

CIRCUS TRAINS

Their history, operations and special moments through the decades

The Circus Moves by Rail

Trucks were tried by smaller shows but in long run they proved more expensive than rail transport

In a small city newspaper several years ago the editor wrote, "The circus came to town yesterday and every boy was at the railroad crossing at dawn to see the show unload. Some of the boys were under 40."

Watching the circus unload its long trains of strange animals, great red wagons, its brilliantly carved and gold-leafed cage and tableaux wagons, its "cavalcade of 600 horses," and its "five herds of monster performing pachyderms," has long been a favorite pastime of American boys from six to 60.

BY EUGENE WHITMORE

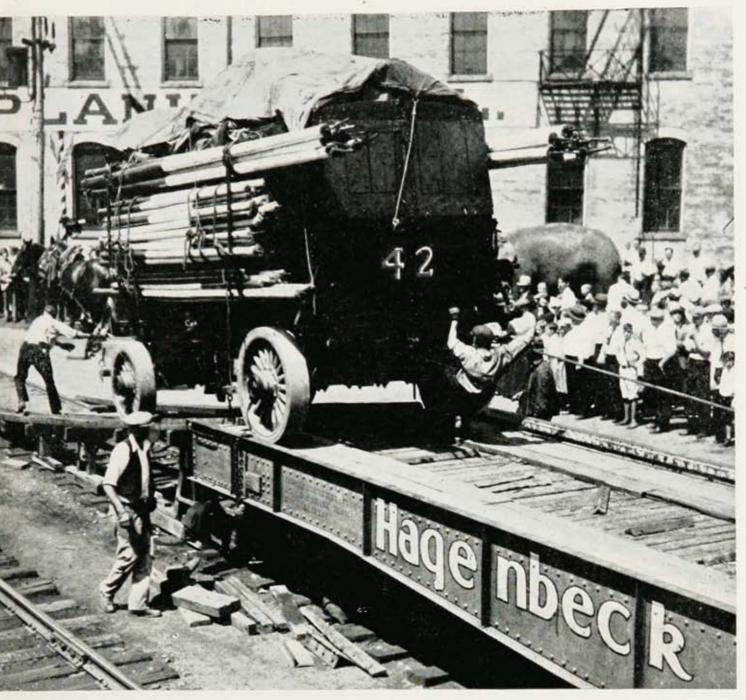
Illustrations by author and C. P. Fox

But a few years ago it looked as if the railroad circus was about to disappear from the face of the earth. In the late twenties there were from 12 to 15 circuses. During the terrible thirties all but two disappeared leaving only the monster Ringling Bros. & Barnum & Bailey, and Cole Bros. on the road. The others were moving via the highways on motor trucks.

In the 1945 season there were six railroad circuses, four new

Early morning scene at the railroad yards as the horse cars are unloaded. With the increased use of motor trucks fewer horses are used today to haul the wagons from and to the circus grounds.





A loaded wagon comes off the flats and down the runs, with the "poler" shown in the dangerous job of guiding the wagon tongue or pole. Note the rope, which is attached to a snubber back on the car. Military men have studied circus technique of loading and unloading wagons on railway cars.

ones in addition to the two already mentioned. Russell Bros. and Arthur Bros. changed from motor trucks to railroads, and Austin Bros. was organized for railroad operation from the start, while Dailey Bros. went on the rails for a huge success in 1944.

Motorized circuses have generally proved disappointing, both to their owners and to the public. None of the many which were motorized grew to impressive size. Only one or two were consistently profitable.

Trouble was that the trucks wore out too fast, were wrecked, or repair bills were too high. At first glance railroad transportation for circuses seems considerably higher than motorized transportation, but this isn't so.

A commonly used figure for truck transport is 10 cents per mile per truck. Many truck shows are about the size of the typical 10-car railroad circus, and require 40 trucks for transport. At 10 cents a mile, a 60-mile jump would cost \$240. A similar jump on the railroad would cost \$301, north of the Ohio River. But repairs, accidents, replacement of trucks, state licenses and other fees soon bring the trucking cost above railroad costs.

On longer jumps the railroad rate, being graduated downward as the mileage increases,



The pole wagon is one of the longest in the circus. It may take up an entire flat car by itself. This photo shows the snubber by which wagons are controlled while running down the ramp. The cars have ordinary freight car trucks, but are extra long.

actually becomes cheaper initially. For a move of 120 miles for a 10-car show the tariff is \$469, whereas the truck cost at 10 cents a mile would be \$480.

There is little opportunity to compare the costs of the larger circuses because motorized circuses never grew very large. The railroad tariff definitely favors the larger shows, because the same crew and motive power can move a 30-car show about as cheaply as a 10-car show. It costs \$469 to move a 10-car show 120 miles, but only \$771 to move a 30-car show the same distance.

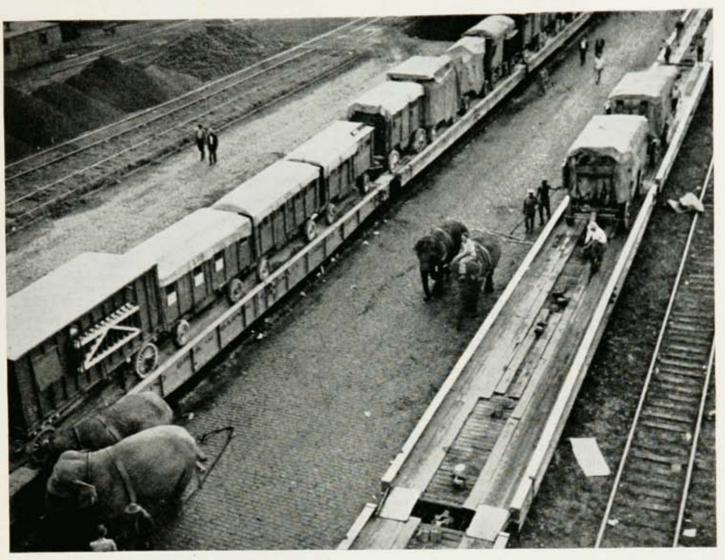
Arthur Bros. Circus officials stated that trucking costs in 1944 totalled \$86,000. Now, moving on rails, the estimates for 1945 are \$36,000 to cover approximately the same territory.

The highly efficient method of loading and transporting circuses is wholly an American technique begun in 1872 by W. C. Coup, then Barnum's partner. When the Buffalo Bill Wild West Show went to Europe Kaiser Wilhelm was fascinated with its methods and ordered his army officers to study its operation. The United States Army has also studied circus railroad methods from time to time, adopting some of its ideas.

Secret of the circus technique is the efficient loading of wagons, which are hauled, fully loaded, onto strings of flat cars on which they are transported from town to town.

The same load goes into each wagon every night after the performance. Wagons are known by their lading. There is the pole wagon, the seat wagon, the light wagon, for the lighting plant, the canvas wagons, and so on. Almost one entire wagon is loaded with the "big heads," the giant papier-mache heads worn by the clowns in the crazy number which usually comes toward the end of the performance.

One of the most interesting is the costume or wardrobe wagon, equipped like a wardrobe in a home, with hangers and drawers for all wardrobes. Performers go to this wagon for costumes, return the costumes to it immediately after



use. There are other wagons for the "cookhouse," which is the circus dining department, and two or three ticket wagons, which serve as the business offices of the circus.

Circus cars are usually 72 feet long, the extra length being due to railroad tafiffs, which are assessed on a car-mile basis. In the circus train are flat cars, stock cars and coaches. Slightly more than half the cars in any circus train are the flats, on which the loaded wagons are pulled each night. It is the rapid unloading of these flats each morning which attracts thousands of local people to the railroad yards when the circus pulls in.

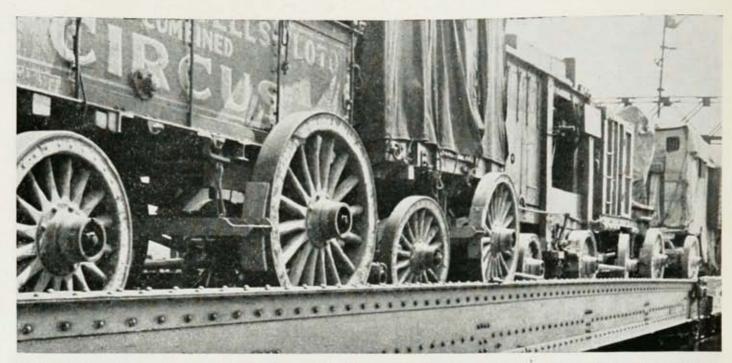
Horses, elephants, camels and other "load stock" are transported in the stock cars. Circus animals are never left alone and the grooms sleep in bunks, swung from the tops of the stock cars. The "cats," lions, tigers, pumas, as well as dogs, birds and monkeys, have their own cage wagons which are pulled up on the flat cars the same as the baggage wagons.

Three to four wagons are loaded on each flat car. Most circus trains consist of about 30 cars, but the great Ringling Bros. & Barnum & Once the railroad cars are in the sidings plates are laid across from car to car and the floors form a continuous roadway so that wagons can be pulled along to the end of the train where they are unloaded. Heavy side girders keep them in line.

Bailey Circus uses as many as 98 cars, traveling in three separate trains.

Circus people make their homes on the coaches, space being allotted according to the rank of the performers. Stars have staterooms, the lesser performers only a berth. One car, known as the staff car, is for the management. Single girls have their own cars, single men, other cars, while families are assigned to the remainder. End doors are locked or boarded up, so you must board your own car, for there is no such thing as walking through a circus train. The owner or manager usually has a private car on which guests are entertained. One circus recently bought the private car formerly owned by Charles M. Schwab, the steel maker, for use by a circus star and his family.

Planning the route of a circus each season calls for amazing astuteness and knowledge of the country, business conditions, weather and



Can't you hear those wide treaded wheels rumbling? At night after the performance the horses, by long habit, follow the oil torches which mark the route back to the railroad siding where the wagons are reloaded. By morning the circus is in another city.

crops, as well as the most intricate knowledge of railroads. The agents who contract the show, months ahead of its appearance in a town, must know every fact about a town's railroad facilities before they bring the show. Where is the crossing nearest the lot where the show may be unloaded? Are there enough sidetracks available for parking the train between dawn and midnight? Are the tracks and bridges on branch lines strong enough for the heavily loaded circus cars? How about clearances, curves and other obstacles? Arthur Hopper, Bill Conway, and Al Butler, veterans of the Ringling show, J. D. Newman of Cole Bros., R. M. Harvey of Dailey Bros., are all famed for their photographic memory of every railroad yard in America, and minute knowledge of vacant lots, bridges and crossings in every town.

Ahead of the show from two to three weeks, are the advertising cars, loaded with tons of flamboyant posters, window cards and muslin banners used to advertise the show's coming. From 50 to 90 men are employed on this job alone by the larger shows. The advance cars have berths for the billposters and banner tackers, a private office for the manager and his assistant. At one end is a boiler to cook the several barrels of paste used each day.

Circuses travel from 12,000 to 20,000 miles each season. The last year the Ringling show visited the Pacific coast its trains rolled over 20,030 miles of track. The longest run was from

Portland, Ore., to Oakland, Calif., 719 miles. Shortest was the 17-mile hop from Albany to Schenectady, N. Y.

The average move is less than 100 miles; usually there will be no more than six or eight moves of more than 200 miles in a season. This is especially true if a show remains east of the Rocky Mountains where towns are closer together than in the sparsely settled west.

In a typical season a large circus will use about 30 different railroads but in certain years it will use as few as 18 and in other years as many as 43. Circuses prefer, if business warrants, to use one road as long as possible. "Two road" moves consume extra time and cost more. Occasionally it is possible to move on one road for long distances. Coming out of New England in early July a show may move onto New York Central at Albany continuing on through Utica. Syracuse, Rochester, Niagara Falls, Buffalo, Cleveland, Toledo, Detroit, South Bend, Chicago. This would be unusual, unless the show is hurrying west to the Pacific Coast. Ordinarily it might want to play Flint, Jackson, Kalamazoo, Battle Creek, or stop at Pittsburgh, Youngstown, Akron, Dayton, Cincinnati, and Indianapolis.

Out west a big circus may begin on the Southern Pacific, remain on that road through Oakland, Los Angeles, all the way to Houston, or even San Antonio. Here, too, this would be a "fast" route missing San Diego, and perhaps other cities such as Ft. Worth, Dallas, Waco,

Austin, or those famed west Texas towns on the Texas & Pacific, Pecos, Big Springs or Abilene, to break the jump out of El Paso.

Like the railroads, the circuses have their fans, and there are few greater enthusiasms for anything than the circus fan's zest for his favorite show, performer or manager. The Circus Fan's Association has "tents" in many cities with ardent members who vie with one another to see how many different circuses they can attend each season. There are other fans who memorize circus routes year after year, and can guess at almost any given date where any circus will be.

Another circus fan organization is the famed Circus Saints and Sinners, and the circus model builders also have a strong organization of craftsmen who build complete model circuses with every wagon, cage, tent, stake and pole reproduced exactly in minature. One famed circus fan donated to the San Antonio Public Library his collection of circus posters, programs, photographs, route books, plus a vast collection of circus literature including some massive works on costuming. Occupying two large rooms, this exhibit has a ticket wagon from the old Gentry Brothers Show, a complete miniature circus with tents stretched and the coach in which General Tom Thumb, Barnum's famed midget, rode.

The lover of railroads and the lover of circuses have much in common, for without the railroad the modern American circus could never exist, and if the signs on the horizon are right we may have in a few years as many as a dozen good railroad circuses again blossoming forth with the robins in spring to delight the hearts of young and old throughout the land.

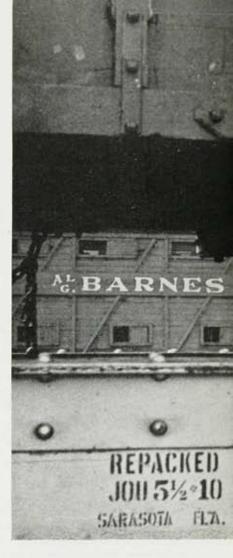
Barnum, master politician that he was, wooed the railroads with his excursion posters. The old lithograph below is a typical example. It shows the entire countryside on the way to Barnum's tents, via railroad, of course, P. T. himself is up in a balloon with one of his partners, Hutchinson, telephoning instructions down to Bailey, the third partner. This poster is from the season of 1881. Posters featuring railroads no doubt helped Barnum in working out the close arrangements for travel which were the making of the circus. Public relations is not such a new profession after all.



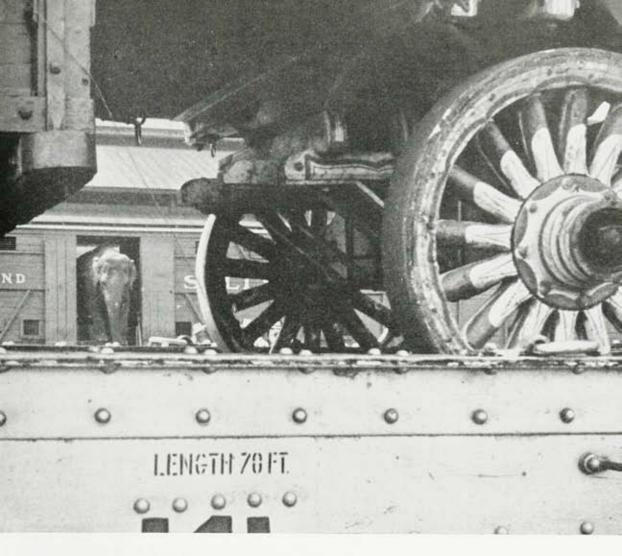


Days before the arrival of the circus the barns, sheds, and store walls of the countryside are peppered with multicolored posters printed from hand-cut wood type. These children are getting a preview of a showing at West Allis, a suburb of Milwaukee. The Wisconsin State Fair Park at West Allis is ideal for a circus, because a Milwaukee Road spur track runs right into the grounds and there is plenty of room for the loading and unloading of cars. Posters on this shed at Hartland, 30 miles away, faced the main line of the Milwaukee Road.

Sometimes the circus shows at the Lakefront adjacent to the C&NW station in Milwaukee instead of at the Fair Park. Last wagons are coming off a string of flats, right, while another string waits. Small commissary tent, center, is ready for breakfast. Menagerie tent is at left.







Circus Trains

Special cars move the animals, big top and sleeping performers punctually from city to city

It was railroad transportation which made possible the large three-ring circus which is such a typically American institution. Only with railroad transportation was the circus able to by-pass all the smaller towns and show only in cities which could support a larger show.

Take the famous Barnum circus, for instance. The circus itself was actually the idea of W. C. Coup, of Delavan, Wis., who realized the famous name of Barnum would attract many more people to a circus. Barnum was sort of a silent

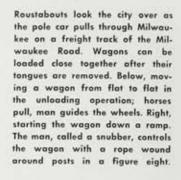
PICTURES AND STORY BY C. P. FOX

partner. The show was pulled by horses and elephants and moved from town to town by night, the distance being limited by the wagon travel over muddy roads. It was necessary to play towns as they came regardless of population and the possibilities for circus attendance.

Coup noticed that, taking the towns and cities as they came along the wagon trail, the larger towns averaged \$5000 to \$7000 per day receipts while in the smaller towns the receipts were only about \$2000 per day. He conceived the then original idea that by using the railroad for fast and efficient transportation he could increase the overnight distance and by-pass all the small \$2000 stands and work only in the more fertile \$5000 territory.

With some difficulty he convinced Barnum





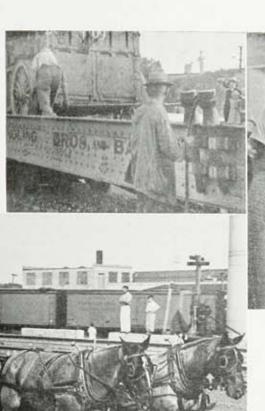


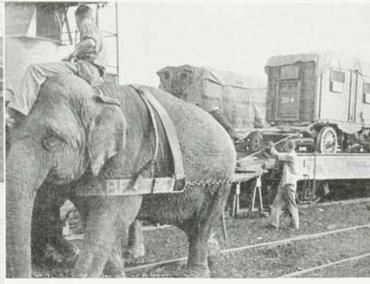
BRIGGS AN BA

that the show should ride the rails. This was in 1871. The idea was so successful that for the first time in all its history the circus made over a million dollars in the season of 1872. The increased revenue made it possible to develop the two-ring circus and later the three-ring circus, and the showmen were able to offer the public more than it could possibly see at a showing. The principle which made this the greatest show on earth was the use of the railroad. Other wagon shows, which were called "mud shows" soon turned to the railroad, and the circus in America became of age. Some shows now travel on trucks, since the paved highway makes it possible to move somewhat faster than in the mud road days, but these shows are still limited in size. The tendency is toward the rails, even with these shows.

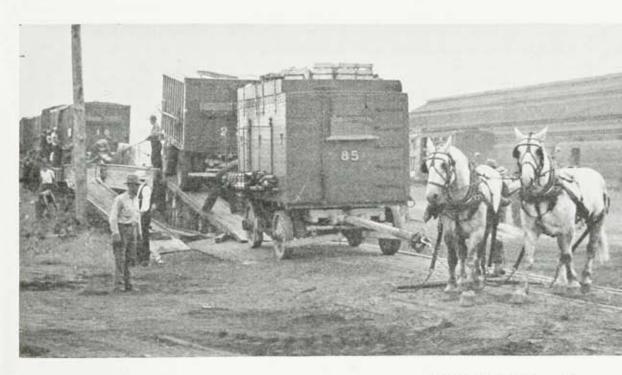
A circus owns all of its own cars including special 70-foot flat cars to haul several wagons each. The principle reason for this great length is that the contracts with the railroads have always been on the per car basis. The longer car is to the advantage of the circus. Coaches for the entertainers and other circus men usually are old cars purchased from the railroads and rebuilt to circus specifications. The stock cars, like the flats, are specially built for all the lead stock, horses, elephants, etc.

As many as 100 cars are used for the larger circuses. The trains are operated in four sections. The first section starts off for the next city with the commissary department during the show. It is soon followed by the train carrying the menagerie, then comes another section with the big top, and finally the coaches with the performers who must get their sleep during the ride between towns. By the time the trains reach the next city, usually in early morning, the advance agent has arranged planks between the rails at the unloading spot, has put in any cinder fill needed and has cleared the area of bottles or tin cans which might hurt the feet of





Another view of a wagon about to descend a ramp. Elephant power is just as useful as horses to a circus. This animal is Ringling's Babe. The man holding the rope will unhook it as the wagon gains momentum down the ramp. Below, a different team pulls the wagon to the show lot. Sometimes this is just a few feet, sometimes as much as three miles from the railroad. Harnesses for all performing animals are specially made to avoid any injury or defacement of the hair or hide. A second wagon is on the way down before the first has entirely cleared. All loading and unloading operations are scheduled. Wagons are loaded in a sequence that will make unloading procedure as convenient as possible at the next town.



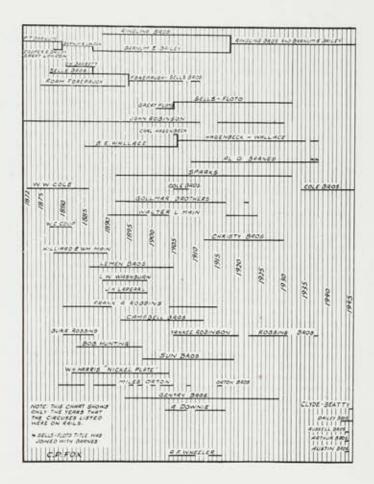


Chart shows history of railroad-borne circuses. Four are on rails this year; 1905 saw 17, and 16 ran for many years. Below, a one-season jaunt took Ringling's over 39 different railroads aggregating 17,117 miles of track. There were 1383 performances given in the 124 cities visited.



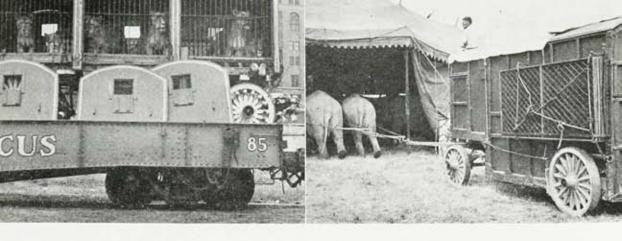
soft-footed camels or elephants,

The cars are unloaded at a convenient spot, as near as possible to the site of the circus, and ramps are put at the end of a long string of flat cars. The unloading operation is scheduled very closely, as it is important that the circus arrives at its location with the least possible confusion and as quickly as possible. By breakfast time, the commissary is ready to feed all of the workmen and entertainers and the daily routine starts all over again.

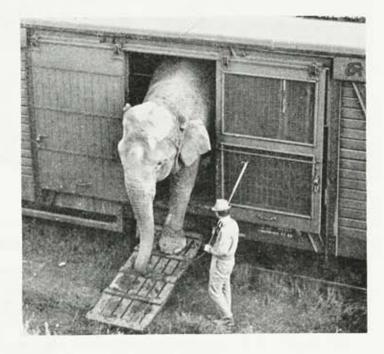
While the Barnum show has 90 and even 100 cars, other railroad shows are smaller. Cole Brothers uses about 30 cars, for instance. But all of the circuses are loaded and unloaded in exactly the same manner. Even when the Ringling show moves just 10 miles from Minneapolis to St. Paul, the loading is done the same as if the circus were going 200 miles.

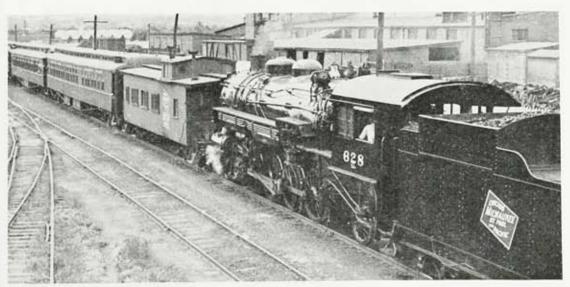
When the circus travels all day on a particularly long jump such as from Sarasota, Fla., to Madison Square Garden in New York it must stop en route to enable the men to feed and water all the caged animals. All the facilities necessary for this are prearranged by the advance man, and the elephants, camels, zebras, and horses are all unloaded and exercised, watered and fed. Ringling's carry 40 elephants and 400 horses.

The circus has a lot to say as to the route over which it will go. Sometimes it will request to be rerouted to avoid unventilated tunnels which might possibly suffocate the animals. Other times. it will go a longer way around on a mainline track rather than risk trouble with the heavy cars on a light branch. Agents traveling far ahead of the circus report conditions such as crop failures, strikes or epidemics, which would result in a poor stand, and a circus will be rerouted to a stand at a different city.



Note the special location of the hand brake on the end of the flat car. End of car must be clear for removal of wagons. Side panels on lion wagon have been dropped to give animals fresh air and sunlight at a rest stop on the long run from the headquarters at Sarasota, Fla., to Madison Square Gardens. Upper right, elephants as well as horses pull the wagons from train to location on the lot. This wagon is the answer to the problem of moving 15- and 18-foot giraffes. Real circuses are skeptical of the Disney method of cutting holes in the top of circus train cars. Instead, they built these special wagons with a low-slung floor. The animals neck stretches out horizontally and can rest upon padding. Right, Modoc alights from his car. He never is sure the ramp will hold him and tests it every time even though he has used it daily for years. Below, a Milwaukee Road Mikado moves performers' cars toward a siding at the State Fair grounds, West Allis, Wis.







Jim Neuba

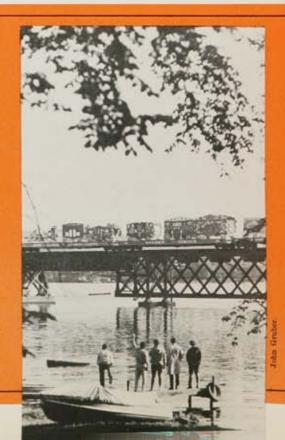
IN THE OLD DAYS wagons in circus trains were covered with tarpaulins to protect against the weather and couldn't be appreciated by passersby. The 1965 train, the first staged by Schlitz and the Circus World Museum, is inspected by throngs at servicing stop in Madison, Wis., on July 1.



Paul E. Larson

AT MERRIMAC a series of deck truss and deck girder spans carries North Western tracks across the Wisconsin River in a fittingly picturesque setting.

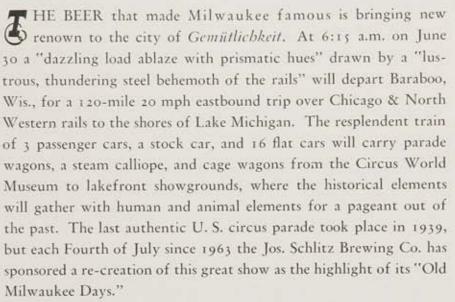
> LOOK at the Asia Wagon! Across the Wisconsin River at Merrimae come the 16 cars and 40 wagons of the 1965 circus train. Itinerary and tips on photographic vantage points were available, and motorcaders had little difficulty pacing the leisurely procession.



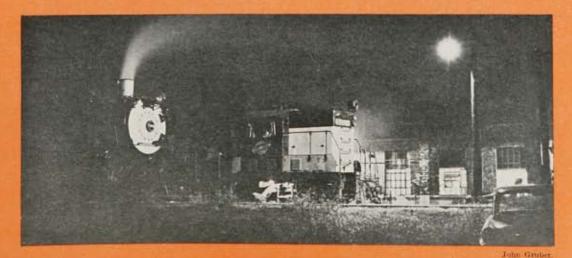




A revival of bygone days in Wisconsin



For all of the 600,000 persons who converge on the southeast Wisconsin city for the July holiday, "Old Milwaukee Days" furnish plenty of glitter: five days filled with gilded wagons, fireworks, clowns, teams of matched Percherons, pretty girls clinging to howdahs on swaying elephants, cotton candy, snappy brass bands, a 1919 red chain-driven Mack truck, and hundreds of other "magnificent



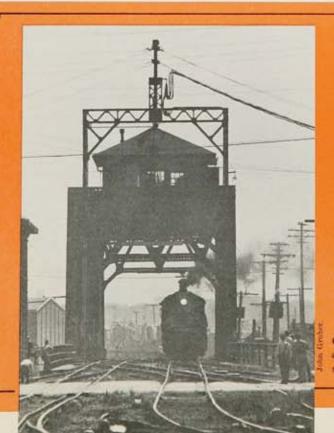
THE NIGHT BEFORE . . . North Western EMD GP7 No. 1596 keeps vigil with Burlington Baldwin 2-8-2 4960 at Monona Yard, Madison, at 11 p.m. on June 30, 1965. On the big day, the Mike was replenished here from a coal dealer's truck and one of the fire department's pumpers.

sights and sounds." But for some, the best spectacle of all is the color-splashed train that slowly winds its way (true to circus practice, the wagons are secured only with chocks under the wheels) over the green countryside behind Burlington's 2-8-2 No. 4960, itself a 43-year-old anachronism living on borrowed time. For a sight of this, circus and rail fans from all over the U. S. crowd city depots and country roads, toting blankets and picnic baskets and offspring.

To most of the youngsters it's strange and heady stuff — the poking silver-faced monster that huffs and spews smoke and terrifies the little ones with its whistle blast . . . a golden Cinderella and her Prince Charming . . . the Mirror Tableau Wagon . . . a peacock in a cage . . . flat cars lettered BARNUM & BAILEY and CHRISTY BROS. . . . and a bright blue car with a striped awning over an open observation platform. To the not-so-young, who can remember when all of these were not museum pieces tagged with a catalog number or a retirement date, the moment and the memories bring a touch of the bitter-sweet.

But be of cheer; rumor has it that the colossal combination of 2-8-2, circus museum, and brewer will be together for some time to come — here where they're at home, in the green countryside of Wisconsin. Stupendous. — R.E.

HERE COMES THE CIRCUS!





RED, WHITE, AND BLUE passenger cars bring up the rear of the circus extra at the west edge of Waukesha. Left to right: Barahoo, Delavan (ex-NYC), and Janesville (ex-AT&SF) — all Pullman-built in 1925.

CLATTERING across a swing bridge over the Milwaukee River, the caravan nears its destination. An estimated 75,000 persons turned out in the summer sunshine to view this first event of 1965 "Old Milwaukee Days."





Both photos, John Gruber.

STOCK CAR which carried roustabouts and draft horses derailed at Baraboo while the train was being made up early on the morning of July 1, delaying departure almost an hour. The time lapse stretched as the train proceeded east, but everyone agreed that the wait was worth while.



John Graber.

THE Burlington's 4960 has headed excursions for eight years and on one special occasion was painted gold. For the circus assignment, however, she wears bona fide workaday attire.



Robert Johnston

THE MIKE rolls its precious cargo to a position near the lakefront showgrounds and the North Western's Milwaukee station. In the background beyond the ivy-covered walls is the Memorial Art Center, behind that Lake Michigan. The 1965 circus train brought the first steam to a railroad main line in Wisconsin in 10 years.



Heroics at North Freedom

Steam catches up with the Great Circus Train after 12 hours of emergency surgery

PAUL SWANSON

1 EDITOR'S NOTE: When the star of the 1987 Great Circus Train—ex-Chicago & North Western R-1 4-6-0 No. 1385—sputtered and died as she attempted to leave Baraboo, Wis., on July 7, 1987, it touched off an extraordinary emergency repair effort, reminiscent of that by Norfolk Southern crews at Anniston, Ala., with N&W 2-6+6-4 1218 on April 21, 1987 [pages 26-33, September 1987 TRAINS]. One difference: NS's crew was largely paid help, while repairs to C&NW 1385 were the responsibility of the volunteer crews of Mid-Continent Railway Museum, the Ten-Wheeler's owner. Paul Swanson, MCRM member who is serving for the second summer as an engineer on the museum's regular passenger trains (and who wrote the story of the Leslie rotary plows in January 1987 TRAINS), relates the heroic effort.

Historical note: The Great Circus Train, a preliminary event to the Great Circus Parade in Milwaukee, these days is a 222-mile, two-day affair, necessitated by C&NW track abandonments but with the side benefit of exposing the entire undertaking to the Chicago-area media and population. On the first day, the train runs from Baraboo, home of the Circus World Museum, through Madison, Wis., to Janesville; next day, it proceeds through Harvard [pages 14-15, October 1985 TRAINS] and Arlington Heights, Ill., to Des Plaines (Deval Tower), then turns north through Highland Park and Waukegan, Ill., and Kenosha and Racine, Wis., to Milwaukee.

The 1987 train and parade were the third in the current series, sponsored by various corporations recruited by Milwaukee public-relations executive Ben Barkin; this year's train was sponsored by Strong-Corneliuson Capital Management, Inc., a Milwaukee-based mutual fund. The earlier train and parade series, sponsored by Jos. Schlitz Brewing Company, ran 1963-1973, with the train pulled variously by Burlington 2-8-2 4960, ex-Grand Trunk Western 4-6-2 5629, Milwaukee Road and C&NW diesels, and—in its 1973 finale—Southern 2-8-2 4501. Chicago sponsored a circus parade for two years, 1981-1982, but the wagons from the Circus World Museum traveled on modern TTX flats, not the historic cars, and were pulled by C&NW diesels, runof-the-mill GP35's the first time, Presidential F7's the second.



VOLUNTEERS begin their heroic work in Mid-Continent's shop.

THIS YEAR, the train consisted of 32 cars, including Mid-Continent's Pullman green baggage (tool) car 8903 and business car 440 ahead of the circus box cars and flats and their precious cargo of 75 antique wagons, with the Circus World Museum's five heavyweight passenger cars, the private car North Star, and C&NW business car Minnesota on the rear. As the train started, there was one exhaust and—poof!—a blast of steam shot out 1385's stack and back through the firedoor. A superheater unit apparently had failed, and scores of television, radio, and newspaper reporters were on hand to report the breakdown. It would take museum volunteers all day and much of the night to repair 1385 in time to rejoin the train at Janesville.

At Mid-Continent, located 6 miles west of Baraboo at North Freedom, Richard Gruber and I were servicing Saginaw Timber 2-8-2 No. 2 for the museum's regular passenger runs when we learned of the breakdown by phone. MCRM General Manager Dick Goddard gave us emergency instructions: As soon as we got the 10:30 a.m. train ready at the museum, we were to pull the "hill" (the track running up to the C&NW interchange in town, plugged with about 14 cars), then go uptown with our GE 44-tonner to pick up 1385 and its "train" (auxiliary water tender and car 8903).

The only diesel power in Baraboo was the SD60, 8043, assigned to help 1385 haul the circus train, an assignment that suddenly had become solo. To rescue 1385, C&NW summoned the crew on the day's "rock train"—with their diesel consist of C&NW SD40-2/UP SD40-2/C&NW MP15—at the ballast quarry at Rock Springs, 3 miles west of North Freedom. (Except for a weekly local, the ballast trains are the only traffic on the line north of Madi-





TRAINS: J. David Ingles.

SANS steam, Circus Train bridges Lake Wisconsin at Merrimac.

son.) As the 10:30 a.m. museum train pulled out of the station, we could hear the units running through town. By the time we cleared the hill and reached the interchange with the diesel, the steam locomotive had been waiting for 5 minutes. We towed it to the museum grounds, and after a quick runaround, shoved 1385 into the shop. The time was about 12:10 p.m.; somehow, we managed to get the 12:30 p.m. museum train out of North Freedom on time.

Museum volunteers quickly began disassembling 1385's front end. A superheater failure had been suspected from the beginning, and sure enough, after two superheater units were pulled, workers found the leaker—fourth from the engineer's side, top course. The time: approximately 3 p.m.

Mechanic Rick Peters spotted the problem right away. When a set of 1385's superheater units were repaired a number of years ago, header outlets had been threaded and nipples inserted, providing a new connection between the header and superheater unit. One of these nipples had blown out of the header, producing a large leak; the unit was bent out of shape from the force of the blow. The locomotive couldn't operate—1385's superheaters are placed after the throttle, thus they receive steam only when the throttle is open.

The offending header opening had to be bored out and rethreaded for a new nipple. Three more adjacent superheater units were pulled to get at the blown hole. By about 7 p.m. the superheater had been repaired, but the other units had to be reinstalled, and that would take another two hours.

Meanwhile Chris Burger, C&NW assistant vice president-transportation and general manager (and an MCRM member) and Gary

TRAINS: J. David Ingles.



Selk, C&NW trainmaster/traveling engineer, were planning 1385's comeback. The Madison Subdivision has its share of 10-mph and other slow orders, and to make Janesville for the scheduled 6:30 a.m. departure of the circus train the next morning, MCRM people would have to have 1385 back at the North Freedom interchange track by 10:30 p.m. A North Western crew and engine were called for 9 p.m. at Madison to come up and tow 1385. As 10:30 neared, though, it was apparent we would not be finished—the baffles were going back in the smokebox, but the netting and other parts of the front end were left to install. The firebox was stuffed with wood. We decided to keep working; C&NW allowed that we could finish close enough to the figure to still make the circus train. The train for 1385—auxiliary water car and baggage/tool car 8903—was readied outside the shop.

The engine's front end was put back together about 11:30 p.m., and the museum's Whitcomb diesel pulled 1385 out of the house. We lit the fire at 11:37 p.m.—just as her stack cleared the enginehouse doors. She still had 20 lbs. of steam. At the water tower, we quickly topped off the tender. Burger had arranged for the C&NW engine to come into the museum to pick up 1385 and her train, and GP15-1 No. 4418 arrived. It was midnight as they headed back for the interchange in North Freedom. A waycar was tacked on the end, and it was off to Janesville, 74 miles away. Two MCRM members traveled with 1385 to bring up her fire and keep lubrication on the cylinders by cracking the throttle. Three other crew members drove to Janesville—they had a full day of firing ahead of them. (C&NW had dispatched an A-A-B-A set of Presidential F7's to Janesville as backups in case 1385 wasn't ready.)

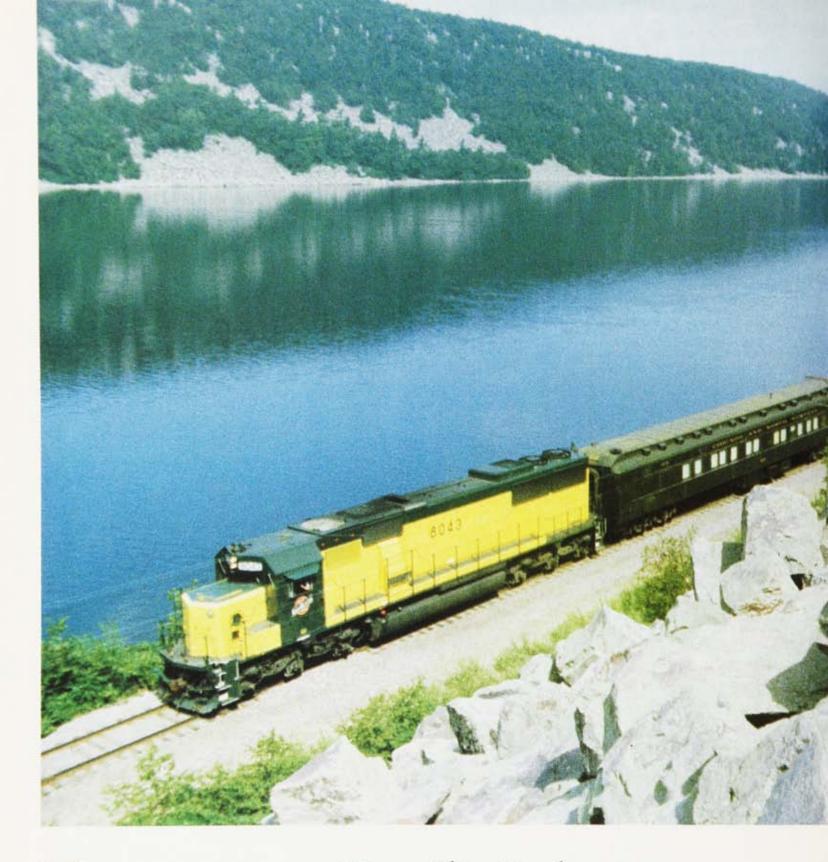
Twenty Mid-Continent members—all volunteers—had been involved in the repair session. The work took about 12 hours. Their mood was somber and quiet, as if someone had died. And there were distractions, for considerable attention had been paid to 1385 throughout the day—bystanders, reporters, and a cameraman from Channel 12 in Milwaukee all had watched in the shop. Even in late evening, though, C&NW's Burger and Selk still were on hand, tired and weary. But the job was accomplished, and the circus train—though delayed out of Janesville slightly—once again had a working steam locomotive up front. (Despite the late start, the train arrived in Milwaukee on time.)

After midnight, we "weekday employees" at the museum were glad to see 1385 gone—now we could get the operation at North Freedom back to normal. I



TRAINS: J. David Ingles

NEARING Milwaukee at St. Francis, train is behind steam, on-time.



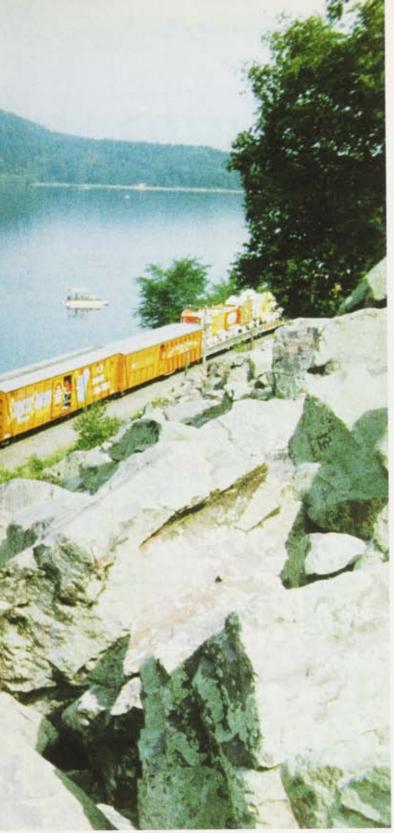
Time warp at Devil's Lake

OUT of the frozen northern wastes, the great glaciers bulled their icy mass southward during the late Ice Age, plowing, gouging, and scraping the land after their own liking. They left abundant evidence of their passing, and mankind gaping in wonder. One notable example is pristine Devil's Lake, contained in a craggy, boulder-strewn vessel of the Baraboo Bluffs near Baraboo

in central Wisconsin. The crystal waters, lush flora, and lichen-covered quartzite rocks belie the cataclysmic grinding, melting, and terminal moraine spillage that begat this panorama.

The ice left 15,000 years ago. Mankind has since done little to spoil what remains. Civilization arrived in 1873 in the form of Baraboo Air Line tracklaying gangs





Rory Peterson

who railed Devil's Lake's east shore with gracefully curving iron. Double-tracking followed in 1896. At its zenith, the line saw nine passenger trains each way skirting Devil's Lake every day. Long a favorite spot of trainwatchers, the cliffs echoed and reverberated to the melodious hoots of Chicago & North Western chime whistles. The *Minnesota*, *Dakota*, and *Rochester 400*'s (in succession) all ran through here. Freight assignments were held by no better than muscular, competent J class 2-8-2's, whose members were legion systemwide.

All of these are gone now-the "family look" steam

power in the 1950's, the passenger train in 1963, the double track in 1964 (the eastbound main was taken up). The line itself is not quite gone, though its western terminus has been truncated to Reedsburg, 20 miles up the line. The status of what little remains is as uncertain as the estimated arrival of the next Ice Age.

These facts were pondered on July 7, 1987, as I clambered over, waited, and sweated among the rocks in that natural amphitheater. The lure of photographing a C&NW steam locomotive in these surroundings was irresistible. Not only would there be steam-R-1 class 1385 of the Mid-Continent Railway Museum at nearby North Freedom-but it would be pulling the Great Circus Train, making its annual pilgrimage to Milwaukee from the Circus World Museum at Baraboo. A penalty of my youth: this octogenarian 4-6-0 is the only steam locomotive I have seen in this defile. By 9 a.m., intermingled whistling and diesel air chimes were hints of the switching being done at the nearby circus museum. My anticipation was unbridled for the next hour as I explored angles and checked and rechecked my light meter, leaving nothing to chance.

At 10:40 the flags had been whistled in by air chime . . . only. That throaty, unmistakable EMD growl was the only exhaust I could distinguish. For some failing of fate (a faulty superheater, it turned out), 1385 was scratched from the lineup for this segment of the run. Muttering acidly about missed chances, I nonetheless began shooting when the Pantone yellow short snout came into view.

But sometimes the wind is tempered to the shorn lamb. Pinch-hitting for 1385 was a spanking new SD60, 8043, the first of which I'd ever seen. As I methodically committed all of this to film, a satisfying thought occurred: This new breed of power does not represent a radical breakthrough in either design or technology. Even so, it presents more than just an incremental advance. Each new generation of locomotive tends to offer tangible proof of an affirmed faith in the well-being of the railroad (if not railroading). How new was the newest power on the Milwaukee Road? On the Rock Island? On the Colorado Midland?

At this point in the history of locomotion, I seemed to stand somewhat akin to those predecessors who were witness to their initial glimpse of new power. The R-1 "battleships;" the lacy, fleet D Atlantics; the "Zulu" Z's; the J's; the E's—steam and diesel; and yes, the GP7's . . . all must have caused similar drama when they first coursed through here with break-in oil sizzling in their precision cylinders.

And so my hat must come off to SD60 8043. Where will she be 80 years hence? Will she or her sisters evoke sentiment enough for train-watchers to line trackside the way they do for 1385? Picture this scene with the date forwarded to July—now, think about this—2067. I'll always remember 8043—she was a "first."—RORY PETERSON



THREE PHOTOS, MICHAEL R. BOLDRIC

Celebrating the circus train

This summer, the American circus takes to the rails for its bicentennial

BY MICHAEL R. BOLDRICK

THE CIRCUS came to America 200 years ago. It would have remained a one-ring show like its European counterpart had it not been for a little Yankee ingenuity and the willingness of railroads to transport almost anything.

By moving brake wheels from flatcar ends to their sides so that long strings of wagons could be quickly loaded or unloaded, showman William C. Coup in 1872 put P.T. Barnum's circus on rails, literally leaving the competition in the dust. Able to avoid tank towns and move more than 100 miles per night, railroad circuses grew into five-ring spectacles that could entertain 10,000 people during a single performance.

Equestrian John Bill Rickett's prancing horses entertained a Philadelphia audience on April 3, 1793, generally considered to be America's first circus performance. Hence, 1993 is the bicentennial of the American circus, with several celebrations planned, including those involving circus trains.

While circuses profited greatly because of the railroads, they also brought new concepts to the industry. Piggyback, unit trains, and just-in-time delivery are rooted in Coup's innovations of a century ago.

Circus trains reached their heyday in 1911 when 31 different shows criss-crossed the country during the warm-weather months, crammed aboard more than 700 colorful flats, stock cars, and sleepers. Ultimately the circus train fell into decline, mainly from consolidation of shows, competition from other forms of entertainment (especially movies), defections from trains to trucks, and the Great Depression. By 1945, Ringling Brothers and Barnum & Bailey Combined Shows was dominant, moving four sections on 108 railroad cars.

Eleven years later, the traditional railroad circus folded. Famous lion tamer Clyde Beatty's 15-car circus train outlasted the Ringlings for last-run honors by making it through the 1956 season. The 79-car Ringling train limped to Florida winter quarters at midseason after striking its Big Top for the last time in Pittsburgh. Declining attendance, lack of space near city centers, and increased operating costs sidetracked the railroad circus.



After moving its show to big city arenas and transporting it on trucks from 1957 to 1959, Ringling returned to the rails in 1960. Today, Ringling's Blue and Red Units move aboard hodgepodge consists of dull aluminum "tunnel" cars, auto rack cars, flats, passenger cars, and World War II hospital cars modified to transport showpeople and performing animals.

This year, circus bicentennial celebrations will include:

• Great Circus Train: On July 5-6, a fully restored 27-car circus train will run from the Circus World Museum in Baraboo, Wis., to Milwaukee. The consist will include 19 Warren and Mount Vernon double-length flats loaded with 75 parade wagons, plus two stock cars, five passenger cars, and a caboose. In recent years the entire route was on Chicago & North Western via Madison, Chicago's northwestern suburbs, and Kenosha. At presstime, a new route was under consideration: C&NW from Baraboo to Madison, and Soo Line from Madison to Milwaukee with an overnight stop in Portage, Wis.

Although some parade officials (below) in Milwaukee have pushed for use of Mid-Continent Railway Museum's ex-C&NW 4-6-0 No. 1385, or even Milwaukee Road 4-8-4 No. 261 (now being restored in Minneapolis), it appears the circus train will again be pulled by road diesels from the participating railroads.

 Milwaukee's Great Circus Parade: Scheduled for July 11, the 31st annual recreation of the traditional street parade features colorful bank wagons, cages, steam calliope, and tableau wagons brought to Milwaukee from the museum aboard the Great Circus Train. Perhaps most impressive is a matched 40-

A historic ritual is repeated as draft horses haul circus wagons onto flatcars at the Circus World Museum in Baraboo, Wis. The cars are part of the annual Great Circus Train to Milwaukee. horse team pulling the massive 10-ton Ringling Brothers twohemispheres bandwagon. The parade usually draws about 400,000 spectators.

• Circus World Museum: Located on 50 acres of the original Ringling Brothers winter quarters at Baraboo, the museum features a twice-daily circus train loading-and-unloading demonstration during the summer season, May 1-September 12. Percheron horses provide the horsepower to pull the heavy wagons up or down the loading ramps. Railroad equipment on display includes Ringling Brothers and Barnum & Bailey Advertising Car No. 1, built in 1942; an Al G. Barnes & Sells-Floto Combined Shows coach; a Ringling stock car; and four circus flats. Exhibits include a quarter-inch-scale model of a circa 1930 Ringling circus train and the largest collection of carved circus wagons in the world.

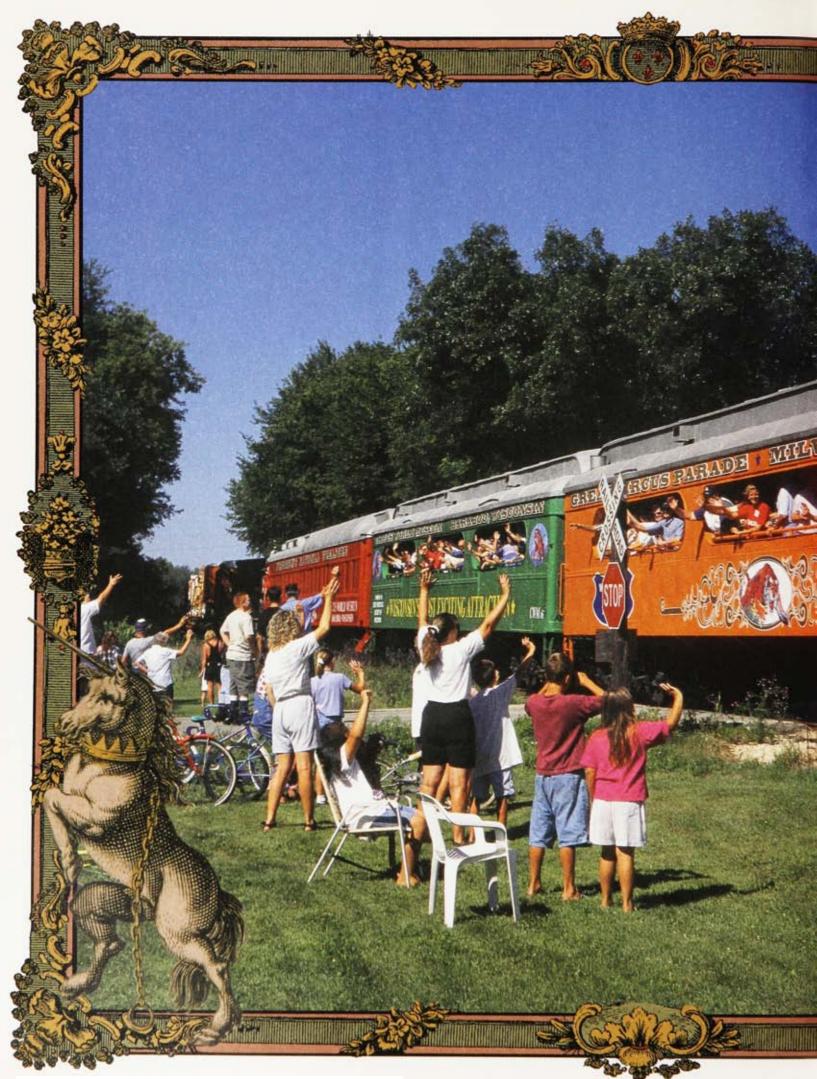
In a "Have Circus, Will Travel" outreach program, the museum has developed a traveling show for those who can't get to Wisconsin for the bicentennial. The 20,000-square-foot exhibit features a dozen garish wagons, sparkling performers' costumes, rare posters, sideshow banners, circus photos and memorabilia, and an ear-splitting steam calliope.

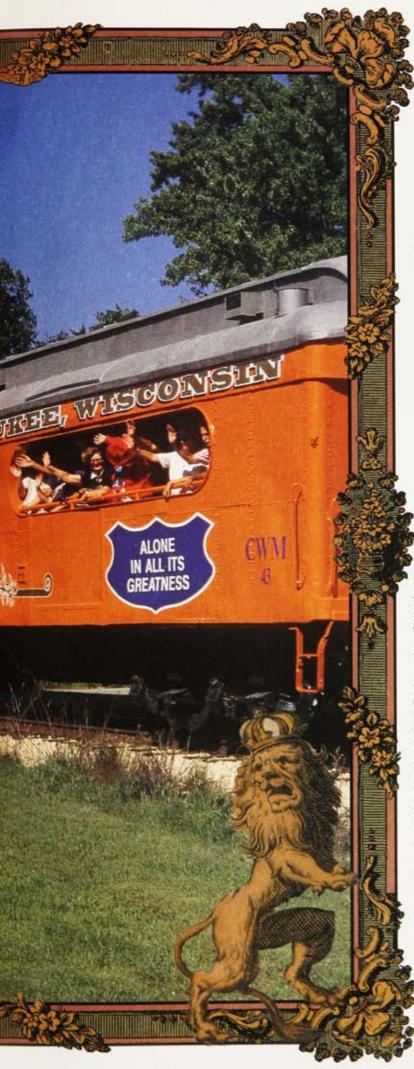
Depending on the host, the traveling show will be displayed indoors or in a 120 x 178-foot red, white, and blue big top. Cities on the schedule include Milwaukee, July 7-10, at the circus showgrounds; and Springfield, Mass., September 15-26, at the Eastern States Exposition. I

MICHAEL R. BOLDRICK lives in Santa Maria, Calif. He has reported extensively for Trains on the Air Force's rail-borne MXmissile program. To contact the Circus World Museum in Baraboo, Wis., call (608) 356-8341 or (608) 356-0800.



1UNE 1993





CREAT CREAT CREAT

The annual move of historic circus equipment has become a tradition in America's Dairyland

BY JIM ZEIRKE

ow does one go about describing the Great Circus Train? Calling it a mere "train" does it a disservice. Adding the word "great" helps, but still falls short of the mark. Even traditional circus terms such as "colossal," "incredible," and "phenomenal" do nothing to describe it, either:

So, let me try this: The Great Circus Train is the best rolling party in the world.

Beginning in 1965, but with a 12-year hiatus from 1974 until 1985, the Great Circus Train has transported antique circus wagons from the Circus World Museum in the central Wisconsin town of Baraboo to Milwaukee for the annual Great Circus Parade. Some of the moves have been powered by steam, notably Mid-Continent Railway Museum's Chicago & North Western 4-6-0 1385 in 1985, '86, and '87. Five of the nine trains in the first series, sponsored by the Jos. Schlitz Brewing Co. as the "Old Milwaukee Special," also were steam-powered, by Chicago, Burlington & Quincy 2-8-2 4960 (the first and second trains, in 1965 and '66), ex-Grand Trunk & Western 4-6-2 5629 (1967 and '68), and Southern Railway 2-8-2 4501 (1973). The Southern Mike came up through the efforts of Trains Editor David P. Morgan, Southern President W. Graham Claytor Jr., and C&NW officials.

Schlitz, in financial straits, used the energy crisis of the early 1970's as an excuse to quit sponsoring the parade and train, but through the efforts of the Circus World Museum and Milwaukee public relations man Ben Barkin, the extravaganza returned in 1985. The tradition lives on—the 2000 Great Circus Train, sponsored for the 15th year by Wisconsin-based Strong Investments, is scheduled to run July 8-10.

Great Circus Train passengers wave to admiring crowds along the Wisconsin & Southern track in Eagle, Wis., in 1998. J. David Ingles photo.

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FRAINS: J. DAVID INGLES

Although the train recalls the long-ago days when numerous circuses traveled by rail, the Great Circus Train is much more than a reminder of past times, explains Greg Parkinson, executive director of the Circus World Museum.

"The primary purpose of the train really falls into two categories," Parkinson said. "First, it serves the functional purpose of safely and efficiently transporting 75 antique circus wagons to Milwaukee for the parade. If we didn't use the train, the wagons would have to be trucked. But the wagons were designed to be transported by rail and not by truck. In fact, some of them are simply too tall to be trucked. Second, the circus train allows us to stretch out the festival to a whole week. It is a publicity tool, just as in the old days, when the circus came to town [and would] stage a parade to attract publicity."

Beyond serving the transportation and public relations needs of Circus World Museum and Great Circus Parade, the Great Circus Train dovetails nicely with the community relations programs of both Wisconsin Central, which in 1999 joined the party to host the train for two days, and Wisconsin & Southern (WSOR), which operates the majority of the The 1995 train rolls east on Canadian Pacific at Pewaukee, Wis. Safely moving antique circus wagons to Milwaukee is the train's basic mission.

route and supplies its two E9A's as motive power.

The train starts its journey on WSOR's ex-C&NW line in Baraboo and is unloaded on the WSOR in Milwaukee. "Wisconsin & Southern has been pulling the Circus Train since 1996, so this will be our fifth year," said Bill Gardner, president and CEO of Wisconsin & Southern. "We've had a lot of fun [and] we bring a lot of smiles to a lot of faces."

Gardner's commitment to the Circus World Museum goes far beyond playing annual host to its train. Gardner's family donated \$100,000 to the construction of the museum's main building in Baraboo, and Gardner personally spearheaded a \$100,000 fundraising drive toward repainting the five museum-owned passenger cars into their current bright circus colors. In 1999, WSOR rehabilitated Milwaukee Road's old Gibson Yard in Milwaukee to provide a new unloading site for the train, replacing the lakefront "Coachyards." The museum paid for most of the improvements, but the Gardner family is in the process of raising \$137,000 to reimburse the

MOTIVE POWER THROUGH THE YEARS

1966 · For the second straight year, Burlington 2-8-2 No. 4960 powers the new Great Circus Train, known as Schlitz's "Old Milwaukee Special," to Milwaukee, using a C&NW line east of Madison that has since been torn up.

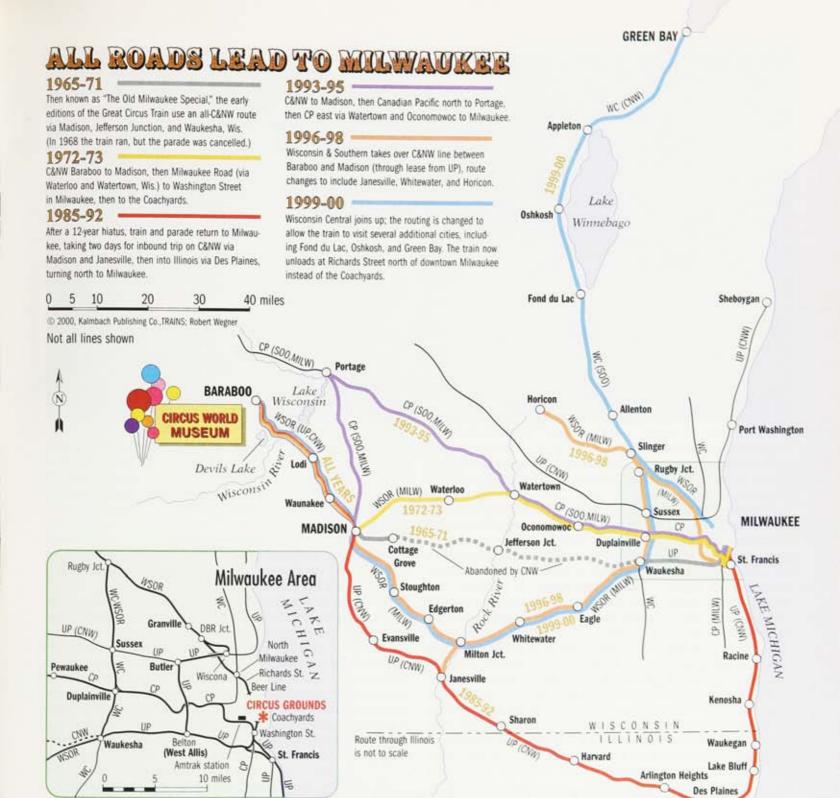


J. DAVID INGLES

1973 · Southern Railway 2-8-2 4501, brought north through the efforts of TRAINS Editor David P. Morgan, SR President W. Graham Claytor Jr., and C&NW officials, rolls the train east from Watertown, Wis., on Milwaukee Road rails.



TRAINS: J. DAVID INGLES



1985 - After a 12-year hiatus, the Great Circus Train returns, and takes an all-C&NW routing (here at Sharon, Wis.) via the Chicago area behind Mid-Continent Railway Museum's ex-C&NW 4-6-0, assisted by two "Presidential F7's."

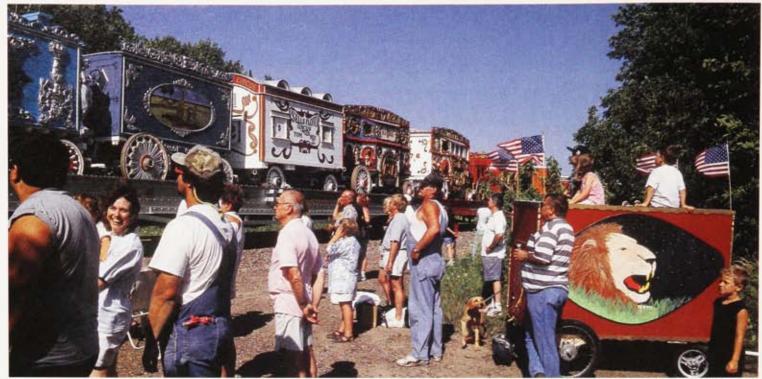
1989 · "Presidential F7" 402 and GP50 5061 near their Milwaukee destination as they ease the train through the junction at St. Francis, Wis. Before the train is unloaded, the passenger cars will be switched to the back end.



THOMAS E. HOFFMANN



TRAINS: J. DAVID INGLES



RAINS: ROBERT S. McGONIGAL

museum for the cost of the project.

In what surely qualifies as an understatement, Gardner added, "I think we've been a good friend to the Circus World Museum."

J. Reilly McCarren, Wisconsin Central's CEO, is equally upbeat about hosting the train. "The Circus Train is perhaps the most special train we run; it is truly unique and draws huge crowds, particularly in the smaller communities that we serve.... It's actually a privilege to bring such a piece of history to the people in our communities."

The Great Circus Train has used WC rails since WSOR began hosting the train, but only because WSOR has trackage rights on WC for 25 miles north of Waukesha. In 1999, two days were added to the train's schedule, and WC handled it through the populous Fox River valley up through Fond du Lac, Oshkosh, and Appleton to Green Bay and back.

The No. 1 early mover and shaker of the Great Circus Parade and the Great Circus Train was circus history guru (and former Trains Associate Editor) C.P. "Chappie" Fox, who became the executive director of the Circus World Museum in 1960. A world-renowned authority on circuses and their

trains, Fox is still involved with the train, although his activities have been limited as a result of a stroke suffered a few years ago. The history of the revived circus train is nearly as complex as the history of the old circus trains, and much of it revolves around Fox's desire to recreate a circus parade.

From 1973, when I first encountered the Great Circus Train, I've harbored the wish to ride it. My wish became reality in July 1999, when I headed to Baraboo so I could run away with the circus—at least for a day.

Greeting me when I arrived at the Circus World Museum was Wisconsin & Southern NW2 1009, which was shuffling the museum's ancient flatcars along the museum's siding on the shore of the Baraboo River. (The flatcars, by the way, while lettered for various circuses, sometimes "advertise" a different circus on each side.) Nearby was the power for tomorrow's train—WSOR's two E9's, 10C and 10A. The train would also include seven WSOR passenger cars. Wisconsin & Southern sells tickets to the general public to ride its cars, but the museum's own cars [page 46] are reserved for invited guests.

MOTIVE POWER PEROUGH WHE YEARS

1994 • Two ex-Soo Line GP38-2's repainted for CP Rail, 4404 and 4406, lead the Great Circus Train through Oconomowoc, Wis., as it approaches the Milwaukee suburbs. From Baraboo to Madison, C&NW diesels were in charge.

CP III

TRAINS: J. DAVID INGLES

1998 - For the third year in a row, Wisconsin & Southern's two ex-Alaska E9's (one built for Milwaukee Road, one for Union Pacific) power the Great Circus Train, and WSOR passengers cars augment the Circus World Museum's cars.



TRAINS: ROBERT S. McGONIGA



Jose Zutuk

The train is a crowd-pleaser wherever it goes, evidenced at St. Francis in 1998 (left). Clowns make sure the museum's invited guests stay happy. Iron horses may move the train, but four-legged horses do the unloading.

I wandered over to another siding to examine the museum's passenger-car fleet, which would be coupled between the WSOR cars at the front and the trailing flatcars. Bringing up the rear were two unique cars: No. 49, one of two former circus stock cars that now haul equipment, and an ex-C&NW caboose. Donated to the Circus World Museum a few years ago, it's painted red, white, and blue and sports CWM's logo. The caboose paint scheme pales in comparison to the bright reds, greens, oranges, yellows, and blues of the other Circus World Museum cars. These are the sort of colors that grab you by the lapels and scream, "The circus is in town!"

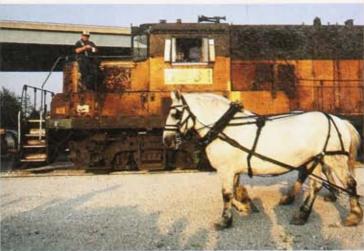
As I was walking around, making notes, and generally sticking my nose in where it didn't belong. I bumped into Dale Williams, the museum's general manager. He is in charge of circus train logistics—it's his job to worry about everything. Or, more accurately, it's his job to plan the train in such a way that all problems are anticipated and then eliminated. He is in frequent touch with the railroads. He negotiates contracts, talks with local officials in all the towns where stops are planned, arranges for Federal Railroad Administration equipment waivers, and copes with the inevitable insurance hassles involved in hauling delicate and irreplaceable antique circus wagons on old railroad cars. (The old, friction-bearing-equipped CWM cars hit the national rail network only for this Milwaukee round-trip each year, and so must obtain FRA waivers to run.)

"I work on this on and off all year-round," Williams said.
"I spend a tremendous amount of time in spring and summer just putting the train together."

Williams' work doesn't end there. He also oversees the maintenance of the fleet, a job unto itself, considering the advanced age of the rolling stock. In fact, he was dealing with a plumbing problem on one of the coaches when I met him. "It's just endless, what we do." Williams said.

S AY WHAT YOU WANT about the cars and the train, but this operation would be just another excursion train if not for the 70 or so circus wagons on its 18 flatcars. In traditional circus style, teams of draft horses pull the wagons onto the flats, and it's a fascinating process to watch.

The next morning as I ate breakfast, I chatted with one of the crewmen on the train. He, like so many other folks I would meet that day, was brimming with excitement. The anticipation continued to build when I arrived at the downtown intersection where I was to board. The crowd was chatty, and the



TRAINS: ROBERT S. McGONIGAL

atmosphere vibrated with good humor. Clowns, reporters, and dignitaries were everywhere. Children were well represented at the boarding point, but no one under 18 is allowed on board the train. Representatives of Strong Funds, the Milwaukee-based mutual fund company and the Great Circus Train's major sponsor, were already hard at work making sure everyone was happy.

I boarded and claimed a spot at one of the long windows in the two open-air coaches. (In a restoration of common sense, the screens that, a decade or so back, had been attached to these windows, preventing riders from waving to the spectators that throng the right of way, were removed a few years ago.) Next to me was a tank filled with ice and soft drinks. A hostess came by offering pastry and coffee. I liked this train already! Outside, Fr. Charles Schluter, a Catholic priest, draft horse aficionado, and circus buff, was blessing the train, as he has done for each of the past eight years. The last existing everyday circus trains plying U.S. rails, the two Ringling Bros. and Barnum & Bailey trainsets, are blessed each year before departing their winter quarters in Florida.

The slack was taken out, the crowd whooped, and we were rolling down WSOR's line toward Madison, which the railroad leases from Union Pacific. It was a jolly crowd aboard, and why not? It was 9 on a Friday morning, and we were riding a circus train instead of being at work.

There were lots of people to send us off from Baraboo, and the crowds diminished only slightly as we rolled through the farm country. Ladies, gentlemen, and children of all ages waited hours along the right-of-way to cheer the train's passage. Even in places you wouldn't expect to find people, there they were. Literally every grade crossing on the route was crowded. I got a special hoot out of seeing the fleet of boats on Devil's Lake and Lake Wisconsin. This was a section of the trip that others had told me about. "You've got to see the people on Lake Wisconsin! You have to see the scenery at Devil's Lake!"

Seeing the crowds hammered home how special this train really is, and how much it means to so many people. There is no other place in the world where you can see a train of priceless antique circus wagons, just as they looked criss-crossing the nation so many summers ago. Even better, the spectators didn't care that there were politicians and philanthropists on the train, they just wanted to see the train and capture it on film. Perhaps they will show those pictures to their children in 25 years, and say, "Remember when we sat on that boat in Lake Wisconsin and saw the circus train?"

Wisconsin Gov. Tommy Thompson joined the party at Lodi, our first stop. As the governor climbed on, the crew briefly got off to make sure each wagon was still securely

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TRAINS J. DAVID INGLES

chocked. After the short stop, we highballed.

"Highball" to me means "let's get cooking." For this train, it means a top speed of 30 mph. Frankly, if these were my wagons, I'd be uncomfortable at anything more than 10 mph, and that on flat, wide-open track, My hat is off to Dale Williams and the WSOR folks for having the guts to let this train do 30 through undulating terrain.

It didn't take long for the governor (who also chairs Amtrak's board of directors) to work his way through the cars, pressing the flesh, chatting briefly with everyone, posing for innumerable pictures with his arm around people he, at best, barely knows, and doing all of it while riding a train that rocked and rolled like a Buddy Holly concert. These were not Superliner coaches, and this was not passenger-grade track.

On the other hand, the conditions made it easy to meet people, "Excuse me! I didn't mean to spill coffee on you! What did you say your name was?" The CWM-owned passenger cars include the open-air coaches (converted from baggage cars), a diner, and two Pullmans, a sleeper-lounge car and a sleeper-observation car. The latter are first-class, if antique, accommodations, and are very comfortable, although their air-conditioning can get cranky. When I needed desk space to jot down some notes, or just a quiet place to carry on a conversation, there was always a place to do it.

BETWEEN LODI AND MADISON I bumped into Hal Miller, TRAINS' managing editor. It didn't take long to realize that both of us had the same idea—"Let's see if we can get a cab ride!" A quick chat with CWM Public Relations Director

Colorful cars, colorful history

OUIRING THE PASSENGER CARS used on the Circus World Museum's annual Great Circus Train was a project done in true Chappie Fox fashion—it involved lots of wheeling and dealing, and a measure of good luck.

In 1962, when he was wrapping up negotiations that saw the museum acquire 18 antique circus wagons from Walt Disney, Fox befriended Fred Gurley, then president of Santa Fe Railway. Gurley arranged for free shipment of the wagons from California to Baraboo.

In 1965, Fox read that Pullman was going out of business and that its rolling stock was sitting in Chicago available for purchase at \$5000 per car. Fox promptly set off for the Windy City, where he convinced Pullman ("I gave them a real sob story!") to sell the mu-

seum two cars for \$5000, the observation-sleeper Monte Baldo (now CWM's Baraboo) and the lounge-sleeper Dover Bay (now called the Delavan, after a southeastern Wisconsin town with a circus history of its own).

"Now I'm getting more excited about my train, and I think to myself, 'Sonofagun, I've got to have a diner!' laughs Fox, "So, I write [Gurley] a letter. 'Fred, we've got a circus train started and we are in the process of putting it together. But it's short a dining car. By any chance would you have a dining car sitting around one of your yards that's not being used?'" For a long while, that letter went unanswered.

In those days, the Chicago & North Western freight agent in Baraboo was a man named Gregerson. He had watched as retired circus flatcars and carloads of circus wagons arrived in his yard, all shipped to the museum free of charge by C&NW and other railroads. One day Gregerson called Fox and demanded an immediate meeting.

Fox said, "I go over there, and he's sitting at this little desk in his freight house. 'Fox,' he says, 'I just want to tell you that I think that you and the Circus World Museum are driving the North Western Railroad into bankruptcy with all of your free shipments coming in here,'

"I said 'Greg, what are you talking about?' He said, 'You see that big green car out there? That's a dining car that came up from the Santa Fe, and it's all no charge! I'm getting damn sick of all this free business!'"



TRAINS: ROBERT S. McGONIGAL

The Circus World Museum's ex-C&NW caboose provides a vantage point for staff to watch over their precious cargo. In a return to sanity, restrictive screens have been removed from the CWM's two open-air cars.

Keri Olson and Dale Williams earned us a polite but firm "no," but the offer of a ride in the caboose soothed our battered egos.

We leaped at the chance! Joining us in the caboose was Norm Anderson, who maintains the Circus World Museum's rolling stock when not working his real job as a Union Pacific car foreman. Also on the caboose was Norm's 18-year-old son, Erik, who helped load the wagons, and Tim Perkins, assistant wagon superintendent, and two WSOR officials.

One would think that seven people would make for a crowded caboose, but not so. Norm, Tim, and the WSOR guys spent a great deal of time hanging off the steps at the front and rear. It would be easy to say that they did it to look cool, but it had a practical purpose. According to Norm, on a train where many of the cars were equipped with old-style friction bearings, the surest way to detect a hotbox or sticking brake before it creates a problem is to get low enough to smell the smoke and see where it's coming from.

I had never ridden in a caboose before, and I was not

prepared for the jolt of the slack being drawn out or running in, and unprepared for Norm's reaction, born out of experience. "Fifty-year-old draft gear didn't come apart," he said with the serene smile of someone who is confident in his workmanship.

I guess when you spend years working on the cars (it took 8 years of weekends and vacations just to paint them), it is proper to sit back and watch others enjoy the fruit of your labors, and Norm did that to perfection. It was sheer joy watching him wave at kids and call out, "Like the train? Isn't it fantastic?" Even factory workers got the Norm touch—"OK, now you can go back to work!"

I was experiencing the magic of the circus train, a feeling shared by every person aboard. One experienced rider explained it this way, "It is exciting beyond what it should be." You don't have to be 80 years old to crave a moment of your youth, when the circus coming to town was the most exciting thing imaginable.

But all dreams come to an end, and when the train made its final stop of the first day of its four-day trip, in Janesville, Hal and I grabbed our gear and said our good-byes. The coaches up front were being unloaded at a grade crossing, which meant a long walk for Hal and me through the ballast and burdocks to get to the buses that would return us to that dull and colorless place called reality. I

JIM ZEIRKE is a firefighter who lives in Sussex, Wis. This is his 11th byline in Trains.

ON THE WEB

www.circusworldmuseum.com—Information about this summer's circus train, scheduled for July 8-10. www.circusparade.com—Information about Milwaukee's annual Great Circus Parade. www.wsorrailroad.com—Information about Wisconsin & Southern and circus train tickets.

www.tourism.state.wi.us—Wisconsin Department of Tourism website.

The diner, today known as the Janesville, had been sitting in mothballs in Kansas City, and was a veteran of both Chief and Super Chief service. "When we got it, the bins in the kitchen were still full of those logs made of sawdust they used in their stoves," Fox said. "All of the original equipment was there. The interior was just beautiful, with a clerestory roof, all of the chairs and the tables, and the regular equipment. I still can't believe it!"

The two open-air coaches used on the Great Circus Train are former Milwaukee Road 60-foot baggage cars converted by the museum. All the passenger cars date from the heavyweight era of the 1930's.—Jim Zeirke

Circus historian C.P. "Chappie" Fox put the train together, and persuaded Santa Fe to part with a dining car, for free. As with all the Circus World Museum cars, the diner, now named Janesville, is painted in bright circus colors.



FOX PHOTO, CY WHITE/PHOTO ACTION USA: DINING-CAR PHOTOS, TRAINS:, ROBERT S. MCGONIGAL

The secret life of the CCIRCUS



TRAIN

On the road with the Ringling Brothers and Barnum & Bailey Circus, time and place take on a whole new meaning.

BY LANE VENARDOS



y son Kevin is the 33rd ringmaster of the Ringling Brothers Circus. It's an incredible job that carries with it the commensurate lifestyle. He's on the road 50 weeks a year, living in what he calls the "Town Without a Zipcode"—Ringling Brothers and Barnum & Bailey's Blue Unit Circus Train. But what a life it is!

If Kevin is the ringmaster for the circus, Gene Pettus is the ringmaster for the train. Officially, he's the Blue Unit's trainmaster; the wrangler who assembles a mile-long collection of animal cars, coaches, and flat cars laden with circus wagons into some semblance of order, then gets them and the hundreds of people who live on the train from City A to City B—safely and on time.

It's not, as I find out, an easy task. It's a job that requires cooperation and teamwork from everyone on the train. And it's not only in the loading and unloading phases either. To wit: Kevin has a Jack Russell terrier named Nestor, the Big Top pup. Kevin, Nestor, and the circus train are approaching Wilkes Barre, Pa., at a speed just under 10 miles an hour. The train will stop there to "water" the animals.

Kevin and Nestor are in the vestibule of car 197, Kevin's home on the road. Nestor is pacing the floor, ever more intently. He really needs the train to stop

The circus train sees a part of America invisible to most people—like the junkyards of near-downtown Denver, Trainmaster Gene Pettus (below), is the man who makes the train work, night and day, every day, rain or shine.





What did we do before the Internet? And cell phones? I have no idea! Kevin keeps in touch with family and the world via a laptop and cell phone during his months on tour.

so he can attend to pressing business.

Kevin wanders back into his compartment, then returns to the vestibule. Nestor is gone.

After a quick check of his compartment, the shock quickly takes hold: Nestor has jumped over the open vestibule door. Only one person can help: Gene Pettus, the long-suffering trainmaster. Kevin grabs the two-way radio which he normally uses only to listen to what's going on with the train.

"Come in Gene Pettus, this is Kevin Venardos," Kevin says, trying to keep his voice under control. "This is Gene," Pettus replies. "Gene, my dog has jumped off the train."

Gene talks to the engineer to stop the train. But a mile-long train doesn't stop on a dime. Meanwhile, the flurry of radio activity has alerted the entire train to Nestor's plight. Everyone knows the ringmaster's dog and wants to help.

Suddenly a new voice crackles in. It's John, one of the workingmen in a car almost at the end of the train, more than a half-mile behind Kevin. "I see your dog," John reports, as he clambers down from the now-almost-stopped train to retrieve a badly-shaken but unharmed Big Top pup from the tall weeds along the track. An emotional reunion follows a few minutes later.

More than a year later, Pettus recalled the Nestor incident with crystal clarity: "For us to be able to really react and be able to rescue Nestor was an incredible highlight [of my years as trainmaster]. He was so lucky he bailed in the area he did—not in an area where there was a bridge or oncoming train—and to have someone see him after he jumped off was incredible. It really warmed my heart to be able to do something like that. It was a personal thing that was just terrific."

To see the excitement first hand, I joined Kevin, Nestor, and The Greatest Show On Earth for the adventure of my life: nine weeks traveling with the circus, riding and living on the circus train.

I've been fascinated by trains all my life. I grew up in Alton, Ill., a town of 30,000 or so on the banks of the Mississippi River just north of St. Louis. Trains running through Alton were a backdrop as I was growing up, but something I would appreciate all my life. The Gulf, Mobile & Ohio was my railroad of choice, and to this day I model the GM&O in HO scale in a room off the garage, three thousand miles from Alton in our home on Maui in Hawaii.

The opportunity to spend some "quality time" with Kevin and Nestor is too good an opportunity to miss. This, I tell myself, is what retirement is all about.

Life in car No. 197

When Kevin talks about "going back to the house" after the show, he's referring to 26 feet of a remodeled 85-foot former Union Pacific passenger car. There's no corridor in his car as in traditional railroad passenger accommodations; his area spans the car's full 10-foot width.

The car, No. 197 for reporting purposes at the circus, is designated RBBX 42009, built by Pullman in 1950. Ringling bought it in 1994 and rebuilt it for circus train use at its rail-car facilities in Florida. Both interior and exterior appear up-to-date; there is no sense of



being in a 50-plus-year-old car.

Kevin's 26 feet include a full bathroom with shower that works even when the train is in motion; a bedroom with a closet and washer-dryer stack; and a living room-kitchen that has everything but a dishwasher—my job while traveling with the circus.

For on-board entertainment, there's a DVD player, VCR, and, when it's working, a satellite system. Each passenger car has a built-in VHF TV antenna, and as one might expect, reception ranges from no signal at all to barely a signal. I am a retired CBS News executive, and consume news in large quantities. While traveling with the circus, I had to wean myself from my passion, and learned to be satisfied with a trickle. Most news comes from the radio or the Internet.

For someone used to cable TV and high-speed digital computer access, the circus train was a throwback to an earlier age. Until recently, before cell phones, one had to wait in line for pay phones at each arena. Kevin keeps upto-date and fully in touch with his cell phone—his *only* means of communication. It provide connectivity for his computer at amazing speeds. We could be clickety-clacking along at 50 mph, and Kevin can sit there with his laptop computer, pounding away at the keys.

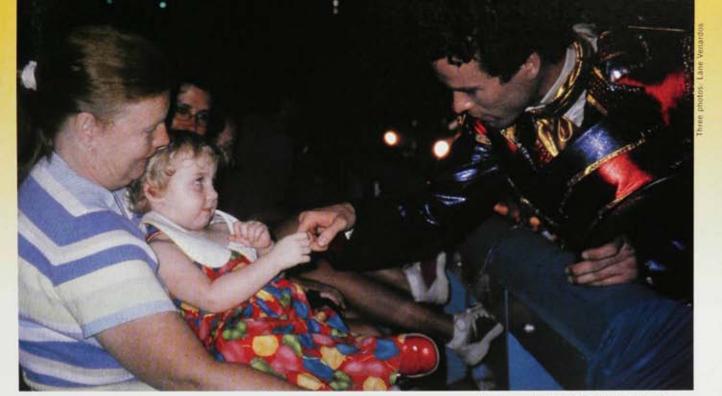
Because there is no corridor in car 197, going somewhere while the train is moving is nearly impossible. Your choices are to stay in your compartment, or in the small vestibule outside the door, or visit the compartment across the vestibule. Other circus-train cars that have more, smaller rooms have a corridor, so the people in those cars can get to other cars, including the "Pie Car," where one can purchase food and soft drinks.

Trainmaster to the stars

I knew I would like Gene Pettus before I met him. A 28-year veteran of the Santa Fe and Burlington Northern Santa Fe, he's been trainmaster of the Blue Unit train for two years. All he has to worry about is getting the 57-car train and the people and animals aboard it safely from one town to another. And, of course, dealing with egos both human and exotic along the way, and the occasional lost dog.

Gene worked his way up through the Santa Fe, starting in the perishables department, handling the transportation of fresh fruit and frozen goods. He moved up, eventually becoming senior manager of transportation for BNSE.

For him, the best surprises are no surprises. And in just two years, he has pretty much seen it all. "My background



with the Santa Fe and BNSF prepared me for train operations. But I didn't realize it wasn't just train operations I was getting into with the circus train." Pettus says. "My wife Kathleen said it was more like I was running a very long, skinny apartment complex—a long, small community. That community has everything a stationary one does: Lots of different people and personalities; air conditioning, and home appliances. And every thing has to be tough. The train is really hard on home appliances—they were made to sit quietly in a house, not be bounced and jolted on a train."

Blue and red

You may have noticed that I have referred to the Blue Unit. That's because there are actually two Ringling Brothers and Barnum & Bailey Circuses. The other is the Red Unit, Each unit makes a two-year tour of America that overlaps with the other, and each has a totally new show every two years. So if you're in Chicago, you can go to the circus every year and always see a new show. The Red Unit also has a mile-long train to haul its show around the country. Ringling Brothers can boast of the largest private passenger-car fleet in the world.

Most of the cities the circus train travels between are only a few hundred miles apart, and sometimes as close as 30 miles. But then there are the long runs. My first such trip was to be from San Diego to Oakland, 702 miles. I confess I could hardly wait; Kevin and I have been anticipating the two days we'll

be riding through California for months.

The "Transportation Order" sheet put out by the Ringling Transportation Department advised we would depart San Diego at 10:15 Monday morning (the show had closed in San Diego Sunday evening). The train will have 57 cars, weigh 4135 tons, and be 5044 feet long. More than 200 people live and travel on this train.

There was a lot more going on than those brief statistics tell. Like an army, everything the circus needs it brings with it, from the huge grid that hangs 50 feet off the arena floor, and holds the lights and sound system, to the three rings themselves, to all the souvenirs that are sold to the "children of all ages," everything is packed up, hauled to, and loaded on the train. Ever see the Disney film "Dumbo"? This is nothing like that.

Dozens of men strain to load hundreds of thousands of pounds of gear onto the wagons that are then pulled by small tractor units (called Harlans for the company that makes them) on city streets to the nearest siding and then up onto the flat cars. Even though these fellows have done this hundreds—maybe even thousands—of times, every time is a little bit different. Weather outside the arena can make a big difference, not to mention the distance they have to haul the wagons to the flats.

And then there are the animals. They travel in four stock cars, specially designed for them, always positioned right behind the locomotives where the ride is the smoothest. The animals get

The ringmaster's job isn't just to announce shows—it's to entertain. Kevin greets a very suspicious young lady at ringside.

constant attention, Trainers ride with them in the stock cars. Some of them including the elephants, walk (or parade) to their cars.

The coaches fit between the stock cars and the flats. And getting the 40-plus coaches together with the flats and stocks can easily take all night—there is a lot of switching. And despite the note on the Transportation Order to the railroad operating supervisors and train crews to "control slack during switching and road operations as all coaches are occupied," there's still much banging around.

"Sleep with your feet toward the engine" is the rule of thumb. That way, if there's a sudden stop or switching jolt, your head doesn't bang into the wall. It's sage advice.

Underway

We left San Diego only a couple of hours late—"damn near on time" by circus standards. The ride through downtown San Diego was neat. People seem to genuinely like to see the circus train. Even if you're blocking traffic at what seems like thousands of grade crossings or zooming along at 50 mph through a town the circus isn't stopping in, people always wave.

Riding in the vestibule on a folding chair I bought at Home Depot for \$16 was a marvelous way to travel. The Southern California countryside flashed



A hand-painted sign adds to the "Blue Flag" protection of the circus train during its layovers in cities. By rule, a blue-flagged car cannot be moved or coupled to.

or crawled by. For a while, we were right along the ocean with nothing but beach between the train and the Pacific. Then we threaded through Los Angeles, and into the Mojave Desert, our locomotives straining against the grade. It was as spectacular in its own way as the ocean.

About 9:45 p.m. in the high desert, we stopped for a water break. The big animals get a constant supply of fresh water and, as needed, food and hay. Kevin climbed down to give Nestor a walk in the desert, aware that the Circus train two-way radio (the same one that saved Nestor months earlier) has warned of rattlesnakes in the bush.

Back on board we had dinner frozen entrees fresh from the freezer, microwaved into molten goodness—served on the same TV-dinner tables that double as laptop computer stands. And so to bed.

What a day we'd had. But what a day awaited us.

Off schedule, off the train

The circus train was scheduled to arrive in Oakland at 11 a.m. Tuesday, with the coaches spotted by noon.

"Scheduled" is hardly the rigid word it seems. The circus train seems to have no priorities: It stops frequently, sometimes for no apparent reason. Sometimes it stops to change engine crews, other times to change circus crews traveling with the animals. And sometimes it stops to let other trains pass. I've stood in the vestibule as we waited on a siding and watched while six, seven, eight, even nine freight trains passed.

Noon comes and goes. So does 1 p.m., then 2. And 3. We're pulling into a town. Kevin and I think this must be Oakland. But we pass television station KCRA. I know those call letters—it's the NBC station in Sacramento. What happened to Oakland? The train keeps on at its steady 3 mph pace. Pretty soon it stops in a weedy area a couple miles from downtown Sacramento, and it's clear that we're really late.

So Kevin and I make a break for it.

We gather up Nestor, some food for him and a couple of our tote bags, and clamber down from the train. People looking out the car windows clearly wonder what we're up to. We head for a gas station a quarter-mile away where, the theory goes, we can get a cab into downtown Sacramento, rent a car and drive to Oakland, and get there well before the train does. The plan works great.

then a rental car. We get to Oakland well ahead of the train. And, best of all, we stopped for dinner at Trader Vic's along the Interstate just outside Oakland.

The train was spotted in Oakland around 10 that evening, 11 hours late.

Schedule is a relative thing: On a later visit to the circus in Atlanta, Kevin has a car and drives to the next show in Knoxville, Tenn. Nestor and I take the train. It takes Kevin 3 hours, 40 minutes to drive from Atlanta to Knoxville. It takes Nestor and I 24 hours.

Where are we?

I brought with me a map showing all the active rail lines in the United States. With this, I rationalized, we'll always know where we are.

Ha! Not even close. Most of the time we have only the vaguest idea of where we are. We quickly tire of looking for banks and gas stations and stores with the name of a town on them. And those big water tanks always seem to have the town name facing away from the tracks. The only sure way to know is to yell the question to someone along the tracks.

"Where are we?" I shout to a knot of folks gathered at sunset to watch the train glide through their town somewhere between Sacramento and Tacoma, Wash. "Bend, Oregon," they yelled back. A nice-looking place.

Another method is to read highway signs, but this only works a small part of the time, as the tracks don't often parallel highways. The best solution: a global positioning system device. A handy Garmin unit holds the answer to the "where are we?" question.



engines are a mix of engineers who have had passenger train experience—maybe even with the circus train in other years—and others who seem to have known only freight. I base this on what I feel: either incredibly smooth starts and stops, showing great care for those inside the train, or jolts and slamming stops.

When things go really wrong

Anything as complex and mechanical as a 57-car train can have things go wrong. Most of the time the "big" problems focus on things like bad wheels that need to be replaced. Or, on a more prosaic level, a dead refrigerator. Bad weather is the single biggest problem. Gene Pettus described a particularly unhappy experience trying to get from Cincinnati to Atlanta in spring 2003:

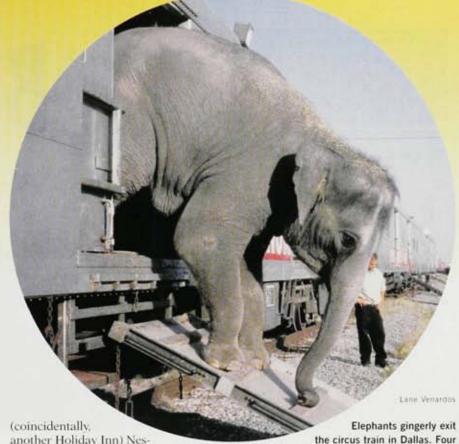
"We got into a situation where a really bad late winter storm hit us the day before our departure. We had rain, then freezing rain, then snow, then freezing rain again one right after the other. The train water lines froze. There was ice and snow on top of flat cars before we started loading up. We eventually got everything all loaded, but it took 24 hours (three times normal) to load up the train.

"Even though CSX shut down all traffic out of Cincinnati, they made a great effort to get us out. An ice storm that broke trees had limbs falling down on lines of communication, so signal systems were out in the section we had to travel through. They made a tremendous effort to get us out of Cincinnati and on to Atlanta. We stopped our train south of Cincinnati and picked up other train crews that were not able to get off their stopped trains to get to their home terminal. We took them to where they could be picked up and delivered by highway. It was an incredible trip, with 20 mph restricted speed. The show opened in Atlanta on schedule, but it was the closest I've ever been to missing a show date. And for the circus, the Show MUST go on."

About Nestor

Nestor is a year-and-a-half old Jack Russell Terrier. He has a unique talent, first observed in a Holiday Inn in Providence, R.L: Upon arriving in a hotel room with double beds, Nestor jumps up on one bed and proceeds to jump back and forth between beds for many minutes. It is a sight to behold. In Anaheim

Everything the circus needs travels with the train—even its own forklifts. The autos in the autorack are for officials to run errands.



another Holiday Inn) Nestor did his stuff. The difference this time is that a video camera was there to record the event.

A few months later an idea from the ringmaster resulted in a copy of the Nestor Bed-Jumping video being submitted to America's Funniest Videos. In the fullness of time, Nestor's video aired. Though only twelve seconds long, it captured the "spirit" of Nestor's talent.

The future

I have now seen more than 150 circus performances and traveled more than 3000 miles in car No. 197. Circus attendance is up—15% according to a published report I recently read. Kevin will be back as ringmaster when the new show—the 134th Edition—debuts in Florida in January 2004. And I await the opportunity to see him and renew the friendships I have developed with these amazing people who take extraordinary skills to new levels of performance and organization to continue the legacy of the Greatest Show on Earth.

In May 2003, the Blue Unit had a month-long engagement in Mexico City. It was the first time since 1997 that a Ringling Circus had visited Mexico. On the way there—a multi-day trip from Columbus, Ohio—the train was to stop for a couple of days in San Antonio, Texas, before the final push to Mexico City. Gene Pettus was surprised to find the San Antonio yardmaster coming up

to greet him with an agitated look on his face. Automatic detectors at the yard entrance had sounded an alarm: one of the cars was too wide. So sensitive are these detectors that they can spot the

"stock cars" designed for the circus' animal

of the train, to minimize slack action.

attractions are usually placed at the head-end

Gene started smiling as soon as he heard which car it was—one of the elephant cars. And, yes, you guessed it. One of the elephants' trunks had poked out through a cleaning access hole and tripped the "car too wide" detector. It's always something.

Personal post script

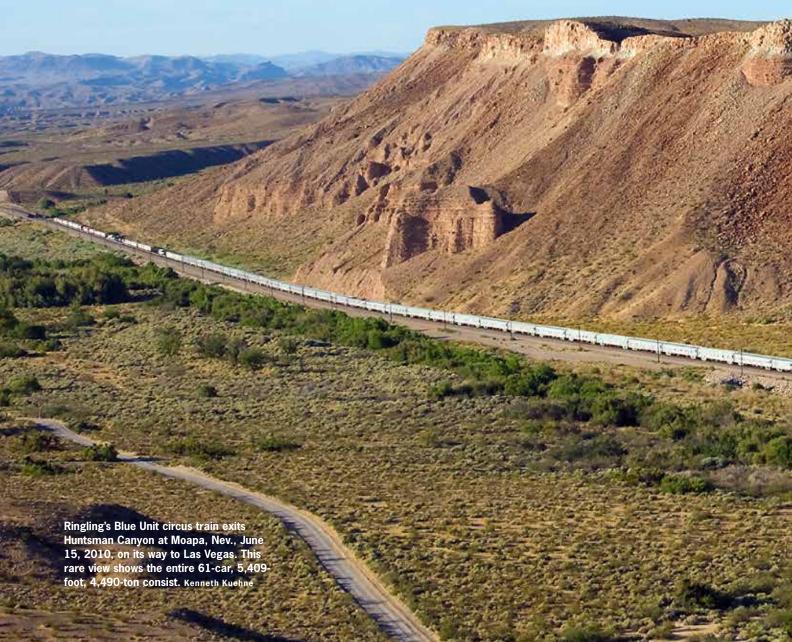
exact car that had the problem.

The 132nd Edition of the Greatest Show on Earth is now history. It wrapped up Sunday, November 16, at the Saviss Center in St. Louis, Our whole family was there to see Kevin in this final performance.

He'll be back with the 134th Edition, which rehearsed in Florida in December and began its two-year run in Orlando in January.

I witnessed 169 performances of the 132nd. My wife thinks I should be tired of the show. But there is always something new to be discovered with each performance. And, besides, riding on a mile-long circus train continues to be a dream-come-true. I





Ringling's Florida shop performs an amazing act, keeping the circus trains rolling on a 32,000-mile journey

by Rhett Coates





It's 10:20 p.m. on Sept. 9, 2010, and time for the Red Unit circus train to pack up the elephants before leaving Nashville, Tenn. Doyle Massey

ingling Bros. and Barnum & Bailey's famous circus trains crisscross the country, bringing the "Greatest Show On Earth" to millions of people each year. The pair of mile-long trains each become the rolling home to 300 circus performers and crew, dozens of animals (including seven pythons,

and 100,000-pounds of elephants), and tons of support equipment (the show's loud-speakers alone weighs five tons). The trains travel to up to 90 cities, are self-supporting, and on the road for 11 months at a time.

Home terminal for the circus train is the shop in Palmetto, Fla., a community of

12,500 that's 30 miles south of Tampa. Prepared to meet Amtrak specifications as well as those of the host freight railroads over whose tracks they travel, they roll across the highest points in the Rockies, dart across the desert at speeds up to 60 mph, and fit into the Penn Station tunnels under New York City. The responsibility for one of the largest private passenger car fleets falls to the 140 shop workers at the 27-acre shop.

Appropriately, for a performance art that's historically known for taking place under the "big top," railcar overhauls take place under portable tents at Palmetto. More on that later, but first, let's talk about how the circus train shop got here.

Rails of the Seaboard Air Line reached Palmetto in 1902 and, 20 years later, Ringling established winter circus quarters in nearby Sarasota. After Ringling folded its last tent in 1956 in favor of sports arenas, the company moved the winter quarters to Venice, and again in 1992 to Palmetto with the nearby Florida State Fairgrounds in Tampa becoming the rehearsal location.

The "railcar recycling center," as it is informally known, provides cars for the two traveling shows, one called the Red Unit and the other known as the Blue Unit, from a fleet of 150 streamliner-era passenger cars and 89-foot flatcars. The repair work that goes on in Palmetto is as thrilling to passenger car enthusiasts as the high wire acts are to circus audiences across the country.

Each train of about 60 cars is an amazing city on rails, 20 cars longer than Amtrak's longest consist, the *Auto Train*. The circus trains are amazingly busy, too: Following

THE RINGLING FLEET OF UNIQUE CARS

Each Ringling train consists of about 60 cars that provide for the unique needs of the circus when it is on the road. Not only are people and live animals on board, but so are equipment wagons. The trains consist of stock cars for animals as large as elephants, a generator car to supply 480-volt head-end electrical power for the train, shop cars to provide on-the-road repairs, sleepers to house the performers and the crew, and a type of car whose name is found solely on the circus train: the pie car. That's circus terminology for a dining car. In the past, trains also carried tunnel cars, which were empty and meant to encase wagons and vehicles. The circus train also includes both single-level and bi-level flatcars. — *Rhett Coates*



THE STOCK CAR

Stock cars include a ceiling-mounted water misting system to spray moisture onto the elephants during hot weather; water tank under the passenger cars supply this system. Forced-air heating units keep the cars warm in the winter in addition to natural straw bedding. Animal care personnel ride along. *John Simakauskas*



Prior to rebuilding, Ringling crews set a passenger car up on jackstands so that workers can access the undercarriage and the interior to move the work along. Rhett Coates

Palmetto

the closing show in a city, the circus train is loaded, assembled, and leaves as early as possible the next morning. (A one-ring Gold Unit travels by highway to smaller markets or to cities that don't have enough storage tracks to accommodate the trains.)

Everything, except the big cats, goes by rail.

Circus trains
have moved the
show since its second year in 1872.
Early on, trains were the only way to
go: Roads were crude and undependable. In the 1950s, with the advent of
modern highways, Ringling tried trucking the show, but managers realized that
railroads were more efficient and switched

back. They also found it is easier to haul the entire troupe on a train that can be on its way to the next venue instead of leasing expensive hotels and obtaining truck permits for large animals and heavy equipment.

A visit to the shop

Let's visit the shop at Palmetto and find out what goes on there. Jan. 19, 2010, is during the off-season for 23 circus cars at Palmetto and four more stored in nearby Ellenton, Fla. Shop forces rebuild up to five cars each year, but can rebuild as many as 14, which they achieved in both 1996 and 1997. General Manager Steve Harnas and his staff conduct re-



Much of the work goes on inside an inverted U-shaped tent. Rhett Coates

builds on streamliner-era equipment using four permanent shop buildings.

Contractors bring in cranes to lift cars off their trucks, and workers use heavy-duty steel dollies to move them across the property. Passenger car bodies rest across the back lot on large steel jackstands, most stored for future disposition, others used as parts sources or storage sheds. Truck frames are neatly stacked at strategic locations along the siding leading into the facility. It's a typical railroad shop in some ways, not so much in others.

The shop performs most rebuilds under tents "because we're a circus, after all," says Tom Dillon, Ringling's rail operations manager, and former Blue Unit trainmaster.

In all seriousness, the tents are ideal to



THE GENERATOR CAR

This car provides the train's 480-volt head-end power supply. Palmetto shops in 2010 rebuilt a new generator car, RBBX 63013, for the Red Unit. The shop set up the car with two Cummins gensets capable of generating 600 kilowatts of power each. Look for this car to debut on the 2011 tour. *Chip Sherman*



THE SHOP CAR

Shop cars on each train take care of mechanical problems far from home. You'll find a smaller version of the shop at Palmetto inside this 85-foot car. Each 14-person circus train crew includes mechanics, welders, porters, heating and air conditioning specialists, electricians, and carpenters. *Robert Storarik*



THE PIE CAR

The pie car is a lot of things to the crew and performers — a diner, a lounge, and a gathering place, all in one. Many circus employees cook in their private quarters, but the pie car offers full meals for a small price as well as a haven to enjoy the scenery passing by outside the train's windows. *Rhett Coates*



Here's the interior of a rebuilt generator car for the 2011 Red Unit circus train under rebuild at Ringling's Palmetto, Fla., shop with sound-baffling insulation. Rhett Coates



Here's what the finished inside of a circus train car looks like. This is the interior of the half-car living space of Jonathan and Kathlene Griggs and their son Bryce. Robert Stolarik

keep the hot sun off workers and also to shield them from Florida's famous afternoon rain showers. During our visit, workers were busy working on a new generator car under one of three giant portable tents on the back lot. The tents, which are anchored by ratchet straps tied to the rails or the bottom of a railcar, include interior rigging to provide safety gear for workers on top of passenger cars. Workers can move the tents to where they're needed.

Harnas and Railcar Production Manager George Barnhart, who is in charge of welding and car exteriors, including painting, oversee remodeling efforts. They see to the installation of living spaces, kitchens, and baths in former coaches. The fleet's unique designs also include six passenger cars (three per unit) rebuilt with a vestibule cut into the center of the car. These cars provide easy outside access for personnel at endsections of either train's passenger car cuts where no "walk-through" corridors exist.

The shop creates like-new equipment out of used passenger and freight cars using the craftsmanship of specialized shops located in multiple buildings: milling, carpentry, and heavy metal fabrication.

The circus requires the removal and inspection of all passenger car components, down to the bolts and rivets. Harnas says about 8,000 hours goes into each rebuild.

Refurbishment begins by gutting a car, both inside and out, in a process that usually takes two to three weeks. Often, this effort encompasses two cars at once because the process is more efficient if there are two — workers can switch from one car to an-

other depending on the pace of the tasks.

The first task goes to welders who remove tanks and piping from under one car while carpenters go inside and take out the walls, seats, and bathroom partitions on another passenger car. Once the welders are done, painters sandblast the exteriors, starting with the car's underside first, then working their way to the sides and roofs. At the same time, the nearby truck shop disassembles the frames for their own sandblasting and dye check for cracks.

After the carbody sandblasting, industrial cranes lift the cars onto dollies so that a shop truck can move them onto jackstands.

With both cars on stands, welders repair the floor pan and framing on one car and the vestibule on the second car. Carpenters install plywood on the floor and the furring boards on the walls and along the window layout. Workers plug the original window openings and cut in new windows, using aviation grade aluminum, based on the floor plan for each car. Every room must have at least one window that can be used as an emergency exit.

Next, a subcontractor installs duct work, and yet another contractor insulates the whole car in a process that takes only one day. Carpenters prefabricate wall frames during this time.

Meanwhile, the truck shop sets up the frames for inspection and repairs. Workers turn the frames upside down and place them on custom-built tramming tables, used to adjust or align each truck's mechanical parts. The workers disassemble the trucks, checking for defects and rebuilding them as needed. They true the wheels and align them to the original builder's specs before an Amtrak-certified inspector approves their new treads and contours.

Carpenters then lay out the rooms and put in ceiling rafters, cutting holes at each end of the car for the contract plumber to install the through-car water line.

Workers install wallboard next. The wallboard used on passenger car interiors is a fire retardant liner made of fiberglass-integrated material laminated to fire retardant plywood, which is then secured to the metal framework. You might find the sturdy outer substance on fast-food restaurant lavatory walls, such as in your local McDonald's as well as in stick-built and modular homebuilding. Aboard the cars, the material is a beige tint, which complements nearly any resident's decorating tastes.

With the wallboard up, an electrician runs wires for the lights, receptacles, and safety equipment in the rooms, after which he installs the panel box.

Electrical systems and breaker components include controls for the air conditioning system (handlers and compressors), wa-

ter pumps and heaters, switches for duplex outlets, three-way switches, washer and dryer combination, hallway and room lights, battery backup lighting, smoke and heat detectors, lights with fans, 240-volt outlets, exit lights, a centralized fire alarm control station with strobe lights and speakers, plus television and radio outlets. Many individual rooms are also equipped with a fourburner range for cooking, as well as a cabinet for a microwave oven — just like home.

The shop determines the location for the air conditioning units that are attached to a car's underframe on the side or center sill to balance the weight of the 800-pound unit. Air conditioners are built into a structural steel channel that's ultimately welded to the center sill. Balance is the key.

Now it's time for carpenters to panel the partition walls and drill holes in the floor for sinks and toilets. After that, the contracted plumber installs sinks, showers, toilets, water heaters, and washing machines.

Most appliances such as the washer/dryer combos, refrigerators, and ranges are Kenmore brand due to the availability of service and parts nationwide. Brand-name appliances are chosen for their durability aboard a moving train that is subject to coupler-slack action during any given run or switching maneuver.

At this point in the repairs, welders install a transformer, water tank, air conditioning unit, and storage tanks both inside and under the carbody. The tank under a car holds 700 gallons of water and is filled daily from a main tank that is connected to each passenger car via a water main, enabling crews to water an entire cut of cars from one source. Crews also install 150- to 300-gallon capacity septic storage tanks.

Completing a car

With the vestibule fixed and reassembled, the truck shop in the middle of repairs, the paint shop installing window blanks, and electrical work done, it's time to add electrical heat strips to the water lines to prevent freezing.

On the outside of the car, workers install sodium vapor security floodlights above the vestibules for nighttime security, illuminating the area outside of each car up to 45 feet away. This unique feature, essentially a long series of floodlights along both sides of the entire passenger car section, makes each circus train appear like strings of city streetlights moving across the landscape at night, and they also add another element of safety at highway grade crossings.

An electrician wires the 480-volt headend power that runs through a metal channel on top of the car, and with that final step complete, painters can now do their job. Sherwin-Williams provides the coating material, and the name of the special paint used

HOW THE CARS ARE NUMBERED

In 1995, Ringling's trains got new reporting marks and numbers under the UMLER system, short for Universal Machine Language Equipment Register, a method of reporting registered cars through the Association of American Railroads. Director of Domestic Transportation Bill Misiura crafted the system with reporting marks RBBX, replacing RBX, as private-owner cars. Each car got a five-digit number. Until 1995, sequential RBX numbers changed almost every other year, making it difficult to trace histories and keeping workers guessing what needed to be done. RBX sequential series numbers were re-adopted as "house numbers" on each post-1994 trainset so employees can find their homes after shows. Here's how the code works:

FIRST DIGIT is the type of car

- 4 Four-axle passenger cars (coaches, or living quarters)
- 6 Six-axle passenger-type cars (stock cars, shop cars, pie cars, generator cars)
- 8 Freight cars (all the flatcars), or "eight for freight"

SECOND DIGIT is a builder's identification

- 0 American Car & Foundry
- 1 Budd
- 2 Pullman Standard
- 3 St. Louis Car
- 4 Bethlehem Steel
- 5 Maxon
- 6 W&K (Whitehead & Kales)

THIRD DIGIT is the metal-type for coaches or the cushion device type for flatcars

- 0 Aluminum
- 1 Carbon steel
- 2 Stainless steel with carbon steel underframe
- 3 Stainless steel, flat-side coach
- 4 Stainless steel, fluted-side coach
- 5 none
- 6 none
- 7 Hydraulic cushion device (flatcars only)
- 8 Friction gear (flatcars only)
- 9 Sliding sill (flatcars only)



Blue Unit (note the background color of the globe decal that indicates which unit the car is assigned to) shop car No. 60001 began life in 1962 as Union Pacific postal storage car No. 5749. Its current number indicates that it is a six-axle passenger car, built by American Car & Foundry with an aluminum carbody. Chip Sherman

THE ORIGINS OF 'CIRCUS STYLE'

The method for loading and unloading equipment wagons from circus train flats in the 21st century is the same one that William C. Coup created in 1872 for P.T. Barnum's Second Edition tour; his crossover plate design initiated the "piggyback" era in railroading. Horses pulled wagons on or off the cars down ramps (also called "runs") that were set at one end of a string of flats. The crossover plates enabled

wagons to roll from car to car. In modern intermodal railroading, this type of "circus style" loading and unloading became the norm at some locations. Today, the circus still uses this method. Jeeps, trucks, or the show bus pull containers or trailers across heavy nine-piece steel ramps at one end of a cut of flats. The ramps ride between cities either on the flatcar decks or in storage racks built under the cars.



Lloyd Morgan, a Ringling manager in the 1960s, demonstrates "circus style" loading. When he began with the circus in 1930, the train consisted of 107 cars in four sections. Trains collection



A car knocker checks the bridge plate ramp under a tractor trailer being unloaded "circus style" at the Pennsylvania Railroad yard in South Kearny, N.J., in January 1960. Don Wood



The Red Unit is on the road in Secaucus, N.J., in April 2009. Ringmaster Alex Gonzalez stands on the front porch of his rolling home between shows. Robert Stolarik

to coat the cars is appropriately called *Ringling Silver*. Flatcars are painted in Sherwin-Williams' *Silver Bright*. As a precaution, workers apply a clear coat of a paint to the cars that makes graffiti easier to remove.

The final touches

This final coating is time and money well spent to keep the train looking good. An example is what happened the night of Jan. 20, 2010, when the Blue Unit's stock cars were tagged in Jacksonville, Fla., where they'd been unloaded and stored on a CSX siding to await placement in a more secure location. Assistant Trainmaster Joe Colossa and the show's train crew removed the graffiti the next morning using MEK, or methyl ethyl ketone, a paint thinner available at local hardware stores. The job, thanks to the anti-graffiti spray, took just two hours.

The final touch is, of course, the letter-

RINGLING'S RED UNIT TRAIN 2010

59 cars, 4,290 tons, 5,235 feet in length

Stock cars —	Shop			15 coaches
	المناف المناف			
Sho	p — 2 cor	oaches ————2 container fla	lats —cbi-level flat	
				1. A.



Ringling's train lays over in Secaucus, N.J., while the show goes on at Madison Square Garden in New York City. Robert Stolarik

ing, and for that Ringling crews choose a six-piece 3M Co. decal with white letters spelling out the name in reflective Scotch-Glo material for better visibility at grade crossings. With the large banners on both trains appearing red, globe logo decals feature a red or blue Scotch-Glo background to denote the Red Unit or Blue Unit.

With the cars completed and trucked, shop crews check the air brakes and safety appliances. The Palmetto shop airbrake supply inventory resembles the vast parts display lanes in an Office Depot or Lowe's.

The train runs with freight-style brake controls. ABDX-L brake cylinders are installed, since these are mile-long "mixed" trains, with both passenger and freight cars in a single train. The "L" refers to the length of the brake pipe; railcars with more than 70 feet of brake pipe require ABDX-L instead of ABDX brake valves.

The circus train operates at the freight industry standard brake pipe pressure of 90 psi, and host railroad engineers use the locomotive brake stand in the "freight position" when pulling the circus trains.

Ringling passenger cars are equipped with disc brakes (double-sided self-ventilating type discs mounted on the axles), to dissipate the maximum amount of heat generated during regular or emergency brake application. Flatcars have on-tread brakes.

The shop at Palmetto custom designs car-end diaphragms: Conveyor-belt rubber material is formed into a roll and custom-applied to passenger car buffer plates.

During each year, the circus conducts three exterior and three interior inspections on each train, and three yearly outside, independent inspections are made. CSX's mechanical department performs a Federal Railroad Administration-required inspection. Bureau Veritas, an international quality assurance verification company, performs a yearly exterior inspection. And Amtrakcertified inspectors check passenger car interiors and electrical systems.

As you can imagine, hours of rehearsals take place to prepare Ringling's amazing shows that thrill and dazzle audiences. Likewise, the shop in Palmetto, Fla., works thousands of hours each year to keep its fleet of classic streamliner-era passenger cars in excellent shape so the big silver "mixed train" can crisscross America every year, bringing the excitement and laughter that can only be found at "The Greatest Show On Earth." I

RHETT COATES has worked in various roles on both the Red Unit and Blue Unit circus trains since 1985 and is a native of West Point, Va. He describes himself as a circus train romantic and rides them often.

Generator Pie car 13 coaches 13 coaches 13 coaches 14 cars 18 flat cars 15 cars 15 cars 16 cars 17 cars 18 car