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<< ON THE COVER Kansas City Southern trains, led by new "Retro Belle" SD70ACe locomotives, meet at Gentry, Ark., on Feb. 2, 2008. *Photo by Chris Guss*



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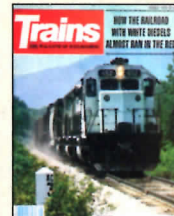
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MIDWEST MOUNTAIN railroading



AIN

Kansas City Southern bucks the hills and mountains for 400 miles, starting in the railroad's namesake town

by Fred W. Frailey



McElhany Hill looks like no mountain, hidden as it is by the tree-shaded backyards of Neosho, Mo. From its foot, which you can barely detect, to its summit five miles to the south, you climb a mere 243 feet. But those 243 feet are humbling the mighty 21,300 horses pulling your Kansas City Southern coal train. At the throttle, Chris “Benny” Ulrich gallops them into the grade at 25 mph. For 30 seconds, your momentum carries you. Then the speedometer sputters out: 21 mph ... 17 ... 13 ... 10 ... and ultimately 7 — a pace any high school track team could handily match. Twenty-four minutes after starting the climb, train CKCSH (coal, Kansas City-Shreveport) makes it to the top, and you gain respect for this little bump on the western edge of the Ozarks. Ulrich is upbeat. “When it rains,” he says, “I may go up at 1 or 2 mph.”

The northern neck of KCS, from its namesake city to Shreveport, La., is all about “bumps” like McElhany. The grades seem to come one after another, and culminate in the long pull to the summit of Rich Mountain in Arkansas, setting this end of the railroad apart from the rest of Kansas City Southern. The northern neck is different in another important respect: Three of every four trains leaving Kansas City are super-heavy coal and grain movements. Those two circumstances guarantee elemental, block-and-tackle railroading.

Getting over the Ozark ridges and the Ouachita Mountains to the south was never easy. In the 1960s, the railroad would hitch as many as eight red Electro-Motive F units to the front of a southbound train in Pittsburg, Kan., and hope that 12,000 hp would do it. Later it tried lashing together six 2,250-hp GP30s. McElhany became known as “Iron Hill” for all the jerked-out drawbars left behind.

The job became even harder starting Nov. 11, 1976, when



Engineer “Benny” Ulrich looks ahead from train CKCSH. Fred W. Frailey

Kansas City Southern began hauling Powder River Basin coal mined in Wyoming to electric utility plants. For these trains, the railroad employed six 3,000-hp SD40s: four up front and two as mid-train slave units, controlled by an early version of distributed power called Locotrol. Later it reverted to manned helpers, stationing two sets of pushers at Neosho and two others at Heavener, Okla., at the foot of Rich Mountain. Then in 2000, after leasing its first 50 high-horsepower locomotives (4,400-hp General Electric AC4400CWs), back came distributed power in its modern incarnation and out went the helpers.

“Our north-south line is absolutely critical to us because of the coal and grain we handle on it,” says Michael Haverty, the railroad’s chairman. In just the past two years, the railroad spent \$150 million on this segment for massive tie-replacement projects and relaying of welded rails. Now that you know the northern neck is no place for sissies, come along and see how it’s actually run.



A southbound unit grain train crests the summit of McElhany Hill on Feb. 2, 2008. The new covered hoppers indicate that this is a shuttle train moving from the Upper Midwest to Mexico. Chris Guss

view, CBOKC awaits you with empties from AES Corp.'s Shady Point, Okla., power plant (an online plant for KCS). At Drexel, Mo. (milepost 53), a work train and a Loram ditcher are pestering the dispatcher for track time (they won't get much today).

"Meet one at Hume," the dispatcher radios CKCSH as it passes Amsterdam. Half a century ago KCS stationed two locomotives at Hume, Mo., to switch the strip mines there and for miles in each direction. Today the strip mines are visible only as lakes, and the entire region, from south of Amsterdam to the outskirts of Pittsburg, is devoid of both KCS shippers and any visible evidence of economic prosperity.

Blaylock holds his train just south of Hume (milepost 81) for 15 minutes, so as not to block crossings in the village. Then manifest train HSHKC shows up, filling all but 200 feet of the 7,541-foot siding. Fifty of its cars are empties returning from Laredo, Texas, for Cargill to reload with grain in Kansas City. You no sooner leave Hume than the dispatcher says you'll meet two more at Mulberry, which straddles the Missouri-Kansas border at milepost 118 and is the last siding before Pittsburg. Explains Claude Friesland, who runs the Midwest Division and is riding CKCSH with you today: "The dispatcher is moving these trains north. Otherwise, everything would be sitting at Pittsburg." As you'll discover, Pittsburg is basically three tracks. One train shuffling locomotives is enough for the small yard, two more than enough. Three trains? Please, no.

THE METRICS GET BETTER

Operationally, Kansas City Southern was in pretty sorry shape two years ago. The metrics for February 2007 tell the story: System-wide, only one-fourth of the scheduled trains left their originating stations on time. Average dwell time for freight cars was 30 hours in Kansas City, 39 in Shreveport. Trains on the northern neck averaged just 20 mph. And slow orders affected 25 of the 550 miles between KC and Shreveport.

Now look at those same measures as of May 1, 2009: On-time originations shot to 95 percent (and in Shreveport, to 97 percent). On average, one train a day instead of the former eight got recrewed (and between Kansas City and Shreveport, one train every five days). Dwell time plunged to 10 hours in Kansas City and 22 in Shreveport. Average speed shot up to 27 mph north of Shreveport and less than a mile of that track was under a slow order.



A southbound "Retro Belle" SD70ACe shatters the morning quiet of Anderson, Mo. Chris Guss

A lot of things happened to cause these improvements. Some people lost their jobs, while others got promoted. "Look at the difference we made," remarks Dave Ebbrecht, vice president of transportation. "First, we focused on the basics. I don't think we ever put discipline into executing our transportation plan [schedules and train blocking]. When we finally did try, we realized there were problems in the plan we had to solve. So we solved them. Just following these basic principles caused huge improvements." Chairman Haverty is pleased by the changes. He jokes that Scott Arvidson, the railroad's executive vice president and chief operating officer, is allowed just one train recrew per day. "Like a vitamin," the boss says with a grin. But Arvidson knows he means it. "To Mike," he says, "recrews are a summation of everything you need to know about a railroad's operations."

It sure helped to replace 550,000 ties north of Shreveport; tie gangs were active in this corridor 10 months of 2008. Today, the track structure looks and rides terrific.

HILLS ON THE HEAVENER

Thanks to all those meets (and a leaky air hose at the rear of your train), CKCSH takes seven hours to reach Pittsburg. The lead unit, BNSF 6223, is uncoupled and brought forward several hundred feet on the West Main to clear a crossover. Now the fun starts. While the new crew, Benny Ulrich and conductor Richard Lopez, get settled in the cab of 6223, Blaylock and Moore walk to the nearby locomotive storage tracks to choose additional power for the outbound train.

After 20 minutes, they emerge with a three-unit locomotive set and move it to the East Main. Ulrich backs 6223 through the crossover and against two KCS SD70ACe

locomotives, one painted gray and the other in the 1950s-era KCS freight colors of red, yellow, and black (fans nicknamed this the "Retro Belle" paint scheme). Then he recouples to his train. Blaylock and Moore pilot a north-facing SD70ACe (also in retro colors) down the East Main to the rear and couple it to your train. Now you have three locomotives pulling up front and two pushing your 17,792 tons from the rear.

All of this, plus a brake test, consumes an hour. "All right, Benny," Moore radios from the rear. "We're in the clear, and you're ready to go." Leaving Pittsburg on the flat profile of the Heavener Sub, Ulrich gets his train to 45 mph in no time. The first 50 miles go uneventfully in 80 minutes. Then you reach McElhany Hill and its 1.5 percent grade.



Transportation chief Dave Ebbrecht smiles in the Kansas City operations center. Mileposts (left) to New Orleans and Port Arthur are measured from KC. Fred W. Frailey; MP, Tom Kline





In distributed power mode, a KCSdeM (formerly TFM) SD70MAC and UP AC4400CW team up on a coal empty north of Lanagan, Mo. Chris Guss

With distributed power, engineers have a choice. They can control all their locomotives, front and rear, from the main throttle, all running off the throttle. Or by pressing a button, they can divide their locomotives into sets and control each set separately, the front units by using the throttle and rear sets from buttons on the console. Going into McElhany, Ulrich backs off two of the eight notches on the front units, leaving the pushers in Run Eight. "We have way too much pulling power up front," he explains. Maybe you give up a mile per hour or two, but your train stays together. You'll see similar throttle configurations again and again today.

At McElhany, you meet CTUKC with empties from the Monticello power station near Winfield in eastern Texas. At Noel, Mo., the next siding and 20 miles south, CSHKC is in the siding with a train returning from Martin Lake. (Both the Monticello and Martin Lake plants are owned by Ener-

gy Future Holdings, the former TXU Corp.) Then, after crossing into Arkansas and passing the little community of Sulphur Springs, it's back to bare knuckles. You've probably never heard of Gravette Hill because it is almost totally inaccessible. But Gravette is another 1.5 percent grade, made easier than McElhany only because it's shorter, at three miles. Plus, you can get a faster run at it. On this hill, Ulrich has his front locomotives in Run Seven and the pushers going full tilt, and manages to maintain 10 mph.

Ulrich is busy as his train tops the summit at milepost 210 and tilts downward. At 20 mph, he starts shutting down first the front and then the rear units, and at 30 makes a 6-pound air-brake set and begins ramping up the dynamic brakes. At 40, he makes a second air-brake set, but soon kicks off everything. Now you're going up-grade again. Just beyond milepost 215 begins the third and last of the Heavener Sub obstacles, Decatur Hill. This time, you have a fast run at the 1.5 percent grade and growl through Decatur at a steady 11 mph. At about milepost 219, with the train balanced atop the summit, helpers once used to cut off and return to Neosho. But your DP pushers stick around. The biggest thrill of all is 120 miles away.

THE MISSING BUSINESS

"Right now is positively the worst possible time for anyone to be looking at this railroad," Michael Haverty says. "I've not seen business conditions this bad in my lifetime." The railroad's bread-and-butter chemical, paper, and forest-products businesses are hurting. A decade ago you'd have seen four scheduled manifest trains in each direction, instead of today's two trains. (A third round trip, affectionately called the Super Dog,

runs between Shreveport and DeQueen, Ark.) Haverty is confident that traffic levels will recover along with the economy.

He would also welcome more traffic at Kansas City from friendly connection Canadian Pacific, through its new subsidiary Dakota, Minnesota & Eastern. Already, elevators on the DM&E in Iowa originate most of the grain that shuttles to Mexico on 10 sets of equipment. Last year, 15 sets of covered hoppers were at work to Mexico, but dirt-cheap pricing to Mexico by ocean carriers diverted some of this volume to Texas and Louisiana ports, giving KCS a shorter haul. Haverty hosted Canadian Pacific's chief executive, Fred Green, in Kansas City in mid-April, and from that visit came an agreement to seek to feed more traffic to each other through the Kansas City gateway.

In the Deramus Era of Kansas City Southern (spanning three generations of Deramus presidents, 1941-1990), grain didn't figure in the railroad's traffic mix. Now it's a staple on the northern neck. In addition to those shuttle trains of grain to Mexico and other unit trains headed for export from Reserve, La., the railroad regularly runs GKCHV trains to serve six customers involved in chicken and egg production between Decatur, Ark., and Heavener. Simmons Food at Decatur and Tyson Foods at Feeder (Westville), Okla., can take 50 or more cars at a time. A GKCHV will set out most of its train at Watts for the two locals based there (one working to the north and one to the south) and bring the rest of the grain into Heavener to the OK Industries feed mill.

Intermodal



A grain train for Mexico pauses at the Heavener, Okla., fuel racks. Most shuttles load on CP, which shares Kansas City's Knoche Yard (right) with KCS. Chris Guss; sign, Fred W. Frailey





McElhany Hill's 1.5 percent climb is clearly visible from the cab of CKCSH. Fred W. Frailey

service has always been tough to sell on the north-south line — past attempts sputtered out. But the railroad keeps trying. In June 2006, Schneider National started six-day-a-week service between Marion, Ohio, north of Columbus, and Kansas City, using CSX out of Marion and KCS between East St. Louis, Ill., and the International Freight Gateway ramp located just south of Grandview [see “The Haywire Becomes a Live Wire,” *TRAINS*, October 2006].

Starting in March, the service was extended south to Dallas and Mexico. Granted, it's not fast. Transit time from Kansas City to Mexico City: eight days. Right now, the southbound containers (sometimes as many as 40 per day) are picked up at Grandview by MKCSH each morning and northbounds dropped off by MSHKC. At Shreveport, the containers connect with IJALZ out of Jackson, Miss., and ILZJA from Laredo. Ultimately, Pat Ottensmeyer, who heads sales and marketing at KCS, expects to run dedicated intermodal trains south of Kansas City.

Haverty doesn't try to gloss over matters. “We are not and never have been an intermodal railroad,” he says. “We're coal, grain, chemicals, and paper.” Moreover, he adds, no railroad runs an effective intermodal service into and out of Mexico today. “If such exists,” he says, “why would there be all these trucks going back and forth? We don't yet have the facilities or the volumes. But this is a start.”

Now that KCS has opened its rebuilt line between Rosenberg, Texas (near Houston), and Victoria, and quit using circuitous and costly trackage rights to Victoria over Union Pacific, the railroad hopes to establish an intermodal franchise, primarily between Mexico and Houston (Rosenberg) and Atlanta, and secondarily between Mexico and Dallas and Kansas City. Ottensmeyer says Houston is the biggest origin and destination point city in the U.S. for trucks going in and out of Mexico, and traffic is balanced in each direction.

THE BIG HILL

The next morning, his train freshly fueled at the Heavener racks, Joshua Jennings roars

out of town with coal train CKCTU, getting it to 38 mph on the brief downhill run in less than two miles. He's got two SD70ACe locomotives on the front, two AC4400s mid-train, and one SD70MAC on the rear. The train flies through Hodgen at 40.

Pretty soon, though, the landscape changes, and CKCTU digs into Stapp Hill on a 1.5 percent grade that lasts five miles. Jennings has the two lead units pulled back a notch, to lessen drawbar tensions, and the two rear sets going full bore. Meanwhile, he's shooting sand on the rails under the driving wheels to prevent a slip and subsequent lunge. Your train settles down to a steady 12 mph, as Jennings had predicted a few minutes earlier. (“These north-south guys are terrific,” trainmaster Tim Livingston had told you that morning in Heavener. “They take so much pride in running three sets of engines up and down the hills.”)

Ahead of you, on the horizon of the railroad grade, is a beautiful sight: the lush, richly forested, largely uninhabited and sunlit Ouachitas. And smack in your face is the biggest peak in the range, Rich Mountain. At Page, Okla., you get a break in the grade — enough to get your speed back to 26 mph. Now begins the 13.2-mile, 721-foot climb to the summit on a 1.1 percent grade to just across the state line in Arkansas. Truth to tell, at 15 and 16 mph, now surrounded by trees and with no real open areas, the next 40 minutes to the top try your patience. You're barely moving, and from the locomotive cab it seems you are going even slower than you really are.

And when you reach Rich Mountain, are you finished with killer grades? No, two more to go. The first, almost 30 miles beyond Rich Mountain, is Cove Hill, a 1.35-percent climb that starts at Hatfield, Ark., but lasts just two and a half miles. Five miles beyond, at Vandervoort, Ark., you tackle Wickes Hill, another 1.35-percent grade that's also mercifully short. CKCTU manages to make 15 mph up both of these obstacles.

There — you've conquered them all. An hour later, just south of DeQueen at Wade, Ark., conductor Cliff Ryburn climbs down to supervise the setout of two of your five locomotives, the two mid-train units. They'll be picked up by the next northbound train and taken back to Pittsburg to start another round trip. You're on your way in 35 minutes.

Ahead lie Texarkana, Shreveport, and gentle grades once again. CKCTU will get a fresh crew at Texas Junction, just north of Shreveport Yard, and head 82 miles west into Texas to the Monticello generating station. Twenty-four hours from now, its empties should be atop Rich Mountain, going north and moving somewhat faster, as the cycles of the northern neck repeat themselves. **I**

KCS SD70ACe 4028 reaches the summit of Stapp Hill at Blue Cut, Okla., on Nov. 25, 2007. Just ahead for this southbound grain train is the gentler but longer assault of Rich Mountain. Bob Eisthen



>> See photos from Fred W. Frailey's 1979 *TRAINS* article on Kansas City Southern in the “Workin’ on the Railroad” section of the Fall 2009 issue of *CLASSIC TRAINS* magazine.

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