

Steam's Last Stand

on the Colorado & Southern

Unique circumstances forced Burlington's subsidiary to keep the fires lit

By Hol Wagner • Photos by Ken Crist





Early on a February 1959 morning, 2-8-2 807 storms out of Louisville with the North Local. At far left, beyond the foothills, is Longs Peak.



A school bus waits and kids wave as 2-8-2 809 rolls south down Mason Street in Fort Collins, Colo., with a beet extra on December 18, 1958.

COLORADO & SOUTHERN, which dates from a January 1899 amalgamation of two predecessors, was a subsidiary of the Chicago, Burlington & Quincy for 73 years beginning in 1908. By the 1950's, "the Colorado Road," as it was sometimes called, had retrenched from its narrow-gauge lines in the Centennial State's Rocky Mountains to its north-south standard-gauge trunk with a few branches.

The 588-mile trunk extended from a connection with fellow CB&Q subsidiary Fort Worth & Denver on the New Mexico-Texas line north along the eastern foothills of the Rockies and up into the high plains of northern Colorado and east-central Wyoming. Although the C&S was indirectly exposed to its parent company's pioneering efforts with diesel locomotives, the locally managed C&S was not so quick to embrace internal combustion power itself.

C&S purchased its first diesel in 1940, a cab-booster set of EMD's stainless-steel E5 passenger units for the new *Texas Zephyr*. It acquired no more diesels until 1947, and then only three NW2 yard switchers. Diesels did begin to pull some C&S freights in 1947 as part of extensive pools established by the Burlington to better utilize its growing fleet of F units, but C&S and FW&D did not acquire freight diesels of their own until 1950, when each took delivery of three A-B-B-A sets of F7's.

"The Q's" commitment to dieselization is exemplified by the fact that it acquired its last new steam locomotives in 1940, henceforth buying nothing but diesels. C&S and FW&D bettered their parent in this regard, though, since they bought their last new steam locomotives back in 1922. These were Pacifics for passenger service, and Mikados (on "the Denver") and 2-10-2's (on the C&S) for freight. Thereafter, when either of the Q's western subsidiaries needed motive power, it was leased from the parent. In 1927, for example, when CB&Q received 10 new 2-10-4's for coal service in southern Illinois, it sent its 10 USRA 2-10-2's—engines the Q didn't particularly like and had replaced with the 2-10-4's—west for service on the C&S, which had five identical examples of its own. This USRA power remained on the C&S, earning per diem for CB&Q, until the early 1950's, when the 10 were retired.

Similarly, a substantial number of Burlington O-2-A Mikes, M-2-A 2-10-2's, and B-1-A 4-8-2's were leased to the C&S over the years. The O-2-A's came in exchange for five C&S light 2-8-2's that were sent east to work as switchers on

the Q. In the early 1950's, a number of Burlington's oil-burning USRA heavy Mikados were sent to Texas for use on the FW&D.

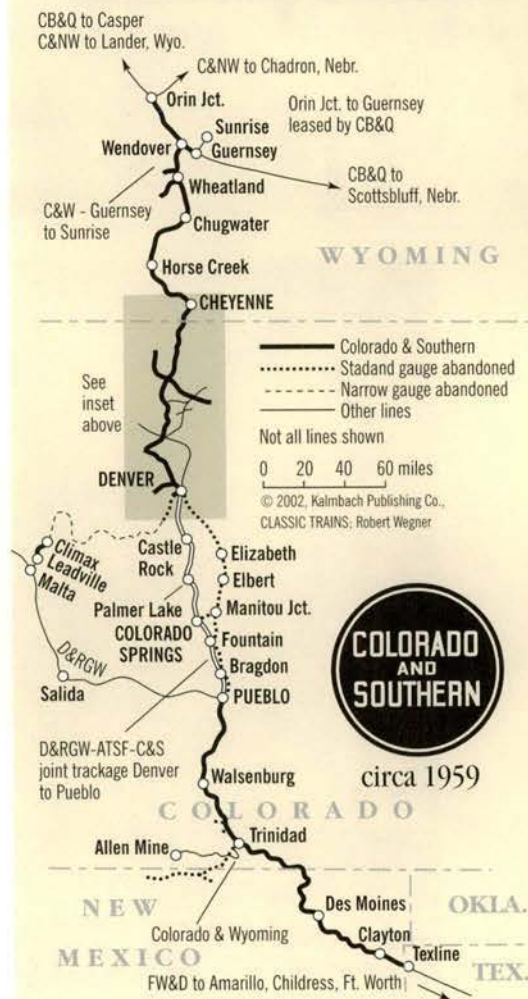
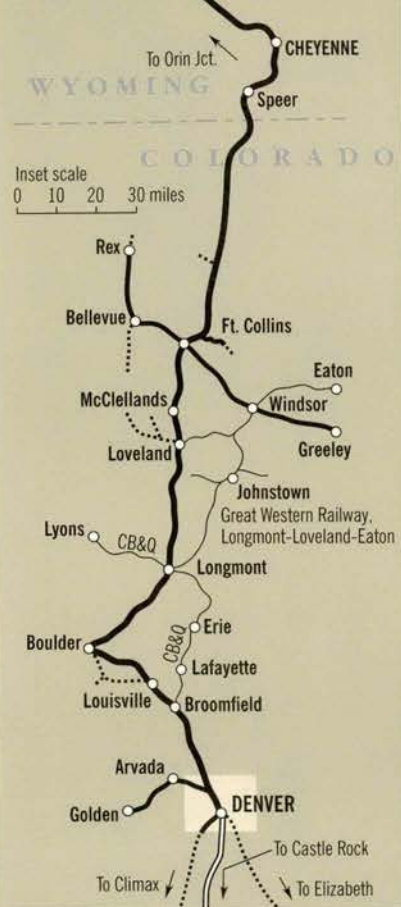
By the mid-1950's, then, both the Burlington and its two big subsidiaries were well on the way to full dieselization. The Q itself regularly employed steam only in the southern Illinois coalfields and on a few branch lines. Seasonal traffic surges, primarily movement of the summer wheat harvest, would bring out a half dozen or more big O-5 Northerns based at Lincoln, Nebr., and Galesburg, Ill., along with some Mikes to work in those division-point yards. Most of the Burlington's main lines were completely dieselized by 1956.

Seasonal surge

In Colorado, though, the situation was different, owing to several unique circumstances. Like the Q in southern Illinois, the C&S served major coalfields between Walsenburg and Trinidad in southern Colorado. Obviously, it was, as we'd say now, "politically correct" to serve the mines with coal-burning power as long as possible. As it worked out, the locomotives outlived the mines themselves, so in 1956 C&S's Southern Division, from Denver through arid northern New Mexico, became its first to be dieselized.

Up north, on the Denver Terminal Division and the Northern Division, sugar beets made a difference. The Northern Division extended from the Mile High City through Cheyenne to Orin Junction and Guernsey, Wyo. (CB&Q leased from the C&S the Orin Junction-Guernsey line, as part of its route from Nebraska to Casper, Wyo., and Billings, Mont. C&S freights from Denver would turn east at the Wendover junction to tie up at Guernsey.) Beets were the major agricultural crop in the territory, and the annual harvest "campaign," largely by rail, would begin in late September or early October. The traffic surge would run into January when the last of the tubers were hauled to the mills (known, albeit inaccurately, as "factories") for processing into sugar. This annual period taxed the resources of the C&S and was responsible for keeping steam around for several years beyond when it otherwise would've been replaced.

In Wyoming, the stiff southbound grade of Altus Hill, north of Horse Creek, necessitated the frequent use of helpers on freights. This was particularly true for the heavy iron-ore drags from Colorado Fuel & Iron's Sunrise Mine—north of Guernsey on the Northern Division of CF&I's Colorado & Wyoming







Why the double identity?

VISITORS to the C&S in Denver and to Santa Fe's yard in Pueblo, Colo., would see switchers lettered for both carriers. The practice—which dates back to at least 1928 on 0-6-0's and is in evidence above on C&S coal-burning 1901 Rhode Island-built 605, on an industrial track near Rio Grande's North Yard in Denver about 1957—stemmed from an 1899 pact wherein C&S and Santa Fe agreed to jointly use terminal facilities in both cities. This was an outgrowth of C&S abandoning its original Denver & New Orleans line out in the Plains to the east. When AT&SF gained trackage rights on the Denver & Rio Grande between South Denver and Bragdon (north of Pueblo) in 1918, C&S, as a Santa Fe tenant, gained them too—hence today's "Joint Line" operation. Santa Fe diesels known to sport joint initials, for use at Pueblo and Colorado Springs, included Baldwin switchers, GE 44-tonners, and even an Alco RSD5. C&S's EMD SW-1200's of early 1959, like its NW2's before them, came in Burlington black and gray with joint initials on their cabs instead of a Burlington Route rectangle, and they kept 'em when repainted Cascade green by Burlington Northern.—H.W.



Railway—destined for the big steel mill at Pueblo, Colo. Since C&S didn't have diesels to spare for helper service, oil-burning 2-10-2's based at Cheyenne got this duty. A steeper mainline grade closer to Denver, the 2.01 percent Burke's Hill southeast of Boulder, was shorter and usually didn't require a helper.

In addition to beets and a helper grade, a third factor kept steam in regular use on the C&S, in this instance longer than on any other standard-gauge Class 1. This was the 14-mile C&S operation high in the Colorado Rockies from Leadville up to Climax, the last remnant of the narrow-gauge South Park lines. Isolated from the rest of the surviving C&S system, the line connected only

Oil-burning C&S 629, a 1906 Brooks 2-8-0, rattles across the Poudre River bridge near Timnath as it heads down the branch to Greeley on December 26, 1958. On November 18, CB&Q 2-8-2 4994, one of five just leased to C&S, is back on home rails with a transfer at the Q's 35th Street yard in Denver, waiting for an FT/F3 set to leave.

with a Rio Grande branch. When C&S ended slim-gauge operations in 1943, it standard-gauged the Climax line to continue serving a molybdenum mine that was so crucial during wartime ("moly" is an element that hardens and strengthens steel). With an elevation of 11,320 feet at Climax, this was the highest point reached by an adhesion railroad in North America (and still is, thanks to tourist pike Leadville, Colorado & Southern). Conventional wisdom told C&S officials that diesels could not operate efficiently at such a lofty elevation, so the branch remained the province of a single C&S 2-8-0, rotated out when needed via haulage on the D&RGW.

C&S took delivery of 11 new SD9's in late 1956 and early '57, but still wasn't able to completely dieselize Colorado operations. Rather, 10 1953-built SD7's were reassigned to FW&D, where they joined 11 FW&D SD7's to allow dieselization of the Texas main line. From mid-1955 through September '56, C&S had retired three worn-out 2-8-0's and



Two 2-10-2's, both 1915 Baldwins, meet for the last time anywhere in North America on November 20, 1958, as C&S 902 takes siding at Loveland for sister 900. The previous month, 902, with an extra water tender, was parked at Chugwater, Wyo., to help ore drags up Altus Hill.

scrapped four more, plus a light 2-8-2. Thus in spring 1957, C&S officials realized they did not have sufficient motive power, steam *or* diesel, to handle the coming beet campaign.

Burlington came to the rescue, "allowing" the subsidiary to buy six O-4 class oil-burning USRA heavy 2-8-2's. Three were sitting idle where they'd last been used, at FW&D's shop at Childress, Texas, awaiting retirement. The other three were stored at Lincoln, Nebr. Upon examination, one turned out to have a cracked steam dome and so was never renumbered (CB&Q 5500's became C&S 800's) or put in service. Purchase of the big Mikes gave C&S the distinction of being the last major U.S. road to acquire steam power for revenue



service. To begin the 1957 beet campaign, C&S had 11 Consolidations (600 series), 6 Mikados (800's), and 5 2-10-2's (900's) in service. FW&D still employed 10 2-8-2's and a 2-8-0 in that fall's grain and cotton rush, but the next summer's wheat rush marked the "Denver Road's"

final steam season, when one or two 2-8-2's worked the Pampa-Childress run.

Wrecks give steam a reprieve

The six 800's acquired for the 1957 beet season would have seen the C&S through the 1958 campaign, too, were it

The North Local from Fort Collins to Denver has paused at Broomfield on a February 1959 morning to set out a boxcar at the Coors Elevator. When the car is filled, C&S will haul it to the big brewery in Golden. C&S 807 is one of six 0-4 class, 5500-series 2-8-2's bought from CB&Q.





not for another unique circumstance—two disastrous collisions that occurred just days apart.

C&S trackage north of Denver was unsigaled, and on September 17, opposing freights 77 and 78 collided head-on at the small Wyoming town of Chugwater, demolishing the wooden depot and heavily damaging FW&D F7's 750A and B and C&S SD9 828. Just five days later, in the northwest Denver suburb of Broomfield, southbound local passenger train 30 from Billings, Mont. (dubbed the "Night Crawler"), hit northbound train 77 head-on, killing two crewmen and destroying Burlington E7A 9936B and C&S F7's 700D and C. Several other units received lesser damage in the collisions, so almost overnight C&S found itself drastically short of motive power—just as the beet campaign was starting.

Again the Burlington came to the rescue, leasing to C&S five 1923 O-1-A class 2-8-2's stored at Centralia and Herrin Junction in southern Illinois. Arriving in Denver in late September and early Oc-

tober, these 4900-series Mikes were immediately placed in service, joining the remaining 17 active C&S steam locomotives: 8 2-8-0's, 6 2-8-2's, and 3 2-10-2's. Steam assignments included switching at Rice Yard and working a couple of local industry jobs in Denver, yard work in Cheyenne, the Denver-Fort Collins "North Local," the Fort Collins-Greeley branch job, extra sugar-beet drags out of Loveland, and other mainline extras.

C&S shipped the five most severely damaged diesels from the collisions back to EMD at La Grange for rebuilding, at the same time ordering 21 new units, enough to once and for all finish dieselization of both C&S and FW&D. "The Denver" was to get 4 SW1200's, and the C&S 5 SW1200's and 12 more SD9's, all scheduled for spring 1959 delivery.

As the beet campaign wound down in January 1959, steam power began to be set aside, never to run again. Stand-ins were still needed for the five wreck-damaged diesels, so steam ran for a bit longer in the yards at Denver, Fort Col-

Fan trips out of Denver mushroomed in the late '50's; a few utilized CB&Q's branch to Lyons (above, with C&S 647 in October 1959). On December 16, 1962, the very last C&S steam run, which ferried 2-8-0 638 to Trinidad for display, halted for a photo run at Palmer Lake (top left).

lins, and Cheyenne, and occasionally on the North Local. With delivery of the SW1200's at the end of February, the rebuilt wrecked units in March, and the new SD9's in April, C&S's regular use of steam on the main line came to an end.

Consolidation 646 was the last C&S steam engine to work at Cheyenne, on May 26, 1959, having succeeded 2-8-2 803 there and outlasting sisters at Rice Yard by a month or more. Engine 900, the last 2-10-2 in revenue service in the U.S., hauled the return leg of a July 19 Denver-Cheyenne passenger excursion that had gone north behind 2-8-0 647

Steam rotary plow 99201 and 2-8-0 641 are ready to tackle the snow on the line up Fremont Pass to Climax, Colo., in February 1960.



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(with a side trip on the Owl Canyon branch out of Fort Collins), then hauled a work train from Denver to Cheyenne the next day to conclude regular C&S mainline steam usage.

Literally, steam's climax

We must say "mainline" because steam continued on the Climax branch. In June 1958, when 2-8-0 638 came due for new flues, it was replaced not by a diesel but by sister 641, fresh from a Class 3 overhaul at Childress shop (the Burlington-C&S "Joint Shop" in Denver had closed in September 1955). Outfitted with the bright-red pilot plow that was standard on the branch, 641 continued the five-days-a-week service to the Climax molybdenum mine and mill.

The 2-8-0 wasn't the only "steam unit" at the small Leadville enginehouse, however. In the winter, it was occasionally necessary to open the line with steam-powered rotary plow 99201. The infrequent rotary runs drew fans in droves for the chance to see and photo-

C&S was friendly to fans, thanks in part to employees such as Road Foreman of Engines Mickey Hansen (right, attending to 638). The Rice Yard roundhouse—where Elitch Gardens amusement park stands now—was a choice photo spot.

graph a double dose of standard-gauge steam in the majesty of the snow-covered Rockies. (It was then still possible, remember, to experience the same sights and sounds on the Rio Grande narrow-gauge between Alamosa and Durango.)

Railroaders and railfans alike knew the Climax line would be dieselized sometime, and EMD took up the challenge in summer 1961 by sending SD24 demonstrator 5579 to Leadville for high-altitude testing. The builder wanted to finally dispel the idea that a diesel engine would starve for air at that elevation. The EMD tests proved that, even without the turbocharger cut in, the 567 prime mover performed fine at 11,000 feet. The end for steam was in sight.

C&S SD9 828, rebuilt by EMD fol-



lowing the Chugwater head-on, was selected to dieselize the branch. It was sent to Childress for modifications that included minor insulation of its engine hood and installation of a pilot plow on the front end, plus flangers and ice-breakers on the six-wheel trucks.

Returned from Childress in early October 1962, the 828 was turned over to the D&RGW at Pueblo, just as 641 had been four years earlier, and hauled up to Leadville. The 641 made its last trip

October 11, marking as far as is known the final operation of a steam locomotive in regular day-to-day service (*i.e.*, not excursions) on a standard-gauge Class 1 in North America. This was not the last run of a C&S steam locomotive, however. That distinction fell to sister 638 two months later.

Final fantrips, and two footnotes

As railfan groups realized dieselization was imminent, they had begun running steam excursions out of Denver over the C&S, a willing excursion operator. Principally these were sponsored by the Denver-based Rocky Mountain Railroad Club, and went northward, a few running on Burlington's branch to Lyons, Colo. Occasionally the itinerary would include the steam-powered, sugar-beet-hauling Great Western Railway, which connected with the C&S at Longmont and Loveland. Various these excursions were drawn by 2-8-0's, 2-8-2's, or 2-10-2's. As the end drew closer, the trips became more frequent, and the newly organized Intermountain Chapter of the National Railway Historical Society entered the scene in mid-1961.

By this time, only the 638 remained serviceable, having been granted one last flue extension in 1960 after coming down from Leadville in 1958. Early on the cold, clear morning of December 16,

Ready for their last trip, from Rice Yard to Houston for scrap, are three each 2-8-2's and 2-10-2's —805, 904, 804, 914, 909, and CB&Q 5509—as Santa Fe FT 159C couples up January 20, 1961.

1962, the 2-8-0 began its 15th and final excursion, the last run of a C&S steam locomotive. This one, however, headed south, a Rocky Mountain Railroad Club trip that served to deliver the 1906 Brooks-built 2-8-0 to its retirement home, a display perch in Trinidad, Colo., where the Consolidation had spent many years working coal-mine locals. The excursionists returned to Denver behind diesels.

There were two other C&S-FW&D steam footnotes, both involving Texas. By 1962 the long steam deadline at Denver had been eliminated, 17 locomotives being sold for scrap to Commercial Metals of Houston in December 1960 and moving out in "funeral trains" over the next two months. The final four engines were cut up by the C&S itself at Denver between November 1960 and July 1961. The five leased Burlington O-1-A's sat neglected at Denver into the early 1960's, when with one exception they were returned to the Q for disposition. The exception, CB&Q 4994, was shipped to Childress for cosmetic restoration, then donated to Texas Tech University at Lubbock for permanent display as "Fort Worth & Denver 401," substituting for the real FW&D 2-8-2 401, which had been sold for scrap in 1955.

The other footnote concerns the Texas & Pacific, which dieselized in 1952. When the Red River flooded T&P at Boyce, La., in spring 1957, the MoPac affiliate was obliged to borrow 1919 Baldwin 2-8-2 454 from the FW&D (in exchange for a Geep) to pilot freights

through the floodwaters, which had risen to as much as 38 inches over the rails, way beyond the limit for diesel traction motors. According to reports in *TRAINS* magazine, the Mike pulled four T&P passenger trains, two time freights, and a local freight through the flooded section each day for three weeks in May and two weeks in June. After that, T&P prudently purchased a sister, FW&D 2-8-2 410, repainted it as T&P 400, and kept it at Marshall, Texas. And sure enough, the Mike was again needed in April 1958. T&P retired the 400 in 1961 and presented it to Marshall for display.

Back in Colorado, dieselization of the C&S did not end the annual motive-power shortage during the sugar-beet campaign, but from 1959 on, it was addressed by leasing diesels. Since CB&Q didn't have any units to spare during the campaign, other sources were utilized. Over the ensuing 20 years, these included Great Northern (FT's), Northern Pacific (F3's), Missouri Pacific (F3's and F7's), D&RGW (F's and GP30's), Union Pacific (F9's, GP9's, GP30's, U25B's), and locomotive dealer Precision Engineering/Precision National (various former Katy and Southern Pacific F's).

It was not until the demise of rail haulage of sugar beets in the early 1980's that the annual power shortage on the Colorado & Southern finally ended. By then the C&S no longer existed, anyway, having been formally merged into CB&Q successor Burlington Northern 11 years after its creation, on the last day of 1981. ■



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