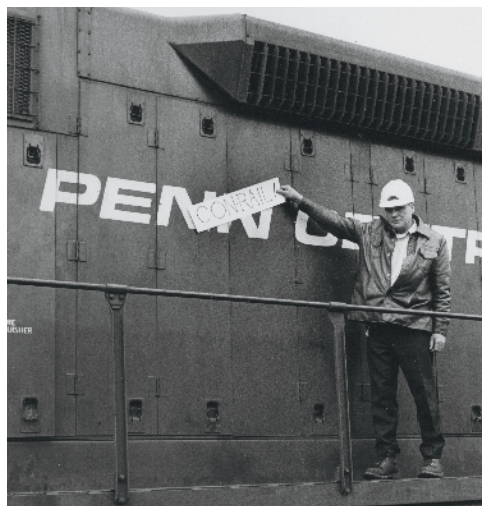


Erie Lackawanna, once a bright spot in the increasingly gloomy Northeast, was dealt a death blow by Hurricane Agnes in 1972. When things looked sunnier, E8s hustle piggyback trailers east at Alden, N.Y., in 1969. R. R. Malinoski, Frank & Todd Novak collection

and other factors led to this largest business failure in American history. Almost immediately the wreck of the Penn Central symbolized the descent of the railroad industry from wealth into poverty. There was more. The East was fast becoming a railroad graveyard: Central Railroad of New Jersey had failed in 1967; Boston & Maine and Lehigh Valley entered court protection in 1970; Reading slipped into bankruptcy in 1971; and Erie Lackawanna had a similar fate a year later after being devastated by Hurricane Agnes.

THE NORTHEAST IN CRISIS

An early and positive response to the crisis came on October 30, 1970, when President Richard Nixon signed a bill that created the quasi-public National Railroad Passenger Corp., referred to initially as Railpax. On May 1, 1971, this entity, having chosen "Amtrak" as its brand name, made its debut — but running trains on only 13 Class 1s that had operated intercity passenger service the day before. (Three major roads — Rio Grande, Rock Is-



Little fanfare attended the birth of Conrail on April 1, 1976. Bob Camp, mechanical superintendent at Detroit, holds up a sign he made on April 3rd. Mort Walton

land, and Southern — did not join Amtrak and continued to run their few remaining trains.) Outside the Northeast Corridor, which it owned after 1976, Amtrak operated over a skeleton network of lines and inherited a hodge-podge of mostly weary and ill-maintained equipment.

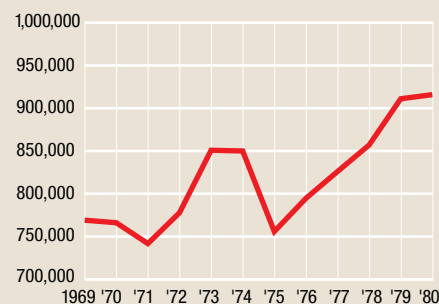
Here was a federal government response that was largely intended to relieve passenger-carrying roads, especially Penn Central, of a large chunk of their mounting deficits. "The assumption at that time was that Amtrak would go away in a few years and intercity passenger trains could simply die a natural death," concluded veteran railroad journalist Don Phillips. "The great problem for government was to prevent passenger rail losses from dragging freight railroads into bankruptcy." The advent of Amtrak would help the balance sheets of those roads that exited the business, but not enough to offset the other forces buffeting the industry.

Even in bankruptcy, Penn Central remained a financial basket case. Still largely a ramshackle property, PC bled red ink and would lose about a half-billion dollars. By 1973, trustees and the court concluded that a conventional reorganization was not viable; PC could not be restructured on an income basis. While most Americans thought little about an impending catastrophe in the railroad industry, a coalition of railroaders, union people, shippers, and bankers spent much of 1973 preparing rescue legislation. These activists lobbied politicians in Washington with the message that the economy would be seriously damaged if Penn Central, most of all, were shut down and liquidated, causing serious disruptions in manufacturing, mining, and other sectors of the nation's business and commercial life.

Action followed. Congress and the White House agreed that the federal government

REVENUE TON-MILES (MILLIONS)

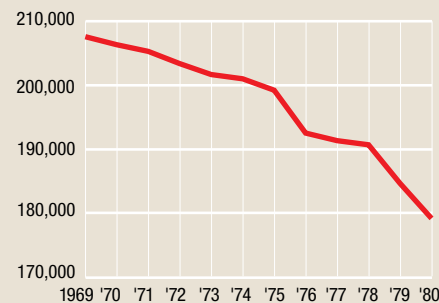
U.S. CLASS 1 RAILROADS ONLY



Source: Railroad Facts, AAR, 1983

ROUTE MILES

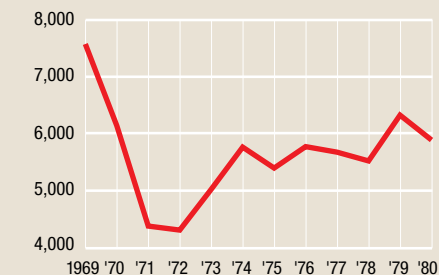
ALL U.S. RAILROADS



Source: Railroad Facts, AAR, 1983

INTERCITY PASSENGER-MILES (MILLIONS)

ALL U.S. RAILROADS AND AMTRAK



Auto-Train included for 1972-77. Source: Railroad Facts, AAR, 1981

must protect the public interest. Although outright nationalization of the bankrupts would not be an option, what came about was the Regional Rail Reorganization Act of 1973, the "3R Act." This monumental piece of legislation created the U.S. Railway Association (USRA), a government corporation designed to plan the restructuring of the Northeast rail network. The statutory instructions for the USRA included submission of a Preliminary System Plan within a year to the Interstate Commerce Commission, which



A through freight led by an ex-Norfolk & Western Alco C628 passes a local with an ex-Katy re-engined Baldwin at Kaukauna, Wis., in October 1975 on the Chicago & North Western, a troubled Midwestern road that took an unorthodox path to salvation. Ed DeRouin

would hold hearings and evaluate proposals.

In the plan's initial phase, Consolidated Rail Corp., ("ConRail") a new railroad with government funding, would take over Penn Central plus portions of the smaller bankrupts. The new corporation, which some critics called "special interest socialism," would receive up to \$1.5 billion of federally guaranteed loans for improvements. In September 1975 the projected funding was set at slightly more than \$2 billion.

Then, with completion of the Final System Plan and additional adjustments, "Conveyance Day" came on April 1, 1976. Overnight, PC, EL, Reading, LV, Jersey Central, Lehigh & Hudson River, and a handful of subsidiaries vanished from the railroad landscape. Despite federal backing, the new carrier struggled, racking up a deficit of about \$2 billion between 1976 and 1980.

Penn Central and the other Northeast bankrupts were not the only railroads that desperately needed financial help. In the Midwest, Rock Island and Missouri-Kansas-Texas (Katy) sought aid under the 3R Act, but only the Katy received assistance, mostly because it seemed to have a reasonable chance for survival. These requests led Congress to pass

the Railroad Revitalization and Regulatory Reform Act ("4R Act"), a measure that President Gerald Ford signed into law in February 1976. This legislative response, which allowed carriers to apply for loans to rehabilitate track and equipment, stabilized the industry, although Rock Island had already collapsed, having filed for bankruptcy in March 1975.

MERGERS AND MORE

Notwithstanding the Penn Central debacle, mergers continued, albeit at a reduced pace. History seemed to repeat itself in 1972 with the long-envisioned union of Illinois Central and Gulf, Mobile & Ohio — two largely parallel roads, as PC's main components had been. By the late '70s the new Illinois Central Gulf had deteriorated. Said one industry analyst, "Merging two relatively weak roads can result in a bigger weak road." Despite its rocky start, some hopeful signs for ICG developed by the early 1980s, and ultimately it would slim down and thrive.

Although the creation of Conrail and the federal relief legislation grabbed headlines, less glamorous moves to "save" freight railroads occurred. Take what happened with Chicago & North Western. Led by its bril-

liant board chairman Ben W. Heineman, C&NW had been heavily involved in the "merger madness" of the 1960s with acquisition of Minneapolis & St. Louis and Chicago Great Western, and it had become the thorn in the side of the proposed merger of the Rock Island and Union Pacific. But as the 1960s ended, North Western was becoming more decrepit, feeling the effects of an eroding freight market, deferred maintenance, and other problems. "During the late 1960s and early 1970s, C&NW was a pretty pathetic operation," commented one observer. "[UP] felt so wronged by C&NW service that a preferred routing was formed via Grand Island [Nebr.] and CB&Q, obviously short-hauling [UP] but saving its customers."

But a sea change was about to take place at C&NW. Heineman and Larry Provo, who recently had become president, hammered out an arrangement whereby the railroad would be sold to its employees. In October 1970, Northwest Industries, the conglomerate Heineman headed and which controlled the railroad, entered into an agreement with an employee group to sell its rail assets for a modest sum and to have that successor company assume its debt. Northwest Industries



would receive some cash and, more significantly, a large amount of tax credits that could be used to offset profits from its subsidiaries. The ICC endorsed this creative proposal, and on June 1, 1972, the North Western Employee Transportation Co., renamed the Chicago & North Western Transportation Co., emerged. Later the Provo management did well at the federal trough, receiving substantial loans under the 4R Act that allowed it to bring about a rebirth of sorts, especially upgrades to its main line between Chicago and its connection with the UP at Fremont, Nebr. [pages 112–122]. The exit of Northwest Industries from the life of the C&NW was positive; the railroad no longer operated in the shadow of a giant holding company. Yet for some time, C&NW struggled.

Other corporate changes and good leadership offered hope in this final decade before the Staggers Rail Act of 1980 sparked a renaissance in the industry, ending the long dark night of regulation.

The best example of a merger that worked came in 1970 when the so-called “Hill Lines” — Burlington Route; Great Northern; Northern Pacific; and Spokane, Portland & Seattle — united. They had been affiliated for decades but collectively were in decline. The combined road, Burlington Northern, began op-



A result of the flood of coal traffic that followed the opening of Burlington Northern's line into the Powder River Basin a few months previously, home-road and foreign-line power crowds BN's Alliance (Nebr.) terminal in December 1980. Alan R. Burns

erations on March 2, 1970. BN was a giant that operated an impressive 26,000 route-miles, was truly inter-regional, and seemed likely to please customers. Admittedly this well-planned consolidation, which benefitted from good corporate cultures, got off to a lackluster start. “For a period of six or eight years after the merger, we simply did not have enough money to do everything we would like to do,” recalled BN executive Robert Downing. But the management skills that came from Downing and Louis Menk led to better days. BN would not be the “red team vs. green team” that had been Penn Central.

Another railroad that experienced an impressive turnaround in the 1970s was the Western Pacific. New management, led by one of the foremost railroaders of the 20th century, former NYC and PC executive Alfred Perlman, worked wonders for this small Class 1. Better motive power, rolling stock, track structure, marketing, and an altered corporate culture made WP profitable, seeing its earnings more than double between 1972 and '76. WP, along with Missouri Pacific, would enter the Union Pacific fold in 1982.

ENTER POWDER RIVER COAL

The unforeseen and remarkable expansion of coal production in the West was another positive of 1970s railroading. This would become a bonanza for several carriers, notably BN, C&NW, and UP. Although geologists had long known about the billions of tons of sub-bituminous coal that lay in thick seams near the surface in southeastern Montana and especially in the South Powder River Basin of Wyoming, these “black diamonds” seemingly had little value. The deposits contained relatively low heat content and were long distances from potential customers. By

the 1970s, though, these shortcomings had become less important because in the previous decade, the modern environmental movement had begun to gain traction. Lawmakers responded with several landmark measures, including the Clean Air Act of 1970. Soon demand grew for Western coal; its low ash and sulphur content and the ability to blend it with Eastern coal permitted power companies to cope with clean-air legislation.

BN took the lead in developing the largest of these fields. In 1972 the company requested permission from the ICC to build a new 113-mile line from near Gillette, Wyo., south to Orin, Wyo. C&NW also saw the potential, and in spring 1973 asked the ICC for permission to construct 76 miles of line northward from its decrepit “Cowboy Line” that ran from eastern Nebraska to Lander, Wyo. Conflict soon erupted between the two roads, but the contentious issue of who would build where was resolved. With the ICC's blessing, both roads gained access to the coalfields through the construction of a 116-mile joint line. But C&NW was poor and had trouble



New types of hopper cars and high-side gondolas, like ACF's 106-ton-capacity Coalveyor of 1978, helped the railroads cash in on Powder River coal. ACF Industries



Amtrak struggled with “rainbow consists” of run-down, mismatched equipment in its early years, but it also brought innovations. This collection of an E7/E9 duo and cars (including a dome) in six different liveries (GM&O, MILW, Amtrak, SCL, BN, and NP), is the *Prairie State*, which ran from Milwaukee through Chicago to St. Louis, making its Joliet (Ill.) stop on December 28, 1972. Denny Hamilton

finding financing. Fortunately, UP came to its rescue. Since C&NW could not afford to upgrade the long Cowboy Line, it and UP agreed to a package of construction and upgrades to existing UP trackage. The joint BN-C&NW line would tie in with a rebuilt UP branch at Joyce, Nebr., and involve C&NW improving a section of the Cowboy and building a 56-mile link to the Joyce connection. Yet coal movements over C&NW-UP would not begin until 1984. BN tapped this traffic somewhat earlier, and it rapidly became a significant part of BN’s revenues. By the 1980s there would be a growing parade of coal trains rumbling east and south from the Powder River basin, benefiting the participating roads, the industry, and the nation.

NEW CARS, LOCOMOTIVES

Continuing a trend from the previous decade, the 1970s witnessed the development of specialized equipment designed for specific users. Not only did increased coal movements create a good market for state-of-the-art open hopper cars, but covered hoppers also represented this trend. These cars became increasingly diverse in design and capacity, a re-

sponse to the desire to accommodate the needs of a variety of bulk cargoes. In 1971, for example, ACF Industries built 56 three-compartment Center Flow covered hoppers with pneumatic outlets for the special requirements of the Northern Petrochemical Co., and eight years later it constructed a prototype four-compartment Center Flow Pressureaid covered hopper car to serve the baking industry.

Then, as car fleets wore out, there came a need for replacements. By the mid-1970s orders spiked for traditional, albeit modern, boxcars. Industry groups pressured the ICC to approve a higher per-diem (daily rental) rate for this equipment as an incentive to build. One response involved several new leasing companies that provided the capital for these cars and then arranged with a railroad for a lease rate and an agreement to return a portion of the per-diem revenues. It did not take long for various short lines, from McCloud River Railroad in California to Pickens Railroad in South Carolina, to place their new, brightly painted boxcars in regular interchange service. Unfortunately for the car-leasing business, though, changes in public policy soon led to the collapse of this market.

For locomotives in the 1970s, the trend was for better performance. This was the time of rapid advances in electronic technology. Both of the nation’s leading builders, Electro-Motive Division of General Motors and General Electric, continued to make these improvements. In 1972 EMD launched its Dash 2 series, which incorporated improved control and electrical systems; this series included the well-received GP38-2 and SD40-2. Likewise, GE’s Dash 7 line of 1977 introduced a host of improvements over the builder’s previous U-series diesels.

Part of the modernization process in the 1970s involved recycling fleets of 20-plus-year-old power. At mid-decade more than one-third of the 26,000 or so diesel locomotives in service were vintage “first-generation” products. The two big builders responded. EMD sought to take GP7s and 9s, which had reached retirement age, and remanufacture them into locomotives that would feature a combination of recycled and new parts. The company met with modest success; only about 350 of these upgrade locomotives — GP15s — entered service. About the same time GE introduced a comparable product, the 1,800



h.p. U18B, but it, too, was not a big seller. Many roads rebuilt older power themselves, or engaged contract shops to do the work.

ABANDONMENTS, SPINOFFS

America's network of rail lines decreased by 20 percent during the 1970s. This shrinkage mostly involved light-density lines that may have had few or even no customers. Understandably, Class 1 roads were anxious to abandon these money-losing appendages. Nevertheless, it was thought that some trackage might become profitable with a smaller, non-unionized workforce and relaxed work rules. A new wave of railroads appeared, including a major "regional" carrier, New England's Providence & Worcester, in 1973, and various short lines that operated pieces of former Class 1 trackage. A sampling included the Central Iowa (ex-Rock Island), Erie Western (ex-EL), Great Plains (ex-C&NW), and Prairie Trunk (ex-B&O). Most of these roads were financially fragile, and many — including those four — failed. It would not be until the 1980s that an explosion took place with scores of new regional and shortline carriers, the majority of which have survived and thrived . . . or have been sold back, in whole or in part, to today's giant Class 1s.

Most Americans paid little notice to the

emergence of new operating companies, but those who relied daily on commuter trains more likely did. Another trend in the 1970s was Class 1s surrendering their money-draining suburban operations to metropolitan transportation authorities. These bodies either subsidized existing operators or acquired all or part of their commuter assets. Take Chicago. In 1974 voters in a six-county region approved a referendum to create the Regional Transportation Authority, and soon C&NW, Milwaukee Road, Rock Island, and other carriers no longer served as independent providers of these essential trains.

Meanwhile, something unexpected happened: under Amtrak, the decades-long slide in rail travel was reversed. The quasi-public company's corps of true believers battled chronic underfunding from Congress and indifference on the part of the host railroads to improve service and even expand the skeletal network. Initially reliant on worn-out equipment, Amtrak commissioned the first new intercity rolling stock in a generation, receiving more than 1,000 modern, standardized cars and locomotives between 1973 and the early 1980s. Passengers also benefitted from hundreds of completely refurbished "Heritage fleet" cars. Ridership grew marginally during the 1970s, then dipped when several routes lost their trains to a round of federal budget cuts in 1979 under President Jimmy Carter. Nevertheless, Amtrak ended the decade as an established entity.

Every decade experiences change, and the 1970s was no exception. Unfortunately, the bad news outweighed the good. For the man and woman on the street this might mean loss of rail service, local property taxes, and railroad employment. As mileage declined, so did the industry's workforce, falling 15 percent between 1970 and 1980, and this downward trend would accelerate in the '80s. Moreover, the country itself faced years of



Providence & Worcester's 1973 "unmerger" from Penn Central was one of the first shortline/regional spinoffs. P&W also pioneered safety cabs in the U.S., on five Montreal-built M420Rs in '74. Steven T. Evans

struggle during the 1970s: "stagflation," high interest rates, the Arab oil embargo, and domestic political and foreign policy events all were unnerving.

Yet the railroad industry was moving toward a repositioning. A stronger restructured American economy and rail-industry deregulation would help in creating a better, even glorious future for the nation's railroads. ■

H. ROGER GRANT is a professor of history at South Carolina's Clemson University. He has written or edited 30 books, mostly about railroads, and has had six articles in CLASSIC TRAINS publications. Grant is president of the Lexington Group in Transportation History.



Near La Salle Street Station in October 1977, Rock Island E8 652 in Bicentennial paint leads one of the road's two intercity trains (to Rock Island and Peoria—the cash-strapped RI did not join Amtrak) past an outbound suburban train. The C&NW cars behind the F7 were assigned to the RI by the RTA, created in 1974 to manage Chicago's commuter lines. The Rock shut down in 1980 and was liquidated. Robert A. Caflisch, Helen Caflisch coll.



**In the
NEWS**

Burlington Northern is born

North America's largest railroad was formed March 2, 1970, when Burlington Route; Great Northern; Northern Pacific; and Spokane, Portland & Seattle merged to form Burlington Northern Railroad. At birth, BN sprawled 23,600 miles from Kentucky and Texas to Manitoba and British Columbia. BN had a long gestation period: the four



roads had been affiliated since shortly after 1900, and they proposed formal consolidation in 1927. The ICC nixed the plan then, but the carriers revived it in the late 1950s. Here, GE U33Cs of Northern Pacific and Great Northern heritage bracket a former Burlington U25C on an eastbound freight at Garrison, Mont., in September 1970. Doug Wingfield

Trains

One reason to go to Canada

THE RAILROAD
THAT KNOWS
WHAT
"ON TIME"
MEANS

Ocean to ocean behind steam

**APRIL
1971**



A case of CANADIAN (NATIONAL) CONTRASTS

CN's passenger department is still going through the motions

BY **DAVID P. MORGAN**
PHOTOS BY JAMES A. BROWN



Above: Montreal's below-grade Central Station offers an unsurpassed diversity of destinations and equipment; CN FP9 6536 heads a train at Central's south portal in July '62. Left: A Toronto-Montreal *Turbo* — "all red and white and low-slung and free of rivets and vestibules" — jets its way east near Port Hope, Ont., in January 1969.

the impulse is to look elsewhere . . . and the impulse is correct. It matters not if the search leads to a Milan-bound *Trans-Europ Express*, or a *Hikari* for Osaka, or a Fiat diesel car into Los Mochis; what matters is finding an open ticket window, a timetable, a manned train gate, and other evidences of rail-caused seat-miles.

Last winter the choice for me was Canada. As Exhibit A of my recommendation to you to follow suit, I would offer this excerpt from the 24-hour-clock departure board of Central Station, Montreal:

Turbo 16:30 Toronto
Rapido 16:40 Toronto
Bonaventure 16:50 Toronto
Super Continental 17:05 Vancouver
Rapido 17:15 Quebec
Ocean 17:20 Sydney, Halifax

I ask you, where else on this continent can one find a single railroad sponsoring the departures of six named trains of such diverse consists and destinations in less than an hour? Their runs range from 167 to 2,914 miles; all offer coach and first-class accommodations that include dining and lounge service; and one is jet-powered, articulated, domed, and bidirectional.

As Exhibit B, I submit the sympathetic sound and sight of all this railroading emanating from beneath Central's concourse. Made in Canada they may be, yet the trains depart to the beat of Alco- and EMD-designed engines, roll out to a land of big steel and staggered joints and CTC, remain in the knuckled grip of automatic couplers, and are restrained by Westinghouse air. So you leave home without leaving home, and you reclaim what you had and lost in the U.S.

In an editorial widely circulated by the Association of American Railroads, a country newspaper once reasoned that if we didn't have railroads we would have to invent them. We train-riders might submit the same logic on behalf of Canada, and specifically of Canadian National.

Passenger partisans have been driven to the wall in the U.S., what with Budd wanting out of carbuilding, Western Pacific's Feather River Canyon going freight-only, the Pullman Company selling off its blankets, and Dallas locking up its union terminal. The only thing we have left to look forward to is Railpax, and its initial effect will be to give us half as many intercity passenger trains as we had.

So for those who, with Robert Louis Stevenson and Edna St. Vincent Millay, care only for the going and would catch any train,

Turbo: There's a now-generation name with which to conjure in train technology. I first saw a blueprint for a dieselized version of this spinoff of Robert R. Young's *Train X* in Terminal Tower, Cleveland, while researching "Who Shot the Passenger Train?" for April 1959 *TRAINS*, and the plan subsequently was published in that issue. It was designer Alan R. Cripe's train — a market-oriented train, a train that could come to grips with the equipment causes of horrendous passenger deficits. You know what ultimately happened: United Aircraft purchased the patents as a platform for its aircraft-type turbines (subcontracting the carbodies out to Pullman-Standard in the U.S. and MLW-Worthington in Canada), and leased two three-unit trains to the Department of Transportation for a New York-Boston demonstration project and five seven-unit trains to CN as *Rapido* replacements. On behalf of *TRAINS*, William D. Middleton rode DOT's Turbotrain and termed it an "impressive, appealing train," but Associate Editor Harold Edmonson returned from a CN Turbo debut with mixed reactions. Out of curiosity and for the fun of it, I had to see for myself.

The sleek look of a born speedster. Strong. Eager. The bold look of the new champion. That's Turbo. Built to get you there — fast. . . . Built to get you there — in style. So read the color brochure handed out with my *Turbo* ticket in Toronto Union Station. If so, I thought, train 68 departing at 4:30 p.m. would be in sharp contrast to the depot, a stone edifice built for 4-8-2s and 12&1 sleepers, and now resisting valiant efforts to face-lift it with color panels, piped-in music, and



FPA4 6772 is about to depart Halifax with the Montreal-bound *Scotian* — “reclining-seat coaches, open-section and room sleepers, a lunch-counter-lounge, a dining car, and full lounge” — in October 1966. Beyond the trainshed rises the Nova Scotian hotel.



One of the six Skytop sleeper-observations CN bought from the Milwaukee in the early '60s trails the *Ocean*, the *Scotian*'s running mate on the Halifax–Montreal run, in October 1966. By winter 1970–71, the Skyview cars (as CN called them) were nowhere to be seen.

mod signs. *Turbo*, parked on track 1, looked the part to back up its blurbs, all red and white and low-slung and free of rivets and vestibules. I ascended the remote-controlled retractable steps (which turned out to be a compromise for the low-level platforms of Toronto and the high-level station in Montreal), found a seat in club unit 02 (CN assigns the car, not the seats, which are on a first-come, first-served basis), and received negative news. The rear dome (or club dome

on this trip) was “not operating,” which in fixed-consist *Turbo*-talk meant that its adjacent galley was either not functioning or not manned. One could sit upstairs if he so desired, however.

The seat-pocket card advised “Places, please . . . The complex trackage necessary in terminal areas of a railway sometimes exaggerates the lateral motion of the train, and for your comfort may we suggest that you remain seated for the first and last 10 min-

utes of the trip.” The warning wasn’t vital. *Turbo* 68 whined into motion and passed through the turnouts of Toronto with a minimum of wriggle.

More whine, quite aircraftlike, and *Turbo* was building up speed; and the outlook at dusk, from the rear dome forward, was delightful. The toothpaste tube of a train leaned into curves, its jet exhaust stacks turning overhead searchlight-type signal into shimmering psychedelic colors, the gait graduating upward from a mile a minute to 70 to 80 to 95 to three digits with no sense of surge.

Alan, I thought, *you’ve got yourself a fun train here*. Now if it were possible to convince a businessman to exchange the 1-hour Toronto–Montreal DC-9 time, plus 2 hours 15 minutes cumulative limo time, for 4 hours 5 minutes by rail, downtown-to-downtown. . . .

. . . But few sit upstairs in *Turbo*; the majority, including businessmen, ride low. And beside my seat (which admittedly was near a wheel housing) there was a jarring, annoying sound-plus-some-bump not encountered in a true jet.

The meals served at the seats by stewards (the advertised stewardesses in miniskirts or slacks were not in evidence on my Saturday journey) were airline-style but not quality. The plastic plates and saucers were not contoured to the tray, and the salt and pepper came in small sacks rather than in break-open shakers — details, of course, but all the more irritating because they are correctable.

I didn’t find sufficient difference between coach accommodations and my club chair to warrant my fare premium. Granted, the



An FP9/F9B/F9B consist on CN train 1, the *Super Continental* — for railfans, “running meets, division points complete with roundhouses and snowplows and wreckers, and a chance to count low rails” — is fueled at Nakina, Ont., in early 1965. Ahead 500 miles: Winnipeg.

coach passenger has to walk to a service bar for his “packaged picnic-style” meal and pay for it, but he rates two-abreast seating, carpeting, tinted glass, and recorded music, and his dome-bar-lounge is friendlier, if more functional, than its club counterpart.

Walking through the *Turbo* required no dexterity, no hang-onto-something sense (as moving about did a few days later on the *Super Continental*), and the absence of vestibules with their attendant noise, doors, and weather exposure is welcome indeed (and also in sharp contrast with what I would experience on the *Super Connie*). The rail-oriented rider is aware that on CN, *Turbo* is whipping past freights and conventional

I feel sorry for the Canadian National in a passenger sense, for CN got in there and tried.

passenger trains at impressive closing speeds, not to mention numerous grade crossings; yet I had the feeling that if what could happen did happen — short of a car hitting us broadside — we would fare better than if a similar incident overtook a Metroliner.

I disembarked in Montreal with a mixed bag of emotions . . . skeptical about single axles, tickled with turbines, sold on Turbo’s economics (P&L sheet unseen), delighted with domes (the best since the *California Zephyr*’s), and unsure about the dimension of the train’s threat to DC-9s.

Rolling west from Halifax, Nova Scotia (to which I’d flown from Montreal), aboard the *Scotian*, I could see why Canadian National had applied to Ottawa for a subsidy to cover its losses on “services carrying passengers between the Atlantic Provinces and Montreal” as well as on its transcons . . . yes, and why the British journal *Modern Railways* had headlined an article on CN’s passenger comeback as “The Light That Failed.” Despite a 10-inch snowfall that had closed schools, roads, and the

airport, and despite a consist that included reclining-seat coaches, open-section and room sleepers, a lunch-counter-lounge, a dining car, and a full lounge, the 12-car train was lightly patronized. I was glad the difference between costs — even crew costs alone — and fares wasn’t coming out of my pocket, but nonetheless I was happy to be aboard. Snow muffled the track noise, MLW FPA4s easily recovered a dozen lost minutes, the lounge observed much later hours than would have been the case in the U.S., and — but, no, there was one small deficiency.

In the morning I plugged in my electric razor, snapped the ON button, and nothing happened. The porter said this often occurred in room sleepers, that he left his electric at home, and that I could try the men’s room of the adjacent sleeper. I did and the razor worked. (Strangely, the same thing took place on the *Super Continental* the following night. The razor wouldn’t work in the bedroom but did function in the men’s room used by open-section passengers in the same car. I’m beginning to think I have some kind of plebeian razor that isn’t at



In a “Christmas-card land of snow and evergreens and ice and birch and aspen,” the *Super Continental* is west of Wolf Creek, Alberta, in 1970. One of the “adventurous place names” on No. 1’s route, Wolf Creek had one of the more than 330 Grand Trunk Pacific Standard Type A depots.

home in private room accommodations.)

Also in the morning there was the *Scotian*’s lounge, a warm and sunny and lazy place of complimentary coffee and newspapers, a place from which to absorb the sight of our A-B-A diesels leading us into snowy curves, a place to reflect on the luxury of conventional, named, roam-about trains.

The *Scotian*, CN No. 11, was scheduled into Central Station, Montreal, at 12:05 p.m., and like a respectable train, No. 11 arrived at 12:05 p.m.

Called “Gare Central” by Quebecers, the CN terminal in Montreal is a kaleidoscope of a station, busy with commuters and intercity passengers, offering





A new *Tempo* train for southern Ontario intercity service poses in Toronto on April 9, 1968. CN 3154 is a 1960 MLW RS18 modified for the *Tempos* with head-end power and a special livery; the aluminum cars are brand-new from Hawker Siddeley Canada, Ltd.

direct access to an underground shopping mall and the Hotel Queen Elizabeth, filled with diversions including chairs with mini TV sets offering 30 minutes of viewing for 25 cents. Also a drugstore advertising pregnancy tests. But no system timetables; the information counter was out of stock and had been for some time (the same story I received at the CN travel center in Halifax).

No. 1 is or should be the designation of the westbound flagship of any railroad, and on Canadian National it is: the *Super Continental*. She received passengers, again not too many, on track 13, embarking some of them on a journey of almost 3,000 miles and more than three days that would venture north of the 50th Parallel and intercept adventurous names including Sioux Lookout, Portage la Prairie, White Otter, Yellowhead, and Wolf Creek.

Once No. 1 cleared Montreal and Ottawa and rendezvoused with its Toronto section at Capreol between 2:10 and 3 a.m., the *Super Continental* was far from civilization and

population, roaming a Christmas-card land of snow and evergreens and ice and birch and aspen, running 14 cars behind an FP9/F9B/F9B trio, venturing into a region as old as Hudson's Bay Company stores and as new as snowmobiles. For the railfan there were running meets, division points complete with roundhouses and snowplows and wreckers, and a chance to count low rails, of which there are many. For the passenger, the person who's simply riding to get there and not for the going, there's bingo in the diner after dinner, a continual contest in crossing from car to car (railroading has yet to invent a snow-free vestibule and CN has no air-push doors), good meals, warm equipment, on-time operation, and . . . well, windowfuls of Christmas-card scenery.

Into Winnipeg No. 1 was 3 minutes ahead of time, and the temperature was 9 degrees below zero.

I feel sorry for the Canadian National in a passenger sense, and thus sorry for the total North American passenger-train scene. For CN got in there and tried. The late Donald Gordon, the railway's chairman, was man enough to do an about face on passengers and smart enough to hire a bright guy to run his varnish and to give him plenty of money with which to work. And the passenger counts went up . . . paced by the deficits.

I think now there is evidence around that CN, understandably, has lost heart. Predictions of ultimate profits have been replaced by requests for subsidies. The *Turbo*, heavily advertised as running between Montreal and Toronto in "under 4 hours" does no better than 4 hours 5 minutes. I looked for and asked about those ex-Olympian *Hiaiwatha* Skytop sleeper-observations CN acquired

from the Milwaukee Road in the mid-'60s, but to no avail. No public commitment has yet been made for the next-generation LRC train proposed by Alcan, Dofasco, and MLW-Worthington. Even CN's entry in the *Official Guide*, once gravy-thick in equipment and schedule detail, is but a shadow of its former self. And if the government's treatment of rival CP Rail's *Canadian* is any index (it has demanded a reduction in frequency and other economies in exchange for subsidy), Ottawa will take just as dim a view of picking up the tab for all of CN's passenger services, as Railpax is doing for U.S. services on our side of the border.

Still, CN continues going through the motions of welcoming people aboard its coaches and sleepers and thus is a haven for rail-inclined Americans.

I'm going back, that's for sure.

These new *Tempo* intercity trains intrigue. I've never been up to Hudson Bay or out to Prince Rupert. And CN is the connection for Ontario Northland, Northern Alberta, and other exotic railways.

I'd best not dally, either, lest the freight-only blanket that now covers Newfoundland, the Central Vermont, and other CN domains be laid across these and other must-do items entered in my notebook under "Canadian (National) contrasts." ■

DAVID P. MORGAN joined the *TRAINS* staff in 1948, became the magazine's editor in 1953, and retired from that position in 1987. During his 33 years at the helm, Morgan authored many hundreds of articles, from brief but evocative essays to 10,000-word studies of contemporary railroad operations to the monthly "News and Editorial Comment" section. Morgan died in 1990 at age 62.

CN rolls out a 4-8-2, 759 rides the main line, *Flying Scotsman* tours



Canadian National 4-8-2 No. 6060, known as a “Bullet-nosed Betty” for her conical smokebox front, is ready at Spadina roundhouse in Toronto to head a school trip on May 31, 1975. When CN’s 1960s excursion queen, 4-8-4 6218, came due for overhaul in 1971, the road removed No. 6060 from a display perch in Jasper, Alberta, to take the Northern’s place. CN kept the Mountain type active, even running her at 90 mph on scheduled passenger trains, until 1980. Greg McDonnell



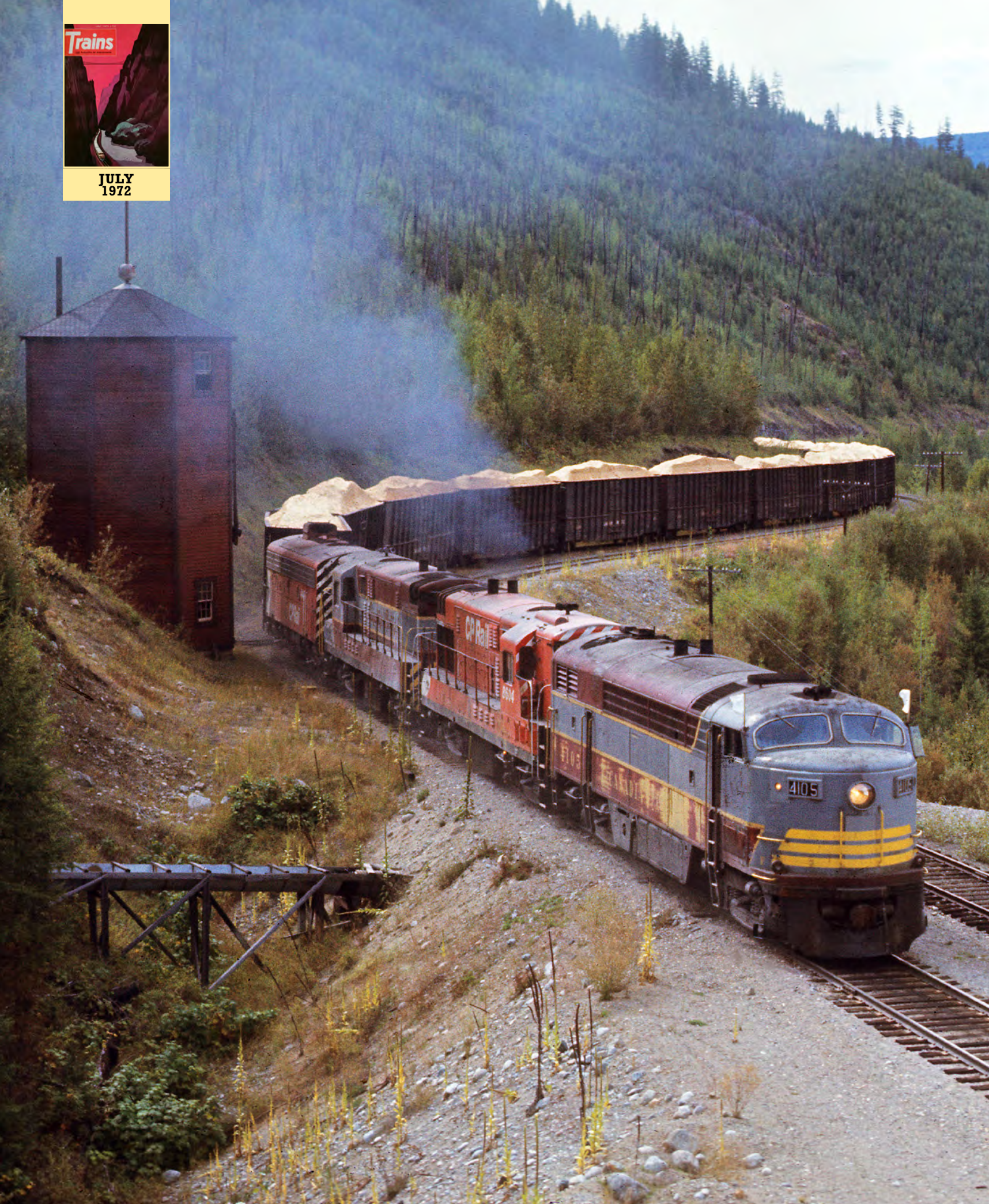
Nickel Plate Road 2-8-4 No. 759 was rebuilt in 1968 by Ross Rowland's High Iron Co. for excursion work. Until 1973, the Steamtown-owned Berkshire was a major act, starring on 1969's *Golden Spike Centennial Limited*, hauling the last run of Norfolk & Western's *Pocahontas* on May 1, 1971, and fronting fantrips on Penn Central, Erie Lackawanna, and other Eastern roads. Here she crosses PC's Rockville Bridge with a Harrisburg–Altoona–Gallitzin trip on September 13, 1970. Denny Hamilton




Flying Scotsman, a.k.a. London & North Eastern 4-6-2 4472, arrived in Boston in September 1969 to kick off a North American tour promoting British exports. As the first locomotive to officially (*i.e.*, with a dynamometer car) top 100 mph, the three-cylinder Pacific, owned by industrialist Alan Pegler, is a national treasure in the UK. The *Scotsman* powered short rides on the San Francisco waterfront (as here on March 18, 1972) before sailing for home in early 1973. Gordon Glattenberg



JULY
1972





CP'S ELUSIVE C-Liners

Three railfans roam western Canada in search of the last Fairbanks-Morse cab units

BY MIKE SCHAFER
PHOTOS BY THE AUTHOR

The location was beautiful. The Canadian Pacific main line curved from behind a snow-laden mountainside in western Alberta, reversed, and swung past our outpost beside the road. Lush mountain vegetation along the river that paralleled the track was especially vivid under the azure skies and the bright afternoon sun. Mountain peaks in the background almost completed (a train was lacking) an ideal composition for three waiting railfan photographers. Now if it weren't for those darn clouds rolling in from the west off the peaks of the Rockies that surrounded us on three sides, we would have nothing to worry about.

"Where is that train?" I yelled to Mel Patrick in a fit of frustration. Mel turned to our Jersey-accented friend from Paterson, Mike Caramanna, who was flipping through the CP Rail timetable trying to find the departure time of the *Canadian* from Calgary.

"Sorry, gang, but it still reads 1340 hours. She's late and that's all there is to it."

We were perturbed about the clouds. Until then, air currents from the plains below our vantage point on the front ranges had dissolved the cloud clumps as they rolled off the peaks of the back ranges; however, the clouds were increasing in number. We knew

that sooner or later one of the little devils would escape "death" and make a dash for the sun to darken our scene. For two days we had been following CP's *Canadian* back and forth through the mountains while the sun played havoc with our light readings, and now we had been waiting for almost an hour at this spot with no train and lots of sunlight. Couldn't this — one of our last shots of the *Canadian* before we would head west to Vancouver — be brilliant with sunlight, as every railfan dreams the ideal picture to be?

At last the candy-striped F units on the *Canadian* growled around the curve, trailed by a line of stainless-steel sleepers, coaches, and dome cars shimmering in the sun. The procedure was like watching the proverbial Ping-Pong game — first looking at the train, then at that one little cloud racing toward the sun . . . the train . . . the cloud.

The cloud won. The train went by, and we stood, defeated. Caramanna didn't even take the shot.

Tired, hungry, and disappointed, we rolled into Calgary at twilight. A visit to that city had not originally been in our plans. We had dropped into CP mountain mainline territory by driving southeast out of Jasper, Alta., thus missing Calgary, a city that lies about 30 miles east of the front ranges of the Canadian Rockies. Caramanna, though, had spoken of hearing tales of Canadian Pacific C-Liners haunting the likes of Calgary less than a year ago, so we thought it would be a good idea to stop there to see if the "Ghosts of Kingston Past" really were still

CP C-Liner 4105 leads two H16-44s and an F7B east past the old tank at Lafferty, B.C., on the 2.2-percent climb up from Grand Forks. For author Schafer and his two companions, it was a hard-won shot.



RDC 9105 idles in CP's Calgary station after the run down from Edmonton. While Schafer and his pals were getting this shot, the C-Liner they'd seen in the yard slipped away.



En route to Lethbridge in search of the C-Liner that had eluded them at Calgary the night before, the three fans photographed Geeps and an F7B heading south at Cayley.

alive and well. Canadian National's C-Liners were known to be extinct, so I had assumed that all these engines, styled by Fairbanks-Morse in the U.S. and built in Canada by the Canadian Locomotive Co. at Kingston, Ontario, had disappeared along with the likes of DL109s, baby-faced Baldwins, and other notables of North American railroading.

Our plan was simple. Before getting back on the road to Vancouver, B.C., we would

take a quick look at CP's Alyth Yard in Calgary and photograph any C-Liners that might be present. If they were there, fine; if not — well, at least we had tried. After all, we didn't even know for sure if they still existed.

Our entire trip into Canada in September 1971 was loosely planned. We had only a few definite goals for photography, notably the *Super Continental* on the Canadian National, CN and CP mixed trains, and the *Canadian*.

We had agreed that this trip would be taken in leisure, and we had done just that up to this point. We planned our days "by ear," taking time to explore what was new geography to us, and in general let our unplanned discoveries highlight the trip. Had we done our homework before leaving the Midwest for this Canadian adventure, we would have known that 6 of CP's 16 CLC-built C-Liner cabs — 1 CFA16-4 and 5 CPA16-4s — indeed were active in 1971. (Others existed but were off the roster, and none of the 12 boosters remained.)

Nothing is worse than trying to pinpoint the engine terminal of a rail yard in a strange city at night, and dark had settled in well when we finally located the CP Alyth Yard engine facilities. We secured permission to take pictures, but before dragging our "camera store" out of the car we walked around the engine terminal to see if there actually were any photo possibilities — and to see if, in fact, Calgary was the hangout of the alleged Consolidation Line units. On the other side of the enginehouse we found CPA16-4 No. 4104. Ah, success — and in such a short time.

"Well, let's stop admiring the thing and get our cameras out of the car and catch some shots of it so we can be on our way to Vancouver." Mike Caramanna was anxious to shoot 4104 before it proved to be a mirage; Mel, however, was hesitant. The CP's Budd car from Edmonton was due in downtown Calgary shortly, and Mel had a specific shot in mind that required being on hand at the station as the train discharged its passengers. Mel suggested that since we would have to go back to the car to get our gear anyway, we zip down to the passenger station for a shot of the RDC, then return to the engine terminal to photograph the C-Liner. All three of us then would be happy.

Exit C-Liner 4104. When we returned from the depot, it was gone. As Caramanna cursed poor Melvin for his inane suggestion of forsaking — even if temporarily — a rare CP C-Liner for a John Doe RDC, the old advice, "A bird in the hand . . ." recurred in my mind.

We searched Alyth Yard from end to end as best we could, but the 4104 was clean gone. Maybe it *was* a mirage. We dared not leave the yard again for fear another C-Liner would come and go under our noses, so that night we slept in the car (except for Mel, whose turn it was to sleep outside in the sleeping bag) next to the engine terminal.

We awoke next morning to the chant of EMDs, the churbling of Alcos, and even the pounding of Baldwins; but the drumming of opposed-piston engines was nowhere among the sunny-morning sounds at the CP engine terminal.

We were determined not to let the 4104

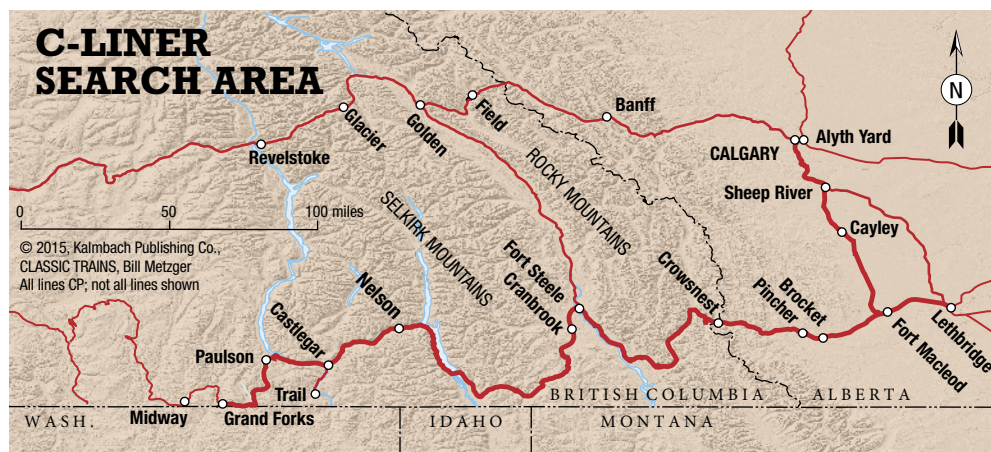


It's not a C-Liner, and it's trailing, but H16-44 8718, tucked behind an F7B and a GP9 on a freight out of Fort Macleod passing elevators at Pincher, marches to an FM opposed-piston drum.

get the best of us (or to return to our railfan buddies in the States red-faced over the fact that we had seen but had not photographed a Canadian Pacific C-Liner). Mike went into the enginehouse office (a move we should have made the night before) to find out what had happened to the evasive C-Liner.

The news was good — the 4104 was not far away. She had been dispatched to Lethbridge, a city a little over 100 miles south of Calgary. Mike also had been informed that the C-Liners did not normally inhabit CP's main line through the Rockies, as we had thought, but the men in the enginehouse could not determine exactly where home was for the 4104 and her sisters — if she had any left (one of the men speculated that 4104 was the last unit of its kind on the entire CP roster). Indeed, we were told that a C-Liner visit to Calgary was a rare occurrence.

The time had come to consult our map of Alberta and to compare it with the CP map in our tattered *Official Guide* to determine what lines serve what cities. We realized then that CP has more a southerly route through the great Rocky Mountain range — CP's "other line" over the Continental Divide. Something was coming back to me. This was the line that N. W. Emmott had spoken of so



colorfully in his article "The Crow and the Kettle" in May 1968 *TRAINS*.

CP has two lines out of Calgary that reach toward Lethbridge, and we chose to follow the westerly one since Highway 2 closely parallels it. The plan worked out well, for we soon caught up with a freight cruising south toward Fort Macleod, the junction point with the Crowsnest Subdivision — CP's southern east-west line through the Rockies. Luck was less benevolent when it came to the power of the freight, however; no Canadian Locomotive Co. units of any kind were on the head end — only three Geeps spliced by an F7B. The train gathered speed not long after we caught up with it and led us swiftly

into Fort Macleod, where it pulled into the yard and terminated.

Fort Macleod houses a yard and a small engine terminal, and our expectations rose that a C-Liner might be found there. Well, we were partly right — FM-designed H16-44 road-switcher No. 8718 sat by itself near the yard office, apparently on a coffee break. We had seen "H-Liners" off and on throughout our canvass of CP's mountain main line between Calgary and Revelstoke, and although we welcomed their friendship (they too are becoming uncommon as CP's stable of 40 diminishes), we really had our hopes set on a C-Liner. If we could find only one to photograph — just for the record — so we



Finally, a C-Liner! Having met the GP9-F7B-H16 team, two GP9s lead smoky CFA16-4 4081 eastward out of the Castle River valley.

could continue west to Vancouver.

We pushed on into Lethbridge where another old friend turned up, a Montreal Locomotive Works FA2 — one more fast-disappearing breed of locomotive. But still no C-Liners were present. Had 4104 come here, or were we on a hopeless chase?

Inquiry at the yard offices revealed that 4104 had been dispatched westward to Crowsnest several hours earlier. It was as though 4104 knew we were following her. The question was, would we follow her into the night, which was what it would be by the time we could get to Crowsnest, 100 miles to the west?

Mel was losing interest in tracking down

the Beloit-styled cabs, Mike was disappointed that we had missed the 4104 for the second time, and I was beginning to think that getting photo coverage of these evasive C-Liners might be more trouble than it was worth. Our go or no-go decision rested on a thin line. Mike's perseverance kept us going, though, and we finally agreed to head west at least back to Fort Macleod to see if we could uncover more leads to the C-Liners.

Fort Macleod seemed unchanged from a few hours before. The town's streets were half-empty, the yard area was devoid of railroad workers — but wait . . . Movement appeared at the west end of the

yard. A freight headed by a GP9, an F7B, and H16-44 8718 was departing for a run into the Rockies. The train made the decision for us. As long as something on flanged wheels was departing for the west, we would follow it and photograph its ascent on the front ranges of the Rockies. Besides, it was nearly 6 p.m. and the late-afternoon sun hinted at turning into a colorful sunset. Artistic wispy clouds were floating off the mountain ranges barely visible in the distance.

Pacing the freight after it left Fort Macleod was not easy. The farther we traveled, though, the more the scenery was becoming downright dramatic. The front ranges rose prominently in the west, and their outline



As the three photographers waited by a fence for another shot of the Geeps and C-Liner, one of the horses (left) in the pasture wandered over to greet author Schafer. When the train finally came, the animals posed obligingly in the foreground. Left photo, Mel Patrick

was accented by the sun, which now was lower in the sky as evening approached.

The three units were slowing their jaunt. The train was climbing, although no grades or hills were readily apparent. We now had time to jump ahead and set up at a new location. In doing so, we reached a crest in the land and suddenly beheld a breathtaking panorama. The land opened into a wide, sweeping valley between our elevated vantage point and the beginning of the front ranges of the Rockies. We could see below us the Castle River with its winding course through the basin of the valley.

But the chase was off, momentarily at least, for our freight had stopped, probably for a meet with an eastbound train, we figured. From this point, the track swung around a hillside and dropped out of sight as it wound its way down into the valley, while the highway took a direct course into the Castle River basin. The railroad reappeared near where it crossed beneath Highway 3. We detected no movement on the railroad as far west as we could see, but before long a headlight pierced the twilight in the distant foothills.

We piled back into Mel's car with the camera gear, dropped down into the valley to the highway overpass, pulled off the road, and set up for the approaching freight. The outlines of the engines now were discernible. But what was this? Was one of the locomotives on fire?

A cloud of smoke spewed over the freight rolling swiftly toward us; the smoke was coming from the third unit — a C-Liner! Our spirits were high as the three-unit consist and its train rolled under us on the highway span. Our cameras clicked, and GP9s 8662 and 8669 and CFA16-4 4081 — the latter facing backward — were recorded for

posterity. We had finally photographed a C-Liner.

The train disappeared behind the hills. The track remained out of sight of the highway as it made its climb to the top of the valley, where the rails again met up with the road. The train would not reach the top of the grade for a few minutes, so we turned the car, returned to the head of the grade, and set up near a barbed-wire fence across a field from the point where the track reappeared in view of the highway. We waited. And waited. The C-Liners were being evasive again. We knew we were ahead of the train and that it could not possibly have sneaked by us, so we continued our vigil.

There is something about railfanning that seems to bring one closer to nature. Before long two horses on the opposite side of the fence wandered over to see what those Pentaxes, Mamiyas, and Graflexes were all about. We spent the next few minutes of the disappearing pleasant summer day waiting for a train and feeding leftover Lifesavers to the two animals.

Finally we could hear the trio of engines (4081 was audible first) working their way up toward us. Our horse friends sauntered halfway back to the track and spotted themselves within camera range as neatly as though they had been painted into the composition. Nos. 8662, 8669, and C-Liner 4081 clamored by in the background, creating still one more scene to add to our collection of CP freight-train photographs in southern Alberta.

We decided to follow the eastbound train with its center of attraction, 4081, all the way back to Fort Macleod, where the train probably would terminate. Night shots of 4081 would be possible as soon as the units uncoupled from the train.

For now, though, we would take advan-

tage of the dwindling — although colorful — evening sunlight and shoot as many photos as possible of this train. We raced ahead to the next location, photographing the meet between this eastbound train and the waiting westbound that we had chased from Fort Macleod (we had almost forgotten about that one) from the car.

The eastbound man had to slow down for the meet, thus giving us enough time to get well ahead to our next location and to prepare ourselves in a more leisurely manner. The two Geeps and the C-Liner appeared, pulled up to our location, and — to our surprise — stopped.

The setup was beautiful, and we took advantage of it by photographing its many angles while the train was stopped. The sun had disappeared behind the mountain crests in the background, but a golden glow remained in the sky for a few minutes reflecting off the sides of the two Geeps. No. 4081 was a little grimy and resembled a freight car more than anything in this particular shot; all that gave it away was the stream of exhaust from its stacks.

That little stream of smoke from the FM engine was the reason for the stop, we soon discovered. Poor 4081 had set fire to the grass alongside the tracks near where the rear of the train now was, and the crew in the van had to douse the danger. Caramanna walked over to 8662's cab and shouted up to the smiling engineer. "Too bad you had to stop to put out a fire, but it's downright neighborly of you to do it here!" The hogger laughed and acknowledged the comment.

We shot a few closeups of 4081 wedged between Geep 8669 and a boxcar, then left for one more location in anticipation of the freight's getting under way again. Soon after we left, Extra 8662 East departed.



GP9s 8662-8669 and C-Liner 4081 pose grandly against a fine Canadian sunset while the rear-end crew douses a grass fire set by sparks from 4081's exhaust.

In a hamlet along the highway we waited at trackside for the train. It wasn't hurrying, though; there was work to be done here at Bocket, where we stood waiting. As the freight was making its setout, the inquisitive Caramanna took the opportunity to question the crew on where the hangout was for the C-Liners. Their answer: Crowsnest, the next division point west of Lethbridge, was the place to go for C-Liners.

But hadn't we reached our goal? We had seen two C-Liners and had photographed one of them in action. We were caught in the swirl of discovery in which one accomplishment leads to another, all started by our pictureless encounter with No. 4104 only 24 hours before in Calgary. Those C-Liners were beckoning us to come to their homeland somewhere up in those Rocky Mountains. We accepted the invitation.

We left 4081 and the two Geeps switching at Bocket and retraced our tracks to the Castle River and continued west on Highway 3 toward Crowsnest.

Mel was driving down a gravel road next to some yard tracks when I awoke from slumber in the back seat.

"This is it, folks. Welcome to Crowsnest!" Mel guffawed when I tried to look up from the back seat. I say tried because there was little to see — Crowsnest was pitch dark. Mike had to point out to me three locomotives that sat not too far from the car. All I could make out were the running lights and number boards — number boards! No. 4104 was one of the three units. But she was in no position for night shots of any type; she, like No. 4081, was the third and last unit of the locomotive lashup tacked on a string of cars.

We moved farther down the road to the yard office, and Mike was off to quiz again. No. 4104 might be here at Crowsnest, but there was no indication that this was the principal gathering place for C-Liners. The yard was small, and engine facilities were almost nil.

Mike came back to the car and muttered something about "Nelson" as he slid into the driver's seat to relieve Mel. Back to slumbering for me at this point; Nelson, B.C., was almost 200 miles west, and although the time was only 9:30 p.m., we were in for a long night.

We drove half the night, and finally the distance to Nelson had been whittled to several miles. A few more curves, and the city appeared below us, situated in a deep valley of the surrounding Selkirk Mountains. Our first target was the Canadian Pacific

shop and yard area along the Kootenay River; and there, outside one end of the shop, sat C-Liner No. 4065.

Unfortunately, 4065 was not healthy at the moment. She sat — next to a churbling Alco switcher — dead and partially disassembled, an ironic condition for an engine that once had carried the proud name *City of Kingston*. No. 4065, née CP 7006, began life in May 1951 as a CPA16-4 demonstrator unit for Canadian Locomotive Co.

We saw no other C-Liners. Had we lost out again? We walked inside the shop area with our camera gear and were met by a young shop foreman. He confirmed that we were standing in the home of the C-Liners, seven of which still were on CP property. In fact, Nelson was a shop that specialized in maintaining products of CLC, and much work on the H16 road-switchers was done here.

The foreman was generous in allowing three kook photographers to wander in at 3 a.m. and welcomed us to take all the pictures we wanted. After a few shots here and there we called it a day (it was more like a day and a half). For what little time we would spend in Nelson, we decided not to look for a hotel room. So once again we were guests of the Hotel Falcon. That night it was my turn to sleep outside in the sleeping bag; but rain was beginning to fall, so I ended up on the floor of a bad-order boxcar.



FM/CLC CPA16-44 4065 — dead and partially dismantled — sits beside an Alco/MLW S4 switcher outside the shop at Nelson, B.C.



Three H16-44s inside the shop indicate Nelson's specialty: maintaining Canadian Pacific's FM/CLC locomotives.

Light came early for us, but we arose and returned to the enginehouse for a lineup of the day's trains.

Castlegar, 20-plus miles down the line from Nelson, would be the place to go for the start of activity. A freight that had come up from Trail, B.C., would be departing Castlegar midmorning bound for Nelson — and he carried still another C-Liner. Perhaps this would be the freight with a C-Liner on the

point — enough of this third-unit trailing business. Although the heavens had drenched the lands only a few hours before, the morning air was fresh and cool, and the sky was bright. Surely this would be our lucky day.

The Trail-Nelson train arrived in Castlegar at the same time we did, and it was here we had our fourth encounter with a C-Liner, CPA16-4 No. 4055. True to form, she was the third unit of the engine consist — one that

was a little more interesting than previous combinations, however. Two of the units carried the new CP Rail paint scheme, the first we had seen since we left Calgary, even though CP had adopted it four years previously. A Geep and an H16 were in the new garb; 4055 retained the old CP colors of maroon and gray.

We learned from the operator in the depot that yet another train was due into



Castlegar, this one from Midway, B.C. (and also bound for Nelson). The operator guessed the train would arrive in about an hour. This would allow us enough time to chase the Geep and her two FM-style assistants along the Kootenay River almost all the way back to Nelson.

Keeping up with the steadily moving train was easy, and the sunny day and the British Columbia scenery conspired for some splendid pictures, even if 4055 wasn't on the point.

We turned around at the outskirts of Nelson and made our way back to Castlegar to intercept the freight from Midway. The operator there still could not pinpoint the train's location, but he did confirm that it had left its point of origin and estimated that it would be arriving in Grand Forks, B.C., in 45 minutes. The train's number was Extra 4105 East — meaning that a C-Liner was in the lead.

Grand Forks, we learned, is 70 rail miles west of Castlegar, and the road there does not parallel the track except for the last 30 miles into Grand Forks.

We had two options: wait for the train at Castlegar ("A bird in the hand . . .") or gamble and head for Grand Forks posthaste. We chose the latter.

Surely it wasn't just 70 miles to Grand Forks — it was 470 miles. This was one of the most excruciating drives of our trip. The highway took off on a route through the mountains completely different from the one the CP track followed, and we had visions of 4105 and her train slipping by us on the other side of the mountain. Halfway to Paulson Gap, the point at which the track joined the road for the remaining 30 miles into Grand Forks, Mel announced that he had "about a teaspoonful" of gas left in the tank.

He nursed the car on, and somehow we arrived at the highway span across Paulson Gap and the CP track. Five eyes (Mel had to keep one eye on the road) watched those rails all the way into Grand Forks. No train. Was Extra 4105 still in Grand Forks?

Our hearts dropped into our shoes. The small CP yard and station area in Grand Forks was devoid of activity. We had missed the train! No doubt it was arriving in Castlegar by now and surely would be tied up in Nelson before we could get back.

Hmmm . . . the rails were suspiciously rusty, though, thanks to the morning rainstorms. No train could have been through Grand Forks for 5 or 6 hours.

Either the gas gauge in Mel's car was inaccurate or we were lucky. Somehow there had been enough fuel in the tank to bring us into Grand Forks. Now with a little more good fortune, we still might be able to catch the C-Liner and her train.

We refueled at a nearby service station, then drove to a phone booth to call the station agent at Castlegar. Mike came out of the booth puzzled. "The agent said the train



The railfans found their fourth C-Liner at Castlegar, as rear unit on a Trail–Nelson train, photographing it on the wye whose tail points west, toward their prize catch of the trip.



Frustration turned to elation when Extra 4105 East materialized at the Grand Forks depot. Had the C-Liner not broken down earlier, Schafer and company might have missed it.

hasn't reported into Grand Forks yet."

We drove immediately back to the depot. A mirage had appeared.

A freight train sat in front of the station. CPA16-4 4105, two H16s, and an F7B graced the head end of the wood-chip extra that finally had pulled into Grand Forks.

A C-Liner never looked as good to us as it did at that moment. Being watered and inspected by various persons, she sat gleaming under the midday sun, her paint trim in surprisingly good condition. We walked up and pinched her. She was for real.

Why had the train, which had come from Midway only 32 miles away, taken almost 3 hours to cover the distance? No. 4105 had broken down en route and at this point was merely being pushed by her companion engines. In spite of the fact that a nonresponding C-Liner was heading the quartet of locomotives, Extra 4105 East soon hustled out of town toward Castlegar and Nelson.

The 30 miles between Grand Forks and Paulson Gap afforded us many fine views of 4105 and her mates as they rolled through the rugged valleys on this balmy September day. Our visit to Vancouver would have to be put off for another year, another trip; the time had come to get back to the States. We knew, however, that our acquaintance with the Canadian Pacific Consolidation Liners — and our experiences in meeting them — would become treasured memories.

We set up for one last shot of the train at the highway bridge over Paulson Gap. Extra 4105, grinding uphill, emerged from a distant tunnel, swung through an S-curve on the steep valley wall, and rolled through a snowshed below the highway span.

As I watched the tail of the train far below us move slowly away, I thought back to our encounter with 4104 — which we never did photograph — in Calgary and how she had led us down into Kettle Valley country to enjoy C-Liners in their last stronghold; back to 4081, whose appearance had reinforced our decision to head farther into the mountains; and back to 4105 — the prize of the entire C-Liner adventure. If she hadn't broken down, we might have missed her altogether. Do you suppose 4105 knew we were coming to see her? ■

MIKE SCHAFER, a Rockford (Ill.) native who now lives in nearby Lee, Ill., has been active in rail publishing since graduating from Northern Illinois University in 1971, first in the Books Department of Kalmbach Publishing Co. through most of the 1970s. A passenger-train authority, Mike today serves as an editor and art director for White River Productions. This article covers part of a 3½-week trip he took with Mel Patrick and Mike Caramanna that began in Chicago and included Saluda Hill, MILW electrics, and the Rio Grande Zephyr.



Dwarfed by the Selkirks, CFA16-4 4105 exits a snowshed at Paulson Gap. The ailing C-Liner is in fact not working; two H16s and an F7B behind her are lifting the train uphill.

EMD, GE launch new diesel lines



GM's Electro-Motive Division was riding high as the 1970s dawned. Its line of 645-engined SWs, GPs, and SDs, introduced in 1966, kept EMD way ahead of GE, helped put Alco out of business, and fueled the 1960s horsepower race. Responding to customer demands, EMD in January 1972 rolled out its Dash 2 line of 40 changes to existing models aimed at greater reliability and ease of maintenance, highlighted by modular electronics. At nearly 4,000 units, the SD40-2 was the top-selling Dash 2; here, four Union Pacific examples bracket an SD40 on Cajon Pass. Tom Gildersleeve

General Electric unveiled its own package of improvements — the Dash 7 line — in September 1976 when the first C30-7 (successor to the U30C) left GE's Erie (Pa.) plant. Like EMD's SD40-2, the C30-7 incorporated improved fuel efficiency, increased tractive effort, and advancements in performance and reliability; carried a 3,000 h.p. rating; and was the best seller of its line, to the tune of more than 1,100 units. Santa Fe 8017 leads a 188 train 10 miles east of Williams, Ariz. Steve Patterson





ONLY EMD AND

Alco, Baldwin, and FM still supply parts for their diesels, and Canadian builder MLW Industries remains a market player

BY J. DAVID INGLES • PHOTOS FROM THE AUTHOR'S COLLECTION

Quickly — how many major diesel locomotive manufacturers are active in North America in 1972? Chances are you wanted to say two: the Electro-Motive Division of General Motors and General Electric. If you have any interest in Canadian railroading, you remembered to add MLW Industries and GMD (Diesel Division, General Motors of Canada).

But we said “active,” not “building locomotives.” So to the above four builders must be added the three U.S. firms still supplying

parts for locomotives despite their having ceased building them: Alco, Baldwin-Lima-Hamilton, and Fairbanks-Morse. Those three former big-time American builders present an interesting side glance at today's motive-power scene. Roads that still operate Alcos, Baldwins, and FMs must continue to obtain parts, even if they're phasing the units out. So a parts supply business still exists, though sometimes on a low-key basis.

In 1971, the second year Alco had been out of the new-locomotive market, there were still almost 5,000 Alcos in service in the U.S. The firm supplying parts is Alco En-

gines Division, White Industrial Power, Inc., White Motor Corp. The remaining 244-engine road units and 539-engine switchers, though, should be watched because they are diminishing rapidly. Chicago & North Western, for example, is down to fewer than two dozen active Alco switchers; it once had more than 130 (including RS1s). Penn Central, although retiring many Alco switchers, still owns more than 200. Milwaukee Road retired all but a handful a few years ago, and Southern Pacific has cut its fleet of over 150 by about half. Other roads such as Erie Lackawanna and Southern are dipping into their



GE LEFT? NO!

Units from the two big builders (EMD GP40 4700, GE U28B 256, GP40 369) head east on Union Pacific from North Platte, Nebr., October 22, 1970, with a run-through to Omaha for interchange to the Rock Island, which has owned diesels from eight builders. J. David Ingles



Alco, the third major U.S. builder, is just three years out of the new-locomotive market on January 5, 1972, as LV Century 628s roll west at Allentown, Pa. The Valley's roster has been about 47 percent EMD, 42 percent Alco, and 11 percent Baldwin. These 628s are from the group of nine that LV acquired in 1967 (after an Alco overhaul and dynamic-brake installation) from the Monon. Bob Wilt



As the issue's cover blurb says, "Old Baldwins run fine, but . . . what about spare parts?" The 50-mile Oregon & Northwestern, a lumber pike north out of Hines in central Oregon, relies on four secondhand Baldwin AS616 road-switchers. Keith E. Ardinger



Big Alco RS3 fleets of Erie Lackawanna and Louisville & Nashville are still mostly intact. Five of L&N's, whose Alco RS roster topped out at about 133, head into Cincinnati from a PRR yard in 1966 with empty hoppers for DeCoursey Yard in Kentucky. Louis A. Marre



In the U.S., only Burlington Northern and Western Maryland still run powered Alco FAs. (Long Island uses FA shells as control cab cars.) WM FA2 304, at Hagerstown, Md., on April 4, 1971, is the only one of the road's four to wear WM's new color scheme. Bob Wilt

Alco switcher ranks for trade-in material.

The 244-engine road-switchers are meeting the same fate: Santa Fe's C-Cs are gone, as are Chesapeake & Ohio's RSD7s and Rock Island's RS3s, long RI's standard Chicago commuter power. Louisville & Nashville's RS3 fleet is still relatively intact, and so is EL's, but almost half of the nearly 300 RSs that PC owned are gone, and Alco stalwart Delaware & Hudson has been retiring the RS2s and 3s with which it dieselized road trains in favor of second-generation power. Other roads, notably PC and SP, have their six-motor Alcos in yard service and their four-motor RS11s doing local freight work, and SP has traded in to GE some of subsidiary Cotton Belt's 10 low-nose "Alligators."

Although Montreal-built cab units remain common in Canada, Alco FAs in the U.S. survived into 1972 only on Burlington Northern (a few from Spokane, Portland & Seattle), Western Maryland, and Long Island, although LIRR's ex-L&N FA2s have been converted to "control cabs" with auxiliary electrical power sources for push-pull commuter trains. One ex-New York Central FA2, No. 1302, remained on PC's roster but out of service. The only PAs left are the D&H's four: two are owned by Steam Tours, Inc., and the other two sit, intact, at GE's Erie (Pa.) plant after trade-in. Alco still supplies rebuild kits from its Auburn (N.Y.) engine plant, and it recently agreed to sell 14 such engine kits to Portugal. About half the engines built at Auburn now are for overseas customers, and Alco engines also are manufactured under license in Argentina, India, Spain, Australia, and Romania.

BALDWIN AND FM UNITS: GOING . . . GOING . . .

Baldwin's parts supply operation is an active business under a recent corporate reorganization. In October 1971 the replacement-parts activities of Baldwin-Lima-Hamilton, formerly under the Industrial Equipment Division of BLH, were made into a new firm, Baldwin-Hamilton Co., which is one of three divisions of Ecolaire, Inc. Headquarters are in Wilmington, Del., and the firm, which has the same management as BLH's Replacement Parts Department, has warehouses and sales offices there as well as in Aurora, Ill., and San Francisco.

The company estimates total Baldwin diesel ownership at 1,470 units, of which more than 600 are on large U.S. roads, about 662 abroad, and the remainder on U.S. industrials and short lines. Baldwin-Hamilton also supplies parts, and can rebuild engines, for the hundreds of stationary and maritime Baldwin installations in the U.S. and abroad.

Almost all the active U.S. Baldwin locomotives are switchers. The builder's yard units were always known for their ruggedness, durability, and ability to lug heavy loads. The last two cab units, "Sharknoses," survived through spring 1972 on the Monongahela Railway, running only when MRY's remaining S12s and new GP38s were busy. Baldwins could be found in road service, though, in a few places elsewhere: Oregon & Northwestern, Trona Railway, Columbus & Greenville, Norfolk Southern Railway, Durham & Southern, and selected Penn Central lines, to name most.

Baldwin-Hamilton also supplies parts for the few remaining Whitcomb engines (about 15) and Hamilton-engine Lima-Hamilton locomotives, of which more than 40 exist, with 30-plus in use. Armco Steel Corp. has more than two dozen "hot" Limas at two plants in southwestern Ohio.

FM, now Fairbanks-Morse Power Systems Division of Colt Industries Operations Corp., continues to supply any component it built, including the opposed-piston ("OP") diesel engine, for the dwindling fleet of FM locomotives. FM's business for the stationary segment of the OP world is consistent: it rebuilt 10 engines in 1970 and 8 in first quarter '72. Sales of new engines range from 60 to 75 per year, of which a significant percentage is for standby use at nuclear power plants.

You have to really search, though, to find sizable FM locomotive fleets. All FMs are gone off the likes of PC, EL, and Union Pacific, and fleets are being pared drastically on Norfolk & Western and Baltimore & Ohio (B&O sent some to financially pressed affiliate Jersey Central). But the two good customers who serve FM's Beloit (Wis.) plant still have sizable fleets. As of March '72, Milwaukee Road operated about 75 FMs and C&NW 64. Moreover, SP's fleets of 16 H24-66 Train Masters and 45 H12-44 switchers were intact



Despite rumors of their demise, Southern Pacific's 16 Fairbanks-Morse Train Masters keep busy, as with No. 3033 on San Jose-bound commute train 136 in southern San Francisco on June 12, 1968. SP also has 45 FM H12-44 switchers. J. David Ingles



Southwestern Portland Cement's H20-44 410 brings empties toward the quarry east of Victorville, Calif., on June 18, 1972. The former AC&Y unit is the only FM to be overhauled at the builder's Beloit, Wis., plant in recent times, after its 1971 sale by N&W. J. David Ingles



Armco Steel, whose 1,200 h.p. switcher 710 crosses a B&O spur at the Hamilton, Ohio, plant in October 1969, is the last volume user of Lima-Hamilton diesels, with over two dozen active, most of them secondhand including ex-Erie and B&O units. J. David Ingles



Detroit, Toledo & Ironton, with 14, was one of 11 buyers of EMD's GP38AC, of which 261 were built between February 1970 and December 1971, before the Dash 2 line debuted. Nos. 209 and 213, plus a GP40, are at Flat Rock, Mich., on May 31, 1971. Harry L. Juday

despite rumors of replacement.

FM switchers also still work on Santa Fe, Frisco, Kentucky & Indiana Terminal, and for the U.S. Army. Beyond U.S. borders, Chihuahua Pacific and Canadian Pacific still operate FM road-switchers, and the latter has the last FM cabs [pages 26-35]. FM last outshopped a new locomotive in 1963 for Chihuahua Pacific, and only one complete locomotive has appeared at Beloit for an overhaul in recent years, a former Akron, Canton & Youngstown H20-44 sold by N&W in 1971 that was en route to Southwest Portland Cement's Mojave Northern out of Victorville, Calif. where it joined two ex-UP H20s. Milwaukee Road, which rebuilt about two dozen FM switchers a few years ago, did the carbody and electrical work but had the engine work done at Beloit.

HIGH HORSEPOWER IN THE SHADOWS

The year 1971 was virtually a repeat of 1970 in regard to U.S. domestic locomotive production. The specter of Penn Central's bankruptcy, the shaky financial condition of the industry in general, and a continuing need for the flexibility of intermediate horsepower units kept the spotlight away from the high-horsepower arena once again.

The 2,000 h.p. GP38 of EMD for the second straight year was the runaway No. 1 U.S. choice. In 1971 EMD delivered 287, including 181 with A.C. transmissions, considered as another model: GP38AC. In a distant tie for second place were the GP40 and SD40, with 177 each. The 3,600 h.p. 20-cylinder-engined SD45 totaled only 98, plus 20 of its cowl-unit F45 cousins from a 1970 BN order. At GE, the U33C, with 89 units, was top

choice, but EMD's SW1500s beat it with 93.

Trends in first-quarter '72 reflect no big changes in buying habits. EMD, with its new Dash 2 line, had orders for 296 GP38-2s, 148 SD40-2s, 125 GP40-2s, and 63 SD45-2s plus the 104 custom SD45T-2s for SP and Cotton Belt. Significantly, GE's early 1972 sales leader was its intermediate range U23B, with 70, followed by the U30C (with 66), U33C (35), U36C (26), U36B (21), and U30B (15).

A comparison in the locomotive news-magazine *Extra 2200 South's* Annual Motive Power Review shows 1971 was the biggest locomotive year overall in the past five with 1,828 units delivered. EMD led with 1,207, including 263 export; GE had 429 (153 export); Canada's GMD 120 (3 export); and MLW 72 (41 export). Thus, domestic deliveries in the U.S. and Canada represented only 75 percent of the production, illustrating the importance of the overseas market in which the three major firms enjoy a steady business.

A factor to remember is that in the U.S., only about 10 volume customers exist, those who can be counted on to order, say, 50 or more total units each year. The smaller roads, while valid customers, can afford new units largely because of product standardization. When you get past the basics — dimensions, layout, and specs of engines and generators — GE and EMD still are job shops building locomotives on which specs differ not only from railroad to railroad but from group to group on a single order from a single road.

The late dieselization of Canadian and Mexican railways, as compared with those in the U.S., continues to show in motive-power purchasing. CN, CP, and National of Mexico continue to go for high-horsepower freight units (the SD40 has been overwhelmingly

popular, with no SD45s) because their rosters contain newer fleets of late-first-generation GP9s and RS11s/RSD12s and fewer cab units than on U.S. roads.

Incidentally, NdeM's recent order for 50 SD40s was split, the first 40 built at La Grange and the last 10 at London, because NdeM did not want the final group to be SD40-2s, which replaced straight 40s in EMD production on January 3. La Grange, on the other hand, built an SD38 in 1971 for British Columbia Hydro because GMD was not tooled up for that model. GE has eight U30Cs on Mexico's Pacific Railway, its only foreign customer for high-horsepower domestic-model U-boats.

Those 10 volume U.S. buyers — Santa Fe, BN, C&O/B&O, L&N, N&W, PC, Seaboard Coast Line, SP, Southern, and UP — accounted for three-quarters of the domestic units delivered in 1971 by GE and EMD. Two more roads, Missouri Pacific and Frisco, bought 55 units and were planning for at least 75 more in 1972 but are not consistent buyers of more than 50 units annually. Illinois Central is busy rebuilding older Geeps and (possibly as the merged Illinois Central Gulf) could become a volume buyer at the conclusion of that program in a couple of years. Keep in mind also that as SP buys for Cotton Belt, and Southern for its various subsidiaries, SCL and L&N may be headed for a C&O/B&O-type coordination that would result in them becoming a single motive-power-purchasing entity.

FACTORIES ARE BUSY, AND IMPROVING

At first glance, the domestic U.S. and Canadian catalog looks stagnant. However, both American builders have taken steps to ensure their continued positions in the market; both emphasize their confidence in expected U.S. locomotive sales, and both are operating at full-time production levels. MLW, while busy with export sales early in 1972, expects a domestic Canadian surge to begin soon. The potential for this exists at least on CP Rail, which last winter was leasing more than 100 units at a time — equivalent to 10 percent of its roster — many from U.S. roads and dealers.

EMD, working two shifts, is producing about 5½ locomotives per day. This year it will complete a plant expansion, rehabilitation, and retooling program begun in 1969. Concentration has been in the engine component production area because the machines there were the oldest. All new machines are tape-controlled. Much of the expansion has been accomplished in place. For instance, new crankcase machines were replaced step-by-step at the same location. Increased "high-rise" (vertical) warehousing in the plant has provided more production area, necessitating no new buildings.

The electronics area was expanded half



again to accommodate the new Dash 2 module console assembly and testing, and an EMD-designed handling system has upped the capacity in axle-grinding in which two new grinders replaced four old ones.

General Electric has also expanded. GE, which devotes 345 acres of its Transportation Systems Division plant at Erie to locomotive production, does its light fabrication sub-assembly work in a three-year-old, specially designed production complex which has been expanded. This area employs 320, many on an incentive basis for which pay is by piecework. GE-designed machines and an automatic parts transport system are highlights of the modern work area. For example, a unique, numerically controlled punching and nibbling machine produces large irregular shapes from sheet steel, and it has an automatic tool changer. The builder also boasts new machines in such areas as engine-testing, and locomotive load-testing.

The only "new" locomotives in today's catalog, EMD's Dash 2 line, has encountered skepticism. The point has been made that EMD ballyhooed a nominal set of improvements, some of which (e.g., modular electrical cabinets) GE has had for years. There is some validity to the claim that EMD is making a mountain of Dash 2s out of a molehill of changes, but many model designations in Kalmbach Publishing Co.'s *Diesel Spotter's Guide* represent fewer differences from brethren than do EMD's Dash 2s from road units built in 1971. And you cannot fault the



A 1970 order for 20 EMD F45s by the new BN ended production at 86. Santa Fe went first, buying 40 as a freight version of its FP45s; GN, eyeing crew protection in winter, took 26, the last 12 delivered to BN. No. 6608, ex-GN (top), leads a freight at Seattle, while 6610 still wears Big Sky Blue at Pasco, Wash., in June 1972. Two photos, James C. Herold

builder for responding to the railroads' plea for greater reliability and simplicity.

The seven 4,200 h.p. experimental SD45Xs remain in demonstration and test service: SP 9500-9502 and EMD 5740 and 4201-4203. The latter have been on Santa Fe and BN but ultimately are to go to SP. For now, 4,200 h.p. (or more) production models from EMD seem a future consideration only.

NOISE FROM MONTREAL

Canadian builder MLW Industries is also flexing its muscles. Formerly known as Mon-

tréal Locomotive Works and affiliated with Alco, now it's part of MLW-Worthington Ltd. and is ramping up its catalog. Although Canadian domestic production is low vs. the U.S., MLW will remain a market influence.

MLW is Canada's only integrated diesel-locomotive builder and the only non-U.S. North American locomotive designer and builder with worldwide sales. The firm was founded in 1902 as the Locomotive & Machine Works of Montreal, Ltd.; it was sold to American Locomotive Co. in 1904 and the name subsequently was changed to Montreal



Pacific Great Eastern is soon to be renamed BC Rail as three M630s of its 16 delivered during 1969–71 move about PGE's North Vancouver yard in February 1972. CN and CP also have been customers for MLW's big 3,000 h.p. C-C Alco C630 derivative. Author's collection



Roberval & Saguenay M420TR No. 26, pictured in a later livery, is one of two built for R&S by MLW in April '72. The pair would turn out to be unique to the Quebec short line, succeeded by the M420, a road-switcher with a safety cab and full-width nose. David F. Klopfer

Locomotive Works, Ltd. In 1946 Alco released 100,000 MLW shares to be sold to Canadians, and in 1955 additional shares were released. MLW became 80 percent Canadian-owned in the late 1950s. Alco Products, Inc., became a wholly owned subsidiary of Worthington Corp. in 1964, and Worthington bought a block of MLW stock and then kept increasing its MLW holdings. By 1967 Worthington (now a subsidiary of Studebaker-Worthington, Inc.) had acquired 52 percent of MLW, which holds true today. In 1966, Worthington's Canadian subsidiary manufacturing pumps, valves, and compressors became an MLW subsidiary, and in 1968 the company acquired its present cor-

porate name of MLW-Worthington, Ltd.

Early in 1969 Studebaker-Worthington announced the windup of the businesses of Alco Products, Inc., enabling MLW to purchase Alco's engineering designs and to take over Alco's worldwide licensing agreements. Thus did MLW terminate to its advantage its long association with Alco. In the past four years, the research and engineering staff at MLW's Montreal facility has increased 40 percent, including some former Alco people.

Since achieving "independence," MLW has produced 175 M-line locomotives, successors to the old Alco (and MLW) Century (C) series. Direct successors — M630 and M636 — are in service in Canada and Mexi-

co, and recently the first two 2,000 h.p. M420TR end-cab road-switchers were outshopped for Roberval & Saguenay Railway, an Alcan, Ltd. Quebec subsidiary. Another new model, the M420 road-switcher, is scheduled for delivery to British Columbia Railway (formerly Pacific Great Eastern) in early 1973. Meanwhile, the most powerful single-engine production-model diesel-electric on the continent, M640 4744 of CP Rail, delivered in early 1971, continues in service. Montreal was first in North America with a production 4,000 h.p. single-engine locomotive, the first with a hi-adhesion truck, and claims to be the first to develop an economical method of crankshaft reclamation.

Total production at MLW has passed the 2,100 mark, and the Montreal builder also enjoys a substantial export business. By February 1972, more than 600 MLW units were in service outside Canada.

MLW has been active in the rail passenger field, too — it built the TurboTrain and the first lightweight rapid-transit cars, and is a partner, with Alcan Canada Products and Dominion Foundries & Steel, Ltd. (Dofasco), in the development of the LRC (light, rapid, comfortable) passenger train. The prototype locomotive, powered by an MLW V-12 rated at 2,900 h.p., is in the final mockup stages in Montreal.

Among the North American units MLW delivered in 1971 and early '72 were M630s to Mexico's Pacific Railway and to BCR; M636s to CN, National of Mexico, and mining road Quebec Cartier; and 36-inch-gauge DL535Es to White Pass & Yukon.

MLW sees no realistic reason for optimism in its attempts to crack the U.S. domestic locomotive market because of duty restrictions as well as the apparent satisfac-

tion of the large U.S. carriers with their two present locomotive suppliers.

REBUILDS AND SLUGS

New units are not necessarily products of the builders, of course. Illinois Central, Santa Fe, SP, C&NW, and Milwaukee continue with rebuilding programs, and several roads keep adding road slugs and/or yard slugs.

IC in June entered the fifth year of its Paducah rebuild program, and by April 1, 1972, had outshopped 155 like-new units designated GP8s and GP10s, a total that represents 39 percent of its roster of 48 GP7s and 348 GP9s. Add to this the switchers rebuilt (at least 8), and you have the reason IC does not appear on the list of volume new-locomotive buyers. IC's last new units from a builder were 20 EMD GP38ACs bought in 1970.

SP continues a program of mainly electrical rebuilding of NW2s, GP9s, and SD9s which has gone largely unremarked. Begun in February 1970 and planned to encompass about three-quarters of the fleet, the program essentially includes rebuilding engines and traction motors and installing all-new wiring and switch gear. The outshopped units are considered new, include an "E" suffix in their model designation, and have new road numbers: 1300s for NW2Es; 3300s and 3730s for GP9Es; and 4300s for SD9Es.

As explained in the 1970 *Southern Pacific Motive Power Annual*, SP considers its GP9s and SD9s the most reliable on the system and intends to get another 15 years out of them. Unlike other roads, SP is not changing the horsepower rating of the "E" rebuilds by turbocharging the existing 567 engine or by installing a 2,000 h.p. 645. The rebuilt road-switchers have kept their high short hoods. By early 1972, SP shops at Sacramento and Houston had done 59 GP9Es and 54 SD9Es.

Santa Fe continues its conversion at its Cleburne (Texas) shops of F units to CF7 road-switchers. By last May, 27 of the planned 100 CF7s were on the road. Despite trade-in on new units, sales to Amtrak, and conversion to CF7s or to other uses such as road slugs or radio control cars, Santa Fe still has more than 400 F units in service.

Milwaukee Road, which in 1969 began a sporadic program of re-engining GP9s with 2,000 h.p. 645s, is resuming that work at its Milwaukee shops. Eighteen were on the 1971 roster, and 18 more are scheduled for 1972. The railroad dubs the chop-nose rebuilds "GP20s," our quotation marks to differentiate from EMD-built GP20s.

In 1971, C&NW began a rebuild program at its former Chicago Great Western shops in Oelwein, Iowa, upgrading 10 F7s, all 14 SD9s, and 1 SD7. Plans for 1972 include 10 more suburban-service F7s and 35 GP7s, GP9s, and SD7s. Rebuilding includes new electrical control panel units, new type 26L brake equipment, modified brake piping, and a complete rewiring. Engine overhaul is done



Illinois Central's Paducah (Ky.) shop forces stay busy with rebuilding Geeps, enabling IC to eschew high-horsepower units. With "ox yoke" air filters and "frog-eye" headlights on the leader and trailer, three "GP10s" are at Clinton, Ill., in February 1972. Middle unit 8009 is among a few early rebuilds that kept the high short hood. John W. Stubblefield



"Cadillacs" to Southern Pacific fans, Nos. 4375 and 4357 are "SD9Es," Sacramento Shops lingo for the rebuild program begun in 1970 but concentrating on electrical upgrades and keeping the locomotives looking essentially the same as before. Alan Miller

by Precision National Corp., and generator and traction-motor work is contracted out to three firms. Road-switchers receive a chop-nose short hood, and all units are renumbered; horsepower rating remains as before.

Slugs continue to slightly grow in number, exemplified by Seaboard Coast Line buying 15 more new MATE-4 road slugs from GE. The initial 10 MATEs are busy hauling phosphate in Florida. The new MATEs will be double-ended (*i.e.*, will multiple to a mother unit at either end), enabling "A-B-A" sets, vs. the first 10 being single-ended, each coupled to a production U36B.

C&NW has 12 road slugs in service — 10 former EMD F boosters with GP35 mothers in Illinois and Wisconsin, and 2 former Alco RSs with C425 mothers in Minnesota and

South Dakota. Milwaukee has two road slugs in service, considered experimentals: one ex-Alco RS3 in Washington with GE U-boat mothers, and one former EMD F unit in the Midwest with overhauled F7A mothers.

Santa Fe briefly interrupted its CF7 program to convert 14 F boosters to road slugs at Cleburne. They are to haul potash behind overhauled and renumbered (to 100s) F7As, and CF7s, in New Mexico.

The art of re-engining is not dead despite the decision of most roads simply to retire units built by firms no longer in business rather than re-engine or otherwise overhaul them when they need major repairs. Gulf, Mobile & Ohio is taking engines from retired EMD E7s and having them installed in Alco RS1s by an Alabama contractor. The



Four Santa Fe CF7s, each mated with a slug built from a former B unit, slog along with a potash train at Getty, N.Mex. (top), east of Carlsbad on a mine spur, while 2560 (above), between a newly done CF7 and GP7 2813 at Cleburne, is being painted. Begun in '69, the "Converted F7" program will soon pass the 100 mark. Top, Joe McMillan; above, James B. Holder

re-engined RS1s, as well as GM&O's surviving 539-engine Alco switchers, should make interesting footnotes on the roster of the new Illinois Central Gulf after the merger.

Yard slugs, too, are making a resurgence as Alaska, N&W, Santa Fe, L&N, SCL, RF&P, and KCS recently have converted old road or yard diesels to slugs for use with existing yard switchers. IC has included some cow-calf EMD TR2s in its recent Paducah rebuilds and is returning the units to Markham Yard near Chicago, but the calves are returning with engines rather than as slugs.

Thus are locomotive rosters kept interest-

ing by virtue of economics as many railroads find work for their shop forces and save precious cash by improvising.

ELECTRIFICATION'S LURE

Non-diesel U.S. motive-power news continues to be sparse. UP has retired the last of its gas-turbine locomotives, although Turbo-Train-type turbine installations remain a predictable implementation for the passenger market. Electrification remains a hot topic for the future, and that future may be closer than some of us realize. Electro-Motive has obtained a license from Swedish manufac-

turer ASEA covering patents and engineering information for its thyristor-type electric locomotives. Thus the largest U.S. locomotive builder, often accused — sometimes rightfully — of watching the competition take innovative steps and then playing catch-up-and-overtake, this time is not waiting for the other guy to jump.

General Electric, the only U.S. electric locomotive builder in recent years, is to put 6,000 h.p. units in service on the Black Mesa & Lake Powell coal-hauling line in Arizona next year, and GE has had inquiries from Amtrak on replacement locomotives for the venerable GG1s. So it would appear that if and when electrification of high-density U.S. main lines begins to achieve reality, the locomotive builders' names will be familiar.

Where might the first North American electrification projects be? UP is finishing a feasibility study of electrification of its main line between North Platte, Nebr., and Green River, Wyo. The road believes that "with newer types of electric power using thyristor control and silicon diodes, 10,000 h.p. units are feasible, which could reduce the total number of units in our motive-power fleet." So don't look for any more double-engined diesels — UP is back to standard models (SD40-2 and U30C) for the present, and the future could be wired.

CP Rail uses 6 to 13 diesels on its freights through the Rockies, and a fivefold increase in bulk materials traffic has caused it to look seriously at electrification. CP expects traffic increases to continue, and foresees that even after ultimate expansion of its plant with lengthened sidings and double-tracking, within a decade electrification may be a logical alternative.

SP's El Paso (Texas)-Indio (Calif.) section

of the Sunset Route has been the subject of electrification talk, and rumors are heard from a Midwestern road, but given U.S. railroads' inability to raise huge amounts of capital necessary to erect transmission lines, catenary, and support structures, the necessity of an agreement with the so-far reluctant power companies seems paramount before any strides are made.

Meanwhile, Class 1 freight moves behind electrics just on Milwaukee's venerable Rocky Mountain Division and on Penn Central's ex-PRR lines. Diesels haul all freight on the former New Haven, but less than 10 percent of the freight on the ex-PRR electrified lines moves behind diesels only.

THE FUTURE? PROBABLY MORE OF THE SAME

Diesels will continue to proliferate, of course. EMD looks for a 10 percent increase in sales in 1972 over 1971, and estimates that more than 12,000 units are over 15 years old — economically obsolete in EMD's view. This means railroads must buy more than 1,500 units a year to keep the fleet modern.

GE sees a trend to high-horsepower units returning. But the Erie builder has concentrated its catalog on 3,000 h.p. and above for several years and has offered more variety up there than has EMD. For 1971 deliveries and early '72 orders, 87 percent of GE's domestic business was from those 10 high-volume locomotive-buying roads.

The diesel of tomorrow probably will remain a diesel-electric, as the hydraulic question is dormant in the U.S. Diesels may not radically increase in horsepower, but they may change a bit in appearance. With remote-control of lead locomotives technologically possible but politically far in the future, concern will increase for safety of engine crews. The National Transportation Safety Board in a 1970 report renewed its statements that there is "a definite need to strengthen the cabs of existing locomotives" and to consider crashworthiness in design.

EMD has installed new cab insulation and a second collision post in its Dash 2 series cabs, and GE, whose units have higher cabs than EMDs, has strengthened its locomotives' front ends. These seem to be interim approaches, though. What is needed is a basic design change, although innovations may be a few years away. ■

J. DAVID INGLES, Senior Editor of CLASSIC TRAINS since its 2000 inception, joined TRAINS' staff in 1971 and at the behest of Editor David P. Morgan — who wrote the first 20 Annual Motive Power Surveys beginning in April 1949 — took over beginning with this, the 24th in the series. The Motive Power Survey was discontinued after No. 35 in 1983. "JDI" retired from TRAINS in 2007 but has continued part-time on CT's staff. His 1977 Survey, the 29th, appears on pages 88–99.



Although coupled to only one U36B, Seaboard Coast Line 3213, being among the 15 in the railroad's second order from GE for MATE-4 road slugs, is, unlike the first 10, able to operate with a U36B on both ends. Home for the MATEs is the network of phosphate-mine branches in western Florida's Bone Valley south of Tampa. Ronald A. Plazzotta



Re-engining is not quite dead as Gulf, Mobile & Ohio is salvaging four 567 engines from wrecked E7s for installation by a contractor in Alco RS1s. On September 4, 1972, a month after the ICG merger, the third of the transplants works at Roodhouse, Ill. R. R. Wallin



The twin-engine era on UP is over in favor of off-the-shelf units, exemplified by GE U30C 2858 and EMD SD40 3121 on a westbound in the yard at Green River, Wyo. James C. Herold

Beyond the pointless arrow



Auto-Train Corp. began carrying passengers and their autos over RF&P and SCL rails between Lorton, Va., and Orlando, Fla., on December 6, 1971. AT opened a second route, Louisville, Ky.-Orlando, in May 1974. The Louisville train, combined with Amtrak's *Floridian* after October '76, was discontinued in September '77. Just out of Louisville, AT passes the Louisville & Nashville Country Club at Brooks on April 6, 1975. Denny Hamilton



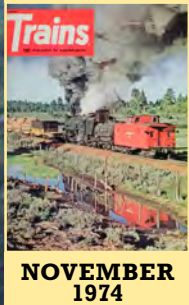
Delaware & Hudson went freight-only on May 1, 1971, then partnered with New York State on the *Adirondack*, a daytime New York-Montreal train inaugurated August 5, 1974. D&H supplied most of the equipment, even recalling from lease and trade-in its celebrated Alco PAs. Here, before Amtrak Turbos took over in March 1977, the *Adirondack* skirts Lake Champlain. Jim Shaughnessy



Southern Railway, with four passenger-train pairs, was the biggest road to stay out of Amtrak. Although SR dropped its locals, its flagship Washington-New Orleans *Southern Crescent* remained a class act until February 1, 1979, when it went to Amtrak. On April 15, 1972, two E8s — one recently returned to green, the other still in black — depart Atlanta with train No. 1. Bob Krone



VIA Rail Canada, unlike its U.S. counterpart, came in gradually, taking over CN's passenger trains during June 1977–March '78 and CP's in September '78. At Toronto Union Station on January 7, 1979, *Tempo* No. 75 (left) awaits departure for Windsor, Ont., while *Rapido* No. 63 is just in from Montreal. VIA 6760 was the first FPA4 built, 6793 (still in CN paint) the last. Greg McDonnell



EXTRA BOARD diary

Notes from a Penn Central engineer on running freights across northern Indiana and Ohio

BY JOHN R. CROSBY
PHOTOS BY THE AUTHOR

There I was, happily holding down the “left side” of a regular passenger run on Penn Central’s Fort Wayne Division. Every other morning I would report for duty at 5:55 a.m. to take Amtrak No. 41, the *Broadway Limited*, to Chicago. Dick Todd was the engineer, and since he lived just a couple of blocks west of me in Fort Wayne, Ind., we would alternate in driving downtown. In Chicago, we normally went off duty about 10 a.m. This allowed us enough free

time for a trip to All-Nation Hobby Shop, or perhaps for a visit to Kroch’s & Brentano’s bookstore, with its great collection of railroad books downstairs. Sometimes we’d take long walks along the lakeshore.

We reported back on duty at 2:30 p.m. to take No. 40 back to Fort Wayne. We were scheduled to arrive there at 6:21 p.m., and if we were on time, we normally were home for dinner around 6:45. This schedule allowed us to be in our own beds every night of the week, which for any railroader is a luxury.

On our trips to and from Chicago, I had noted that we seemed to pass more freight trains than normal. Some days there would be a couple of solid ore trains heading east; this was new business PC was getting in Chicago from Burlington Northern and Chicago & North Western. But when you work a regular passenger run, you tend to lose track of what the freight boys are doing. My years on passenger had almost created a false illusion that the passenger train was the only thing on the railroad. Every second Friday, when



A curve west of Columbia City, Ind., gives the engineer of a westbound freight a chance to look back over his train. Author Crosby poses on an ex-PRR GP35 in 1968 (right).

the Fort Wayne engine crew assignment sheets were posted, I merely glanced at the passenger section to determine which side of the run I was working. Then one day when the assignment sheet came out, I noted my name was not in the passenger section. Finally, after searching, I found it. I was now the youngest engineer (in seniority) on the Fort Wayne Division. In the metamorphosis from fireman to engineer, I quickly learned how 95 percent of the Fort Wayne Division engine crews earn their living. What follows

are some notes made during the time I was on the extra board running.

On my first trip running, Morie Vondran was conductor. We were called to report in Fort Wayne at 7:25 a.m. to deadhead by bus 78 miles west to Hamlet, Ind. There we would pick up our power, then go back to Plymouth for six cars of ties to be distributed along No. 1 track west of Hamlet. The crew dispatcher had called us for one or more days, so we came with enough clothing





A westbound piggyback train is about to cross PC's ex-NYC Toledo-Columbus line at Dunkirk, Ohio, in November 1975; note the operator descending the tower steps to inspect the train as it rolls by. John F. Bjorklund, Center for Railroad Photography & Art collection

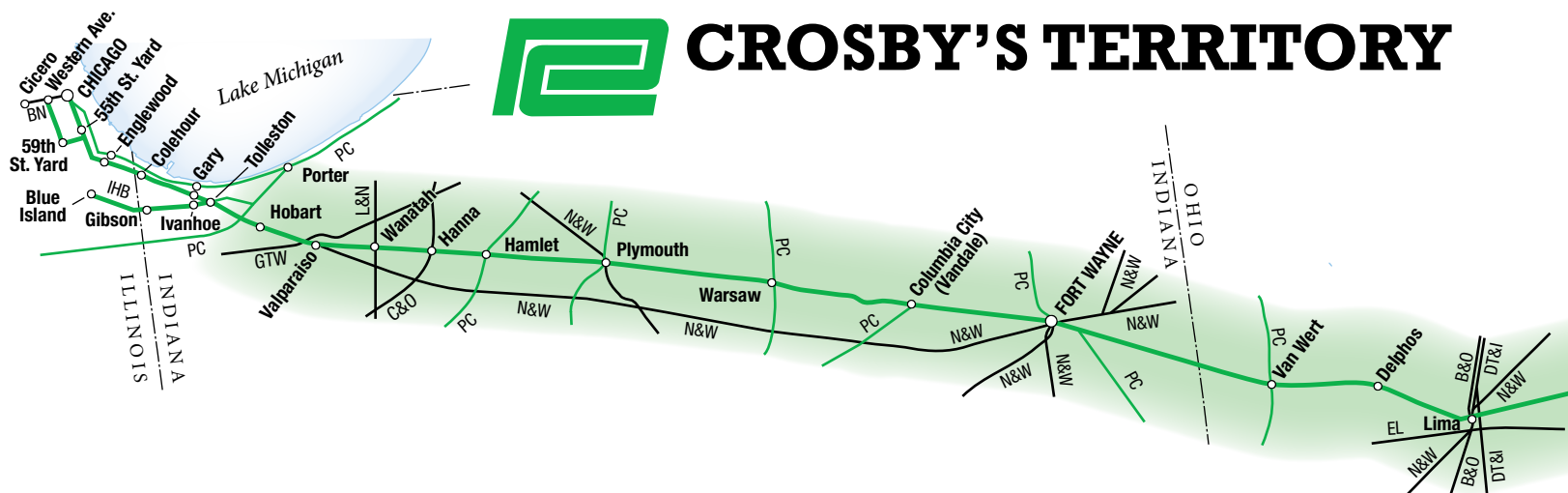
for at least three. However, since it was Friday, we had hopes of being home after only a day. Vondran told me on the bus that he intended to get the job done in one day. All this would take was the cooperation of the dispatcher in giving us exclusive use of No. 1 track. Morie is a hustler with a knack for doing things the easy way. Some conductors can switch cars all day without ever getting the job done. Vondran at times has cars moving every way possible in what appears to be organized confusion. Then, as if by magic, the cars are all in order, and you are done.

There are two ways you can spot Vondran. One is that he never wears a cap. The other is that he never wears gloves. More than once I have been in a warm cab and winced with imagined cold as Morie grappled with a snow-covered switch lever. I don't know how he can work without gloves, and his hands never seem to get dirty.

We arrived at Hamlet, where I got on the 7193, an ex-Pennsy GP9. Quite frankly, on the date in question 7193 had seen better days. Evidently it had been used for a long time on some switch run, for it was dirty inside and out. The radio would function only if you held the channel selector with one hand and struggled with the other to find the right position on the send button. While I was checking over the engine, I noted it was low on cooling water. I was about to call Morie at Hamlet Tower about needing water when the radio came to life. It was Morie informing me that we would be going to Plymouth for the six cars of ties. I told him about the need of water for the engine. Since no water was available at Hamlet, we would take some at Plymouth.

I saw the dwarf signal just east of the unit flip to restricting, and I backed out of the siding. For the first few seconds after I opened

the throttle, everything was fine; then suddenly the V-16 died and the alarm bell began to ring. We had enough speed to drift back to the tower and stop. I got up, went out onto the walkway, and found that the low water button had popped out, killing the engine. I restarted the unit and went back to the cab. With the crew aboard, we again headed east toward Plymouth. This time I was able to get the unit moving about 40 mph before it died. I got up from the seat and told Morie that if we ever wanted to make the 14 miles to Plymouth, he would have to run the engine while I stood on the walkway and kept resetting the protective button. Like most conductors, Vondran is a frustrated whistle-tooter, and without any further urging he sat down on the throne of honor. Meanwhile I kept standing alongside the water button, resetting it when needed. In this way, we were able to average about 20 mph to Plymouth.



We finally struggled to Plymouth Tower. There we obtained a regular garden hose located on the ground floor of the tower, ran it to the unit, and filled the engine with water. Needless to say, we made certain the tank was full before we went to pick up the tie cars. With the cars coupled to the engine, we hustled back to Hamlet. There we picked up the sectionmen who were to unload the ties. Our luck was good — Vondran had obtained a train order giving us exclusive use of No. 1 track. We moved west to milepost 400 where the sectionmen began to unload the ties. The rest of the day went quickly. All I had to do was to keep our speed down to a slow walk as the ties were unloaded. Every so often, the section boss would signal me to stop, and I would do so gradually — you don't want to stop abruptly with men in half-empty cars of ties, lest a sharp run-in of slack bring the ties tumbling down. During the unloading process I noted that Vondran, instead of riding in the cabin car, was out alongside the section boss, no doubt urging him and his men on to a faster pace. It was obvious that Morie wanted to be home that night.

About 3:30 p.m. the last tie was unloaded. We shoved back to Hamlet, unloaded the sectionmen, and put away the empty tie cars. We "dropped" the cabin to put it behind the unit. The time was 4:20, and Amtrak 40 already was supposed to be 20 minutes out of Chicago. Vondran went up to Hamlet Tower and used the phone to inform the dispatcher that we were done and ready to go home. The dispatcher told him we could head to Fort Wayne; he added that he expected us to clear 40 "on time" at Fort Wayne.

While waiting for Morie to talk to the dispatcher, I checked our water level and noted that it had dropped appreciably. It was going to be close, but I was determined to make it home; so we left Hamlet and headed east. Luck was with us, because we were able to make it, clearing No. 40 "on time." When I put the unit on the enginehouse lead, I checked the water level and saw it was bobbing in and out of the bottom of the glass. I made a notation on the work report that the

unit was losing water, and went home. Thus passed my first day of running.

An interesting aspect of working the extra freight engineers' board on a division such as the Fort Wayne is that you get to see a lot of places a passenger man hardly knows exists. Eastward out of Fort Wayne, there are exotic places such as Lima, Crestline, Mansfield, and Canton, Ohio. Conway, Pa., is the farthest east you go. To the west you run to such diverse places as Clark Yard (the old New York Central yard between Whiting and Indiana Harbor), Colehour, and 55th and 59th Streets in Chicago. In addition, you can run to Gibson and Blue Island yards on the Indiana Harbor Belt; to the Rock Island at South Chicago; or to the Burlington Northern at Cicero. And we did hear of one unfortunate crew who started toward C&NW's Proviso Yard. This

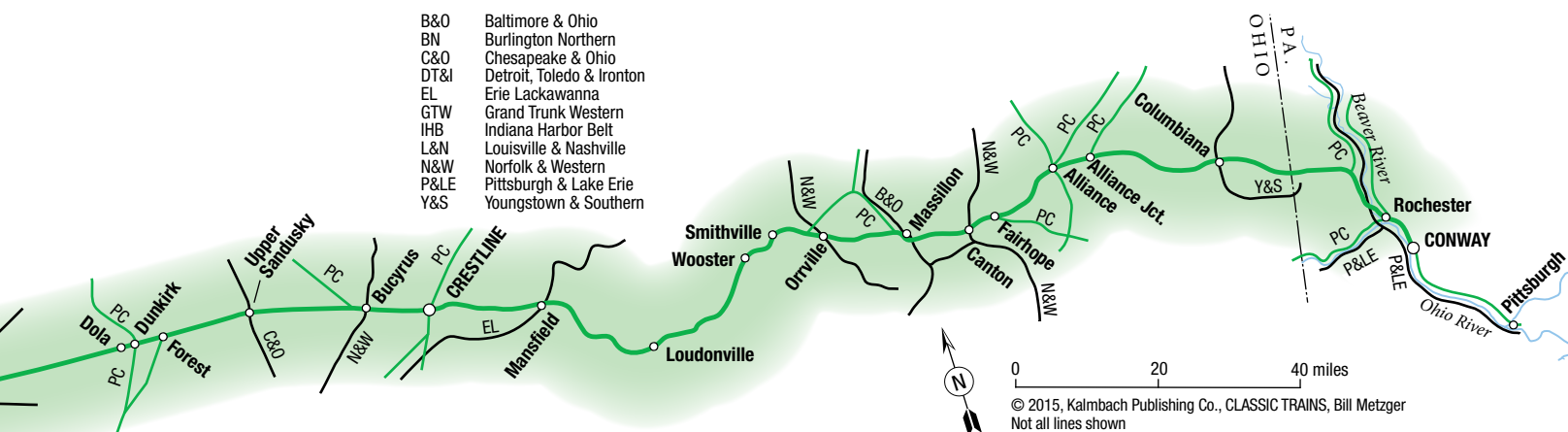
road crew never had been there and so at 59th Street was given a yard man as a pilot. When last heard of, they were up around Damen Avenue on the North Western and had run out of time — their pilot had not been to Proviso for some time, and he had forgotten the way. Like the legendary Flying Dutchman, this crew may still be wandering around the C&NW.

One fact of life about running into Chicago is that as soon as you know, or think you know, all the routes, someone will come up with a variation, I fell victim to one change on a run from Fort Wayne to Blue Island.

The normal route is via the Fort Wayne Division to Tolleston, which is in Gary, Ind., at the point where the Ivanhoe branch crosses. This is a former Michigan Central line, and I can remember years ago seeing the *Mercury* hammering over the PRR tracks there. You use the Ivanhoe branch for about



Amtrak 41, the *Broadway Limited*, runs against the current of traffic as it passes a work train distributing ties along track 2 west of Warsaw, Ind., in fall 1974.





A PC freight on its way out of Chicago on the former PRR approaches the Calumet River drawbridges; the tracks at left are ex-NYC.

4 miles to Ivanhoe Tower. Here begins the Indiana Harbor Belt, which you run on for the last 12 miles to Blue Island. Normally the IHB portion is down the main track, which has automatic block signal protection.

Early one morning, pulling 117 cars, I headed around at Tolleston toward Ivanhoe. The weather out in the country had been foggy, but as the combination of fog and smog coalesced, the visibility dropped to almost nothing. In this condition, about all you get from a headlight is a reflection back at the cab. As I passed the distant signal for the tower, I saw its aspect was yellow over red. I called the operator and asked what his intentions were. He said a train ahead of us was in trouble and unable to move. Thus he had lined us for what he called the "LCL" and to go that way to Kennedy Avenue. I never had been that way before, so I asked the head brakeman if he knew the route. He didn't.

I confessed my ignorance of the route to the towerman. He graciously told me there was nothing to it — just keep to the left at

any switch we came upon. He then told us an IHB yard engine was working somewhere along the route and to watch for him. That was just great. Here we were, heading down a piece of track over which none of us had ever been, without any block signal protection, in a dense fog, and now we had to watch for some yard run. Being either bold or stupid, we kept moving west at a wild 3 to 4 mph. As each switch appeared out of the gloom, I slowed even more until we could determine the position of the switch points. I imagine the slack action on the rear of the train was something else.

After some 20 minutes had passed (which seemed more like 20 hours), I began to make out some cars moving alongside my engine. I assumed we had finally found our IHB yard man, and slowed down enough so I could stop in short order. We finally saw his headlight in the fog, and sure enough, he was about to foul our track. I stopped, and about 45 minutes later, his switching done, the IHB man got out of our path. Again I started

slowly west and before long noted the dim yellow glow of a dwarf signal. I called Ivanhoe on the radio and told him about the signal. He seemed pleased we had gotten that far without any trouble and informed me that in a few hundred feet I would be back on the main track. Evidently he knew his railroad, because shortly we were back on the main with a high green signal shining. I opened the throttle, and as usually happens once you get back to track with signal protection, the fog suddenly lifted and I could see again.

Penn Central trains run every day from Fort Wayne to BN's Cicero Yard. The normal route is down the ex-Pennsy passenger main to South Branch Bridge at 21st Street Tower in Chicago, then for two blocks over Chicago Union Station Co. trackage to 17th Street, and around a wye connection to BN tracks. Once on the BN, you run down a secondary track which is protected by color light dwarf signals (some of these are cleverly placed behind bridge girders, and woe to the unwary hogger who forgets where these dwarfs are).



Standard PRR position-light signals, like this pair west of Valparaiso (left), protected the Fort Wayne Division — except at Plymouth, where the road installed a group of searchlight signals after sun glare caused crews problems in reading the position-lights there.

I had made several trips over the route, so I felt comfortable running a train over the BN. One night I had 106 empty ore hoppers bound for Cicero. We had three stout units, and by 3:45 a.m. we were standing at South Branch. We sat there for almost two hours while I stared at a dwarf signal waiting for it to show something other than stop. This exercise always is a joy at that time of the morning. Finally as the first light of dawn struck the taller buildings of downtown Chicago, the signal changed and we headed around the connection to the BN. As we moved upgrade toward Halsted Street, I noted that instead of being on the secondary track, I was on the BN main, and high green signals were beckoning me west. When the conductor advised me that he had cleared the connection track, I opened the throttle to Run 8 and began to follow the “Route of the Zephyrs.” My reverie ended about Western Avenue when I came on a yellow-over-red signal, and soon I was back on a secondary track. Oh, well, I can say I have run a train over the BN main line, but I must be careful not to go into details on how far.

When you deliver trains to yards of other railroads, you soon find that you are a foreigner and as such are not entitled to much consideration. The other railroad will yard its trains first. If overtime is to be paid to crews, it will be paid by the delivering railroad, not the receiving one.

One trip in particular stands out in memory as a horrible example of delay in getting into a foreign yard. I was called for duty at Fort Wayne and reported at 12:05 a.m. We had an 86-car BN-3 with 4,227 tons and three good GP38s on the point. We left Fort

Wayne at 12:28, and at 4:15 we started around the 17th Street connection to the BN. At 4:30 we were standing at Western Avenue, held by a stop signal. For three hours we stood there, watching that red signal, while all around us BN yard engines made their moves and suburban trains inbound to Chicago ran down the main tracks. At 7:30 our signal changed from red to yellow, and we were off again — but only to Keeler Avenue, where we again were stopped by a red signal. Again I was able to watch the commuters come and go, while various BN yard runs made their entrances or exits at Cicero Yard.

About 10 a.m., I called the PC yardmaster by radio and informed him that we had been on duty for 10 hours but still had not been

minutes of time left for us, the yardmaster’s signals got wilder and wilder. From the way he waved, he was either trying to fly or we had been given the route to Denver. The switches were lined properly, and we slowly pulled down the yard track and stopped at the west end just as our time expired. I set the brakes, tied down the engine, and got off. We walked over to the BN yard office and notified the PC yardmaster of our location. He replied that transportation was on its way to take us home. Finally at 1:40 p.m. the PC bus showed up, and at 2 o’clock we were back home at the PC yard. Needless to say, after 14 hours at work, we all slept well.

**FROM THE WAY THE BN YARDMASTER
WAVED HIS HIGHBALLS, HE WAS
EITHER TRYING TO FLY OR WE HAD
BEEN GIVEN THE ROUTE TO DENVER.**

able to get into the BN yard. He replied that he would give the BN a call and ask about us. This was the last I heard from him. Time crept by, and about 11:45 our signal changed to restricting. We now had 20 minutes left before we reached the maximum of 12 hours on duty allowed by the Hours of Service Act.

Up ahead, as if by magic, all conflicting movements ceased. Up in his tower, BN’s east-end yardmaster was giving us wild highballs. I suspect he was afraid we would run out of time before we cleared his switch lead and thus tie up his yard. But for all his signals, he forgot to have someone line up a crossover right in front of his tower, so we came to a stop. My head brakeman slowly got down to line up the route, and with only 5

A few contracts ago, the railroads became responsible for furnishing away-from-home rest facilities for crews. On the Fort Wayne Division we usually stay at three establishments: the Motor World Motel on South Pulaski Avenue in Chicago, and the Railroad YMCAs in Crestline and Conway.

Each home-away-from-home has a distinct personality. The Motor World is a four-story building where Santa Fe, Norfolk & Western, Erie Lackawanna, and PC crews lay over. It also houses drivers for several truck lines. When called for duty, railroad crews and/or truck drivers are transported to their work points by vans operated by the motel.

If you spend any length of time in the lobby of the Motor World, you will note that the truckers and railroaders seldom mingle. In fact, the walls of the Motor World washrooms are covered with references — none complimentary — to the ancestry of various crewmen. I would be less than honest if I did not note that there also is not an abundance of integration between Penn Central “red”



Amtrak 215, a former RF&P E8, mingles with black ex-PC sisters at the 16th Street diesel house near Chicago Union Station in mid-1973, before Crosby moved from the *Broadway* to the freight extra board.



Missing the usual black paint from its nose and windshield area, Amtrak E8 295 is the first of four E units powering No. 40 at Chicago Union Station in June 1974.

and “green” crews. It is remarkable how the PRR men normally sit along the west wall of the lobby, while the Elkhart boys can be found along the north wall or in the center of the room, I would imagine that in time, as we older types retire, the younger PC men will wonder what it was all about.

The Crestline YMCA is not my favorite place. Perhaps this is due to a lack of activity in this city of 6,000 population. If you like bars, there are plenty of those, but that is about all Crestline offers. Even walking is more or less a lost cause, because a stroll of about 10 minutes in any direction puts you

into farmlands. The Y has a restaurant that is open 24 hours a day, but the menu is simple and somewhat limited, and the place is staffed mostly by a collection of adolescent girls who have limited cooking talents but apparently unlimited time available to engage in small talk with local unattached males.

The Crestline Y’s sleeping facilities are not the type found in, say, a Holiday Inn. There are two large rooms, each with 40 beds. Each bed is separated from its neighbor by a metal partition, much like those found in public toilets. The partitions are 6 feet high and open at the bottom. Butted against each bed is a

metal locker, and imbedded in the wall is a reading light. Each bed is afforded privacy by means of a curtain, but with all the open area around each bed, any snoring, grunting, coughing, wheezing, or locker-slammings is transmitted at the speed of sound to all those in the room. Crews come in at all hours, so the noise level is not conducive to slumber. I have yet to get a good rest in Crestline.

The Conway YMCA is in the middle of the yard, between the westbound and eastbound humps. The building is soundproofed, so despite its location you seldom can hear the constant squeal of flanges being squeezed by retarders. There are two floors of sleeping rooms, and each floor has 70 cubicles. Each cubicle is completely enclosed, with a lockable metal door and partitions extending to the ceiling. Inside each “room” is a bed, chair, overhead light, and reading lamp. If you want to read, you do not disturb your neighbor.

There is a large cafeteria at the Conway Y. In addition to taking care of the caloric needs of crews from Altoona, Harrisburg, Columbus, Cleveland, Crestline, and Fort Wayne, it caters to a number of people who work in the yard. For lunch or dinner, there always is a selection of three meat dishes plus various vegetables. The price for a meal is

still only \$1.55, and the quantity of food dispensed is substantial. The cooks at Conway are mainly of Slavic origin, and they have not lost their cooking ability.

From the time the first train dispatcher assumed responsibility for the movement of trains, opinions of dispatchers and of train crews on how to move those trains have varied greatly. This persists in the era of CTC, radios, and other electronic goodies. I'm no exception; when I'm held by a stop signal for no apparent reason, I usually let the block operator or dispatcher know my opinion of their limited talents.

I was engineer on one of the last eastbound ore trains out of Chicago, 115 hoppers totaling 11,040 tons delivered by the BN to the PC's 55th Street yard. For power we had four SD45s. Our trip got off to a shaky start when Englewood Tower held the signal against us as we pulled out of the yard. We had called the tower and had been assured by the operator that he would handle our train.

Stopping at Englewood is not desirable. Some people who live in the area take great pleasure in pouncing on stopped trains to uncouple them, to close angle cocks, or, if it is dark enough, to loot cars. Normal procedure is to not depart 55th Street unless Englewood has the route lined, and to pull at a speed fast enough to keep vandals from boarding. If the train must be stopped, the engineer makes every effort to keep the slack stretched.

When I saw the stop signal at Englewood, I kept the throttle open and applied the automatic brake, keeping the independent brake released. We stopped with the slack tightly stretched. I told the operator what I thought of his telling me it was OK to come and then my finding his signal red. About the time I stopped, a Rock Island suburban train went by. As soon as it passed, my signal was cleared. I carefully opened the throttle, expecting to hear the blast of air that signals the train brakes being applied in emergency. But to my surprise, we had not been cut in two, and my train was moving.

When we were a ways east of Englewood Tower, the operator radioed me that we had three trespassers on a load of ore about 30 cars in back of the engine. I asked what he wanted us to do about it, but did not receive a reply. Nowadays anybody who tries to remove a train rider is likely to meet someone who is full of alcohol, or worse. So we continued to pull. After we passed River Branch Junction, we again were told that we had riders, so I again asked what we were to do about them. We were finally directed by the Colehour Yard office to stop so police could remove the riders. I stopped as instructed. Because of track curvature, I was able to see our riders, still perched on a pile of ore. After 15 minutes, River Branch called on the radio and inquired of our progress in



In June 1974, a very tired ex-CB&Q/BN E8 contrasts with brand-new SDP40F 590, ready to depart Chicago on its first trip. Amtrak retired the 337 in May 1975, the 590 in 1977.

having the riders removed. By then I was in a foul mood and responded, "No progress. The boys in Colehour Yard office are throwing marshmallows at the bums, and the bums are throwing them back." A few minutes later a squad car arrived and removed our riders, and we got an OK to move.

We made a good run until we neared Hamlet. The distant signal showed approach, and I called the tower operator on the radio. He told me the local was switching in town and the dispatcher had decided to hold us until the local was through. We stopped, and 20 minutes later we slowly followed the local out of town. It pulled away from our heavy train, but we caught up to it near Warsaw

AFTER I TOLD THE DISPATCHER'S CLERK HOW ROTTEN HIS BOSS WAS AT MOVING TRAINS, I HEADED HOME FOR A VERY LATE SUPPER.

where once more we had to stop behind it — which meant our 11,000-ton train sat at the bottom of a hill. After 10 minutes the signal at Warsaw cleared, and again we followed that infernal local east. By then our chances of going to Fort Wayne ahead of No. 40 were slim, but we still had hopes. These evaporated when the local developed engine trouble. Warsaw told us to take siding at Vandale for No. 40. Vandale siding has hand-thrown switches and is guarded by derails, so it is no fun pulling a heavy train in and out of there. My temperament did not improve in making the move to allow 40 to pass.

After 40 went by, we got permission to enter the main track. We pulled out, closed the siding switch and derail, and headed the fi-

nal 20 miles to Fort Wayne. When I got to the terminal, I called the dispatcher to tell him how poorly he had done, but the phone was busy, so I dialed the number of his clerk. After I told this poor soul how rotten his boss was at moving trains, I headed home for a very late supper. As I entered the house, my son told me someone at the railroad had called and wanted me to call back, and he had left a phone number. I called the number and was greeted by the hostile voice of my friend, the dispatcher. Evidently, he had been informed of my comments, and he was obviously unhappy. I rebutted that I was just as unhappy about the way in which he had spoiled a good run through his concern for the local over my heavy train. We traded a few more choice comments about each other's railroad ability, or lack of it, and hung up. But I'm happy to state that we remain friends; I'm sure he is doing his best, just as he is sure I am doing the same.

Moving a train out of Chicago can be most interesting. At times it resembles the movement of a World War II convoy through enemy territory. Some of our trains are literally escorted by railroad and city police. I will not go into details on the forms of protection provided, lest the "enemy" learn more of our operations. Vandals already get enough goodies from boxcars and piggyback trailers.

In addition to troubles in moving trains safely, other forms of violence bedevil railroaders in Chicago. Crews on the rear ends of eastbound trains actually have been held up while picking up train orders at Englewood Tower. The bandits take advantage of the slow train speed to get on the cabin car,



The operator at Mike Tower in Fort Wayne is out by the N&W diamonds with orders for an eastbound PC train in July 1974.

and then they relieve the crew of valuables. Of course my trainmen brothers take umbrage at being held up and counter with defenses of their own. One is to keep the cabin door locked. When they must go out onto the platform for train orders, one man stands guard with a wrench, air hose, brake club, or lighted fusee. Conditions are so bad in certain areas that if a train is disabled, the crew stays in the cabin or locomotive and puts out a call for police assistance. Only after police arrive do the crew members attempt to see what has happened to their train.

Conditions are rough on the locomotive, too. While passing through certain areas, we enginemen keep the cab windows closed no matter what the outside temperature may be. This is to counter the effects of various UFOs that are propelled through open cab windows. I have been the victim of bricks, rocks, and other assorted junk, and I can come to only one conclusion: some great pitching talent in the Chicago area is going to waste.

I have found that the kids and adults who delight in tossing debris at passing trains can be sorted into two types: the person who hides behind a fence or building and pops out as you pass by, ready to throw his missile, and those who loiter around the tracks, appearing unconcerned about the train's passage, then suddenly turn and throw something at the train. Generally the former type is rather harmless, and they appear to be novices in the hierarchy of UFO launchers. The members of the second group have developed better aim and have stronger arms, and from what I can conclude are out to inflict bodily harm. Unfortunately they often succeed.

Another form of diversion is the old-fashioned game of "chicken." This often will take the form of kids standing on the track in front of moving trains and then jumping aside at the last moment. A variation is the clown who will drive onto the track and stop. This type generally drives a hopped-up car

with the rear end about a foot higher than the front end and a set of wide tires on the rear wheels. We seldom hit one of these comics because they usually have enough horses under their hood to pull off safely.

The occurrence that I really hate to witness is when a driver declines to wait at a road crossing for the passage of my train. He will come to the rear of a line of stopped autos, wait a moment, and then pull into the opposite lane and race to the crossing. More times than I care to recall, I have seen the eyes of frightened young children sitting in the laps of their parents after they have narrowly missed being hit by the train. This makes me wonder about the driver. Enginemen learn to live with rock throwers, thieves, and "chicken" experts, but after you have had the misfortune of hitting a car with a couple of children inside it, and then have had to help pull the wreckage off the locomotive pilot, you sometimes have trouble sleeping.



When Crosby made a comment in Fort Wayne about “little engines” like this SW7, the remark reached Chicago faster than he did in the cab of a fast freight.

When you’re working an extra board, your earnings can vary tremendously, depending on whether or not you get the breaks. If the board is turning over slowly, and the extra engineer falls heir to an 8-hour yard job while the man behind him gets a good-paying road trip, the two paychecks may reflect a difference of a couple hundred dollars. If someone keeps getting good runs, before long other boys on the board will hint darkly about somebody paying off the crew dispatcher, or accuse somebody of “playing the board.” The latter saying refers to a man picking his runs by the simple expedient of missing calls for undesirable ones or by marking off on calls that do not suit him.

I had been having a run of exceptional good luck. The board was turning over fast. For a month I had had a steady diet of getting into Fort Wayne off one road trip, staying home for 8 hours, and then getting right back out. On a layover of that duration, about all there is time for is to change clothes,

take a shower, ask your wife how things are going, and then get a few hours of sleep.

As my lucky streak continued, I heard rumbles through the railroad grapevine that my luck was *too* good. One day as I reported for yet another road job — just 10 minutes ahead of an open yard job — an extra engineer brother inquired somewhat petulantly, “J.R., don’t you ever get any yard jobs?” I countered his question with one of my own. Pointing to the thousand-horse EMD switcher he was getting, I inquired, “Hey, Dave, I’ve always wondered what the railroad uses those little engines for, because I never see them on the road.” His answer was a burst of good old-fashioned railroad profanity, and he walked away muttering.

I went to Chicago, and by the time I arrived at the Motor World, I already had been asked by various Fort Wayne men if I ever found out what those “little engines” were for. Only 9 hours had elapsed from the time I had asked the question at Fort Wayne until it had worked its way to Chicago. Such is the speed of the railroad grapevine.

From the time the old Pittsburgh, Fort Wayne & Chicago Railroad was built until the mid-1960s, Fort Wayne Division crews got off eastbound trains at Crestline, where they were relieved by Eastern Division crews. Westbound, the process was reversed. The PRR proposed the establishment of an interdivisional pool so certain trains could operate between Fort Wayne and Conway without a crew change. The Brotherhoods agreed to the proposal, and the pool was established. Evidently the railroad is happy with the arrangement, and I know the crews like it, but you have to be an old head to hold one of these good-paying runs.

In the 298 miles between Fort Wayne and Conway, an engineer can sample many types of terrain. Heading east, first comes miles of flat, curveless Indiana and Ohio farmland.

At Mansfield starts a stretch of continual curves and grades, culminating in the downhill grade between mileposts 37.5 and 26 just west of Rochester, Pa. In that 11.5 miles an eastbound train drops from 1,062 feet above sea level to 705. This area of the Beaver River valley has a particular beauty.

Westbound, a shorter grade extends from Smithville to Wooster, Ohio. This grade is 7 miles long and varies from .75 percent to almost 1 percent. With 13 curves and a three-track main line, it gives us flatlanders (as the Conway boys call the Fort Wayne crews) a taste of PRR-style mountain running.

I like to come down Wooster hill by letting the train speed build up to around 42 mph and then making a minimum brake-pipe reduction of around 7 pounds. I leave the throttle open, and if everything is in balance, the train speed will build and level off around 45 and stay there to the bottom of the grade west of Wooster.

Go down the hill at night about 10:40 p.m. with a 100-car PR-7. If No. 40 is on time, you will meet it around one of those 13 curves. The approach of 40 is signaled by the glint of its headlight on the high rail of the curve. Shortly, the units and their 15 to 18 cars come into view. You dim your headlight until 40’s power is past, then go back to bright; the sealed-beam lights reflect off the silver sides of 40’s cars. The rails of No. 3 track glow blue-white from the lights shining out of the passenger-car windows. If a freight drag is hammering uphill on No. 1 track, with a pusher on the rear, you can look back along your train at the rings of fire around the rims of most wheels. All this may not be the equal of descending Horseshoe Curve, but it is as close as we Fort Wayne men ever will get.

On the interdivisional runs between Fort Wayne and Conway, the Conway boys complain about the lack of landmarks on the Fort Wayne segment of the run. They contend that east of Crestline there usually is a



curve to indicate location, but if they hit fog west of there, things get tricky. The Fort Wayne men retort by questioning why on the Conway end towers and home signals always seem to be at the bottom of grades or behind overhead bridges. It all evens out. We flatlanders like to go up and down their grades. The Conway ridge runners, as we call them, like those long flat stretches of the Fort Wayne Division.

As I noted earlier, I like dispatchers. Some of my best friends are dispatchers, but I don't know if I'd want my daughter to marry one, and I admit that I do not always understand them. Here is an illustration why.

Conductor J. L. Adams and I were called at Crestline for IHB-5; we reported for duty at 12:45 p.m. I had no fireman and noted that my head brakeman did not have a radio. We

On their occasional trips to Conway, Pa., Fort Wayne-based "flatlanders" dealt with hills and curves in eastern Ohio and western Pennsylvania. Conway men bemoaned the lack of landmarks on the long tangents between Crestline and Fort Wayne.

got into the company bus and went out to the west end of Crestline to relieve the inbound crew; at 1:15 p.m. we were ready to go. The inbound crew informed us that we had 38 cars on the head end for Fort Wayne. When we were ready, I called the operator at Crestline Tower and told him so. He gave us permission to leave but added that the dispatcher wanted us to pick up 3 cars at Upper Sandusky, I "rogered" the pickup instructions and left town.

We highballed over to Upper Sandusky and stopped. The brakeman cut off the units, and we went downtown to pick up the 3 cars, all marked for Fort Wayne. We coupled back to the train. As the brakes were being released, I heard a crewman on PC-3 ask the tower at Upper Sandusky what was ahead of him. Evidently PC-3 had come up behind us. When our brakes released, we departed. After a while we heard the Dunkirk Tower operator come in on the radio.

"Ah, IHB-5, the dispatcher wants you to set off those 38 Fort Wayne cars in Dola siding for the PC-3 to pick up. Then he wants you to go to Lima and pick up 40 westbound cars, but he says to be sure to hold onto those

3 Fort Waynes you picked up at Upper.”

I acknowledged his transmission and wondered aloud over the radio why the dispatcher was having us set off 38 Fort Wayne cars but still requiring us to keep the 3 we had picked up at Upper Sandusky. The operator replied that he was paid to relay instructions, not to reason why. So we set off the 38 Fort Waynes in Dola siding. By the time we finished this chore, PC-3 again was standing behind us. We left Dola and went on to Lima. Upon our arrival, we found that our 40-car pickup had grown to 54 cars. After we coupled to these cars (while holding onto those 3 cars out of Upper Sandusky), the brakeman checked the first 10 or so cars for hand brakes and returned to the units.

About the time the brakeman climbed into the lead unit, Adams called from the rear end wanting to know when we were going to couple onto the pickup. I answered that we had been on for seven or eight minutes and were getting ready to pull out and double back to the train. He said that evidently something was wrong, because the brakes on the rear of the cut had not yet released; he told me to wait while he checked. A few seconds later he called and said he had found a closed angle cock. When he had opened it and heard no flow of air, he had surmised that other angle cocks were closed. He was correct; before he was done, he had opened 20 angle cocks, all on the rear of the cut. Evidently kids in Lima had had nothing better to do on a Saturday than to give our cars a going-over. When we finally were ready to move, PC-3 again was stopped behind us.

We finally struggled out of Lima. As we passed Delphos Tower, the operator told us on the radio the dispatcher wanted us to pick up 11 cars at Van Wert. I asked where these cars were headed, and he replied, “Fort Wayne.” I asked if PC-3 could take care of the chore at Van Wert and was told to stand by. The operator returned with the terse answer, “The dispatcher says to do as instructed, and be sure to keep those three cars you picked up at Upper, first out.”

When we stopped at Van Wert, we discovered that we had 22 cars to pick up, not 11. The beauty of picking up cars at Van Wert is that you work over numerous street crossings and a curve to the left that takes the engineer out of sight of the brakeman. We had no radio or fireman to relay signals, so things got sticky. To overcome the situation, we reverted to a primitive form of railroading. I moved “behind” until I thought I had gone far enough. Then I got up and went to the other side of the cab to see how good my guess had been. This took time. After 20 minutes of moves, we had coupled together all 22 cars (naturally they had not been in one string) and were ready to move back to our train. Again we had to move blind. I finally worked far enough east so that I could



Fort Wayne crews liked the good money they made on the 298-mile run to Conway. Plus, the YMCA there had better quarters and food than its counterpart at Crestline.

see the head man, and we coupled to the train and got out of Van Wert, by then with 139 cars. While we had been engaged in picking up cars at Van Wert, PC-3 had been sitting behind us.

When we finally reached Fort Wayne, we had a 79-car block for the yard. So while we set them off, guess who sat behind us: PC-3. Oh, yes, he still had the 38 cars we had given him at Dola, which also were to be set off at Fort Wayne.

Whenever I see Bill Wrigley, who had been PC-3's engineer that day, we go into a standard routine in which I ask him if he has figured out the dispatcher's moves of that

**WITH NO RADIO, AND NO FIREMAN
TO RELAY SIGNALS, THINGS GOT
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day. He replies that he still is working on it, but that since he does not reason like a dispatcher, he still has not come up with an answer. Neither have I.

Working the extra board gives you the opportunity to see a lot of railroad, but it also creates plenty of paperwork. I normally have to carry and maintain in current condition Western and Central Region timetables. I am expected to know everything in them that pertains to the portions of line over which I operate. To this I must add an Indiana Harbor Belt timetable for trips to Blue Island, and I must keep current on Bulletin Orders for the Chicago, Fort Wayne, Valley, and Pittsburgh divisions.

Also it is a good idea to carry copies of the Book of Rules, Safety Book of Rules, and Brake and Train Air Signal Instructions. This reading material stacks to approximately 5 inches, and most of it is printed in small type. Somewhere I heard that when the weight of the paper involved in a commercial flight equals that of the aircraft, it is time to take off. We railroaders may not go quite that heavy, but I think I carry only a bit less paper than a pilot does.

After a couple of months, freight business on Penn Central through Fort Wayne lessened. The Great Lakes opened, and the ore went back onto the boats. This resulted in the cutting of crews from various pools, and I went back firing on the *Broadway*. Already the memory of some of those exotic places I got to know in freight service has faded. I have had regular hours again. I have been able to plan on doing things with the certainty that nothing will interfere.

When the phone has rung, the call has been for either my wife or our boys. But a word of warning to you train dispatchers and block operators: Don't get complacent, I'll be back, and if you stick me, you'll hear from me. ■

JOHN R. CROSBY hired out on PRR's Fort Wayne Division in 1941. He was with the 717th Railway Operating Battalion in England, returning to PRR engine service in 1946. From 1959 to '68 he worked for the ICC in North Carolina, then returned to the Midwest as a road foreman for PC. He retired from Conrail in 1986. He wrote several stories for TRAINS and CLASSIC TRAINS about his time on PRR and PC. John Crosby died in 1995; his son Mike supplied his father's photos for this issue.

Chessie and its Steam Special



Chessie System, named for Chesapeake & Ohio's venerable kitten mascot, was formed February 26, 1973, as the parent of C&O, Baltimore & Ohio, and Western Maryland. The first diesels (new GP40-2s) began getting the bright Chessie image, designed by C&O/B&O p.r. employee Franklyn J. Carr, in September '72, in time for EMD's 50th birthday party, for which one was painted solid gold. Chessie and Seaboard Coast Line combined in 1980, but the Chessie livery was applied until 1986. GP40-2s pass East Norwood tower on the way out of Cincinnati in November 1973. Denny Hamilton



The Chessie image found an unlikely application in May 1977 when ex-Reading 4-8-4 No. 2101, rebuilt 2 years previously for *American Freedom Train* duty, and 20-odd passenger cars received the colors. The *Chessie Steam Special* was a series of about 100 public excursions on B&O, C&O, and WM during 1977–78 commemorating the 150th anniversary of the B&O, America's first true railroad. On July 30, 1977, the *Special* storms through Albion, Ind., on a Chicago–Garrett, Ind., trip. Bob Bullermann photos, Robert S. McGonigal collection



In search of the VANISHING MAGIC

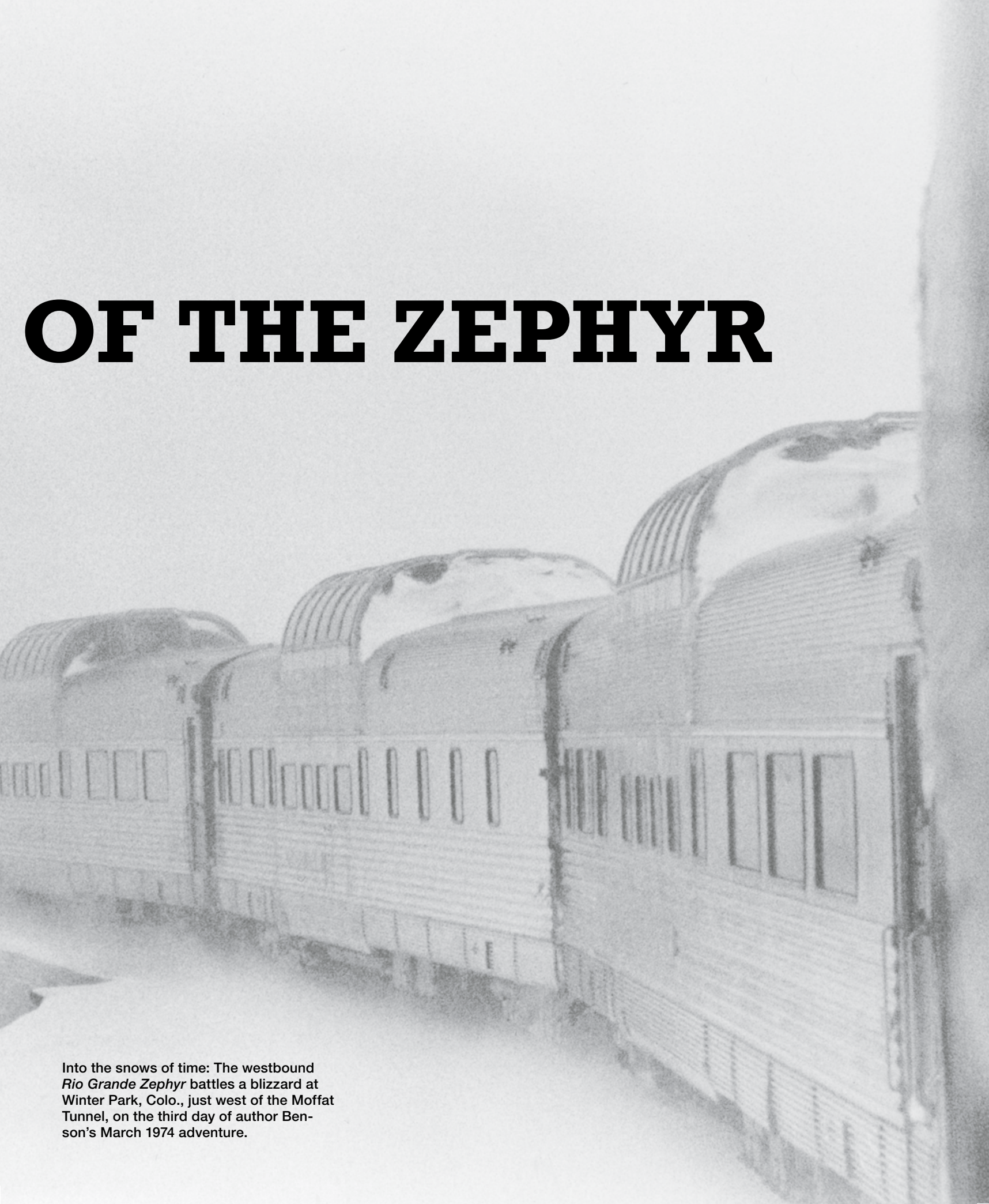
The spirit of the *California Zephyr* lingers aboard its Amtrak and Rio Grande successors

BY TED BENSON • PHOTOS BY THE AUTHOR

For a young photojournalist and his wife, their first long-distance train ride was under way. The *California Zephyr* seemed no finer place to start, and it would have been had not the calendar read March 1974. Four years and one political upheaval after the CZ had died begging public succor, the Colorado crossing had become a tale of two *Zephyrs*, neither one the CZ of old. To experience *Zephyr* service across the American West in 1974 was to compare opposite poles of American rail travel: On the one hand Amtrak, still learning the hard way; and on the other, the Denver & Rio Grande Western, an independent concessionaire clinging to a fabled service worn thin by a quarter-century of hard running. We two nostalgians were out to see if the word *Zephyr* still held the magic it once had embraced.

The impetus for our 3,812-mile, six-day rail adventure came from a tempting note in the "Running Extra" columns of December 1973 *TRAINS*. For two days, March 23 and 24, 1974, the 25th anniversary of the *California Zephyr's* birth would be celebrated by the Intermountain Chapter of the National Railway Historical Society aboard D&RGW trains 17 and 18, the *Rio Grande Zephyr*. In the four years since her inauguration between Denver and Salt Lake City on March 23, 1970, the little RGZ had gained the reputation of being everything the old CZ used to be in terms of equipment, scenery, and service. The train had been a spearhead in Rio Grande's rejection of Amtrak in 1971 and had become as much a maverick on her own terms as the original CZ had been with its cruise-train philosophies of 1949. We reasoned that if the CZ could be revived in tangible form, the miracle could happen only in

OF THE ZEPHYR



Into the snows of time: The westbound *Rio Grande Zephyr* battles a blizzard at Winter Park, Colo., just west of the Moffat Tunnel, on the third day of author Benson's March 1974 adventure.



Two months after riding Amtrak's *San Francisco Zephyr* across Nevada, author Benson photographed three ex-UP E units with No. 6 crossing the Truckee River east of Sparks on May 17, 1974. As on Benson's ride, this *SFZ* lacks the advertised dome-lounge car.

Colorado. To take part in honoring the *California Zephyr*'s birth some four years after the California service had become a fragmented nightmare was an irresistible temptation.

So at 11:35 a.m. on March 21, 1974 — four years to the day since I had boarded Western Pacific No. 18 for her last eastbound run — we began the pilgrimage to the Reincarnation of the Real Thing. To begin the trip aboard a *Zephyr* of another creed seemed appropriate.

THURSDAY, MARCH 21

The sailing of Amtrak's *San Francisco Zephyr* eastbound from Sacramento was typical for the flagship of the Overland Route. We were taking Amtrak's "car" in the darkest hours of the 1974 energy crisis, betting a bedroom and a big ex-Southern Pacific dome against the endless hours on the highway and the uncertainties of such a venture. Our bets were in by the time we cleared Sacramento some 15 minutes late. The Thursday train carried a baggage-dorm, four Amtrak coaches, an ex-Union Pacific diner in fresh Amtrak paint, bedroom car *Silver Quail* of real CZ origin, bedroom/roomette sleeper *Silver Hollow* built for the *Denver Zephyr*, and a pair of ex-SP "tomato can" coaches bound for the gaming tables of Reno and Sparks.

In keeping with SP's winter practice over Donner Pass, power for No. 6 was helper SD45 9084 ahead of silver-mist E units 330-461-417. Swallowing the disappointment over the lack of a dome car, we stowed the luggage in *Silver Quail*, unpacked a camera, and decided to survey the rest of the consist. The billing of daily dome service and of a lounge had been proven to be a fraud, but the *SFZ* did have the big windows of coach 4841 to make some riders happy, and the presence of the ex-SP *Shasta Daylight* car back from the dead line was satisfy-

ing. And dome or not, we had the majestic Donner crossing to behold.

No. 6 snaked around Cape Horn and past the fabled names of 1849: Gold Run, Midas, Blue Canyon, Emigrant Gap. "It's a helluva lot better than driving," a middle-aged couple in the *Quail* announced. "This way we see something. All we ever see driving is cement." The ride on Amtrak's "car" had replaced billboards and hamburger stands with pines and foreboding granite outcroppings. You would think the *SFZ* travel folder would give the hardest miles of the First Transcontinental Railroad more than a one-sentence mention, but "spectacularly scenic" was all the brochure said. A few hundred Orientals buried in the fills we trod would have felt their efforts a bit more heroic than Amtrak admitted.

San Francisco Zephyr — what sort of monicker was that? Winding up the Truckee River Canyon east of Sparks with our trio of E units hustling eight cars into the Great American Desert, Amtrak's new nomenclature seemed bankrupt. Except for its sleepers, No. 6 was not the stuff of a *Zephyr* billing. True, carnations were to be found in diner vases, but the flowers were wilting toward foggy windows as the uncomfortably hot car pounded over the alkali toward Lovelock, Nev. "Last call for dinner," Steward John Merritt announced to sleeper passengers as lights grew dim and flickered out. We had lost the electricity leaving Sparks and had blown every fuse in the collection. Our powerless diner would cease serving at dusk. Considering the coach passengers who were facing the prospect of no supper at all, and observing the suffering the galley crew was going through to cook in the infernal heat, we appreciated every mouthful. If the menu was sparse, it was extremely palatable. Only the sad carnation was less than appetizing. "They're put on in Chicago and make the round

trip without being watered,” our waiter explained. We debated adding water of our own. “It’s hopeless,” Liz opined, so we gave our heartfelt thanks to the galley crew, then headed for the sleeper to ponder Nevada by night.

Winnemucca slid past our window in the half light of dusk. Past Weso, we rolled onto Western Pacific steel for the eastbound passage up the Humboldt River Canyon on paired track. Thanks to a 50-year-old WP-SP agreement that traded main lines across the heart of Nevada, No. 6 was back on the trail of the CZ at least for a brief spell. *Silver Quail* seemed right at home. WP’s roadbed was smooth compared with SP’s washboard. A blue-black sky carried an infinite collection of stars over the tiny settlements that barely qualified for hamlet status: North Battle Mountain, Beowawe, Palisade. The hour grew late and the rhythm of the rails prompted sleep. Porter A. T. Sanford made down our berths and east of Elko we retired for the night.

FRIDAY, MARCH 22

Four years earlier to the day, the *California Zephyr* had docked in both Chicago and Oakland for the last time. Outside our window the skies were an appropriate gray. Wyoming and the Union Pacific . . . our first time in the state and our first ride on UP steel. A pair of DDA40X Centennials crawled past our E units at the fueling facility in Rawlins, then we bored on east into the murky shroud that had become snow by the time breakfast’s pancakes, sausages, and French toast were on the table. Our maverick diner had proved no puzzle to the UP electrical crews, and the coach passengers displayed hearty appetites in appreciation. Some had been able to bribe the cooks for roast-beef sandwiches the night before, but others remarked on the pounding the Ogden depot candy machine had taken during our early-morning stop. A few riders commented that this was the first and last Amtrak venture for them.

It was painfully evident that a high percentage of Amtrak equipment was either bad-order or in the shop. Amtrak admitted that a 35 percent out-of-service figure was due to the age of the rolling stock, but how does one explain this to a hungry passenger who’s still looking for the dome and recreation cars? Or to the man standing in line at 3 a.m. to buy his child a candy bar in the dingy Ogden depot? One can only hope the general public understands the tremendous pressures on Amtrak, both political and mechanical, and finds forbearance in the knowledge that improvements cannot materialize overnight.

The snowstorm was getting interesting as we waited to leave Laramie on schedule. Was Amtrak really at the mercy of its host roads? SP had seemed unable to keep the *SFZ* on time; UP was consistently ahead of the mark. Now, with Sherman Hill before us, the silver Es would have their work cut out for them. The swirling snow that blocked our initial appreciation of the historic grade had little consequence on our timekeeping prowess. We were into Cheyenne early but got stuck west of the depot for “a couple of westbounds,” as the flagman explained. Railfan Russell Eslick called me into a vestibule to witness the first train — U50C 5032 with a ponderous drag chugging into a white infinity. In a typical moment of uncertainty, I decided to change vestibules to shoot the second westbound, which I expected to be another freight. Halfway through one coach I peered out the window to spy a yellow-nosed E9 working *Zephyr* No. 5 out of town. Damn! There she went — a meet with “Smilin’ E” No. 415, one of only three UP-lettered E units in the *SFZ* pool at the time. I could count on the fingers of one hand my acceptable shots of such a beast.

Swallowing an urge to hurl the Nikon into a convenient snowbank, I unloaded in the Cheyenne blizzard and set out to make up for the irreplaceable shot. Our Es were tying onto the *Silver Hollow* after running around for the hind-first leg into Denver, and this came close to being my undoing. I waited for the blue flags to come down as Extra 5000 East popped out of the storm, and thus I was still on the ground as No. 6 began pulling. The head brakeman had closed the trap! Seeing my wild gestures, he pulled the air, then scolded me for my tardiness. The glow of photographic accomplishment still was warming my soul as we gathered our bags for Denver Union Station.



Liz Benson waits in SP’s Sacramento station for the arrival of Amtrak’s *SFZ* on March 21, Day 1 of her and Ted’s *Zephyr* trip.



The eastbound *San Francisco Zephyr* steams during its stop at Ogden Union Station at 3 a.m. on March 22.



Porter A. T. Sanford makes up a lower berth in a bedroom on ex-*California Zephyr* car *Silver Quail* as the *SFZ* crosses Wyoming.

As we stepped out into the rain and snow, we noted a trio of Burlington Northern-painted Es backing down to take the SFZ east and a green yard goat slipping a coach and two dome coaches behind the sleepers. A Chicago-bound crowd of approximately 200 was in the waiting room as we entered the marble cavern to hunt for a city bus. The diner crew would have their hands full on the last night out. A quiet evening in the New Albany Hotel seemed anticlimactic.

SATURDAY, MARCH 23

Four years and one day after the *California Zephyr* met its end, we boarded a veteran Checker cab at 6:05 a.m. for the short hop back to Union Station. After paying homage to the bronze relief of Gen. William Palmer in the lobby, we checked in at the NRHS ticket desk and proceeded out to inspect the train. CALIFORNIA ZEPHYR nameboards hadn't miraculously reappeared along with a neon tail sign, but the lack of dome seating aboard Amtrak No. 6 had been remedied in grand style. The RGZ offered six domes in the 10-car consist that included ex-Prospector Pullman-Standard combine 1230; Budd dome coaches *Silver Pony*, *Silver Colt*, *Silver Bronco*, and *Silver Mustang*, spliced by dome-buffet *Silver Shop*; flat-top coaches *Silver Pine* and *Silver Aspen*, rebuilt in 1964 from 16-section sleepers; diner *Silver Banquet*; and dome-lounge-sleeper observation *Silver Sky*.

Our dreams of Rio Grande's last three F units charging up the Front Range were erased by the presence of Geeps 3016, 3042, and 3079 on the point, but steam car 253, converted from an Alco PB locomotive, was there to add a touch of original CZ power. Considering the train length and weather conditions, the GP30-GP35-GP40 trio was dependable tractive effort. To the 371 passengers boarding No. 17 this snowy morning, locomotives were of little consequence. Above all, this was the *Zephyr*. Amtrak was merely a new sign in the depot lobby.

The Rio Grande presented the only passenger-train show in Denver as Conductor Milt Haynes waved us out of town at 7:02 a.m. On track 2 the Ski Train for Winter Park with those funky 1915 ex-Northern Pacific coaches, P-S combine 1231, PB steam car 252, and the F units awaited a 7:30 a.m. departure. Outside the RGZ's diner

windows the storm grew in intensity with the Rockies in full March fury as we plowed around the Big Ten Curves. The dramatic assault on the Front Range was limited visually to the immediate surroundings of canyon, rock, tunnel, and glimpses of Budd stainless steel winding through the ice, carrying us surefootedly up Coal Creek Canyon to the pinnacle of the storm's rage at the wet mouth of Moffat Tunnel. A pinpoint of light shimmered in the dome glass of *Silver Sky*, then pop! Winter Park, and the *Zephyr* was rolling west in clouds of powdery snow thrown up from under our wheels. Fraser . . . this morning, no one doubted its claim of "Ice Box of America."

Fraser Canyon brought photographers to the vestibules. They gathered in number for the short gorge of Byers Canyon, and by the time we reached Gore Canyon's majestic pinnacles, space was tight. Snow was falling off the domes in chunks and the clouds were breaking as we cleared Bond and rolled down the Dotsero Cutoff. Spring-

time in the Rockies . . . John Denver's nasal tunes kept dancing in our heads as we watched beavers swimming in the Colorado River and noted the signs of spring embodied in mother cows cleaning newborn calves that would be up to frolic at our eastbound passing tomorrow.

The domes were clean by the time we'd reached Glenwood Canyon. Nostalgic quips came: "Bout time we met Number 18." . . .

"Sure hope he's got PAs." The dreams of railfans — the universal desire to turn back the clock to each one's definition of the "good old days" — which are a part of any excursion, were present in heavy doses on today's "California" *Zephyr*. All the same, our contemporary CZ was making her own mark on the collective consciousness of the assembled enthusiasts. Past Glenwood Springs we raced out of the mountains for Grand Junction, meeting and passing freights on the fly, never once getting stabbed for tonnage on a railroad that considered Amtrak's operating edicts simply another good reason to stand clear. The Action Road lived up to its name that afternoon. The *California Zephyr*? The fans agreed: In spirit, in substance, in dispatch, "It's like she never left."

Inside diner *Silver Banquet* was another aspect of the CZ that hadn't been forgotten in the four years the RGZ had been in service.

D&RGW 17 was the Zephyr. Amtrak was merely a new sign in the depot lobby.

Changing ends at Cheyenne



During the SFZ's Cheyenne station stop, as the train's E units changed ends under the supervision of UP electrician John Eickbush . . .



Big DDA40Xs on a westbound freight look on as Union Pacific personnel water the SFZ's E units at Rawlins, Wyo., on March 22.



... Benson was intent on photographing a U50C-led freight even as Eickbush took down the blue flags and No. 6 started to pull out.



Vestibule space became tight aboard the westbound *Rio Grande Zephyr* in photogenic locations such as Glenwood Canyon.



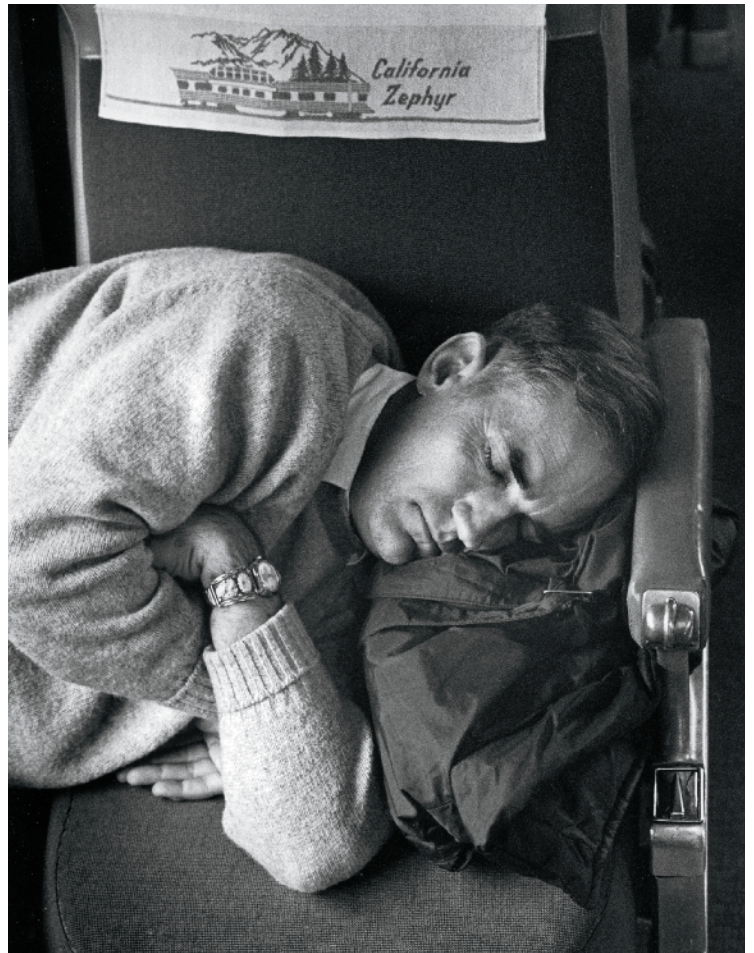
There wasn't a bad seat in the house as the *RGZ* made its way west, but surely some of the best ones were in obs car *Silver Sky*.



The *RGZ* approaches the Big Ten curves on March 23. Spring arrived two days ago, but it's still winter on the *Rio Grande*.



Nine-year-old Doug Dross waits for the snow to clear from the dome window behind him aboard the *Silver Mustang*.



Dreaming of the *California Zephyr*? A passenger naps beneath an old CZ headrest cover during the *RGZ*'s westbound run.



The westbound *RGZ* pauses for passengers, servicing, and a new crew at Grand Junction on March 23. In view of the train's expanded consist, dependable tractive effort was the order of the day, so a GP30-GP35-GP40 team substituted for the usual trio of F9s.

Not one man in the Rio Grande dining-car department laid off during the anniversary weekend, and Steward Mil Lundquist's crew matched the natural delights outside the train with epicurean efforts inside. Breakfast out of Denver had run an hour late owing to the crush of humanity aboard the train (a record passenger loading for the *RGZ*), and the lunch tables barely had been cleared by the time we braked to a halt in Grand Junction. Despite the crowd, service was courteous and prompt, the portions ample and well prepared. All that was missing from CZ days was the Colorado carnation on each table.

As the diner staff prepared for the dinner rush, NRHS members went to work on the official birthday celebration. On a back table, a monstrous cake appeared, a work of art that posed proudly for "baker's photos" for 10 minutes before Intermountain Chapter President Charles Albi and Steward Lundquist could put the ceremonial knife to the flaky delight. The cleanup from the party was an easy chore — most of the fans took the paper plates and napkins imprinted with the 25th Anniversary commemoration for souvenirs.

By the time No. 17 was lancing the desert plateaus of southeastern Utah, party favors had been replaced by souvenir silver menus printed by the club for this weekend only, and Lundquist was seating patrons for the first call to dinner. Even if the menu did offer a selection that put Amtrak's to shame, we didn't take any chances with *Zephyr* tradition — Rocky Mountain trout was a sentimental and gustatorial favorite. We could have spent a couple of hours over the meal had circumstances allowed, but 369 more hungry mouths were waiting to be fed, so we repaired to the dome of *Silver Sky* for an after-dinner drink and one more mountain-climbing show.

Atop Soldier Summit at sundown our train glowed silver in the last light of day. Eventide in the Wasatch was a time to spot elk feeding within 20 feet of trackside. A hawk perched proudly on a dead tree below Gilluly. The cameras were quiet. Only the Wagnerian night drama of the furnaces at Provo could bring the realities of the industrial world into mental focus. We arrived Salt Lake City at 9:25 p.m. The day had been a celebration of man and machinery in harmony with nature's most dramatic surroundings.

SUNDAY, MARCH 24

Our party had thinned to 273 passengers for the return trip to Denver, and breakfast was a bit more relaxed. Mil Lundquist and his crew had coffee on the diner tables as soon as the diesels were on the train, and by the time we were slicing into the ham and eggs, the quiet back streets of Salt Lake were easing past the window. Many fans had awakened only to catch the bus to the depot and were fast asleep again when we left Salt Lake City at 7:04 a.m. With a brilliant morning for inspiration, I took to a vestibule. To the east a golden Wasatch sunrise silhouetted the sleeping-maiden profile of Mount Timpanogos; to the west the snowy Oquirrh Mountains were tipped in pink as horses danced in frosted fields below Provo. Ahead lay the hill: a majestic vista of Budd stainless steel from all angles. Our three Geeps were laying down stack talk and crisp exhausts on the twisting road through Narrows. Sunlight . . . shadows . . . polished and frosted steel . . . the double-track drama climaxed by a meet below Gilluly that couldn't have been better had we posed it ourselves. Chanting diesels turned to a dynamic whine. Helper at 10:05 a.m. On time. For the



Sunrise on Soldier Summit: The eastbound *Rio Grande Zephyr* encounters D&RGW Extra 3091 West near Gilluly, Utah, on March 24.

moment, nothing could compare with that eye-opening ride. I decided to let the camera thaw out and to take stock of the trip to date.

"You can't look back when you're moving on," says folksinger and composer John Stewart. For all the fine nostalgic touches applied by the NRHS, it was obvious that the real *California Zephyr* was gone for good. True, the CZ heritage was everywhere . . . on linen and silver and meal checks in the diner, on coach headrest covers, in the classic lines of the Budd cars themselves . . . yet the realistic appraisal was that in 1974 this last of the true breed was nothing more than a tourist attraction with heavy local patronage. There were no through sleeper connections with Amtrak, and there was no more of the three-railroad cooperation that had made the CZ the great cruise train it had been. The RGZ offered an alternative to Amtrak between Salt Lake and Denver, but the alternative wasn't highly advertised. To take the scenic route, you had to add one more day to the transcontinental schedule, plan to spend some time in Denver, and figure in the odd-hour limousine connection between Ogden and Salt Lake. The triweekly RGZ was no comparison to the daily SFZ. This contemporary *Zephyr* had to be taken at face value. It was itself, no more and no less.

Interestingly, the anniversary excursion offered some insight into the nature of railfans. To a native of the Golden State, the *California Zephyr* had been "our" train . . . but was it? Few of the *California* faithful were riding this reincarnated CZ. The passengers predominantly represented East and Midwest with a healthy representation from Colorado. For most of the riders, the Colorado Rockies were the mountains. The Sierra Nevada crossing was next best. Had the choice

been up to us Californians, we'd have kept No. 17 rolling through Salt Lake City, across the Nevada desert, and on to a dawn in the Feather River Canyon. But we were a minority. To most passengers, Colorado was all this *Zephyr* had ever been or would ever be. The RGZ couldn't look back. We were moving on.

Nostalgia was far from the mind of chef Gilbert Espinoza as he prepared for dinner on Sunday afternoon. Gil knew what nostalgia and the *Zephyr* were all about. He had headed the Denver diner crew in the old CZ pool, and I remembered well the last time we had ridden together. It was on March 21, 1970, and Gil was leaving Oakland on No. 18 for the last time. The world had fallen apart for other CZ chefs that weekend, but Gil had come home from Chicago to go to work on his own *Zephyr*. Over 900 meals went out of Espinoza's kitchen on Anniversary weekend. Gil didn't have time to look back that afternoon.

The scene in the cramped galley was organized chaos. Just how such an incredibly hot, steamy, smoky cubicle can consistently turn out such high quality food is beyond one whose own culinary talents stop with bologna sandwiches. Gil and his galley crew, working elbow to armpit, never stopped creating miracles. Where is the Amtrak menu that cards trout, roast and corned beef, steak, turkey, ham, and pork chops for dinner? Can Amtrak's canned vegetables sit on the same table with, say, Gil's German Spinach? Where in the fine print of Amtrak does it say, "It will be a pleasure to serve any dish not listed that you may wish if it is available"? This is not to indict Amtrak's capable cooks so much as it is to point out the fine touches of railroad dining offered by Gilbert Espinoza on the last-of-the-true *Zephyrs*. After 20 minutes

Down the canyons we went, headlight picking around snowy rock walls.



Three cooks produced more than 900 meals in the hot, steamy, smoky galley of RGZ diner *Silver Banquet* during March 23–24.

in that sort of atmosphere, the only logical reaction was hunger. Past Kremmling, Colo., Liz and I got in line for dinner.

The sky grew threatening as we sat down to eat with Emmett and Lil, a delightful elderly couple from Denver who “just love our mountains” and who ride the *Zephyr* whenever they can. Table talk turned to wildlife as we rolled along the Colorado River east of Byers Canyon; as if on cue, a huge winged form came pumping up from the river with supper in its beak. The massive wings carried the bird at a pace equal with that of the train which was shutting off from 50 mph for the Granby stop. We’d seen some fine natural sights along the way, but a golden eagle at sundown topped the bill.

We slipped out of Moffat Tunnel. One by one our six domes had their lights turned out. Down Coal Creek and Boulder canyons we went, with the headlight picking its way around snowy rock walls, ridges looming in the east, the purple separation between mountains growing thinner, and around one curve, the lights of Boulder shining up from the prairie below. We were homeward-bound, flying low along the Front Range. There, in the southeast, was Denver, and our landing pattern was set around the Big Ten. The time had come to say good-bye to old friends and new. NRHS passenger agents Kenton Forrest and Tom Daniels finally got to sit down and reflect on the continual footwork such successful trips demand. In the diner Lundquist and Espinoza autographed menus, both graciously accepting compliments, both happy the long weekend had ended. At 9:14 p.m. we stopped in Denver Union Station. Two hundred seventy-three people went looking for rides home, and out on track 1, the *Zephyr*’s candles went out. The party was over.

MONDAY, MARCH 25

The westbound *San Francisco Zephyr* was late into Denver and thus gave us some time to look up photographer Mel Patrick in the Rock Island freight office on the second floor of Union Station. I told Mel, known for his night work, that we had expected a big flash somewhere along the Front Range the night before. Mel explained that he had not been out at night of late. “I was losing too much hair,” he commented on the demanding task of stringing two dozen flashbulbs and hoping they’d go off as planned. Some of his exquisitely composed daytime shots hung 16 x 20 inches on his office wall. Landscapes are Mel’s first love, preferably accented by a passing train.

No. 5 eased into the station at 10:02 a.m. behind the same BN E units that had taken the train east on Friday. The same consist, with a few notable changes, had come west as well. UP diner 4816 in yellow had replaced her ailing sister, and the baggage-dorm had turned into an ex-Santa Fe full baggage car plus sleeper *Baton Rouge* for the crew. We stepped back into *Silver Quail*, greeted Porter Sanford, and took a walk down the corridor. Happy day! The BN Es had come off and smiling into the vestibule was yellow E9 430 in UP lettering, lashed up



Waiters Robert Mays and Leon Smith perform a kind of ballet on flanged wheels as they handle the lunch crowd on *Silver Banquet*.



D&RGW head chef Gilbert Espinoza samples his own cooking in June 1973, nine months before the CZ anniversary weekend.



"They never looked like that when we had 'em." A UP carman at Cheyenne recalls better times for battered Amtrak E9 430.

with silver Es 370 and 432. Our departure was held until 11:11 a.m. to change five brakeshoes on our coaches, and I couldn't wait to get to Cheyenne, where the 430 would switch from third unit to first.

The UP carman couldn't understand my voracious picture-taking as our power ran around the train in Cheyenne station. Gone was the blizzard of Friday, replaced by brilliant sun, deep-blue skies, and slushy snow. If my armchair calculations worked out, there would be a chance for some great photographs when we met No. 6. The UP man still couldn't fathom my joy in placing the battered yellow E unit on film. "They never looked like that when we had 'em," he grumbled. "I wish Amtrak would hurry up and repaint the damned things. I don't want people to think they still belong to us." The hurt was justified; the collective pride of the Union Pacific Railroad people was being insulted by the tacky diesels no longer worthy of the UP banner. I'd give anything to have been there in the days when shiny yellow paint was the standard of excellence. All the same, No. 6 was showing to the west and I was getting settled for another prized meet shot — this time with the yellow No. 415 that had escaped my camera on Friday meeting another Smilin' E. We rolled west at 1:28 p.m. The UP show had begun.

Now our three Es were pinning me against the back of the vestibule for a spirited assault on Sherman Hill. The Wyoming uplands were stark white against the big sky, and up front where V12s were at full throat, the black smoke was rolling to far horizons in a manner even Lucius Beebe might have appreciated. Perhaps it is best that Beebe never witnessed the coming of Amtrak. I'm sure he would have

shared my doubt about the *Zephyr* designation given No. 5. This, my good man, was The Overland Route, and by all natural progression this had to be the *Overland Limited*! Or was it?

Penned Beebe in *The Overland Limited* (Howell-North Books, 1963): "Everything about *The Overland* was the best without ostentation . . . so secure in its status that the superlative was taken for granted and required no straining." That was true in 1926. How could the 1974 menu ever compare with the 1887 selection that included green turtle soup, frog legs, and saddle of venison (with currant jelly)? That sort of ostentation never would be a part of railroading again.

A shampoo would have been welcome after the ride over Sherman, but we settled for a card game and coffee as the long Wyoming afternoon set in past Laramie. We were out of Rawlins at 4:18 p.m., still battling the timecard on the losing side. West of Rawlins our speed dropped noticeably. A westbound freight was throwing yellow in our face, and we would have to drag behind until Wamsutter. I stepped to the rear vestibule for a chat with the flagman and surveyed a bleak land broken suddenly by gray section houses where children as plain looking as their land came to a weathered wooden fence to wave. A wooden station sign marked Creston and another sign indicated we had just crossed the Continental Divide. Red-yellow-green — the block cleared at Wamsutter and the black smoke boiled over our Es as No. 430 and friends set out to make up lost minutes. Then Liz said it was time for dinner. The rib eyes were on the diner table as we eased into Green River, so photographs of 430 were impossible. But 20 minutes later, with rib eye safely tucked away, I was back in a vestibule to place the old yellow warrior on film yet again.

We had blown a stud in the steam-line coupling between 370 and 432, and the Green River roundhouse men tried every trick to correct the trouble. We limped out of town at 6:58 p.m. with 432 the sole supply of train steam. This was fine for the run into Ogden, but there the power would have to be turned to fill SP's minimum requirement of two train boilers for the desert and the Donner crossing. Hopes for a Smilin' E leading over The Hill vanished, and west of Green River the sunset took on new meaning. Precious little time remained for UP-painted Es on Amtrak; precious little time remained to get those units on film. A shaft of gold lanced the clouds, and engine smoke billowed on the western skies. An eastbound freight with a pair of DDA40Xs worked toward us. Through the 105mm lens the scene came together. Would we get to the curve before the Centennials? Our Es heeled into the sun; in the camera's viewfinder, backlit DDs smoked like a contemporary brace of Big Boys. I tripped the shutter subconsciously. *Wow!* There'd been some meets on this trip, but nothing like this. I jumped for joy and found out how low the vestibule ceiling was. The brakeman passing through never saw my comic routine; he just asked me to close the door and go inside.

The Ogden platform eased by at 10:11 p.m. The faithful 430 bowed out in style. We were ahead of schedule. Beebe was right about the *Overland*. "It was a train of conscious emotional fulfillment."

The Es were pinning me against the back of the vestibule, running for the hill.

TUESDAY, MARCH 26

We departed Sparks late, with one gamblers coach added for our run into the Bay Area. Six days on the road and more than 3,600 rail miles rolling out behind us, the Tale of Two Zephyrs was closing. What had the trip been all about? If nothing else, we had gotten a taste of long-distance rail travel the likes of which we had only read about before, a taste of 1950s passenger service tempered by 1974's economic realities. The Amtrak experience had been a democratic stew, unique in the traditional American rail consciousness. Beebe never would have comprehended Harriman's yellow Es passing Pullman cars from arch-rival George Gould's Scenic Lines on the Cheyenne platform. Harriman, after all, had threatened Gould's life when Gould had set out to build the Western Pacific that was to become the key link in the *California Zephyr* route. Such competitive



Led by UP-painted No. 430, the E units on the westbound *San Francisco Zephyr* meet two UP Centennials west of Green River, Wyo., on March 24. When the *SFZ* arrived Sacramento the next day, Benson's quest for the spirit of the *California Zephyr* came to an end.

rivalry didn't matter in 1974, at least in the passenger business. In 1974, the *Rio Grande Zephyr* was losing nearly a million dollars annually, and D&RGW Chairman and President Gus Aydelott figured his Action Road could live with that figure for the time being. How long the *RGZ* would run past the 1975 train-off deadline no one would say. The *RGZ* was a mortal train, and one had to consider the inevitable end of fiscal and mechanical practicality for this last true *Zephyr*.

Amtrak made no bones about the age of its rolling stock in 1974. The key to solvency on the *San Francisco Zephyr*, which lost \$9.2 million in fiscal 1974, was the re-equipping of the train with new bilevel, multifunction cars by 1978. Changes would take place in the Amtrak *Zephyr* we would remember from 1974. Changes already had taken place from the first year of Amtrak Chicago–Oakland service. Motive-power fans had been delighted by the return of SP FP7s to the Overland train in May 1971 and had been ecstatic over the appearance of Amtrak and UP E units in June 1973, but the covered wagons soon would be gone, replaced by boxy SDP40Fs. The *SFZ*, one of the best “rainbow trains” in the National Railroad Passenger Corp. during its first years, would be 90 percent platinum mist by the end of 1974. In the train's first three years, the *City of San Francisco* and the *California Zephyr* names both had been tried before Amtrak picked an appellation that combined both heritages. In 1974, both the consist and the name of the train were of little consequence. Amtrak wasn't looking back as it moved on.

“The NRPC is at a crossroads,” Amtrak would admit as it presented its five-year projection to Department of Transportation Secretary Claude S. Brinegar in August 1974. “A great demand for rail passenger service exists. . . . This demand can be exploited by a combination of improved service, new equipment with the flexibility to meet

changing requirements, innovative marketing, and good management.” The *SFZ* of the future would reflect Amtrak's best effort to ensure that the tracks were indelibly back in the public awareness. Amtrak would have to sell the steak along with the sizzle.

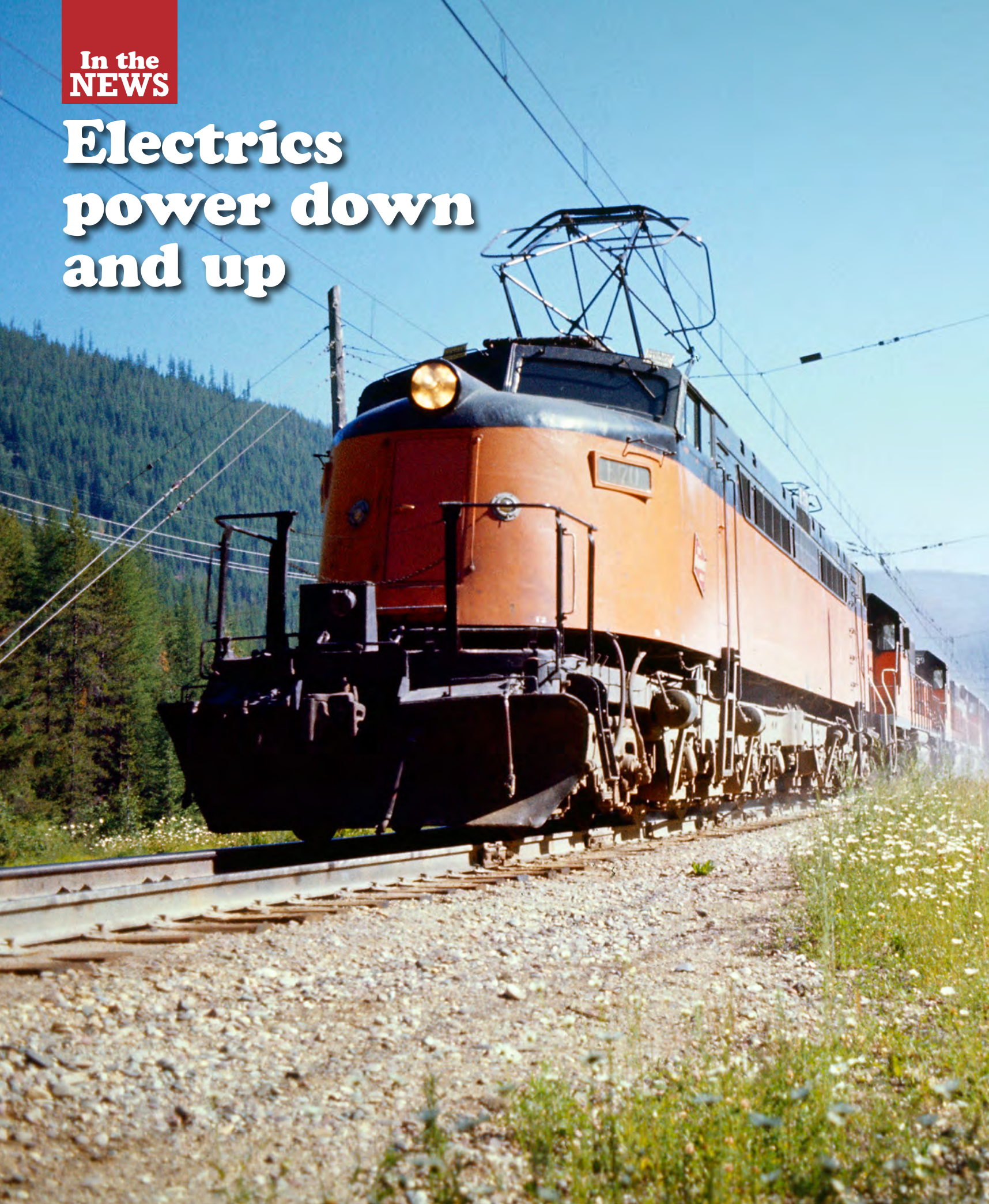
In March 1974 the Tale of Two Zephyrs was not what it appeared to be at the outset. Beneath the nostalgic trappings, both of the heirs to the CZ throne were as doomed as the CZ had been. Perhaps the *RGZ* best symbolized the streamlined train of the old West, but Amtrak would bury that quarter-century of rail tradition with a train built to serve the evolving passenger tradition of 1980. Two nostalgians had gone looking for their impossible dream; and although they couldn't be sure if they had found it, they could be sure that they had sampled a brand of railroading that never will pass our way again.

“Sacramento!” *Silver Quail* eased past the umbrella platforms. Did we have all our bags, all 29 rolls of film we had shot? We were late — 2:15 p.m. How was Mexican food for dinner? I hated to say it, but it was going to feel good to get into the car and take control of our destiny once more. Hey, maybe we could chase a freight on the way home! Liz, why are you looking at me like that? ■

TED BENSON, 66, is retired from a 40-year career as a photographer for the Modesto (Calif.) Bee. Fascinated by trains for as long as he can remember, Benson began serious railroad photography in 1965. His photos have appeared in numerous books and magazines and earned him a lifetime achievement award from the Railway & Locomotive Historical Society in 1998. Benson has authored or coauthored eight books and contributed articles to several magazines, including more than 30 to TRAINS, primarily on Western subjects. He and Liz, parents of two and grandparents of three, live in Modesto.

**In the
NEWS**

Electrics power down and up

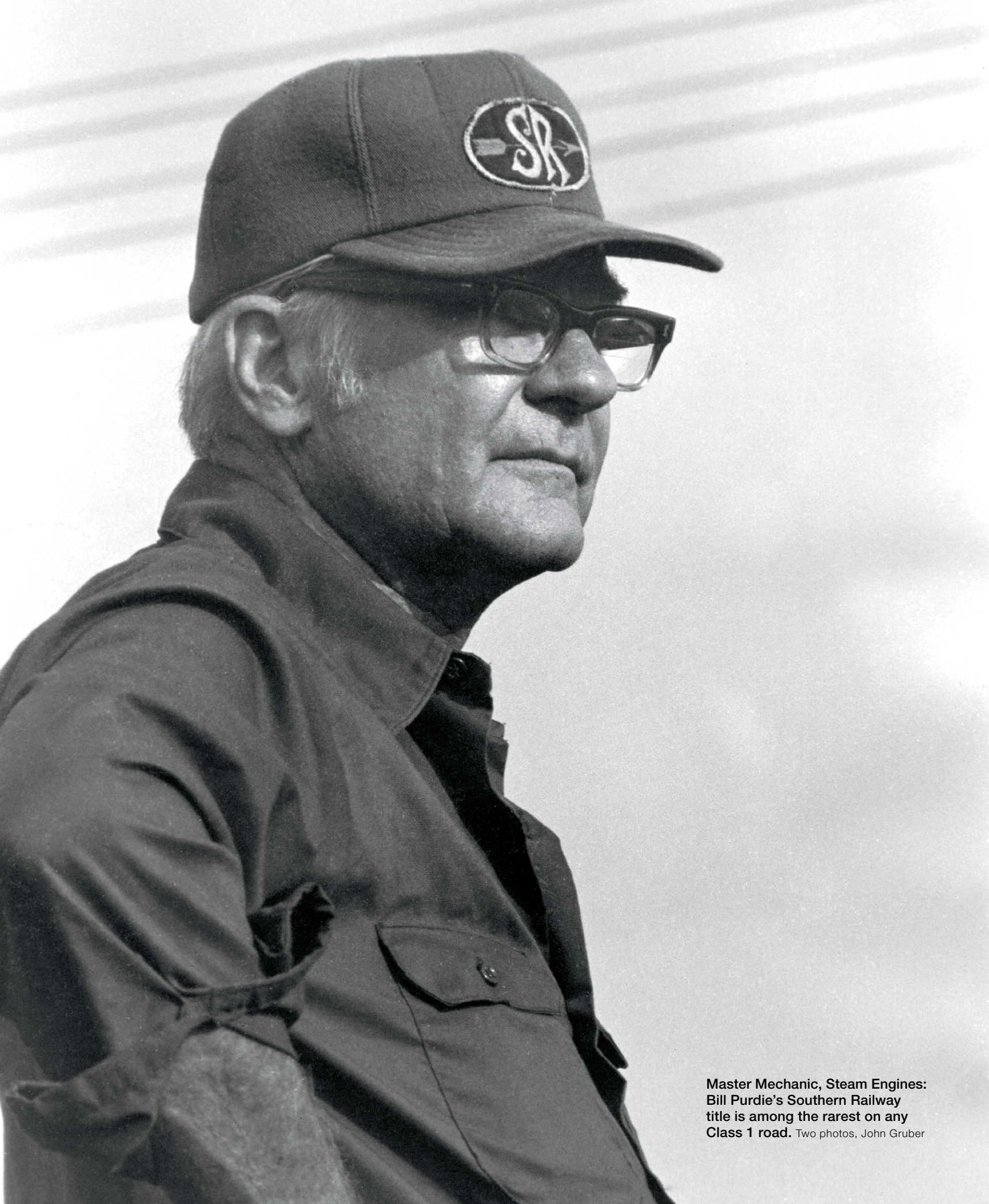




Black Mesa & Lake Powell, a 78-mile, electrically powered, coal mine-to-power plant railroad, opened in March 1973. Though isolated from the national rail network, the 50,000-volt A.C. BM&LP, with its 10,000-ton trains, 1 percent grades, and 6,000 h.p. locomotives, was seen as a potential template for mainline freight electrification, particularly as oil prices escalated. On August 26, 1977, three of BM&LP's six GE E60C motors approach the loading facility at Black Mesa. Sidney Vaught

Milwaukee Road had two 3,300-volt D.C. electrified districts totalling 663 miles: Harlowton, Mont.–Avery, Idaho, and Othello, Wash.–Seattle/Tacoma. By the '70s, declining traffic, diesels, and aging equipment had taken the shine off of what was once a marvel of the railroad world. The Coast Division went all-diesel in 1972, followed by the Rocky Mountain Division on June 16, 1974. Eleven months before the end, Little Joe E70 helps diesels on a westbound at East Portal, Mont., in July 1973. MILW retreated from its Pacific Extension in March 1980.

John F. Bjorklund, Center for Railroad Photography & Art collection



Master Mechanic, Steam Engines:
Bill Purdie's Southern Railway
title is among the rarest on any
Class 1 road. Two photos, John Gruber

MASTER MECHANIC, Steam Engines

Southern's Bill Purdie keeps 630, 722, 750, and 4501 on the road

BY DAVID P. MORGAN

"I don't know why I fool with these things. They're so old. You do the best you can. And you still can't get over the railroad."

The speaker and his subject were in a standoff on the main line of the Southern Railway at Anniston, Ala. Engine 630 stood impervious, thumping her air compressor, threatening to lift her safety valves, staring fixedly with her Cyclops eye toward Atlanta. The man wasn't impressed. He was looking beneath her boiler and between her frames at the smoking packing on two hot driving-wheel-box brasses.

The 72-year-old, 56-inch-driven 2-8-0 had just brought 10 passenger cars across 63 miles of hill-and-dale railroad in 2 hours 10 minutes. "Trying to make a passenger-train schedule with a local freight engine," muttered William J. Purdie Jr., Master Mechanic, Steam Engines, Southern Railway System. It is his lot in life to spend his winters overhauling ancient machinery and his summers watching engineers trying to take apart his handicraft. At the age of 61, and with enough seniority to entitle him to a job of round-house foreman in an office and an 8-hour day of scheduling running repairs on GP35s and SD40s, he instead is loading coal, shrinking tires, renewing superheater units, timing Walschaerts, adjusting wedges, humoring injectors, and otherwise honoring the belief of his boss, Chairman W. Graham Claytor Jr., that "it's a good thing to let another generation know what a steam locomotive is."

Bill Purdie's assignment would be rational if his charge were a roller-bearing, stoker-fired, 80-inch-driven 4-8-4 on call for the

occasional city centennial or National Railway Historical Society convention. Instead, his responsibility is a roster of museum pieces, all older than himself, operating on a for-profit basis for the accounts of 14 sponsors, and running off as many as 2,850 scheduled train-miles a month. Thus "Master Mechanic, Steam Engines" translates into business manager, hostler, field p.r. rep, traveling engineer, boilermaker, fireman, and machinist. For the central accomplishment of Bill Purdie is that he has converted an indulgence into an industry. He has professionalized the rebirth of Southern steam and in consequence has made its sight and sound self-supporting and available systemwide.

The appointment of Purdie dates from February 1968, when he was summoned to SR Washington headquarters by newly elected President Claytor and Vice-President, Engineering & Research, L. Stanley Crane. Claytor had decided to institutionalize the company's steam-excursion program by doubling its fleet; allocating to the program budget, shop, and staff support; and delegating General Counsel James A. Bistline as liaison between the Executive Department and the steam trains.

What the steam mission required at that juncture was a seasoned steam shopman. Purdie's credentials matched the need. He had joined the SR payroll on February 2, 1936, as a machinist's helper at Pegram Shops in Atlanta. Nine months later he became a machinist apprentice, and he served in that capacity four years. He worked as a machinist until 1952, when he was promoted to roundhouse foreman at Pegram. If you



Purdie knows every inch of Mikado 4501, Southern's top excursion engine. Purdie joined the road in 1936, the Mike in 1911.

have that much seniority, you remember when the system rostered more than 2,000 steam engines in 11 wheel arrangements in 62 classes and subclasses. The newest engine was 10 years old and too many of them had been urged away from retirement with the installation of piston valves and superheaters. Bill had watched Pegram's shop goat, 0-4-4T *Maud*, shove scores of those old engines into Pegram for the ministrations of stripping gangs, rod gangs, valve gangs.

Steam was a challenge, met only through vast backshops, subdivision of labor, and mechanical skills. In 1939 Bill Purdie's craft brought him into contact with the diesel in the shape of Fairbanks-Morse railcars and Electro-Motive E6 passenger units. The challenge vanished. "A 12-year-old could replace a power assembly, if properly instructed," he



4501 Green-painted 2-8-2 No. 4501 heads a fantrip east near Meadowview, Va., on the ex-N&W Bristol line in June 1985. Ron Flanary

says of the new era. The machine that reduced the company's operating ratio by more than 10 points was mundane to a man who remembered when a gang assigned to fix the leaking flues of an Ms-4 did not rely on builder manuals or factory-reconditioned parts in cardboard boxes.

Cautious: Do not misgauge Bill Purdie by reading too much into his collection of HO-scale brass models of Ps-4 Pacifics, his active membership in the Atlanta Chapter of the NRHS, his fatherly affection for the young fry who crowd around the cab steps at station stops. For it is not Purdie the fan who keeps steam and steel pulsing down the Southern but Purdie the pragmatist.

The pragmatist is an impatient perfectionist of tight tolerance and iron constitution.

For instance . . .

Bill Purdie is nettled by the innocence of enthusiasts who ask him of the 2-8-2s and 4-8-4s we covet in museums and parks, "What will it cost to fix her up?" "I would need a drop pit, a crew, and five days to answer that," he growls. (But he has responded to the calls from those resurrecting Louisville & Nashville 152, Mississippian 77, Southern Pacific 4449, et al.)

If an engineer leaves the reverse down in the corner after an engine hits its stride or, conversely, if he neglects to notch it down as the engine fights out of a sag, Purdie scowls. "Let the stack tell you what the engine wants," he admonishes. "Let the valves do the work, not the throttle. And remember: It's necessary to 'float' the valves and pistons for proper lubrication when you're drifting." *Proper* is a key adjective in the Purdie lexicon.

You and I look at a steam engine and see the contour of boiler, the complexity of Walschaerts, the strength of main rod. Bill looks and says, "This thing is just full of ICC laws."

We think of, say, 630, as being pure 1904. The Pegram pragmatist knows better. How much of the original 2-8-0 is there now? you ask. "The frames," he replies, "and the wheel centers. Maybe a boiler course." The man who replaced flues and tires, who understands the ravages of expansion and contraction, rust and scale, fissures and wear — he knows.

Purdie prefers the shop to the road. The shop restores; the road debilitates. The exhaust, smoke, whistling, bright headlight, and flailing rods of a photo runby may be the glamour, but the lathe, forge, drop pit, rivet furnace, crane, and hammer make the dramatics possible. The shopman perhaps appreciates the end result of his work more than

the runner does. In evidence: Extra 4501 West on April 28, 1975. The 2-8-2 was making a ferry trip from Chattanooga, Tenn., to Birmingham, Ala., 143 miles, with a train of 13 cars grossing 900 tons or more. The extra, allowed 6 hours for the run, got under way 52 minutes late and arrived 12 minutes early after running off mile after mile at 55 mph. Bill Purdie was exultant. "No diesel can do that!" Well, certainly no GP7.

There is a contradiction in the Southern steam program which tests the mettle of Bill Purdie. On the one hand he has budget, staff, shop, and executive support that are the envy of the private, non-profit steam organizations. His office is on the second floor of a 241x159-foot, six-track shop built in 1952 as a diesel support facility for SR's Ernest Norris Yard in Irondale, Ala., east of Birmingham. As it developed, the road had built one diesel shop too many, so the structure became a training school, and its abundance of unused space has housed steam engines from 1966 onward.

No man knows the value of the building better than Bill Purdie. But it is the sorrow of his railroad career that he could not populate the structure with operable engines of his chairman's choice — that is, great green-and-

gold high-speed Ps-4 Pacifics. (The only Ps-4 extant, No. 1401, is walled inside the Smithsonian Institution.) By 1966 the supply of SR steam for fanciers had been reduced to only the system's first Mikado, which a Du Pont researchist, Paul H. Merriman, had rescued from a short line with \$5,000 of his own money. To this 1911 Baldwin 2-8-2, however, were added three engines: first, by lease, the NRHS Atlanta Chapter's ex-Savannah & Atlanta (*née* Florida East Coast) 4-6-2 No. 750 (Alco, 1910); and, in 1968, through a swap with East Tennessee & Western North Carolina for a pair of diesels, ex-SR 2-8-0s 630 and 722 (Alco, 1904 and Baldwin, 1904, respectively).

Such a situation demands an extraordinary man, for beginning in 1968 Purdie would be called upon to wrest out of engines performances which their builders had never intended. Pacific 750 is pretty ("Our ballerina," according to Bill's wife Sarah) but light; tractive force: 28,300 pounds. The two Consols are doughty machines, but old and small, particularly in driver diameter (disputing an old rule of thumb, Bill Purdie asserts that "56 inches do not equal 56 mph"). That leaves Mikado 4501 the one engine in Purdie's inventory that is essentially fit for fast, long-distance, heavy hauling. She has performed over her head for a decade now in defiance of the fact that beneath her green paint she is a hand-fired freighter dating back to pre-Eddystone Baldwin.

To compensate for his engines' limitations, Purdie has adapted and refined. He has fitted them with larger tenders and/or auxiliary water cars, trammed their frames, renewed their flues and superheater units — ever mindful that the shop at Norris Yard is an oasis in dieseldom; that in 1976 when a steam locomotive is several hundred miles from home, she's riding on the strength of an Alemite gun and last winter's class repairs.

There is, of course, this consolation: Southern's engines exemplify the age of steam — particularly in the South — far more accurately than would a brace of 4-8-4s or Berkshires. To modify the cliché of youth, Nos. 630, 722, 750, and 4501 tell it like it *was*.

One senses the satisfactions Bill Purdie draws from his appointment as Master Mechanic, Steam Engines (you'll find the title listed on page 434 in the Yellow Pages of the Birmingham telephone directory) when he's on the road with his engines and his team.

There is a camaraderie that surfaces as his improbable assembly of reciprocating steam and 12-wheel plush-seat coaches threads its way through an alien world of CTC, welded rail, hotbox detectors, and train radio:

- Sarah Purdie, as effervescent as her husband is phlegmatic, taking care of the car rentals, laundry, motel reservations, cab lunches — the myriad distractions . . . Sarah



630 and 722 Consolidations 630 (top, at Suwanee, Ga., October 1975) and 722 (above, leaving Atlanta for Macon, April 1975) are doughty but old and small. Two photos, Bob Krone



750 Pretty but light, S&A Pacific 750 exits Peachtree Station, Atlanta, in April '72. Bob Krone

laughing at the Holiday Inn breakfast table as helper Howell Edmonds breaks up the gang with a description of how he almost took leave of his sanity one night while he was replacing 4501's brake shoes on a track adjacent to a diesel whose 16 cylinders idled away at his and Bill's nerve ends.

- The cab banging and bucking; Purdie holding down the left-hand seatbox, his right hand alternating between blower valve and

injector, his eyes on a steam-gauge needle that refuses to inch over 195 pounds . . . the man dropping down onto the deck, picking up the shovel, and dressing up the corners of 54 square feet of firebox until the pops lift; the gang cheering and Bill inscribing a check mark on the grime of the backhead.

- The recall of the 1,001 experiences born of thrusting steam into the Seventies — such as the time in Cincinnati when 4501 was



Bill Purdie and son Don, also a member of SR's steam staff, contemplate steam in the diesel age from the pilot of No. 4501. John Gruber

backing a baseball special down a Penn Central siding to Riverfront Stadium. A tender truck derailed, then — slowly — the rail beneath the left side of the engine squashed into the mud and 4501 leaned over. For an hour the crew worked feverishly to rerail the tank before the water level in the engine sank below the top of the crownsheet (adding water would have increased the tilt of the 2-8-2) while police herded back the crowd.

• The ultimate vindication of the crew's work: the education of "another generation" referred to by W. Graham Claytor Jr. For instance, out of Memphis on a May Monday with a ferry trip to Corinth, Miss., sponsored by the Sentimental Journey Committee for the benefit of a children's hospital, 1,409 riders were boarded in 88.5 miles — pupils and teachers, hands over ears as the whistle screamed, eyes wide as the rods clanked past. Bill Purdie's face lights as he watches their faces. ("I'd like to be remembered," he once said, "for having carried a steam locomotive to more states and cities. . .")

Southern Railway will operate a record number of steam-powered excursions during this Bicentennial year. In view of the heavy schedule, engine assignments may

change. . . ." In those unconsciously prophetic words, SR Assistant to the President James A. Bistline began the letter that accompanied the first edition of the system's 1976 steam schedule. The date was February 25, and on that Wednesday, 793 miles from Washington headquarters as the *Southern Crescent* travels, Bill Purdie began his steam season on a peaceful, poignant note.

At 9:37 a.m., he and Howell Edmonds touched a burning fusee to oil-soaked news-



Sarah Purdie, Bill's right hand on the road, confers with her husband on the logistics of a trip at Chattanooga. John Gruber

papers on a scoop and tossed the papers onto the bed of coal on Consolidation 630's grates. At 2:54 p.m., the 2-8-0 was moving back and forth in front of the Norris Yard shop. In late afternoon, Bill and Howell straddled the black boiler, patiently scooping wet sand out of the sandbox and replacing it with dry. No. 630 peered into a shop the likes of which existed nowhere else on the continent. For inside stood American Freedom Train 4-8-4 No. 1 (ex-Reading 2101), on which an AFT crew labored; 2-8-0 No. 722 and 2-8-2 No. 4501, with smokebox doors open and receiving final checks; 4-6-2 No. 750, stripped and awaiting new flues; 0-4-4T *Maud*, disassembled; and War Department 2-8-0 No. 610, in company custody pending movement to the Tennessee Valley Railroad Museum.

Only hours away lay the worst and the best steam summer in the life of William J. Purdie Jr.

The Southern steam strategy plotted by Bistline and Purdie looked fine on paper. Briefly, the 2-8-0s in tandem were scheduled to protect a heavy eastern Bicentennial program (17 trips out of Alexandria, Va.), and Mike 4501 would cover excursions elsewhere. Since all three engines at times would be running simultaneously, Purdie had been



Purdie talks with SR General Counsel Jim Bistline in the cab of 4501, and with SR Chairman Graham Claytor at Danville, Va. John Gruber

obliged to divide his manpower. He himself would stay aboard the big engine with Edmonds, and he placed the 630/722 team in the care of Donald Purdie, his son, and Paul Brock, a volunteer from the Tennessee Valley Railroad Museum (4501's owner).

The schedule worked — on paper.

Within hours, however, complications had developed. On Thursday, February 26, No. 630 was called to take a 10-car ferry movement from Birmingham to Atlanta in order to have the engine in the latter city to cover a February 27 Atlanta-Macon round trip for a Bicentennial group. So far, so good. The Consol came on like gangbusters, running off the first 63 miles to Anniston in 2 hours 10 minutes. In that country that is hauling. Too much hauling, as it turned out, for 630's knees went sore. The next day she ran hot again; a GE U23B had to be summoned to bring her train back from Macon. A visit to the drop pit cured her trouble, but a jinx was loose.

On April 10, sister 722 was called into steam to sub for the ailing 630 on an NRHS Atlanta Chapter Dogwood Special to Anniston and return. En route, 722 "developed a severe fissure in the cast-iron steam pipe running from the boiler to the right steam chest," to quote Jim Bistline's open letter to "Steam Fans Everywhere."

With that, 722 was sidelined for the season. Since 630 was too small to go it alone in the East and would be obliged to doublehead with 4501, 4501's western circuit had to be canceled.

"Southern regrets to advise you of these changes," wrote Bistline, noting that the annulments were the first caused by engine failure in a decade of SR steam excursions.

As April 1976 waned, events beset Purdie that would have broken a man of less iron and skill. April 23 was Black Friday. Mikado 4501, with schoolchildren in tow, was rapping north from Birmingham to Chattanooga. She crested the grade outside Attalla, Ala., and eased off for the descent to the depot there and the red board that protected the L&N crossing.

Suddenly the engine lunged forward, steam shot skyward from the stack, the throttle became impotent. Purdie reacted instinctively by opening the cylinder cocks, pulling on both injectors, and calling for emergency air. The dry pipe — the 8-inch-diameter, 15½-foot-long pipe in the top of the boiler that conveys steam from the throttle valve in the dome to the smokebox — had collapsed, thus allowing the steam to bypass the throttle. The open cocks and injectors lowered the steam pressure; the brakes halted the train.

On the ground at Attalla at noon, waiting for a diesel replacement as well as for the engine to cool so he could look inside the dome, Bill Purdie allowed to Sarah that Southern might be out of steam for '76. No. 722 was down, No. 630 was awaiting repairs — and now his big engine was crippled.

Black Friday, indeed.

Saturday, April 24: The main rods of the 2-8-2 were taken down to prepare the engine for a deadhead move back to Norris Shop at Birmingham. A local freight picked up 4501 at 6 p.m., and had arrived at Norris by 9. The time was after midnight when the locomotive reached the shop.

Sunday, April 25: In the morning, Purdie's contract commercial-boiler crew met him, and the men descended into the boiler

through the steam dome to look at what was left of the dry pipe. They found that, in certain areas, the pipe's original ¼-inch thickness had worn to ⅛ inch. Normally, a dry pipe is installed through the front end of the boiler — the only access because of the pipe's length. Purdie and his boilermakers had to devise something new — or had to call Bistline and tell him to scrub his schedule. They elected to cut up the collapsed pipe and remove the sections through the dome, and to replace the old pipe with a new ½-inch-thick pipe, lowered through the dome in 57-inch sections and welded together inside the boiler. The work went on until 8 p.m.

Monday, April 26: Picture as many as seven men lying atop the flues in the Mike's boiler, gritty scale showering down their necks, their acetylene torch consuming so much oxygen in those cramped quarters that an air line had to be fed into the boiler. This continued until 2 a.m. Tuesday.

Tuesday, April 21: Work was resumed; the crew didn't knock off until 3:30 a.m. the next day.

Wednesday, April 28: The work was finished, the boiler was tested, the improvisation was pronounced OK. The steam-gauge needle reached for 200 pounds again. The yellow-busloads of children, the Bicentennial visitor crowds, and the photo lines of fans at runbys all came back into focus. There was no band, no citation, no applause in the shop, but a victory of no mean proportion had been achieved.

Thursday, April 29: Diesels had filled in for 4501 on excursions on April 24–27. Now the engine, back in steam, must be in Memphis on May 1 to resume her schedule. She was called to depart at 8:30 a.m., traveling



610, 2839, and 2716 After the troubled 1976 season showed the limitations of SR's steam stable, the road leased a succession of bigger, newer engines. Texas & Pacific 2-10-4 610 (top, at Glen Alice, Tenn.) arrived in 1977. Canadian Pacific Royal Hudson 4-6-4 2839 (at Natural Tunnel, Va.) came in 1979. Chesapeake & Ohio 2-8-4 2716 (at Harvey, Va., with a "Southernized" front end), debuted in 1980. The 1982 Norfolk Southern merger brought N&W 4-8-4 611 and, later, 2-6-6-4 1218. Top, Bob Krone; others, Ron Flanary

with just a rider coach. She should have been into Sheffield, Ala., by dusk, but the Warrior River bridge caught fire, the weary steam crew didn't get under way until 2 p.m., and 4501 didn't arrive at Sheffield until midnight. The gods of the high iron remained in bad temper.

Friday, April 30: Locomotive 4501 arrived in Memphis, ready for her next trip.

Bill Purdie spoke dispassionately and in past tense of the Attalla affair. If one asked for details, he was more concerned with the unorthodox mechanics of replacing a dry pipe through a steam dome than in the man-hours the job required. What mattered was that the engine was back on schedule — square, tight, steaming well.

All went well on a pair of Memphis-

Corinth round trips, then the engine headed east for a two-day Atlanta-Macon-Savannah VIP special chartered by the Savannah Bicentennial Celebration. There was talk that Kate Smith would be aboard, also the Vice-President and his wife. No. 4501 hurried along.

Suddenly, at 10:30 on the night before the big event, in Rome, Ga., 66 miles short of Atlanta, the engine was standing still, frothing great clouds of steam around her firebox — some flues had sprung a leak. The delay was only 20 minutes, but the journey would last much longer. Inman Yard, Atlanta, is a hot spot on the Southern in the small hours. The limping 4501 was delayed there by freights for almost an hour. She finally moved through Inman and beyond to North Yard, near the city's center. Arrival there was

at 3 a.m., Wednesday, May 5.

Purdie looked grim. His engine had leaking flues and a malfunctioning right injector; a yard diesel wasn't available to spot the coal car alongside the tender; the VIPs were due to leave in 10 hours; he was bone-tired.

When I last saw him he was being joined under the yard lights by his son Don, and he was striding off into the gloom toward his engine. The challenge of steam, so alien to diesel-power assemblies that could be replaced by a 12-year-old, had returned to haunt him. What I didn't appreciate until later was that I was seeing the man at his best. A good mechanical department man is paid to fix things, and the best of the breed can fix things anywhere at any hour — because the company expects him to do so.

The Bill Purdie who lights up a cigar as his engine backs up for a photo runby at noon on a sunny day is Bill Purdie at ease. The Bill Purdie I left in North Yard, Atlanta, at 3 a.m., was Bill Purdie the professional.

As soon as the Eastern DC-9 got me back to Milwaukee, I dialed Phil Brooks in Southern's Atlanta passenger office. Did 4501 get off all right on the Savannah Bicentennial Celebration train? Why, yes — out of Atlanta at 2:35 p.m. instead of the scheduled 1 p.m., but out of town; the crew had worked all night.

The next intelligence arrived in a letter from a correspondent in Augusta, Ga. No. 4501 had arrived in town 1½ hours late, accompanied by a GP38 cut in behind her auxiliary tender; Purdie and his crew had spent the night in the Mike's firebox, welding flues as well as repairing a broken grates support. Next day a valve-gear pin snapped as the 2-8-2 was joining the Geep on the point of an excursion to Columbia, S.C. More welding ensued. The letter stated that Bill Purdie had checked out the local engineer, had left Don on the engine, and had retired to a berth in the Pullman *Lake Pearl* behind.

How do you do it, Bill? . . . Can you keep doing it? I wondered.

But then within the week I heard from an uncle of mine in North Carolina. He enclosed a clipping from the *Concord Tribune* (excerpt: *Some 500 excited youngsters boarded a real railroad train, pulled by two puffing steam locomotives, this morning at the Southern Railway Depot*). Another clip from the *Charlotte Observer* was headlined "Aging Steam Trains Stir Memories of Sooty Rides" and included a photo of 630 and 4501 double-heading through a throng of people gathered in Landis, N.C. I checked the date against SR's steam schedule. Sure enough, the 2-8-0/2-8-2 team was right on the advertised.

I reread the *Observer* clip. Staff writer Susan Jetton reported that "Southern officials organized the special train" behind two steam locomotives.

Yes, I thought; I know him. ■



Purdie watches from atop a self-unloading coal car, specially built for SR's steam program, as 4501 is refueled. John Gruber

In the
NEWS

Amtrak gets new cars, locomotives



Two F40PHs, fresh out of EMD as part of Amtrak's first order for the HEP-equipped model, stand at the diesel house south of Chicago Union Station on April 10, 1976. Symbolically in the background are E8s (left) and 1 of the 150 SDP40Fs, whose tracking troubles led to the creation of a more nimble, four-axle unit. Amtrak's 216 F40s were its top power for two decades. Denny Hamilton



Turboliner 154 contrasts with a former New York Central heavyweight coach at Croton, N.Y., during testing on August 2, 1976. Amtrak imported six French RTG turbine-powered trains for Midwest service during 1973–75, then ordered seven similar ones from California's Rohr Industries in '76. The sleek-nosed Rohr Turbos worked intercity runs in New York State. J. W. Swanberg



Amfleet cars in Boston–Washington train 169 follow a GG1 and a head-end power (HEP) car out of Philadelphia in September 1980. With carbodies based on Budd's self-propelled Metroliners of 1967–68, the 492 Amfleet cars were built between July 1975 and August '77. They replaced old steam-heated coaches, diners, lounges, and parlor cars on short- and medium-distance runs; 150 long-haul Amfleet II cars came in 1981–83. Deliveries of double-deck Superliner cars began in October '78. Robert S. McGonigal



The E60's troubles prompted Amtrak to look abroad for a successor to the GG1. Two locomotives, one each from Sweden and France, tested on the Northeast Corridor for several months. In late 1979 Amtrak received the first of an eventual 54 EMD-built AEM7 units based on the Swedish Rc4. In fall 1976, Rc4 No. X995 crosses the Susquehanna River at Perryville, Md. Denny Hamilton



E60CP No. 955 passes through Philadelphia's Zoo interlocking with the New York–Florida *Silver Star* in June 1980. Similar to Black Mesa & Lake Powell's freight motors [page 77], Amtrak's 26 E60s (7 with steam heat, 19 with HEP) began working the Northeast Corridor in November 1975. A derailment of No. 950 on test in February '75 limited the class to 90 mph. Robert S. McGonigal



'WE ARE NOW ABLE TO COMPARE **CONRAIL WITH**

Why the boys in the Blue Room don't feel so blue anymore



Road-switchers of Penn Central, Erie Lackawanna, and Reading heritage display four paint schemes at Collinwood (Ohio) Yard in late 1977. Todd Miller, Robert S. McGonigal collection

CONRAIL'

BY J. DAVID INGLES



J. P. Tansey, Conrail's chief motive-power strategist, oversees the distribution of the 17,000-mile road's 4,600 locomotives and 2,300 cabooses from the "Blue Room" at CR headquarters in Philadelphia. Conrail

"TANSEY."

Conrail's General Superintendent, Locomotive and Caboose Distribution, J. P. "Jim" Tansey, interrupted our conversation in his 17th floor office in CR's general offices at Penn Center in Philadelphia to pick up his telephone.

"OK. Twelve MF36s. . . OK. We'll send a man. . . That's April 26 at Fort Erie. . . Give me the numbers. . . Detroit? OK. I'll have it checked out."

We heard only one side of the conversation, but it was obvious that — as if from a script — a timely call had come in concerning a Conrail lease of locomotives. Tansey and I had just been talking about locomotive-borrowing.

"That was my Canadian National friend in Montreal," Tansey said after he had put the phone down. "We're getting 12 more of their engines. Excuse me while I make a couple of quick calls on this."

From listening to his side of those calls, I gleaned the details of this lease. "MF36," of course, is CN diesel classification lingo for Montreal-built 3,600 h.p. C-C M636 diesels: "M" for Montreal; "F" for freight; "36" for horsepower in hundreds. (Conrail simply uses builder models for its diesel classifications.) "April 26 at Fort Erie" was the date and site in Ontario for the joint inspection of the units by the two roads. Detroit was to be their port of entry to the U.S., and tunnel and trackage clearances for the big 194-ton units had to be checked out.

As with a previous Conrail lease of CN diesels (100 during the last quarter of 1976), the Montreals would be on CR property for up to 89 days — the limit before international duty requirements forced their return without



The Blue Room's power board dates from Penn Central and was expanded when Conrail was formed. Now it covers three walls and holds more than 10,000 color-coded magnetic tags, each representing a locomotive or caboose. Note the early "ConRail" logo. Conrail



SD35 6045, still in Jersey Central paint but with CR initials and number, is ahead of a leased Canadian National GP38-2W at Bellefontaine, Ohio, on August 25, 1977. Dave Oroszi

additional charge. The M636s were to be sent to Mingo Junction, Ohio, to join the Alco-dominated iron-ore pool, enabling Tansey to release back into the system pool big General Electric units assigned to Mingo.

Lack of operative motive power has been cited by Conrail officers as perhaps the road's toughest problem throughout its first year of existence, so locomotive-leasing has become a way of life for the Eastern giant. One reason is the locomotive legacy left by CR's bankrupt predecessors; Conrail top management is on record as saying that the condition of the motive power it inherited was worse than anticipated. Like Amtrak's forced acceptance in 1971 of aging, ill-maintained E and F units which had been given minimal attention as private railroads eyed their exit from the passenger trade, Conrail in 1976 was conveyed a roster which contained many units that were suffering lack of maintenance.

"The fleet was not in excellent shape because the roads were not spending money," Tansey said. "The number of components [e.g., wheel sets] we have changed out is tremendous. The fruits of our changeouts will show up this year."

In the meantime, Conrail had to go call-



A crewman checks the innards of a former Erie Lackawanna U36C as it climbs Horseshoe Curve with a leased C&NW SD45 in June 1977. A box ahead of ex-EL SD45-2 6656's cab shows the unit has been equipped with PRR-style cab signals. Two photos, Dave Oroszi



Among the schemes worn by CNJ units at the end was the "Red Baron" livery, seen on a GP7 at "E'port" in late '77. James C. Herold



The smallest line-haul railroad to go into CR was 90-mile Lehigh & Hudson River; 2077 was one of L&HR's six C420s. Ken Douglas

ing on its neighbors for power. Leasing, although costly, is not as difficult or formal a matter as the outsider might suspect. Declared Tansey, "Let's face it. We're a bunch of 10 or 12 guys who have to trade locomotives to tide one another over shortages and surpluses. Mostly it's a matter of a few phone calls. We often know who's likely to have units to spare. So I deal with my counterparts at the other roads here in the East, big roads elsewhere, and a few dealers." Leases usually are open-ended as to time period covered, with the range from a week to two or three months. Quantity of units and price normally are stated. Some leases are renewable. Many units in lease agreements are subject to call-back by the owning road if the owner needs them.

The 100 CN diesels leased in late 1976 were expected to allow Conrail to get its horses' feet on the ground, but the severe winter took its toll (at one point, 250 of Conrail's own diesels were out of service because of the extreme cold weather), setting back CR's work program by a month and forcing the road again to scramble for motive power.

"We were doing fairly well until December," said Tansey, "but our out-of-service

ratio really jumped then." On startup day, April 1, 1976, 493 units — 10.1 percent of the fleet — were out of service. The figure crept up to 539 by September 1, and in the middle of the worst winter — on February 1, 1977 — 775 units were down.

A look at Conrail's "Foreign Units Leased" list, updated to April 8, 1977, shows how busy Jim Tansey and his telephone had been:

- From Missouri Pacific, 1 of 7 GP35s leased still on hand; others returned during February and March. Two on CR since May 1976.
- From Bangor & Aroostook, 1 GP7 and 2 GP9s on hand since July 1976 and 4 GP38s received in early 1977.
- From Burlington Northern, 4 of 5 NW2s and 2 SW9s — all leased in June 1976.
- From Precision National Corporation, 1 GP35 from June 1976 and 9 GP7s from March and April 1977.
- From Southern, 2 GP30s and 6 FP7s — each kept less than one month in early 1977.
- From General Electric, 4 U36Bs leased in October 1976 and 2 ex-Missouri Pacific EMD-engined Alco RS3s ("GP12s" to MP) received in February and March.

- From Union Pacific, 4 GP9s and 16 GP9Bs, each leased for two months or so early this year and returned by April 8.

- From Southern Pacific, 20 GP35s, on Conrail from December 1976 to February or March 1977.

- From Chicago & North Western, 27 units (16 GP30s, 6 U30Cs, 2 SD40s, 2 SD45s, and 1 GP9) on hand from a group of 46 units of those models leased in the first three months of the year.

Leased units are priced at a given rate, usually expressed in thousand horsepower-hours. For example, the rate for the above lease of units by C&NW to Conrail was \$5 per thousand horsepower-hours. At a flat rate, of course, the larger the unit the more it costs. Thus a 3600 h.p. (or 3.6 khp) SD45 would go for \$18 per hour (5 x 3.6) or \$432 per day (18 x 24). For an SD40 or U30C, the daily charge would be \$360; for a GP35 or a U25B, \$300; for a GP30, \$270; and for a GP9, \$210.

FIRST-YEAR REDUCTIONS

From the standpoints of operations and motive power, Conrail came in like a lamb on April 1, 1976 — which was as it should have been. "With some exceptions," Tansey



Symbolic of the poor condition of many of the units Conrail inherited from its bankrupt predecessors is No. 2620, an ex-PC/PRR U25B leading two U23Bs on a westbound train east of Rochester, N.Y., on May 30, 1978. Art Peterson, Krambles-Peterson Archive



Former PC/NYC GP40 3091 was the first unit to be repainted in full Conrail blue livery. It poses on May 20, 1976, fresh out of the Collinwood paint shop. John C. Benson

pointed out, “we were the same people in the same locations performing the same tasks. Those of us who had been through the Penn Central merger had learned from that experience.” *Conrail*, the company’s employee magazine, reported that April 1 “seemed almost like a ‘non-event.’”

“Our whole approach in the first few months was to make as few changes as possible,” Tansey continued. “For example, in the New York area we had several terminals — Jersey Central at Elizabethport [‘E’port’], Lehigh Valley at Oak Island, Erie Lackawanna at Secaucus, Penn Central at Meadows

Yard. All were in proximity, and obviously we weren’t going to need them all. But none was closed immediately. We had learned to be careful of that in the PC merger. The first action we took [in New Jersey] was to close Oak Island three months later.”

Preliminary figures had pegged Conrail’s locomotive ownership on opening day at above the 5,000 mark; at one point, the number officially was 5,069. In actuality, the quantity was 4,877. “We got fooled on the Amtraks and the D&Hs,” Tansey admitted, in reference to engines that Conrail thought it would own but that were conveyed to those two companies. The passenger corporation got 84 units and D&H got 44 for its expanded operations.

Another factor that contributed to the fluctuation of the conveyance figure was uncertainty over whether certain smaller roads would be part of Conrail or not. Current CR motive-power data include — in addition to locomotives from the seven Class 1 Conrail component roads — units of Chicago River & Indiana, Indianapolis Union, Ironton, Niagara Junction, and Peoria & Eastern. Excluded are diesels of the Ann Arbor (operated by Conrail but owned by the State of Michigan), Buffalo Creek, Raritan River, and Pittsburgh & Lake Erie, which was specially exempted from inclusion in CR.

CONRAIL, FROM 1639 TO 9999

Road Nos.	Model	Qty.	Heritages	Notes
1639–1894	F7A	105	NYC 94, Erie 5, DL&W 2, PRR 2, D&RGW/PC 2	
2021–2044	RS32	22	NYC	
2048–2059	C430	12	RDG 2, NYC 10	
2072–2077	C420	6	L&HR	
2100–2112	GP20M	13	NYC	1
2168–2249	GP30	82	RDG 20, NYC 10, PRR 52	
2250–2399	GP35	146	PRR 116, NYC 30	
2400–2414	RS27	15	PRR	
2416–2459	C425	41	PRR 31, NH 10	
2474–2499	C424	26	PRR 1, EL 15, RDG 10	
2500–2685	U25B	177	NYC 68, EL 27, PRR 57, NH 25	
2700–2798	U23B	99	PC 77, LV 12, CR 10	
2800–2816	B23-7	17	CR	
2822–2823	U28B	2	NYC	
2830–2889	U30B	59	NYC	
2890–2970	U33B	80	PC	
2971–2974	U36B	4	AT/CR	2
3000–3274	GP40	272	NYC 103, PC 169	
3275–3312	GP40-2	38	RDG 5, CR 33	
3620–3692	GP35	73	RDG 37, EL 36	
3800–3839	GP9B	40	PRR	
3858–3874	F7B	15	PRR 1, NYC 7, Erie 5, D&RGW/PC 2	
4000–4063	E8A	8	DL&W 2, Erie 4, NYC 2	
4100–4112	GP40P	13	CNJ	3
4151–4182	U34CH	32	EL–NJDOT	
4224–4244	E7A	3	PRR	4
4246–4328	E8A	29	PRR 21, NYC 8	5
4332–4373	FP7	15	PRR 12, RDG 3	6
4400–4437	E44	38	PRR	7
4438–4459	E44A	22	PRR	7
4460–4465	E44	6	PRR	7
4601–4610	E33	10	VGN/NH	7
4710–4733	S-2E	6	NYC	7
4750–4756	E10B	7	NJ	7
4800–4937	GG1	66	PRR	7, 8
4971–4977	E40	6	NH	7
5000–5059	FL9	40	NH	9
5201–5203	RS2	2	LV 1, C&O/LV 1	9
5229–5554	RS3	74	CNJ 18, Erie 18, NYC 16, NH 6, DL&W 5, RDG/CNJ 5, PRR 3, LV 1, TC/LV 1	
5600–5719	GP7	103	NYC 86, CNJ 6, P&E 10, P&LE/PC 1	
5720–5728	GP8	9	P&E 4, Erie 2, RDG 1, DL&W 1, PRR 1	10
5738–5999	GP7	223	NYC 69, PRR 64, RDG 15, CNJ 7, Erie 48, DL&W 20	
6000–6051	SD35	52	PRR 40, CNJ 12	
6066–6239	SD45	174	EL 34, RDG 5, PRR 130, PC 5	
6240–6357	SD40	116	PC 45, B&O/CNJ 8, PRR 63	
6358–6440	SD40-2	83	CR	
6500–6519	U25B	20	PRR	
6520–6534	U28C	15	PRR	
6535–6539	U30C	5	PRR	
6540–6578	U33C	39	PC 24, EL 15	
6579–6583	U30C	5	RDG	
6587–6599	U36C	13	EL	
6600–6609	C30-7	10	CR	
6654–6666	SD45-2	13	EL	
6667–6699	SDP45	33	EL	
6700–6718	U23B	19	PC	
6721–6752	C628	32	LV 8, Monon/LV 9, PRR 15	
6753–6779	C630	27	RDG 12, PRR 15	
6781–6794	C636	14	PC	

Road Nos.	Model	Qty.	Heritages	Notes
6800–6804	RSD5	2	PRR	
6812–6816	RSD15	4	PRR	
6849	AFH12	1	PRR	11
6855–6879	RSD12	16	PRR	
6900–6924	SD9	25	PRR	
6925–6959	SD38	35	PC	
6998–6999	SD7	2	PRR	
7000–7483	GP9	425	PRR 254, NYC 147, CUT 4, NH 12, Erie 6, LV 2	
7496–7499	GP18	4	LV	
7500–7559	GP9	21	NYC 5, NH 16	12
7560–7575	GP10	16	PRR 10, NYC 6	10
7587–7654	RS11	55	NH 11, NYC 9, LV 3, PRR 26, PRR/LV 6	13
7656–7659	GP38AC	4	LV	
7660–7939	GP38	276	PRSL 10, PC 266	
7940–8180	GP38-2	241	PC 223, CR 18	
8354	DS-4-4-10	1	Ironton	
8400–8599	SW1	136	NYC 61, PRR 59, NYC/CR&I 9, CNJ 3, RDG 2, B&O/CNJ 1, LV 1	
8600–8627	SW8	27	NYC	
8628–8657	SW900	29	CUT 3, NYC 15, LV 11	14
8664–8700	SW8	35	LV 25, DL&W 10	
8701–8721	SW900M, SW900	21	RDG	15
8836–9150	SW7, SW9, SW9M	258	NYC 112, PRR 84, CNJ 15, Erie 12, LV 14, DL&W 10, P&E 7, NYC/CR&I 4	
9151–9194	NW2M	44	NYC 17, PRR 15, IHB/NYC 7 NYO&W/NYC 5	
9200–9296	NW2	94	NYC 30, Erie 24, PRR 15, NYO&W/ NYC 13, LV 6, DL&W 4, CNJ 2	
9301–9314	VO-10 (E)	14	RDG	16
9315–9382	SW1200	68	PRR 35, NH 20, DL&W 8, RDG 5	
9400–9424	SW1001	25	RDG	
9500–9620	SW1500	121	PC 89, RDG 21, IU 11	
9621–9630	MP15	10	RDG	
9640–9842	S2, S4	31	PRR 18, NYC 13	
9844–9849	T6	6	PRR	
9850–9855	S2	3	NH	
9908–9937	RS1	5	PRR 4, NYC 1	
9950–9998	RS3M	41	NYC 20, NH 10, PRR 9, LV 1, Erie 1	16
9999	44-ton	1	PRR	

Key to selected railroads:

AT – Auto-Train; CR&I – Chicago River & Indiana; CUT – Cleveland Union Terminal; IHB – Indiana Harbor Belt; Ironton – Ironton Railroad; IU – Indianapolis Union; NJ – Niagara Junction; NYO&W – New York, Ontario & Western; P&E – Peoria & Eastern; P&LE – Pittsburgh & Lake Erie; TC – Tennessee Central.

Sources:

Conrail maintenance assignment sheets dated April 1, 1977; *Extra 2200 South; Rails Northeast*; EMD Locomotive Reference Data; Kenneth L. Douglas.

Notes:

1. Turbochargers removed.
2. Built for Auto-Train, not delivered; acquired by CR in 1976.
3. Leased from Chessie System by New Jersey Department of Transportation.
4. No. 4233 owned by CR, others by NJDOT.
5. Nos. 4254, 4261–4266, 4268 owned by Massachusetts Bay Transportation Authority; Nos. 4246, 4249, 4251, 4253, 4257, 4258, 4267, 4272, 4285, 4305, 4320–4322, 4324–4328 owned by NJDOT.
6. Nos. 4371–4373 owned by Southeastern Pennsylvania Transportation Authority.
7. Electric locomotive
8. Nos. 4872–4884 owned by NJDOT.
9. Owned by CR, operated for Metropolitan Transportation Authority (New York).
10. Rebuilt by Illinois Central Gulf at Paducah, Ky.
11. Two-unit hump locomotive: RSD15M master with EMD engine and ex-RSD5 slug, rebuilt by PC 1975.
12. Nos. 7533–7536, 7538, 7539, 7542, 7543, 7545, 7547–7549, 7554–7557, 7559 owned by MBTA.
13. Nos. 7640–7644, 7648 are 2,000 h.p. RS11M.
14. Nos. 8655–8656 are SW8.
15. Nos. 8701–8710 rebuilt from Baldwin V0660.
16. EMD engine; original carboodies, modified.



Pristine PC GP40 3222, LV U23B 509, and LV C628 631 bridge the Great Miami River at Moraine, Ohio, on May 9, 1976. Dave Oroszi

WHAT AMTRAK GOT INSTEAD OF CONRAIL				
Model	Qty.	PC Nos.	Amtrak Nos.	Heritage
GG1	10	4890, 4893, 4895, 4896, 4930, 4932, 4933, 4935, 4938, 4939	Same	PRR
FL9	12	5001, 5004, 5006, 5008–5010, 5013, 5014, 5016, 5021, 5025, 5029	231–242	NH
RS3	45	5223–5593	100–144	NYC, PRR, NH
SW1	16	8425–8580	243–258	NYC, PRR
T-3*	1	4678	Same	NYC

* Third-rail electric



Amtrak 103, on a work train at Philadelphia in January 1981, was one of 45 PC RS3s that Conrail did not get. Robert S. McGonigal

In its first year, Conrail was able to retire 4.8 percent of its locomotives despite the power shortages. By April 1, 1977, ownership had dropped to 4,643 units and deletions still were being made (for example, on April 20, 68 more units — mostly F7s, E units, and miscellaneous switchers — were authorized for retirement). All Baldwins except a few Pennsylvania-Reading Seashore Lines units and the Ironton's lone unit, a DS-4-4-10, had been purged by conveyance day (leaving D&H's two Sharknoses as the only other Class 1-owned Baldwins), and only 117 older Alcos (those switchers and road-switchers with 539- or 244-type engines) remained. Retirement of certain majority-make models such as F7s, newer Alcos, and EMD yard switchers is dependent on the economic feasibility of rebuilding them. The F units are more likely to go than the others. Conrail completed major rehabilitation work on 779 locomotives in 1976 and expects to rebuild 977 units this year.

TAGS ON THE BOARD

Conrail, like most big roads, directs its motive-power and train movements from a "nerve center" which has a schematic map on the walls with magnetic tags bearing locomotive and caboose numbers and train designations. CR's facility, dubbed the Blue Room, is on the 17th floor of its general offices and is the former PC control center.

Under Tansey are a Director of Locomotive Distribution and one manager per 8-hour trick, plus a manager of caboose utilization (Conrail had 2,292 cabooses on April 1, 1977, 277 fewer than on startup day; about half are pool cars and half are assigned to specific jobs). On duty each trick are six distributors who work the board. They wear phone headsets to talk to train dispatchers, train-movement directors, and enginehouse foremen. The distributors make their own decisions on assignments; they work areas divided geographically by workable regions, not strictly by the regions as set up administratively by Conrail. The men work six days and then are off two; most of them are former train dispatchers. During our visit to the Blue Room, the men on duty came from locations such as Pittsburgh; Boston; Springfield, Mass.; and Reading, Pa.

There are also three men on duty to follow the progress of certain key trains, and three mechanical-department men keep tabs on which locomotives are in the shop, which must be removed from service on the road, and so forth.

The board covers three walls of the softly lit room. When the New Haven was added to Penn Central, one 4-foot-wide panel was added on the east end of the map; when Conrail was created and Lehigh Valley, Erie Lackawanna, Jersey Central, Reading, and Lehigh & Hudson River were newcomers,



Among CR's oddities are 41 RS3Ms like No. 9937 (left, with lettering altered to CONF AIL), refitted with EMD engines at PC's DeWitt (N.Y.) shop; ex-LV "hammerhead" RS3 5487 (top), built for PRR with a high short hood to house both dynamic brakes and a steam generator; and VO-10(E) 9310, one of 14 RDG Baldwin VO1000s given EMD engines in 1959. Left, Dave Wagner; top, James C. Herold; above, Ken Douglas

two more panels were inserted. Tansey did the revising.

On the board are more than 10,000 tags. For rolling stock, the tags are color-coded: red for electrics, white for four-motor diesels of 1,500 to 2,000 h.p., yellow for four-motor diesels of 2,000 to 3,000 h.p., tan for all six-motor diesels, and green for cabooses. Indicated are the road number, symbols for accessories (e.g., "H" for the "agreement seat," a special piece of cab furniture; "o" for cab signals; and "c" for dynamic braking), and date due for monthly and quarterly inspections. All tags have the Conrail road number on them; for units not yet renumbered, a temporary label-tape number is placed on top; when the unit is renumbered, the label is peeled off. Units not owned by Conrail are marked in grease pencil or felt-tip marker with owners' initials and number. These include not only leased units and diesels on CR by way of run-through trains but three groups of utility-owned diesels: Detroit Edison's SD40s and U30Cs (maintained by DE at Monroe, Mich.); Cleveland Electric Illuminating Co.'s GP38-2s; and Amax Coal's GP38-2s. The Geeps are assigned for maintenance by Conrail to Collinwood, Ohio, and Avon, Ind., respectively.

The board itself was an outgrowth of the Alfred E. Perlman era on the New York

Central, a product of the effort to centralize control over operations. And Tansey — a 37-year veteran of NYC who had been a train dispatcher in Toledo and who had moved to New York in 1956 when the road's first power office was established — had been involved in the project from the start. In the mid-'60s, Southern, for one, had such a motive-power wall board, but the concept wasn't yet common in railroading. Perlman suggested that NYC should have an easily visible method for controlling the system's motive power, and Tansey built it. But it did not directly survive the merger in 1968.

"After the PC merger," Tansey recalled, "train sheets were used to manage the distribution of 3,500 locomotives." This was difficult, to say the least, so the NYC approach was instituted. The board was not an immediate success, however.

"About eight hours after we had set up the new board, 150 units were 'missing,' giving rise to the stories about Penn Central's having 'lost units.' It simply was a matter of not coordinating the tags and of [not] reporting from the field. In 15 days the situation had cleared up, and by inspection date all the units were properly accounted for and located on the board."

Tansey's experience in motive-power utilization is manifesting itself in projects for

WHAT D&H GOT INSTEAD OF CONRAIL			
Model	Qty.	Former owner/Nos.	D&H Nos.
C420	12	LV 404-415	404-415
GP39-2	20	RDG 3420, 3401-3419	7401-7420
GP38-2	12	LV 314-325	7314-7325
WHAT MICHIGAN GOT INSTEAD OF CONRAIL			
Model	Qty.	Ann Arbor Nos.	Heritage
S3	3	6, 7, 10	AA, AA, Manistique & Lake Superior

Conrail. One is a formula for determining the proper amount of horsepower to assign to any given train. Tansey believes the ideal may be 1.3 h.p. per ton on through trains — and that includes all trains from coal drags to TOFC hotshots. A Conrail innovation is a simulator to instruct older enginemen; one simulator is on line and is to move across the system, spending a week in Altoona, then Selkirk; Springfield, Mass.; and so forth. This is not to be confused with the training program for new enginemen; it is strictly a tool of continuing education, and CR hopes to purchase more. Tansey's planning staff comprises three men — the Assistant, Utilization Planning; the Manager, Locomotive Utilization; and the Chief Road Foreman.



Only five EL F7s made it to the CR roster; No. 1884 (top) leads three ex-PC/NYC sisters at Northfield, Ohio, on June 22, 1977. Nos. 1792 (above) and 1648 were the only F7s to get CR blue, but neither wore the “can-opener” logo. Top, John C. Benson; above, Roger Durfee

TWO MAJOR SHOPS

Conrail's ingestion of the motive-power fleets of PC and the smaller roads can be compared to the case of a person who should have been on a diet but instead was forced to eat an abnormally big portion in 1976. CR is now dieting and shedding the excess.

To maintain the largest locomotive roster in the country, CR is going with the same two heavy-repair shops upon which PC relied: Juniata at Altoona, which is home for the EMDs; and Collinwood at Cleveland, which takes care of the Alcos and GEs. Major shops of the other roads have been closed: Reading's at Reading, Pa.; EL's at Marion, Ohio, and Hornell, N.Y.; and the Valley's at Sayre, Pa. In some cases, other firms have moved into these facilities to perform rail-road-related work.

Some smaller non-PC facilities remain open: Jersey Central's at E'port; and EL's at

Scranton and Secaucus. Former Penn Central shops in the East at DeWitt (Syracuse), Selkirk (Albany), Harrisburg, and Enola also are open. Enola, near Harrisburg, performs all work on the E33 and E44 electric freight motors; the GGIs are maintained by Amtrak at Wilmington, Del. At several locations, Conrail maintains locomotives owned by passenger carriers: New Jersey DOT's diesels at E'port and South Amboy, N.J.; New York MTA equipment at Harmon; and Amtrak diesels at Harrisburg. Ann Arbor's 10 GP35s and 5 Alcos once again are maintained at AA's Owosso (Mich.) shop; during the first three months of Conrail's operation of the “Annie,” AA units were assigned to Stanley Yard, Toledo, for maintenance.

To allow for the larger number of units for which the remaining shops were responsible, shop capacity and staff were increased at Columbus, Harrisburg, and Selkirk. The

physical plants of the shops were not enlarged. There was no change as far as electric-locomotive operation and maintenance were concerned, except for Amtrak's taking over Wilmington and handling the Gs, which had always been based there. There is no electric freight on the former New Haven; on the old Pennsy, electric freight operation continues as it did under PC. Diesels infrequently are assigned to freights that operate solely under wire. “We do it only when we have to,” Tansey says.

That philosophy also applies to repainting locomotives. A unit that has been in Juniata or Collinwood for heavy repairs emerges in Conrail blue. Otherwise, the maintaining terminals are responsible for applying what CR calls its “interim scheme” — simply the painting out of the old road name and, if necessary, the affixing of the new road number plus (in an appropriate — or sometimes not so appropriate, as events turn out — position) the “CR” initials.

ROAD ENGINES NEEDED!

In Conrail's first nine months, the only major steps taken to augment its motive-power fleet were the lease of the 100 Canadian National diesels and the rebuilding by Illinois Central Gulf at Paducah of 25 Conrail-predecessor GP7s and GP9s into GP8s and GP10s. The last of these rebuildings was completed on January 13, 1977. Not until early this year did Conrail place its first order for new locomotives.

The total number ordered was 175, and the price tag was almost \$100 million, or \$550,000-plus per unit. Although the presence of seven models in the order seems to signify Conrail's harking back to the railroads' first-generation practice of buying a



Parked at Harrisburg in July 1980 with their stacks covered, CR E8s 4256 (ex-PC/PRR), 4063 (PC/NYC), and 4014 (EL/Erie) are likely en route to Altoona for scrapping. The only other blue E8 was 4022, which got the full livery for business-train duty. Robert S. McGonigal

little bit of everything from everybody, actually the split does not reflect that thinking.

Penn Central had gone the band-aid route in its later diesel purchases, leaning heavily on the smaller, cheaper GP38 (493 of them in three years, plus 77 counterpart U23Bs). PC's last factory-built diesels came in 1973. Conrail, in contrast, wants "as many SD40s as we can get." And the bulk of the 175 units ordered — 83 — were SD40-2s. Because of uncertainty surrounding EMD's HT-C trucks spawned by problems with Amtrak's SDP40Fs, Conrail ordered its SD40-2s to ride on the older style Flexicoil trucks.

The first "new" units delivered to CR were the four U36Bs leased from GE in October 1976. They had been built in 1974 for Auto-Train — ordered in anticipation of expanded Midwest service. That did not materialize, and the units sat at Erie (painted for AT) until CR expressed interest. Conrail specified a change in trucks from the Blombergs AT had ordered (to conform with specifications of diesels of Seaboard Coast Line, on which AT runs) to Type Bs. The four U36s, first of the model on Conrail's roster, are assigned to Selkirk along with 27 other new GEs: 17 B23-7s and 10 C30-7s. Ten U23Bs, which were to finish GE production of that model, are based at Columbus. Completing the order were 18 GP38-2s assigned to Collinwood and 33 GP40-2s (the first new EMDs to be delivered to CR) assigned to Beacon Park, Boston.

Interestingly, although Conrail has been retiring minority-brand switchers as fast as practicable, there were no MP15s in CR's diesel order. "We needed road engines right now," stated Tansey. "We're not ruling out new switcher purchases in the future, but we have to take a serious look at yard-engine requirements on a local basis." Older road-switchers handle many CR yard chores as they do on most roads.

Two shop programs are providing Conrail with what amount to "new" switchers. At Collinwood, EMD goats are being processed



Although not strictly speaking new power, 9 GP8s and 16 GP10s (like 7560 at Conway, Pa., in February '78) rebuilt from 7s and 9s by ICG helped in CR's first year. Ken Douglas



SD40-2s constituted nearly half of CR's early-1977 order for 175 units of seven models; No. 6436 and a GE approach Duncannon, Pa., with a westbound in 1980. Robert S. McGonigal



EMD switchers of LV, CNJ, NYC, and RDG ancestry congregate at the Kearny (N.J.) engine terminal on March 18, 1978. James C. Herold



Officially CR No. 8354, DS-4-4-10 No. 751 from Reading subsidiary Ironton is the giant road's last Baldwin; it idles at Bethlehem, Pa., on February 26, 1977. Dale W. Woodland

at the rate of eight per month. Engines, generators, and trucks are overhauled, and the units are given new wiring when necessary. PC had upgraded more than 40 NW2s to 1,200 h.p. in a similar program.

At DeWitt, the modest re-engining program for RS3s begun by Penn Central in 1972 continues at the rate of one per month. EMD 12-cylinder 567 BC or C engines taken from retired E8s are installed along with main generators, auxiliary generators, and two cooling fans. The Alcos' GE traction motors are reused. The top of the long hood is replaced to allow the removal of the power assembly. The units, rated at 1,200 h.p. and unofficially dubbed "DeWitt Geeps," are "very satisfactory," according to Tansey. More than 40 have been converted, and the program is to continue until the supply of prime movers is used up — probably in 1978.

CONRAIL VS. CONRAIL

So as Conrail moves through its second year, the giant road seems to be overcoming that biggest problem — motive-power availability. "The fleet is becoming much better," Tansey said. "Our failures are decreasing, and we're getting heavily into quality control. When we get ground relays or hot engines, we know what shops are responsible. Had we not had problems as severe as they were in January and February, we would be in much better shape."

"We now are able to compare Conrail with Conrail. Before, you didn't know what you were comparing against."

With such a large fleet, Conrail has a few practices some observers may question. One is light-engine moves. With so many units, why is there a need to pay crews to ferry locomotives if distribution control is up to

snuff? "Our power needs vary because the road is so big. We have a lot of ups and downs, with fluctuations caused by many factors. For example, lake ports and ocean ports — traffic may build up at them and cause an imbalance of units. We run light engines to take care of these and other situations because of money and, especially, time. We can't have that traffic sitting awaiting power, and it's cheaper in the long run to pay the crews to take the light engines."

Similarly, because Conrail has such a big locomotive fleet, the road is able to cycle its units home for monthly inspections. "Unlike many roads, we run diesels home for MIs," Tansey observed. "That way, we have the same people work on the same engines. We have enough trains to do this. In the Blue Room, we track units for five days prior to inspection dates."

Tansey foresees no experimentation with remote-control midtrain power. "We don't run enough trains that far to make it practical. Our hauls are too short." CR does participate in run-through operations to a great extent, however, so the trackside observer might see Conrail units from Chattanooga to California. As of April 18, 1977, Conrail was participating in 32 run-throughs, including with Southern Pacific; Santa Fe; Toledo, Peoria & Western (Columbus-East Peoria); C&NW; Louisville & Nashville; Southern; Boston & Maine; Grand Trunk Western (Michigan coal); Richmond, Fredericksburg & Potomac (a new operation between Allentown, Pa., and Richmond, Va.), N&W (the old LV Buffalo run-through); and Chessie (the Royal Blue Line in New Jersey).

In the short term, Conrail's future motive power seems destined to be a mirror of that of other large Class 1s. In the longer term, the one factor that makes Conrail different is the existing ex-Pennsy electrification. As the only freight test-bed available, CR is hosting



Built by GE for PRR in the early 1960s, 4,400 h.p. E44s and 5,000 h.p. E44As, 66 units in all, are CR's premier freight electrics, the big brothers of the 10 ex-VGN/NH E33s. Two E44s move east at Morrisville, Pa., in August 1979. Chuck Porter, Robert S. McGonigal collection



The first GG1, No. 4800, was also technically the first CR unit to be fully repainted (a unique Bicentennial scheme in April '76) and, later, the only G to wear blue. "Rivets" is eastbound with 4887 at Harrisburg in September 1978. G. H. Landau, Krambles-Peterson Archive



The newest freight motors on Conrail are two EMD-owned demonstrators: 6,000 h.p. GM6C 1975 (at Harrisburg on March 28, 1976) and 10,000 h.p. GM10B 1976. Like the E44s, they have dual controls and often run long-hood forward. Ken Douglas

the two ASEA-designed, EMD-built demonstrator units, the two-year-old C-C GM6C and the year-old B-B-B GM10B. Additionally Conrail is studying the extension of electrification westward from Harrisburg to the Pittsburgh area.

Further, Conrail is involved in the pending changeover in voltage for the Northeast Corridor electrification from 11,000-volt 25-cycle A.C. to 25,000-volt 60-cycle. When

the change is made south of New York City, Conrail will face a costly conversion of its E33 and E44 freight motors (The aged GG1s are deemed too expensive to alter and so will be retired). But don't rush out to get your last GG1 photos just yet. At this writing in early summer 1977, no firm dates have been announced — and the main reason is easy to guess: bureaucracies.

As owner of most of the Washington-

Boston main line (the electrification is to be extended eastward from New Haven to Boston), Amtrak now is the central party to any change (and its E60s and Metroliners are adaptable), but also involved are the various governmental bodies that own commuter equipment and — in the case of part of the old New Haven line — the trackage: Maryland DOT; SEPTA; New Jersey DOT; New York's MTA; and Connecticut DOT. ■

Special paint schemes, Freedom Train mark Bicentennial



It started in 1971, five years before the 200th anniversary of the nation's founding, when Seaboard Coast Line specified a patriotic paint scheme for new U36B No. 1776. Other roads followed suit; ultimately more than 200 units on common carriers (including 31 of the 46 Class 1s) and industrials wore Bicentennial liveries. *TRAINS* magazine arranged for this gathering of "Bicen" diesels at a Belt Railway of Chicago yard on July 31, 1975: BRC MP15 534, BN SDP40 1976, N&W SD45 1776, MILW SD40-2 156, Santa Fe SD45-2 5701, ICG GP38AC 1776, SCL 1776, and SP/SSW SD45T-2 9389. Harold Edmonson

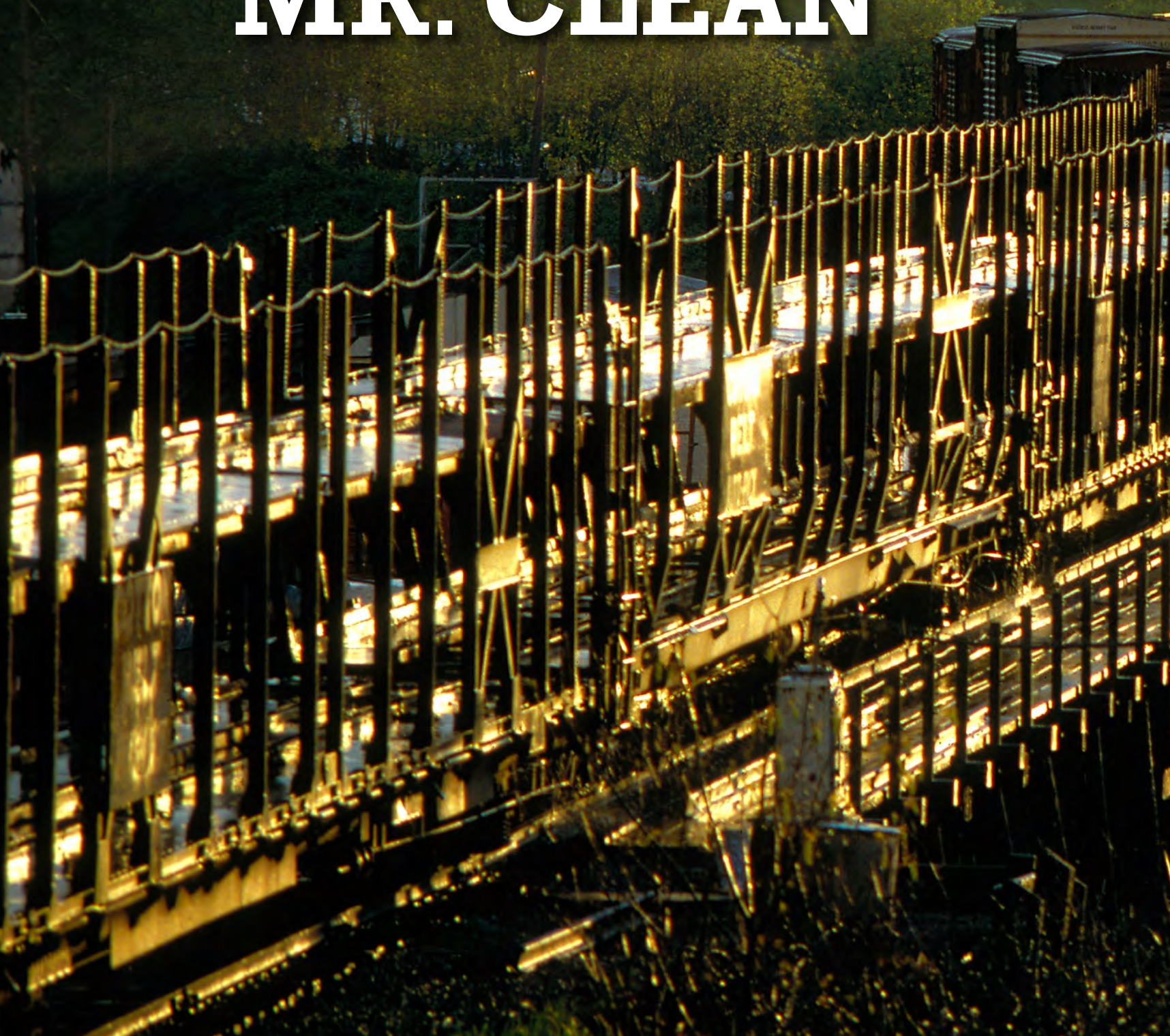




The brainchild of steam impresario Ross Rowland, the *American Freedom Train* covered 24,612 miles in 48 states during April 1975–December 1976. Its 25 cars included 10 display cars filled with historic artifacts, seen by 7 million people in 138 cities. Former SP *Daylight* 4-8-4 4449 was the main engine, spelled by ex-Reading 4-8-4 2101 (as AFT No. 1) in the East and ex-Texas & Pacific 2-10-4 610 in Texas. At left, 4449 is on home rails at Glendale, Calif., on December 22, 1975; above, still on the SP, the AFT is west of Cabazon, Calif., on January 21, 1976. Two photos, Gordon Glattenberg



TACOMA HILL, SLUGS, and MR. CLEAN



How the Milwaukee Road tackles its steepest grade

BY **BLAIR KOOISTRA**
PHOTOS BY THE AUTHOR

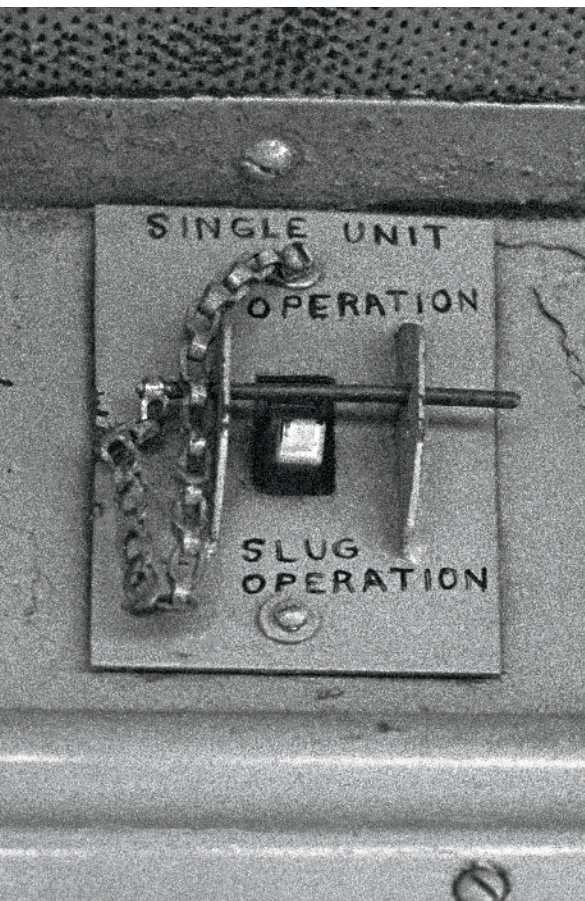
I'm known around here as Mr. Clean," explains Milwaukee Road engineer Gordon Russ as he wipes down the floor of his locomotive with Boraxo wetted with water from the cab water cooler. "Probably 'cause of my early training."

Russ, who started his railroad career for the Chicago, Milwaukee, St. Paul & Pacific in 1937, hired out on the wash track at Tideflats Yard in Tacoma, Wash., scrubbing down massive N-class 2-6-6-2s and box-cab electrics. He knows, perhaps better than anyone, the yard and Tacoma Hill, a 5.3-mile grade of just under 3.6 percent — the steepest grade on the entire 10,159-mile railroad. Now, as senior engineer on the Milwaukee's Washington Division, he is in command of the Tacoma Hill helpers, a six-unit set of four EMD F7As and two former F7Bs converted to engineless slugs. The lashup exalts the "resourcefulness" the railroad so proudly touts on the sides of its bright yellow boxcars.

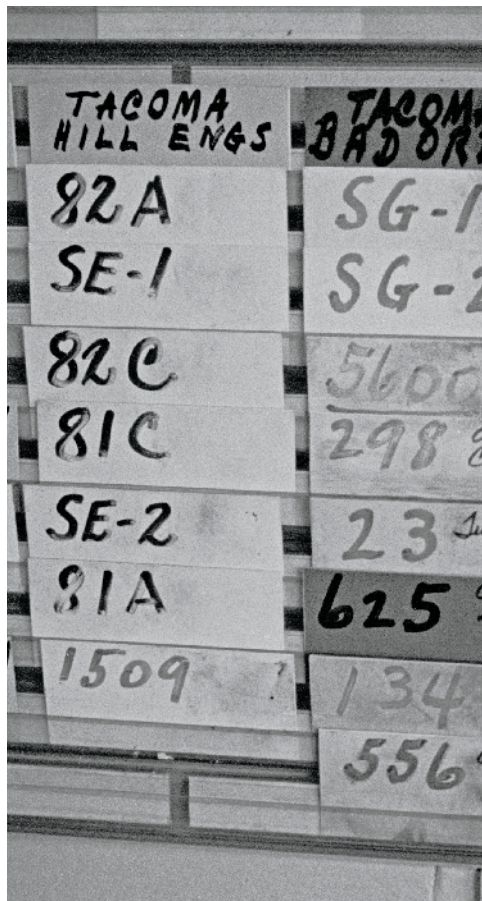
Cab units are a dying breed, and in Tacoma the F7As are second in interest only to the two B units. The trailers' floors are bare save for two traction-motor blowers at each end. Inside the cab of "Gordon's engine" (the lead A unit), on a chipped light-green panel over the electrical cabinet, is the only appli-



Above: Tacoma Hill Fs grind past the block signals near the top of the grade at Hillside. Left: Late one afternoon, the two slug sets (with an SD7 substituting for an F7A) lug a train over the trestle west of the coach yard.



On the cab wall of each slug-master A unit is a switch that sets them apart from the standard F7s on MILW's eastern lines.



At Tideflats, the two F7A/slug/F7A sets, plus GP35 1509, are marked up for the hill; two GE-compatible slugs are bad-ordered.



The interior of slug unit SE2 is empty save for a built-up floor to provide additional weight for enhanced tractive effort, and a pair of traction-motor blowers at each end.

ance which can make those B units relinquish their duty — a switch giving the engineer the choice of straight V16 power or diffused, surefooted slug assistance.

The locomotives, built in 1950–53 and now numbered (and arranged) 81C/SE1/81A/82C/SE2/82A, are used exclusively on the former Tacoma Eastern line south out of the city to give a shoulder to Portland-bound 4th Subdivision freights over the hill as they head for Southern Pacific's Brooklyn Yard in the Rose City.

Were it not for the Burlington Northern merger of 1970, as a condition of which the Milwaukee was given access to Portland over BN rails south of Longview, Wash., the units might still be in Mitchell, S.Dak., where they worked regular trips to Sioux City, Iowa. The units that now are the 81A/SE1/81C set came west in 1970. Increased traffic over Tacoma Hill brought the set now numbered 82A/SE2/82C out west on November 22, 1976.

"They're stout," declared Russ one day as he was giving the units a quick going-over before assaulting the hill on train 901, cut in 43 cars behind two U30Bs on the point.

"They don't give an inch." Russ, known to some as the "caretaker" of the slug sets, points out that they are the perfect power for the hill. They gain their maximum tractive effort between 6 and 7 mph and are rated at 2,600 to 2,800 tons on the climb to Hillsdale. He says the units are comfortable with 2,400 tons.

The slugs (designated SE for use with Electro-Motive units) are activated by the lead locomotive, adding two more axles for power to each cab unit. The slugs provide most of their tractive grip up to about 25 mph; after that, Russ says, they're just along for the ride.

Milwaukee's first slug, SE1, was converted from F7B 119B in 1964 at West Milwaukee Shops. In 1974, the SE2 was remade from the 110B at West Milwaukee, followed by the SE3 from the 118B. SE3, along with masters 83A and 83C, is assigned almost as far from Tacoma as you can get on the Milwaukee Road, at Latta, Ind. There also are two SG slugs for use with GE masters; SG1 was converted from Alco RSC2 463 and SG2 from F7B 115B. They work with 5600-series U30Bs.

The Tacoma Hill line was built in 1900 as the Tacoma Eastern Railroad; the company had been incorporated on July 14, 1890. Tacoma is laid out in a bowl surrounding Commencement Bay and is bordered on the north and south by hills. The TE filled in an area in the muck and mire to the east of the bay — hence the name Tideflats for its yard.

To reach south toward the timber-rich areas of Morton and Ashland, the TE was forced to climb through a gully to the plateau south of Tacoma. The Northern Pacific had built along Puget Sound and also had a steep line between the Sound and the TE's route, the 2 percent grade up South Tacoma Hill on



Gordon Russ, senior engineman on the division, gets ready for another run up the hill. His housekeeping habits in the cab earned him the nickname "Mr. Clean."

the line through Fort Lewis to Nisqually.

Today, all BN traffic — plus that of Union Pacific, which shares BN track between Tacoma and Portland — goes on the main line along the Sound. Only the Milwaukee Road, which acquired the TE on December 31, 1918, still must resort to climbing Tacoma Hill to get to Portland.

Tacoma Eastern's new parent quickly built on to Chehalis, Wash., and acquired trackage rights over the NP into Longview, a port on the Columbia River. Until the BN merger, that was the south end of Milwaukee Road operations in Washington.

The Milwaukee had inherited a fleet of 2-6-0s, 2-8-0s, 4-4-0s, and 4-6-0s from the TE, but many of those ancient locomotives were scrap candidates by the 1920s and '30s. The big road subsequently assigned its Class N 2-6-6-2 Mallets to the line. The Ns were well-known — and disliked — for their ability to leak steam. After World War II they were replaced by Mikados. In the 1950s, SDs and GPs replaced the 2-8-2s, and the EMDs



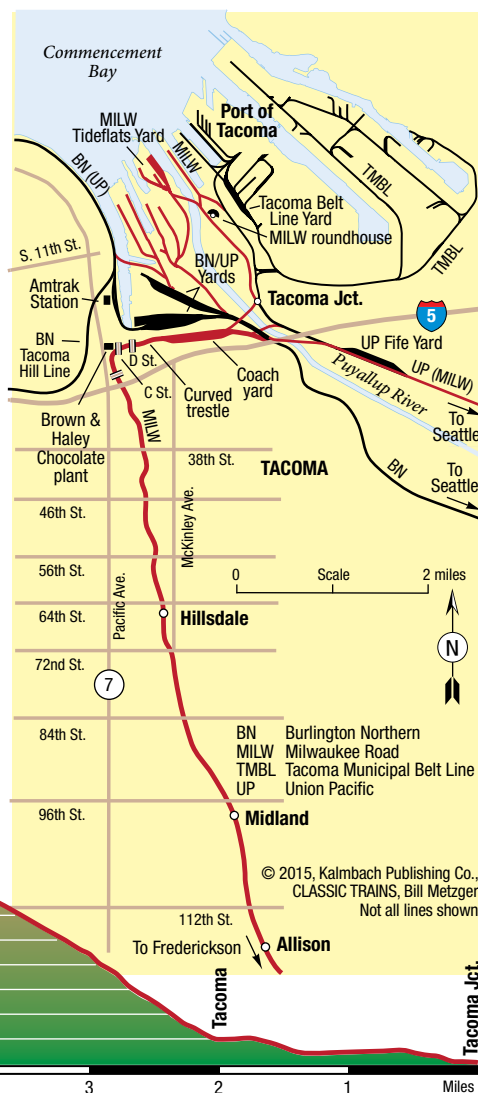
Shop foreman Rob Ladley (right) shares a light moment with hostlers at Tacoma's Tide-flats Yard. "We try to change the [brake] shoes once a night," Ladley says of the hill Fs.



Busy time at Tacoma Junction: A pair of GP35s with a short Mineral Turn out of Tideflats Yard, consisting mostly of empty log flats for the Morton Logger, pulls down the main track to climb Tacoma Hill unassisted. Meanwhile, the six hill F units, pushed by an NW2, are positioned into the siding. The distant poles once held MILW catenary.



Another Mineral Turn passes the Fs at the coach yard. Behind the three GEs are two EMDs to be swapped out at Mineral with the power used by the Morton Logger.



lasted until the mid-1960s when GE U25Bs arrived. Until mid-1977, when the Milwaukee sent its U-boat fleet to the Midwest in exchange for various models of second-generation EMD hoods, GE power ruled the "South Lines," running log trains to the Morton and National areas as well as handling all trains on the main line to Portland. The hill Fs were the sole exception to the GE rule.

Operation of the Tacoma Hill helpers is regular, with little deviation. Russ and his crew arrive at the Tideflats roundhouse around 2:45 p.m., and after preliminaries (checking the air, getting orders, and, for Russ, purchasing a Diet Pepsi), he moves the units into the yard to either tie onto a cut of cars to pull up the hill alone or cut in mid-train on a Portland-bound freight. The Fs make several trips to the top each day.

The helpers will leave the yard — either by backing to Tacoma Junction or pulling their train onto the main and then running around it — until they clear the mainline switch, notch out, cross the Puyallup River and stop at the old coach yard. There the train will be broken into 2,400-ton blocks. A clinch of the iron fist, another check of the air, and "82A" will be in business. Let's join Russ and his crew for a trip.

Just past the coach yard (still referred to as such), the train crosses a magnificent S-curve wooden trestle and soon afterward passes the Milwaukee's offices on D Street, where upstairs Dispatcher D. W. Petersen controls the Washington Division.

The Fs swing beneath C Street and hit the steepest part of the grade at the curve near the Brown & Haley Chocolate plant. "You

can't make a run at the hill because the grade is so long and because of the 15 mile-per-hour speed limit," Russ points out.

Past the chocolate plant, the line splices the northbound and southbound lanes of Highway 7 for a little more than a mile. After passing under the 38th Street bridge, the line enters the rustic, heavily wooded gully. The train twists and climbs, taxing the motive power to its limit and forcing the engineer to use Run 8. Near 46th Street, the tracks emerge from the gully and run at street level through a suburban area filled with the likes of 7-Eleven Stores and elementary schools.

The rails must be sanded almost constantly, and the locomotives have large-capacity sandboxes in their sides. Wheel grease from downhill trains scrapes off onto the rails on the sharper curves, and "we have to contend with it," Russ says with a hint of disgust in his voice. But even with that valid excuse for the amount of sand on the right of way, yard hostlers contend that the trackage looks more like the Daytona Speedway than the Milwaukee Road.

The sharp curves, besides removing wheel grease from downhill trains, caused numerous derailments, which prompted the Milwaukee to install three sets of dragging equipment indicators between the Brown & Haley plant and Hillsdale. The railroad sees the indicators as a tool of safety; the crew sees them as a visual tool of their chances of attaining the summit. "If you make it to the second set of drag indicators you know you're going to make it to the top," says Mark Robertson, a brakeman on the hill.

At Hillsdale the crew begins its vigil for attempts at egging and stoning the train by youngsters. The incidents occur regularly at the Boys Club building near the 62nd Street crossing. "I see bricks on top of these units all the time," one hostler at Tideflats says. But the problem is not confined to the summit. Robertson recalls the time when a rail was laid across the tracks in front of an uphill train near Brown & Haley. "I don't know how they got it on there, but it took four of us to get it off. Just lucky we weren't a downhill train or we'd have been in real trouble." Because of the suburban nature of the line to Hillsdale, the Milwaukee regularly assigns one railroad policeman to pace the train — in a manner akin to railfans — to keep the youngsters in the area off the right of way. Even so, vandalism occurs almost nightly.

A mile and a half south of 64th Street, the track crosses McKinley Way and plunges into a forested area, vanishing from view until 84th Street. Here the helper is removed, and the chant of the F7s' 567Cs blends with

With an SD7 pinch-hitting for one of the F7As, both Tacoma Hill slug sets approach the top of the grade near 56th Street in typical cold, wet Northwest winter weather.





The F units wait to depart the Tacoma Municipal Belt Line yard as TMBL's ex-NP Alco S4 switches in the foreground. Loaded and empty log flats fill the yard tracks.



The landmark S-curved trestle near downtown Tacoma feels the weight of the Fs as they haul another train up the 5.3-mile hill.

the bovine sounds from nearby pastures in the agricultural area.

The ride downhill taxes the brake shoes of the locomotives as well as the knowledge of the engineer. The Fs have no dynamic brakes and so grind brake shoes down in a prolific manner. "We try to change the shoes once a night," says Rob Ladely, a Tideflats roundhouse foreman.

Nighttime on the hill. Brake shoes spark, fuses are lit, and 85th Street is bathed in the red glow of Milwaukee Road regulation flares. When 10 p.m. comes, the crew ties up and heads for Maxine's Diner, where they look forward to "a great sirloin with potatoes for two and a quarter." Brakie Robertson looks at the belly of a fellow crew member and murmurs, "I think I'll have the Chef's Salad tonight."

After dinner, with the units' amber warning lights flashing and a loud single-chime



With part of their train still on the trestle, the Fs round the sharp curve at the Brown & Haley plant, whose level rows of windows contrast with the 3.6-percent grade.

air horn blasting for each road crossing, the crew makes its last couple of hill runs for the day. The helpers then tie up for the night at Tideflats Yard and are quickly herded inside by a hostler for their nightly physical. Russ and the crew head for home.

Should the unlikely happen and the financially troubled Milwaukee Road be merged into Burlington Northern, Tacoma Hill might not face the end of the line. In addition to local traffic, log trains to Morton would keep the route alive. But traffic would drop to the levels of pre-BN days, when volume was not sufficient to warrant the Fs as hill helpers.

As the only Milwaukee Road Fs outside the Midwest, the Tacoma Hill helpers are a refreshing diversion from SD40-2s and such. If you're in the Tacoma area, look the units up — "Mr. Clean" and his F units will put on a show for you. ■

BLAIR KOOISTRA jokes that he was a "has-been at age 19," remembered more for images of the Milwaukee he made as a teenager than anything else in 40 years of photographing railroads. After 15 years as a photojournalist, he's spent the past 20 as a BNSF train dispatcher.



The F units wait in the siding at 84th Street, where the chant of their engines blends with the sounds of livestock, for the caboose of a southbound freight to pass. Once the elderly EMDs have the road, they'll roll back down the hill, ready for another trip up.

In the
NEWS

Classics return, east and west



Western Pacific was fighting its way back to prosperity in 1977 when it had to cancel an order for five GP40-2s. Desperate for power, WP decided to overhaul its final four F7s, which were in rough shape inside and out. Three of the covered wagons emerged in shiny Perlman green, WP's standard since 1970; the fourth, at the urging of railfans and employees, got the road's 1950s orange-and-silver scheme. Recalling the *California Zephyr*, No. 913, on her first trip, leads her green sisters over Altamont Pass on April 24, 1978. Vic Neves



An essay by reader Howard Serig in November 1976 *TRAINS* magazine suggested the return of a black Conrail or Amtrak GG1 to its original Pennsylvania Railroad pinstripe livery. Railfans formed the group Friends of the GG1, which quickly raised the \$10,000 Amtrak required for the job. The repainted motor, No. 4935, made its public debut in a ceremony at Washington Union Station on May 15, 1977. Here it heads a 15-car NRHS special up Conrail's Port Road freight line at Safe Harbor, Pa., in September 1979. Jim Boyd



FEBRUARY
1979

Flight of the FALCON

North Western's hot piggyback trains hustle to a handoff with the Union Pacific

BY F. K. PLOUS JR.
PHOTOS BY BILL FAHRENWALD

What do you do with a passenger railroad after the passenger trains are gone?

On the always-surprising Chicago & North Western, the answer is simple: Run freight trains, but run them as if they were passenger trains.

A granger road trying to diet off more than 3,000 of its 12,000 Upper Midwest route-miles, the North Western ought to know something about running varnish: At the height of the post-World War II passenger boom, it fielded a dozen diesel streamliners a day from its 16-track elevated trainshed at Canal and Madison streets in Chicago. Eight were members of the North Western's own "Amazing '400' Fleet" to Wisconsin,

Upper Michigan, Minnesota, and South Dakota; the other four — *City of Los Angeles*, *City of Portland*, *City of San Francisco*, and *City of Denver* — were jointly owned by C&NW and Union Pacific. Whether it was a yellow-and-green 400 to the North Woods or a yellow-and-gray Streamliner to the West, these facts were sure: The ride would be fast and the running would be safe, for C&NW had equipped all three of its routes out of Chicago with Automatic Block Signals and Automatic Train Stop. And one of those lines, the 488-mile segment from Chicago to Omaha, had double track all the way and Centralized Traffic Control for 75 miles from West Chicago to Nelson, Ill. As much as any railroad, even the New Haven from New

York to Boston or the Pennsy from New York to Washington, the North Western was a passenger road.

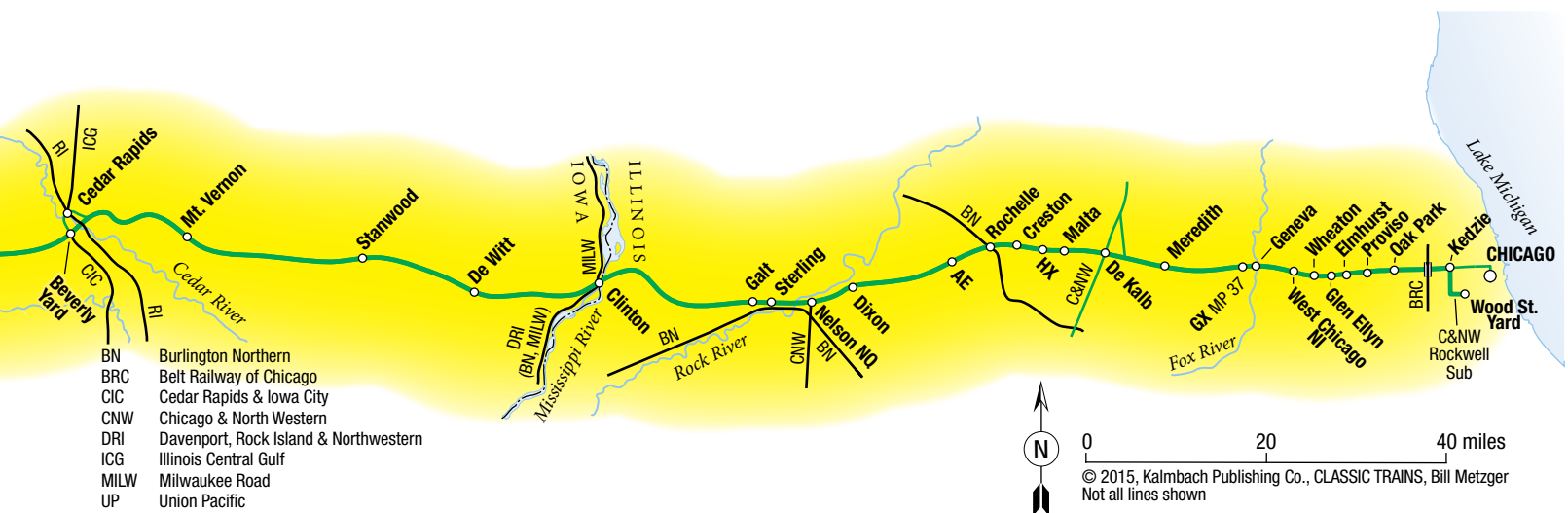
That's all over now, of course. The last 400 tied up on Amtrak Eve in April 1971, and the last passenger train to regularly traverse the full length of C&NW's Chicago-Missouri River line ran in 1959. The last UP Streamliner over the Illinois (then Galena) and Iowa divisions had made its run four years earlier, in 1955, when C&NW tired of playing host to the Western varnish and the trains were switched to the parallel Milwaukee Road for the Chicago-Omaha segment. Thus, in spirit at least, North Western's part of the Overland Route hasn't been a first-class railroad in almost 20 years. Clearly, the glory days of



After dashing across Illinois and Iowa, C&NW and Union Pacific units curve into Fremont, Nebr., with a *Falcon* from Chicago on August 14, 1977. Just ahead, the train will stop for a crew change and the addition of another UP unit up front, then be on its way west in just 15 minutes.



C&NW 6910, one of two SD40-2s to carry Falcon Service markings on the hood, stands outside the Proviso Yard engine-house. The *Falcons* ("Birds" to employees) are a source of pride for North Western people. Joe Pierson, Bob Baker collection



backs the four-unit consist (two C&NW SD40-2s, two UP U30Cs) onto the 50-car train, engineer Wayne Hoppenrath is beside himself with impatience. By the time conductor Don McCracken finally calls for a standing air test, it is hard to tell whether the sudden rush of air into the cab is a brake application or just “Hoppy’s” sigh of relief.

“Is that waycar [what North Western, among other roads, calls the caboos] wigglin’ yet?” Hoppy barks over the radio as he advances the throttle.

“Yeah. Make it 2:37.”

“What’s the total on the tonnage?”

“Ain’t got the bills yet.”

For the first 2½ miles and approximately 15 minutes of its life, a westbound *Falcon* has no formal existence save that conferred upon it by the dispatcher. Its time as a timetabled first-class train begins only after it has run “extra” over the Rockwell Subdivision, a four-track industrial stub connecting Wood Street with the Illinois Division main line that runs almost due west from downtown. TOFC trains are allowed only 20 mph on the Rockwell, and the limit must be observed until the train has completed a 90-degree turn to the left and passed completely over Kedzie Interlocking, a *Falcon*’s formal point of admission to the Geneva Subdivision, the timetable, the Overland Route and, if you will, glory.

“Two-forty-five, highball,” comes McCracken’s voice as the waycar bounces through the turnout.

Hoppy’s response is instantaneous. Black smoke, in the immemorial fashion of Alco and GE products, erupts from the U-boats, and the main generators of the big SDs scream as if in pain.

But there is no more resistance from the 50 flatcars tied to our tail than 14 or 15 Streamliner cars might have offered three decades earlier. The *Falcon* positively surges forward. In minutes it is racing westward. But it is doing more than racing — it is posing, for the Geneva Subdivision of the Illi-



Falcon 245 passes a “scoot” in suburban territory outside Chicago on August 13, 1977. C&NW sometimes holds scoots for *Falcons*, while managing to keep both on time.

nois Division may well be the handsomest arena in the whole North Western system in which to watch — or ride — a train. Here, on a totally grade-separated right of way nearly a city block wide, under stark black signal gantries, is a superb main line, still fit for the long-departed Streamliners but admirably kept up for push-pull commuter trains and high-speed merchandise jobs like the *Falcons*. The track is straight, the roadbed full of ballast, the rail even and surfaced.

Staring into nothing but high greens (known on the C&NW as “ninety on top,” as we will explain), Hoppy gleefully begins doing the job the railroad pays him for. A mile and three-quarters west of Kedzie the *Falcon* dips under the Belt Railway of Chicago bridge doing 42 mph. It crosses Laramie Avenue, three-quarters of a mile west and uphill all the way, doing 49, and the speed continues to build. At how many places in North America does a freight train move at 50 mph within the corporate limits of a big city?

Technically, the *Falcon* is outside of Chicago and racing through the contiguous suburb of Oak Park when, 2 miles west of Laramie Avenue, it slams across the Oak Park Avenue viaduct at an even 60, an event that occasions some modest drama on the rapid-transit platform of the Chicago Transit Authority, which shares space on the North Western’s elevated right of way. As the rocking trailers bear down on the hapless citizenry at a mile a minute, agitation breaks out on the “L” platform. Some people scatter. Others grab a stanchion and stand fast. Small children hug mommy’s knee. A brave few simply stand and wave. What a visual aid. Were I a grammar-school teacher under orders to teach my moppets about railroading, I would simply march them up onto the “L” platform, face them east into the *Falcon*’s headlight, and watch the fun.

It would be nice to keep doing a steady 60 on the welded rail that began in Oak Park, but Hoppy makes a light application required



A common sight from the bay window of 245's waycar: a passing freight. Between Chicago and Ames, Iowa, the train met 11 eastbounds and overtook 2 westbounds.

for passage through the interlocking at Vale between River Forest and Maywood.

"It's 50 miles an hour from this signal to First Avenue," he says as the *Falcon* leans gracefully into an easy, tree-lined curve to the right where the interlocking reduces the line from three tracks to two. As the interlocking comes into view so does an interesting sight — waiting in the clear on the inside track is a westbound commuter train ("scoot" in North Western parlance), its flagman down on the ballast behind the drawbar in observance of Rule 99. Who else but North Western puts sub-urban trains in the hole to let merchandise trains go by — and keeps both on time?

UPHILL AND ACCELERATING

No more obstacles now as the *Falcon* charges steadily through the near western suburbs at grade level doing a steady 60, sweeping around the congestion of Proviso Yard to its south. Hoppy slows his train to an obligatory 30 for HM Interlocking, where west-bound freights out of Proviso enter the main line and the tracks again grow from two to three. He keeps his train at 30 while negotiating a shoo-fly around the site of an underpass being built in downtown Elmhurst.

Then, with the steady, uphill grades of DuPage County waiting ahead, Hoppy widens his throttle in earnest. Smoke spews, units roar, flanges clang on steel, and — grades and reverse curves notwithstanding — the *Falcon* surges again. The clock on the DuPage County courthouse in downtown

Wheaton reads 3:28 as train 245 clatters through town, uphill and accelerating.

"First time I ran this job I didn't get to light a cigarette from the time we left Kedzie to Milepost 37," Hoppy says. "Man, I was a nervous wreck."

More confident now, Hoppy can smoke and run his train at the same time, with leisure left over to observe some of the amenities of civilized railroading. When he comes upon 259, stopped on the center track because the Glen Ellyn police have reported a hotbox, Hoppy waves at its waycar and

units and exchanges a bit of comforting banter over the radio. Passing the yard office at West Chicago, he blows "shave-and-a-haircut — two-bits" on the air horn and takes time to point out the new unloading facility for Toyotas coming in from the West Coast. The auto yard is more than a terminal for a growing business on the C&NW — it's a visible warrant of UP's confidence in North Western's abilities, as is the *Falcon* itself.

Just east of the West Chicago depot, at NI Interlocking, North Western's longest stretch of CTC begins. For the first 2.6 miles the line is triple track. Then, at the west end of West Chicago yard, it narrows to two reverse-signalized tracks and stays that way for another 73 miles and eight more interlockings (crossovers as well as junctions) — an average of one set of crossovers every 7 miles. At Nelson, Ill., where the line to St. Louis diverges, the CTC ends and the line reverts to simple double track protected by Automatic

WITH PLENTY OF POWER AND A LIGHT CONSIST, THE PROBLEM IS NOT ACHIEVING 70 MPH BUT MAINTAINING IT WITHOUT EXCEEDING IT.

Block Signals and intermittent Automatic Train Stop, the same system C&NW used for more than four decades to guard and space its Coast-bound passenger expresses.

RIDING THE RIBBON RAIL

At NI, the dispatcher puts us on Track 1, the left-hand main as you head west, but his choice has nothing to do with North Western's traditional lefthand operation. The selection of our route is practical, not sentimental, for Track 1 has been relaid according to the standard the road aspires to establish systemwide — with 136-pound continuous welded rail. Track 2 still is made of conventional 39-foot sections of bolted rail weighing 112 pounds per yard. And though *Falcons* are nominally allowed 60 mph on the older main, the figure can be achieved only intermittently, for slow orders sometimes cut the 60 mph in half or worse.

Taking maximum advantage of the plant and the rules, Hoppy builds up the speed as we slide down the hill out of West Chicago and into the Fox River valley, 3 miles away. But when we cross the bridge and head up the hill out of Geneva, the speed never slackens. At Meredith, 12½ miles west of Geneva, an eastbound extra slams past. Right behind him comes 254. We're only 48 miles from Chicago and we already have met three other trains. Chatter on the radio indicates more in the vicinity. The dispatcher will figure out how to thread the *Falcon* through them; all Hoppenrath can do is keep his train rolling, and he does.

"There ya go," Hoppy grins and points to the speedometer, which shows an unmistakable 70 mph. The problem now, Hoppy says, is not achieving 70 but maintaining it without exceeding it. "I get to 73 and I get a brake. I get a high-speed horn."

The horn never sounds. Neither does the Automatic Train Stop. The cab-signal lights show nothing but green as Hoppy makes a service application to observe the 30-mph speed limit over the grade crossings in downtown DeKalb.

Right downtown we meet a third east-bound, evidence of the continuing and increasingly heavy usage C&NW's hunk of the Overland Route gets these days — an indication, too, of the need for money, any kind of money, to pour into rail and ballast and ties and alignment and surfacing. For even as the units surge back up to their steady 70 per, it takes only a glance out the right side of the cab to understand how frail and delicate this train's current *modus operandi* is: On Track 2, the rigors of North Western's growing traffic have taken their toll. The light, jointed rail creeps out of both vertical and horizontal alignment under the relentless punishment of traffic that grows heavier (like the C&NW's burgeoning coal, chemical, and grain movements) or faster (like the *Falcons*). The No. 2 track is particularly vulnerable at the joints,

where heavy cars batter the ties through the ballast and down into the substrate. Telltale spots of gray and brown — congealed mud puddles reaching and occasionally overwhelming the tops of the ties — show where the problems have outrun the roadmasters' budgets. Put our train onto that track and — timetable notwithstanding, super power and short consist notwithstanding, special instructions notwithstanding — the *Falcon* would become just an ordinary slob of a train, nominally limited to 60 mph but in reality a far slower operation when the ever-changing list of slow orders is considered.

90, 45, AND RED EYE

That is Hoppy's nightmare, and as we crest the hill at Malta it turns real: There ahead is a yellow-over-red signal, warning of either a full stop indication or a crossover at HX interlocking, 3½ miles away.

"Forty-five?" Hoppy moans in disbelief. "Whaddaya guys doin' to me?" Cold air rushes into the cab as Hoppy sets up his train brakes, then works the independent valve to keep the consist stretched. We drift by the signal, No. 651, at 30 mph; it is infuriatingly yellow on top and red on the bottom. At the foot of the hill its big brother, the home signal guarding HX, leers with a red-over-green-over-red — "ninety in the middle" in North Westernese.

(North Western signal slang, even more idiosyncratic than "waycars," "scoots," and left-hand running, derives from the carrier's still-abundant collection of semaphores. The green "clear" indication, representing a vertical semaphore at 90 degrees from the horizontal, is known as "ninety"; the yellow "approach" indication, per corollary, is called "forty-five." Curiously, though, the "stop" indication is not "zero," as one would expect, but "red eye.")

"Gotta make a right turn here, boss," he says, working the independent carefully as 245 tiptoes through the crossovers at the specified 40.

"There's Milepost 69, right there. This is a 30-mile-an-hour railroad now." By the time we crawl up the hill to Creston, highest point on the line in Illinois, Hoppy is downright glum. "I can't show ya how to go down the hill now," he pouts.

The reason for the delay remains a mystery until Rochelle, 7 miles down the line. There we find an eastbound unit coal train occupying what should be the *Falcon*'s spot on Track 1 ("They like to keep the coal on the good rail," Hoppy explains). And though we are out of its way on track 2, the dispatcher inexplicably throws a red eye in our face at the home signal guarding the interlocking in Rochelle where Burlington Northern's Chicago-Twin Cities line crosses the North Western. Like a submarine alarm screaming "Dive! Dive!" the ATC control begins honking. Hoppy hits the lever to his right to indi-



There goes another freight! *Falcon* 245's rear brakeman Jim Macorkel exchanges "all black" waves with his counterpart on the waycar of an eastbound in Illinois.

cate he has his train under control, but the red signal stays red and the "dive" alarm continues to squawk. Then the signal on the gantry mysteriously clears, and the cab signal reacts with a crisp and cheerful "Dinggg!" We are moving at less than a grown man's walk. Hoppy kicks off the brakes, and we quickly pick up the pace to 30 mph as Hoppy leads his train down 7.2 miles of track to AE Interlocking, where the long-awaited "forty-five in the middle" heralds a move back onto Track 1.

As soon as the deed is done, Hoppy opens her up again, for his chances to run at top speed are vanishing fast. Only 15 miles separate AE from Dixon, where a reverse curve and a .7 percent downgrade into the Rock River valley dictate a 45-mph limit on all trains in both directions. From Dixon, it's only another 5.1 miles to NQ Interlocking at Nelson, where the speed limit drops to 35.

The exhilaration of 70 mph running ends for good 5 miles west, at Sterling, 109 miles from C&NW's Chicago passenger terminal.



Radio in hand, conductor Don McCracken monitors the *Falcon's* progress across Illinois from his desk in the left-side bay window of the waycar.

Here the North Western's welded rail ends, and with it ends most of the maintenance. Alignment problems show up as the big SDs rock and lurch, and ballasting problems make themselves felt — literally — every time three-axle trucks slam ties against bare earth. For the first time since Kedzie, weeds grow between the rails on Track 1.

"West of Sterling," Hoppy remarks, "40 miles an hour is as fast as you go."

EMPLOYEE OWNERSHIP

But if the track is poorer than that we've just left, it is a damned sight better than what I remember from the summer of 1969, when I put in a brief spell as a brakeman on this same division.

It was not what the vintners call "a good year." C&NW, its merchandise traffic trickling, then gushing, away to neighboring Interstate 80, simply did not have the revenue to plow money into track then, and with four other railroads as well as the trucks competing for traffic in the Chicago–Omaha corridor, nobody knew if there'd be enough traffic in the future to support the onetime double-track speedway.

Crews were openly hostile to management; they had read the trade magazines and deduced the division's probable fate — slimming to single track with long sidings and a reduction in speed limits as longer, slower, less frequent trains tried to carry the remaining dead freight as cheaply as possible. This had happened on other railroads, and it was turning into a nationwide trend. There was no reason to think the same thing couldn't

happen on the North Western. Said a conductor as we shared the cupola of a UP caboose one day: "It was a good job once, but railroading's just gone to hell."

North Western Chairman Ben Heineman and the stockholders apparently agreed, for in 1970 they sold the road to 10,000 veteran employees for \$3.6 million. As architect of the historic move, C&NW's late President Larry S. Provo had taken a gamble: Under the rules that accompanied its approval of employee ownership, the Interstate Commerce Commission ordered that the reconstituted North Western could pay no dividends in its first 5 years of operation. All proceeds had to be invested in the railroad. Far from resenting the ICC's novel *quid pro quo*, Provo welcomed it. Free at last from the nagging of the stockholders, he could concentrate on building a railroad, and even if he couldn't turn it into a moneymaker in 5 years — something no reasonable observer expected — he could at least buy

the time he needed to lay the foundations of a greater railroad to come later.

There was a great deal to do. With at least 3,000 miles of redundant plant, North Western had to carry out an ambitious (and politically dicey) program of line abandonment in its spiderweb of granger rails across Iowa, South Dakota, Minnesota, and Wisconsin. It had to win regulatory approval to lengthen the interval between its rural stations from the 8 miles established in horse-and-buggy days to a more contemporary 15. Then, with the savings, plus whatever Federal money it

**THE TRAILERS
CATCH THE
GLOW OF THE
SETTING SUN.
THIS IS WHAT
RAILROADING
IS SUPPOSED TO
LOOK LIKE IN
THE '70S.**

could attract, the real job of railroad-building would get under way, using the pinkish, iron-rich ballast from the railroad's Pink Lady Quarry at Rock Springs, Wis., near Baraboo, and quarter-mile strands of welded rail weighing 136 pounds per yard, 4 pounds heavier than the standard rail used by North Western's exemplar, Union Pacific.

ROLLER COASTER TO IOWA

Sterling is as far as the money has taken the program on the Illinois Division. We lurch and roll — not violently, but boatlike — the rest of the way to Clinton, Iowa. There is plenty of ballast, and horizontal alignment seems acceptable, but the weight, density, and speed of North Western's traffic is turning the tracks into a roller coaster that clearly justifies the roadmaster's top speed of 60 and the garnish of slow orders served with it. Boring steadily but slowly along the Rock River until its southward bend, our *Falcon* climbs the hill at Galt and sinks toward the Mississippi.

"I want to make a passenger-train stop at Clinton, but I doubt if I can," Hoppy says. "I don't get out and run it often enough. You have to know how to brake the train — a mile ahead of anything else. You handle it like a scoot."

The 30-mph speed limit over the low, black-painted Mississippi River drawbridge at Clinton prevents hogger exuberance anyway. Hoppy snakes his *Falcon* deftly over the bridge, past the ruined passenger station, then alongside North Western's Clinton Car Shops to a point directly across from the office at West Yard. It is indeed a passenger-train stop, accurate and light as a feather, and it doesn't last much longer, either.

Engineer Harold Isenhour wastes no time in getting his train onto the Iowa Division and the 196.4 miles separating Clinton from Boone — longest of the three crew territories a *Falcon* traverses. Unfortunately, I am not fated to share much of his expertise; the presence of a third crew member, an engineer trainee, forces me into the cab of the second unit, 6826, where I spend the next 4 hours under a sort of mobile house arrest. With speedometer, radio, and all gauges disconnected, the unit can tell me nothing of our progress or Isenhour's role in it.

But no instruments are needed to demonstrate that the *Falcon* must fight to get out of Clinton. For the first 20 miles, 245 struggles against lightweight, jointed rail; ballast thinned by heavy summer rains and even heavier freight traffic; and a steady ascending grade out of the Mississippi valley. At .71 percent, the grade presents no real problem for a light train with 12,000 h.p. on the point, but on this August evening the *Falcon* has another problem — a real, honest-to-goodness Iowa electrical storm. Violent, dazzling, occasionally frightening, it hurls sheets of water against the sides of the locomotive,



The *Falcon's* 50 TTX flatcars curve into the mist as the train approaches the Mississippi River around sunset on August 13, 1977.

making an insane, arrhythmic drumming on the sheet metal that occasionally overcomes even the growl of the laboring diesels.

The rail, of course, is thoroughly soaked, but with a panel of dead gauges before me I have no idea whether Isenhour is getting an indication of his wheel-slip light. If slipping is occurring, though, it apparently has not exceeded the response of the sander valve, for I feel no shuddering, and our speed remains steady at what the seat of my pants tells me is about 55 mph. Visibility is terrible, sometimes nonexistent, which is why North Western has installed cab signals and ATS.

In moments when the rain lets up, the trackside scene is one of touching loveliness — rolling swales covered clear to the horizon with eight-foot-deep ramparts of corn. The smells of grass and prairie flowers occasionally break through the diesel-oil vapors and electrical smells aboard the unit, and the vagrant flashes of lightning illuminate the distant barns and farmhouses as if Grant Wood himself were at the easel. Streamliner passengers missed it all, though, for UP scheduled its Coast trains through Iowa in the dark to give the patrons better looks at Weber Canyon and Donner Pass in daylight. The passengers paid a certain price for that indulgence — they missed the frowzier but very satisfying charms of rural Iowa.

Isenhour doesn't pay much attention to the landscape, for he has his hands full — literally. While his right hand works throttle and brake, his left hand methodically and repeatedly peels through a stack of slow orders sufficient to gag a hippopotamus. I know how full his hands are, because I can see them as he raises the slow orders to read them better in the glow of his cab light, winking on and off now with greater and greater frequency. It all leaves me with a wicked thought: Perhaps, in spite of industry protests to the contrary, diesel locomotives do require a second crew member — not to run the unit but simply to read these huge books of slow orders to overwhelmed engineers.

Isenhour is not overwhelmed, but he has a dilemma to contend with, and in his professional, old-hogger way he strikes a compromise: He knows some stretches of his track actually are capable of handling trains at the 70 mph top speed listed in the timetable, but he knows also that those stretches are too short to permit much sustained running at high speed. Short dashes at 70, followed by sudden applications of air for a 30 mph slow order, do not raise the overall speed much, but they do waste fuel and brakeshoes and increase the chance that slack action will break the train or damage the lading.

So Isenhour settles in somewhere between

55 and 60, spares the train a good deal of wear and tear, and keeps virtually the same schedule. It is good railroading under less-than-ideal circumstances — a phrase that could serve as a quick description of most of North Western's performance today — for the overriding reality of the company throughout most of its territory is that the people are doing a great job but the plant still needs work.

Near Belle Plaine, Milepost 115, the *Falcon* bursts gloriously out of the rain just as the units roll left, then right through a very un-Iowalike little canyon. Emerging onto the open prairie for which the little town is named, the 100 trailers behind us have only a moment to catch the glow of the setting sun and flash it back, from one aluminum side after another in an almost vulgar display of pink, lavender and neon-magenta. To me, this is what American railroading is supposed to look like in the '70s.

The *Falcon* has settled into routine. Hour after hour, the units charge across the corn and bean fields, the way ahead marked by nothing but vertical semaphores (or search-light signals) showing an undeviating "ninety." As night falls on the prairie, it becomes clear why North Western management has scheduled this part of the railroad to receive the next major allocations of welded rail, ties,



A classic Iowa summer thunderstorm lashes the right of way and a passing train as the *Falcon* forges west out of the Mississippi River valley.

and ballast — slow orders continue to keep the cab lights flickering, while a steady parade of eastbounds slam past on No. 2 track. By the time we reach Ames, we have met 11 of them (in addition, we have overtaken two westbounds, one on the triple track at Glen Ellyn, Ill., and a second hiding in a siding outside of Cedar Rapids). Clearly, the Iowa and Illinois divisions make up one hot piece of railroad, and with petroleum shortages and heavy coal demand staring the American economy in the face, C&NW manage-

ment's eagerness to rebuild the road for heavier and faster traffic is understandable.

SPEED BUILDS MORALE

The stop at Boone to change crews is even shorter than the one at Clinton — perhaps 2 minutes overall. With only two men up front again, I regain my seat in the lead unit. The switch couldn't come at a better time, for engineer Bernard Harrison turns out to be another old-timer whose experience dates back to Streamliner days. He runs the *Falcon*

as smoothly as if it were the *City of San Francisco*, and he runs it almost as fast. Brakeman Collie Matson is also a veteran, and he has plenty to say about both the old days and the new on the North Western. Even before we're out of Boone, Matson is unloading his lore.

"You ever see our bridge over the Des Moines River?" he asks. "It's supposed to be something like 186 feet over the water — highest double-track bridge in the United States."

My knowledge of Iowa topography is inexact, but I tell Matson I doubt the state boasts a river valley that deep.

"You watch," he says as we leave Boone, "It's comin' right up. See that semaphore down there? That tells us if there's a train comin' on the other track. It's a double-track bridge, but only one train's allowed on it at a time. If that semaphore's red, we got to stop and let the eastbound go first. Speed limit on the bridge is 35 miles an hour."

As we cross the steel trestle, I cannot tell how high we are, but after leaning out the cab window and observing some tiny, tiny ripples at what seem a dangerous distance below, I admit to Matson that the Des Moines River valley is a truly enormous gash in the landscape. Later, back in Chicago, the railroad's engineering department confirms that the railhead on the bridge stands 186 feet above the mean water level.

But Professor Matson is not through lecturing. He knows he has a devoted fan trapped in the cab, and he isn't about to pass up the opportunity to do a little propagandizing for his railroad.

"See those spots in the roadbed? Mud. Comes up through the ballast and slops over the ties. They've been workin' on it, though. They just can't do it all at once. They've done the eastbound first because that's where they run the loaded coal trains."

If Matson's monologue sounds like a mixture of skepticism and enthusiasm, it's only typical of North Western employees as their railroad fitfully turns the corner from past to future and from starvation to relative prosperity. Employee ownership undoubtedly has something to do with it, but North Western's public relations director Jim Macdonald says the most important factor in building morale is something much simpler — speed.

"Railroad people want to move," he says. "When they see management committed to a first-class operation, they love it." For the first time in almost two decades, Macdonald adds, the railroad is not only asking its crews to move trains fast but furnishing them the means to do it.

How fast does the *Falcon* actually run? The timetable authorizes 70 mph on appropriate track, but one North Western hogger who has handled the train many times tells me off the record: "Unofficially we've been told to do whatever we have to do to get it over the road on time. I've had it up to 80 on the welded rail."

Midnight finds our *Falcon* almost alone on the Iowa prairie. Opposing trains come less frequently now, and radio chatter grows sparse. Near the west end of the division, there is a 38-mile stretch of CTC single track between West Denison and Missouri Valley, and the pressure to move 245 to the UP intensifies. Even with CTC for lining the switches and arranging the meets, single track is a challenge when other trains are around. And, according to the radio, they are. Their duty, the dispatcher indicates, is clear: Get out of the way of the *Falcon*.

"A lot of these youngsters, they don't know what it was like when we ran passenger trains," says Matson. "They don't know what it means to ascertain whether all first-class trains have arrived or left. They just get out and go."

"But since August 1st, 1977," he grins, "we're a first-class train, so I guess they'll learn. You cannot hold up this train. Many times I've come into Fremont, and Chicago was on the phone wanting the engineer to explain the reason for a delay."

Crews grumble when they hit the single track at West Denison. Even though it's got CTC and 136-pound welded rail, the stretch is regarded by division veterans as something of a fall from grace since Streamliner days. Management apparently feels the same stigma over the sacrifice of the second track.

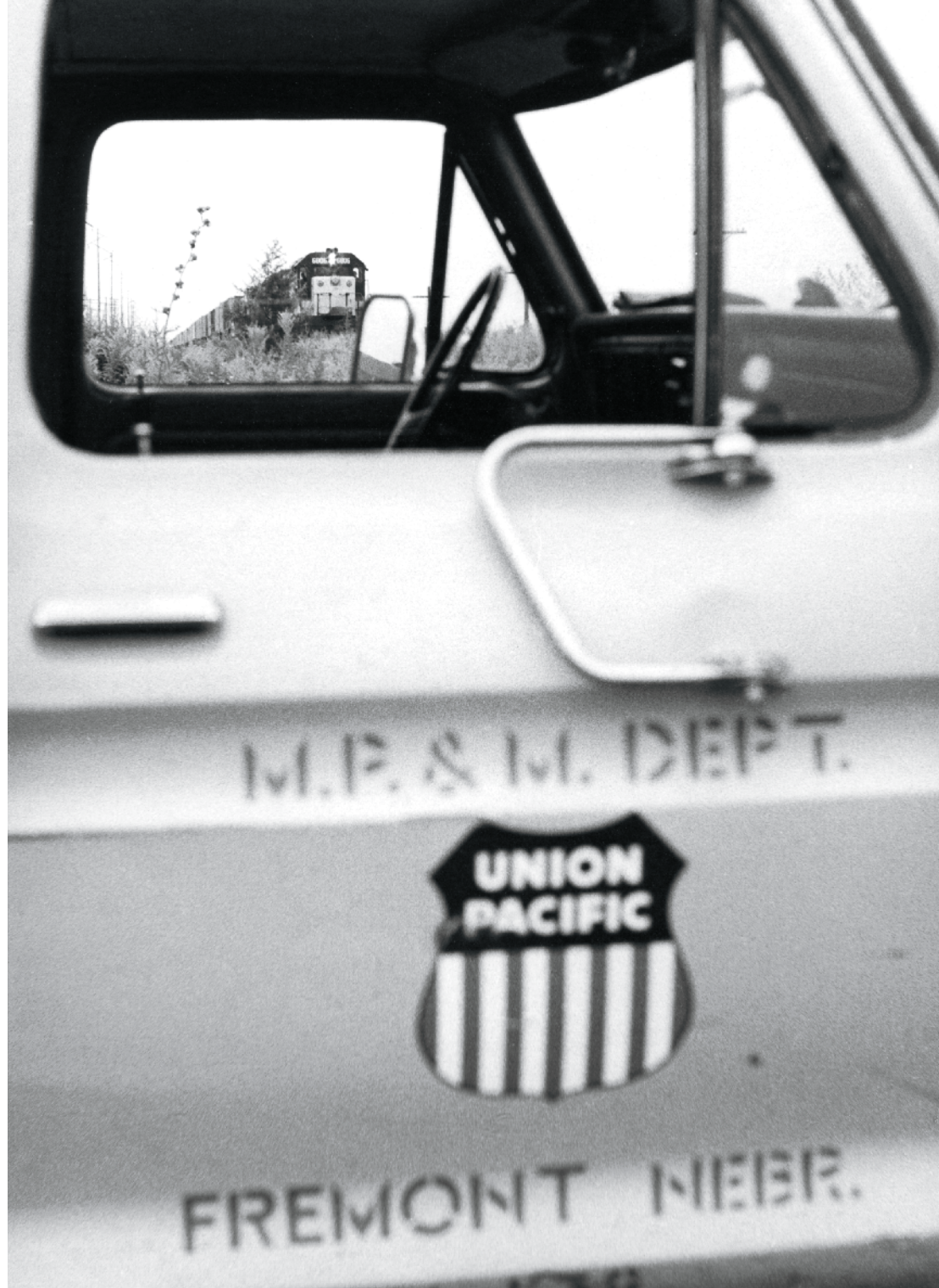
"To tell you the truth, we wish we hadn't ripped it up," Macdonald confirms. "It wasn't any foresight on our part that we stopped, either. It's just that by 1968 we began to see the future of the unit coal train, and we began to see the future of working with the UP. Dammit, I wish we had the track back, and [Vice-President, Operations] Jim Zito says he hopes to get it back."

Yet on this night it is the single track that pleases Matson, if only because the protocol of single track once again forces North Western employees to become sensitive to the distinction between first-class and second-class trains.

"Now that we're coming to the single track, you listen to the radio," Matson lectures. "The dispatcher'll be clearing 'em out of the way."

Sure enough, 258's extra is in the clear for us at Dunlap, headlight extinguished in deference to 245's occupation of the main line. We sail past at a mere cruise, for there are slow orders almost all the way to Missouri Valley. There, another sort of slow order is in effect: Because no switch engine works the junction on weekends, Matson has to line the switch that takes off the main line to Omaha and onto the 37 miles of mostly unsignaled single track leading across the Missouri River to Fremont. The delay amounts to perhaps 12 minutes.

"From Blair to Fremont it's dark railroad," Matson explains. "No block signals. It's run entirely by timetable and train order, and



Framed in the window of a UP truck, a westbound *Falcon* slows for its 5-mph inspection east of Fremont. Each road checks the trains before accepting them.

your speed limit is 49 miles an hour by Federal law."

In spite of the stone-age railroading in effect on the westerly 24 C&NW miles, both the North Western and the UP prefer to make the joint at Fremont rather than at their passenger-era interface at Council Bluffs. Shorter in overall mileage, the Fremont connection gives North Western a slightly larger division of revenue while keeping the *Falcon*'s time-sensitive vans off the congested four-railroad bridge between

Council Bluffs and Omaha. But the line to Fremont isn't exactly congestion-free either.

"This is 355's extra," Matson points out, indicating a darkened waycar in the passing track at Kennard, Nebr. "See, now, how he turned his markers? A lot of the younger kids don't understand that."

THEATER AT FREMONT

But even the reappearance of first-class trains on the division, with all the attendant pomp and circumstance occasioned by the



Making the joint at Fremont: To save time on the *Falcon's* flight west, the outbound UP engine, an SDP35 in these August 14, 1977, photos, waits on the main track for the train to approach. Author Plous, in white hat, stands at far left in the lower photo.

Book of Rules, can't top the almost theatrical ritual awaiting 245 in Fremont. Neither UP nor North Western, Matson explains, accepts a train from the other without first giving it a thorough visual inspection as it rolls by at 5 mph. At night, this is done under high-intensity floodlights, whose glow on the horizon we first see while rolling through the little town of Arlington, 7.8 miles east of Fremont.

"We go on the bell at Arlington," Matson explains. "Those UP carknockers know we're comin'! They can see our headlight. They'll be out there waitin' for us."

Ten minutes later, as Harrison brings the train down to 5 mph, they are there. The burly men in yellow hardhats; the matching yellow pickup parked beside the shanty; and the whole quickening atmosphere of the occasion mark the scene indisputably as UP territory.

But the best — and least expected — part of the run-through ceremony is yet to come. As Harrison inches his units down the main line toward the depot (there's no real yard at Fremont, only a couple of passing tracks and then a turnout onto the UP main), something large and yellow looms in our path directly ahead. It doesn't seem possible, but the *Falcon* is moving steadily down the track into the rear end of a UP locomotive.

"That'll be 245's point power west of Fremont," Matson explains. "The UP likes to have their own unit on the point because they've got their own type of cab signal that the C&NW units can't pick up. When they come through Fremont eastbound they take their units off and leave ours exposed."

Other railroads have run-through agreements, and other railroads add engines at

specified points, but do any do it as UP does at Fremont, with the extra unit waiting right on the main line? Usually, a fresh unit will wait on an adjacent track until the train stops, then pull forward through crossovers and back down on its train. But that takes three or four minutes — too long, apparently, for a *Falcon*. Talk about "passenger-train stops" — at Fremont, they use SDs for bumping posts!

"Now you watch these UP fellas make the joint," Matson says as Harrison brings the lead engine to a stop no more than 50 feet behind the waiting diesel. Before Harrison can stand up and remove the reverser from the throttle stand, the UP crew has their SD in motion toward the *Falcon*. Harrison leaves the cab, drops to the ground, and is joined by Matson. As my feet hit the asphalt near the UP brakie, I hear the pin drop, and as I walk away to a waiting auto obligingly sent by UP Trainmaster Gary Walling, the crew is mating the hoses and jumpers. When the car pulls away moments later, the UP crew is conducting its standing air test. We leave before the *Falcon* does, but not by much.

Lest anyone think that a fluke, note this: The next morning, we return to the scene and see the same procedure three more times — twice westbound and once eastbound — and the list of celebrity trains handled includes *Falcon* 243, "the number-one train," as Walling calls it, carrying "Oaklands, Sacramentos, Portlands, Salt Lakes, Denvers, Seattles and, at times, Ogdens." What happens to 243 that drizzly Sunday in the Nebraska cornfields is all the proof anyone should need that the North Western and Union Pacific have put the Overland Route back in business.

My watch indicates 11:59 a.m. when 243 stops. Walling says noon. No matter — what happens is amazing even if you leave in the extra minute.

"This guy arrived at the lights at 11:48," Walling says. "He halted at the depot at noon. He cleared the depot at 12:14."

As 243's lurching waycar clears the crossover, an admiring North Western conductor who had just observed the operation smiles and remarks, "You drive alongside him west of town and you can legally follow him for only about half a mile."

That's making the joint at Fremont. And that's railroading. ■

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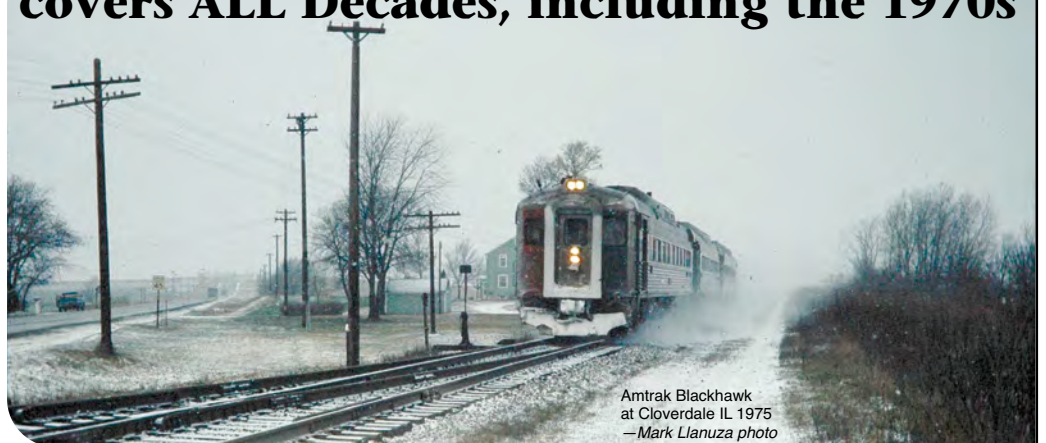
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Amtrak Blackhawk
at Cloverdale IL 1975
—Mark Llanuza photo

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