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Cover Images:

CB&Q photo and brochure
from the BRHS Archives

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Robert Amsler
Your name could be here!

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In This Issue

Superintendent's Desk	2
Gateway 2001 Funds	3
The "New" RPO	4
Model Railroader Project Railroad ...	4
Mark Twain Zephyr	5
DCC Tips: Power Bus Wiring	15
Calendar of Events	16

On the Cover

The Mark Twain Zephyr as delivered in October of 1936 and the cover of the CB&Q promotional brochure. CB&Q Photo – BRHS Archives.

Superintendent's Desk

by Robert Amsler

I am thankful for everyone who voted for me as your Division Superintendent. Your vote of confidence is very much appreciated. I intend to keep the great projects and activities of the past going strong and perhaps introduce one or two new items for consideration.

Your fellow officers and I met in early February to map out the year for the Gateway Division. We are committed to a number of goals for the year. One of my goals is to see that membership increases in the future. One item that may help is the single dues structure. I am looking forward to some sort of comment on this from the NMRA. Clark Kooning, a trustee of the NMRA from Canada noted recently that there was an increase both in retention and in new members for both his region and division based on statistics going back a few years. This is an encouraging sign.

As we all know the national NMRA dues went up. This causes an

increased financial burden on the members. The benefits are still worth this increased cost. We all receive the *Bulletin* and its modeling articles, and we all are the beneficiaries of the Standards and Practices Committee of the NMRA. The explosion in DCC is a direct result of the activities of this committee in the NMRA. Without this ground-breaking work, we as modelers would still have a small number of companies with proprietary standards making command control for their own customers. As it stands now, anyone with a DCC decoder equipped locomotive can run that locomotive on a block control layout, his own DCC layout with Digitrax, or perhaps a friend's DCC layout with a North Coast Engineering system. This is quite a step forward.

In addition, the Kalmbach Library is truly a national resource for both prototype information and modeling information. Recent projects have included the 1953 Official Railway Equipment Register (ORER), the Porter Engine Book, and the new 1943 ORER. The modeling and prototype information in these books is a valuable resource for modelers. In addition, any member can request a research project through the library and, from my personal experience; the help will be courteous and timely.

The Achievement Program is another important program in the NMRA. It will recognize modelers both on a project basis through a merit award and, finally after plenty of challenging work, with the coveted title of Master Model Railroader. Everyone should participate in this program. It will cause you to challenge yourself in acquiring new modeling skills and developing new talents and interests.

You might learn more about computers when you make a sign for a building or learn more about photography in critiquing a model.

These are just a few of the benefits of membership in the NMRA. The benefits of belonging to the Division are even more tangible in my opinion. You get to enjoy the fellowship of our fellow modelers at the meetings, make new friends to call upon for advice and help, and you may see and learn new subjects at the monthly clinics.

Belonging to the NMRA and the Gateway Division are truly the best part of membership in our organization. Think about all of the enjoyment you have had. Now, go and participate in the Achievement Program and other benefits. See if you can recruit a new member or two. We will all profit by your success.

Gateway 2001 Funds

by Robert Amsler

As you all may know by now, the membership decided to distribute the approximately \$19,000 left in funds from the Gateway 2001 NMRA National Convention we hosted.

We have appropriated \$2,000 for use in building another layout similar to the 2001 National Train Show Layout. This layout will go to the Missouri Historical Society for display. At this time I am looking for someone to head up this project. I have a member who has donated his walk-out basement for this purpose but I still need someone else to step forward and take command of the project. Please contact me as soon as possible as we are in desperate need to get this going.

We also gave \$1,000 to the Big Bend Club for repair of their roof on the Frisco depot they use. \$1,000 was also donated to the National Railway Historical Society for the preservation of their remaining passenger car.

Finally, we set up a matching grant fund for the NMRA to be called the Gateway Division Development Project Fund for use in funding projects such as the ORER, and other books that are then sold to raise additional funds for the operation of the NMRA. Donations of \$2.00 to the fund will trigger \$1.00 from the Gateway Division to a total liability of \$15,000.00. We will have the right to audit the account, funds cannot be taken from the account for any purpose other than future development, and if the NMRA ever abolishes or misuses the fund, the money returns to the Gateway Division.

Overall, we have done well to carry on with promoting the hobby and educating the public with these projects. I hope you are as proud of our accomplishments as I am.



The St. Louis Central 2001 *Model Railroader* magazine project railroad was built during the three days of the St. Louis NMRA National Convention. Photos of the entire construction process are available on the Gateway Division website, www.gatewaynmra.org This St. Louis themed model railroad, designed by Richard Schumacher and Venita Lake, will be the basis for a similar layout under construction by the Division for display by the Missouri Historical Society.

The "New" *RPO*

by Richard Schumacher

Much like our Division project railroads, some things seem to travel in circles, returning to their starting point. After a few years "off duty," I am resuming as editor of the newsletter I started for the Gateway Division many years ago.

As you can see, I've also returned it to our original small booklet format, made sure it contains lots of interesting photos, and plan on having at least one major article in each issue (thank you Dave for this issue's article and images). Upcoming issues will include articles and track plans on our project railroads, winners from last year's and this year's model and photo contests, a series on Digital Command Control (DCC), operations basics, benchmark construction tips, electronics and wiring recommendations, and many more model and prototype photos.

Please help by sending in suggestions, articles and photos. Email me at richard@gatewaynmra.org

Mark Twain Zephyr

by Dave Lotz

Reminiscence with me for a while about the Burlington Railroad. Not the Burlington Northern Santa Fe with locomotives disguised as Great Northern “wanna-be’s,” nor the Burlington Northern with its forest inspired Cascade Green, but the Burlington Route of more than 30 years ago. Conjure up vivid images in your mind of Chinese Red GP and SD freight units of the 1960’s, images of quartets of whitish-gray F units, but most importantly the Burlington’s gleaming symphony in 18-8 stainless steel, the legendary Zephyrs!

Perspectives

The largest fleet of named streamliners in the United States were the Burlington’s Zephyrs. Competing in markets against the famed Eagles, Chiefs, 400’s, Cities and Hiawathas on almost every route, the polished Zephyrs covered almost every route on the mainline of the Burlington and for years held the speed/distance title in the record books. It’s hard to believe that something as revolutionary as the Zephyrs started almost seventy years ago with the tiny, three-car Pioneer Zephyr. However today, we’re not going to remember oft-told history of the little 9900, we are going to learn about the first Zephyr to serve St. Louis, the Mark Twain Zephyr.

Let’s begin in March of 1935, shortly before the delivery of the Twin Zephyrs. The original Burlington Zephyr had successfully raised patronage to overflow levels on the Kansas City to Lincoln route; expectations were high that the Twins would do the same for the highly

competitive, revenue-challenged route between Chicago and the Twin Cities. The Mark Twain Zephyr too, was specifically designed in hopes that it would be successful on a third route – 442 miles round trip – St. Louis to Burlington, Iowa.



The Mark Twain Zephyr’s route would take it through Hannibal, Missouri, the historic and romantic old-time river town which was the home of the great American author, Samuel Langhorne Clemens – the immortal “Mark Twain.” The tracks over which the ultra-modern streamliner would run literally followed the levee where his career as a Mississippi River riverboat pilot was started. The Burlington’s advertising department took full advantage of the centennial celebration of Clemens’ birth, and named the new train “Mark



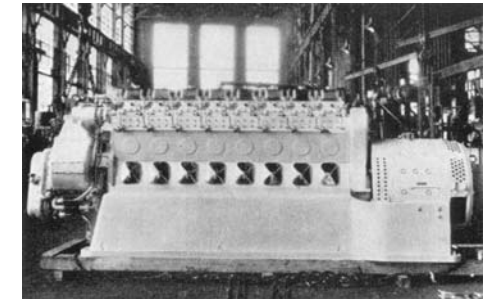
Twain Zephyr.” Appropriately, the cars of the train would bear the name of his best-known characters, becoming the first Zephyr to have names applied to each unit.

Design & Equipment

Built at the Edward G. Budd manufacturing plant in Philadelphia, in partnership with the Electro Motive Corporation, the newest Zephyr’s four units would be mounted on only five trucks. By articulating the 280’ foot long train, three trucks and 34 wheels were eliminated from what a conventional train with a steam locomotive and three cars would have, affecting a considerable savings in weight. Articulation also eliminated slack action by having the front part of one car and the rear of the preceding one rest upon the same truck, held together by a sleeve joint, allowing it to round curves efficiently, yet unifying the whole train. Roller bearings were applied to all axles reducing friction, and maintenance.

The train was propelled by a 660-horsepower, 8-cylinder, 2-cycle Winton 201A Diesel engine designed by General Motors, and built by the Electro Motive Corporation. It ran on ordinary fuel oil and operated with no

spark plugs or ignition system, combustion being accomplished solely through high compression. The engine directly powered a General Electric GT-534 main generator, which provided current to two, GE model 716 traction motors mounted on the first truck. The lead truck had 36-inch wheels for traction, while all the others only had 30-inch wheels. The gear



ratio of the power truck was 52:25 for a rated maximum speed of 117 miles per hour. The Mark Twain also had a belt-driven GT1177A-1 auxiliary generator, three CP-127B-11 motor-driven air compressors and two radiator cooling fans that were belt-driven from the engine. On board the lead unit, the MTZ could carry 600 gallons of diesel fuel, 80 gallons of lubricating oil, 140 gallons of engine cooling water and 12 cubic feet of sand. Loaded, with 92 passengers, the whole train weighed in

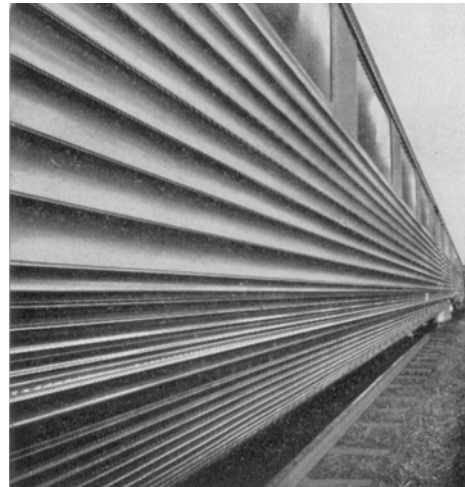
at 287,245 pounds, which is considerably less than two ordinary heavyweight coaches!

The lead unit, containing the power plant, a 30' Railway Post Office and a 15' mail storage area, used a cleverly selected homonym for the word engine and was named "Injun Joe." Almost identical to the power unit of the 9900, it varied only by inches in its dimensions and incorporated the cosmetic changes and operating improvements already in place on the Twins. The second unit (No. 506) was a 64' baggage and express car named "Becky Thatcher." The third unit (No. 551) named "Huckleberry Finn," held a kitchen and pantry in the fore section with a service counter separating it from a dinette comprised of 16 seats



grouped in "foursomes" facing tables that were set up at meal time and removed afterward. Twenty additional chairs put the capacity of this car at 36 passengers. The final unit (No. 572) was named "Tom Sawyer," had coach seats for 40 passengers in the fore section, while the aft contained a solarium parlor-lounge with detached chairs for another 16 passengers.

The design and interior finish of the passenger compartments were characterized by color harmony without elaborate ornamentation. Pastel tints of blue and green for the side walls, and ceilings finished in ivory formed a light and pleasing background for the flash of the stainless steel window frames, sills and trim. Coach seats were upholstered in green mohair; window drapes also of green and carpet of taupe; parlor-lounge chairs upholstered in Fenway blue fabric, window drapes in lemon gold, and platinum grey carpet made the Zephyr both pleasing and modern. Lighting was from diffused overhead tubular ducts providing scientific designed levels of intensity at eye level. The passenger compartments were equipped with radio and were climate controlled with thermostatically controlled steam heat and air-conditioning.



Like the three preceding Zephyrs, the MTZ was streamlined from front to rear, with satin-smooth longitudinal surfaces gleaming like burnished silver. The 18-8 stainless steel, a non-corrosive alloy consisting of 18 percent chromium and eight percent nickel, has

a tensile strength three times that of ordinary steel. The fluted outer skin was not only decorative, but due to its shape and the electric shotwelding process developed by the Budd Company, it became an integral part of the train's structural support. Even the underbodies of each car were encased in the stainless steel to eliminate wind resistance.

Delivery & Inauguration

After a brief, but triumphant tour of the East, the Mark Twain made its appearance on Burlington rails in Chicago on Columbus Day in 1935. The Burlington advertising department had already planned a series of exhibition and speed-trial runs for the four-car train before it entered revenue service. On October 14th the 9903 was shortened by crews at West Burlington by removing the baggage car to prepare it for the speed trials planned in conjunction with the Republican Valley Jubilee at McCook, Nebraska.

A Western tour of Burlington Railroad directors and officers (see note 1), other guests, (see note 2) as well as a bevy of press representatives would leave Chicago via a special steam train at 8:00 am on October 22nd. Reaching Creston in mid-afternoon, the entire group transferred to the Mark Twain Zephyr. Heading west, the train was scheduled to arrive in Omaha at 6:00 pm, where the railroad officials detained for a dinner at the Fontanelle Hotel with perhaps 300 civic and business leaders of Omaha. The press representatives would continue west on the 9903 and would pick up additional newspapermen along the way to McCook, while the officials dining in Omaha would arrive the next morning.

The celebration, in conjunction with the great Republican Valley Jubilee, was to recognize the reconstruction of the Burlington's mainline throughout 200 miles of the Republican River Valley, and the revival of trade and commerce of the region. A large portion of this trackage had been washed away in the Republican River flood earlier in May. There were two half-hour, coast-to-coast broadcasts over the Columbia Broadcast System at 9:30 am and at 4:00 pm. Speed trials of the Zephyr were conducted on two-hour intervals throughout the day between McCook and Oxford. During the day, the following speed record was set over the newly reconstructed right-of-way, built to the highest of standards:

	Time Central Standard	Miles from Previous Station	Average Speed, miles per hour
Left McCook, NE	1:07:30 p.m.		
Passed Red Willow	1:13:05 p.m.	6.39	68.7
Passed Indianola	1:16:34 p.m.	4.34	76.9
Passed Bartley	1:21:14 p.m.	5.92	76.1
Passed Cambridge	1:27:07 p.m.	7.81	79.7
Passed Holbrook	1:34:07 p.m.	8.31	71.3
Passed Arapahoe	1:38:22 p.m.	5.68	80.2
Passed Edison	1:42:24 p.m.	6.78	100.1
Arrived Oxford	1:46:30 p.m.	7.80	114.0*

* Maximum speed attained for a distance of three miles between Edison & Oxford, 122 m.p.h.

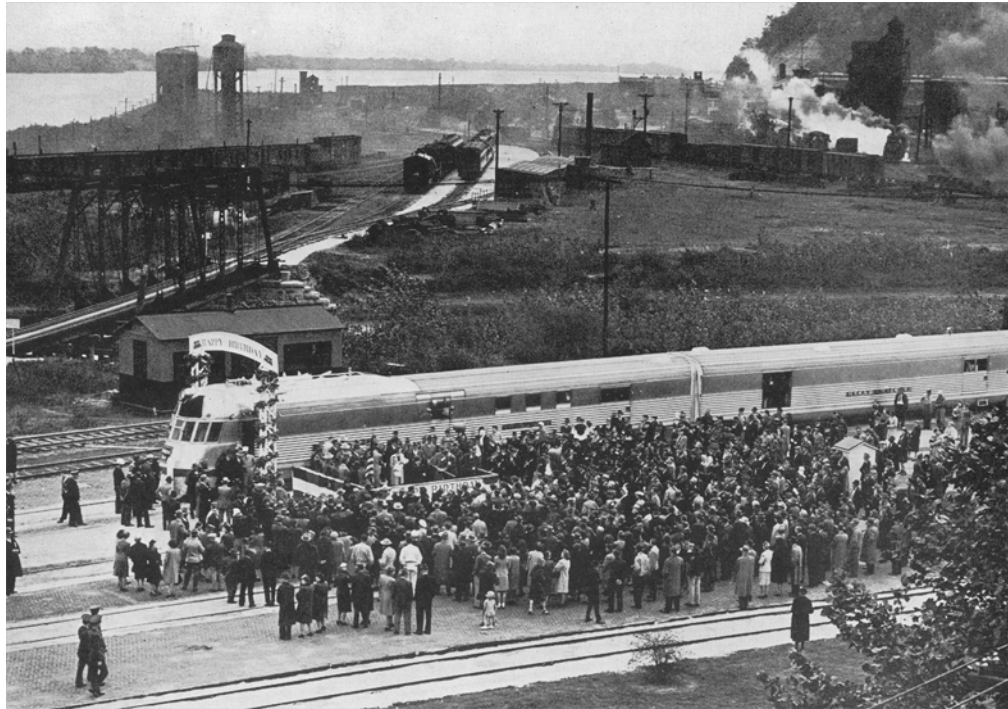
That afternoon, the Burlington executive directors and guests departed on a steam special for Denver to be dinner guests of Mr. W. L. Petrikin, Chairman of the Board of the Great Western Sugar Company. The steam special would then depart

Denver at midnight to spend the day of the 24th attending affairs regarding the American Royal Live Stock Exposition at Kansas City. Departure for the special again was at midnight for arrival in St. Louis at 8:00 a.m. October 25th, to be joined by a group of St. Louis businessmen (See note 3) and depart for Hannibal at 8:30. In the mean time, the Mark Twain had been taken back to West Burlington to be reconnected to its fourth car and be prepared for the christening and dedication in Hannibal.

The Chamber of Commerce of Hannibal hosted a luncheon for the railroad officials and guests at the Mark Twain Hotel. A thematic menu provided such items as Life on the Mississippi Cat Fish and Aunt Polly's New Apple Pie with Cheese – music was provided by the Bates Ensemble. Special guests were Ossip Gabrilowitsch, then conductor of the

famed Detroit Symphony Orchestra, his wife Clara Clemens Gabrilowitsch, daughter of Samuel Clemens and their daughter, Miss Nina Gabrilowitsch.

At 2:00 p.m., October 25th, the coast to coast broadcast over CBS began and so did the dedication ceremonies. The honors of christening the new Mark Twain Zephyr fell to Clemens' granddaughter, Nina, also the great-granddaughter of John M. Clemens, a key player in the creation of the Hannibal & St. Joseph Railroad in 1846. The famed "Hannibal & St. Joe," started in Hannibal in 1851 and was completed to St. Joe in 1859, the first railroad to reach the Missouri River, and the first and only railroad to carry the U.S. Mail for transfer to the Pony Express at St. Joseph. This same railroad was one of the earliest predecessors of the railroad that was dedicating its new Zephyr in Hannibal that day, the Burlington.



				FARES FROM ST. LOUIS				
NORTH Read Down NO. 43	SCHEDULE of the MARK TWAIN ZEPHYR		SOUTH Read Up NO. 44	One Way in Coaches	*One way in Parlor Lounge	Round Trip in Coaches 10-day Limit	*Round Trip Parlor Lounge 10- day Limit	Seat in Parlor Lounge
8:35 AM	Lv.	St. Louis	Ar.	9:25 PM				
f9:08 AM		West Alton		8:47 PM	.42	.62	.76	.85
f9:26 AM		Orchard Farm		f8:29 PM	.68	1.01	1.23	1.35
f9:38 AM		Peruque		f8:17 PM	.87	1.29	1.57	1.75
9:51 AM		Old Monroe		8:06 PM	1.04	1.55	1.88	2.10
9:56 AM		Winfield		7:58 PM	1.13	1.69	2.04	2.30
f10:06 AM		Apex		f7:47 PM	1.29	1.93	2.33	2.60
10:12 AM		Elsberry		7:41 PM	1.37	2.05	2.47	2.75
f10:22 AM		Annada		f7:31 PM	1.52	2.27	2.74	3.05
10:33 AM		Clarksville		7:20 PM	1.69	2.53	3.05	3.40
10:45 AM		Louisiana		7:07 PM	1.89	2.83	3.41	3.80
10:58 AM		Ashburn		6:53 PM	2.09	3.13	3.77	4.20
f11:09 AM		Saverton		f6:42 PM	2.28	3.41	4.11	4.55
11:20 AM	Ar.	Hannibal	Lv.	6:30 PM	2.40	3.60	4.32	4.80
11:30 AM	Lv.	Hannibal	Ar.	6:18 PM	.....	.....	.....	.....
f11:45 AM		Mark		f6:02 PM	2.69	4.02	4.85	5.40
11:55 AM	Ar.	Quincy	Lv.	5:51 PM	2.89	4.33	5.21	5.80
12:01 PM	Lv.	Quincy	Ar.	5:43 PM	....	....	....	....
12:17 PM		LaGrange		5:27 PM	3.00	4.50	5.40	6.00
12:26 PM		Canton		5:17 PM	3.13	4.69	5.64	6.30
f12:38 PM		Gregory		f5:02 PM	3.34	5.00	6.02	6.70
f12:46 PM		Alexandria		f4:54 PM	3.46	5.18	6.23	6.95
12:57 PM	Ar.	Keokuk	Lv.	4:45 PM	3.57	5.34	6.43	7.15
1:03 PM	Lv.	Keokuk	Ar.	4:36 PM	....	....	....	....
1:18 PM		Montrose		4:18 PM	3.79	5.68	6.83	7.60
1:36 PM		Ft. Madison		4:00 PM	4.05	6.06	7.29	8.10
2:20 PM	Ar.	Burlington	Lv.	3:30 PM	4.43	6.63	7.98	8.85

* See last column for parlor seat fares.

There was an eleven-city competition in which three children dressed to represent Mark Twain's three most-famous characters Tom Sawyer, Huckleberry Finn and Becky Thatcher. Trios from Burlington, Ft. Madison, Keokuk, Hannibal, Canton, LaGrange, Quincy, Louisiana, Clarksville, Elsberry and St. Louis were escorts to Miss Gabrilowitsch throughout the day.

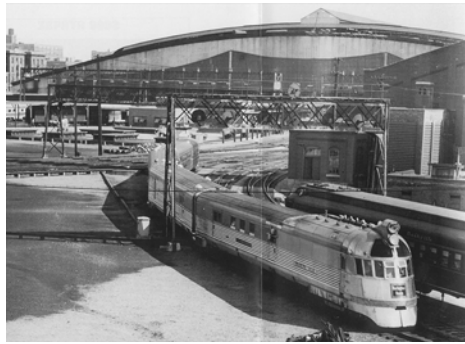
The first regular service trip of the Mark Twain was made from Hannibal to St. Louis on Sunday, October 27th. The scheduled trip for the Mark Twain was a round-trip journey from St. Louis to Burlington, however the railroad thought it appropriate to split the

schedule for the first day and begin service at Hannibal. The normal schedule began Monday morning, October 28th at St. Louis.

Operational Challenges

Operating the MTZ was not without its challenges. Turning a train at Burlington was never a problem, until the Operating Department began preparing for the fixed-consist, 280-foot long train. The solution would be to construct a wye at Burlington. Those familiar with Burlington's yard know that it hugs the Mississippi River to the East and has businesses directly to the west. So the question was, where do

you build a new wye? A ravine was discovered about a mile south of the K Line's junction with the Chicago-to-Denver mainline that, with minor effort, a wye could be constructed westward from the mainline into the limestone faced ravine at Cascade. Upon arrival from St. Louis, the MTZ would wye at Cascade and back into the station at Burlington on Track 1. After it made connections at Burlington, Iowa with the CB&Q's Chicago-Denver Aristocrat from both directions, the MTZ was facing the right way for a direct departure.



On the other terminus of the MTZ, common operating practice was to be backed into the St. Louis trainshed by a T.R.R.A. crew and switcher. Since the Zephyr was built for streamline operation, the front coupler was designed to be retractable, however, its design was flawed and it would not always work correctly. Sometimes it would collapse while it was engaged, or fail to remain in its proper working position at all times. Such problems with the cantankerous coupler while a T.R.R.A. switcher was standing by to pull the train could easily throw a wrench into the tightly scheduled routine at the tower. The solution was to have the train pull into the station head-first, and then after it had been emptied, the T.R.R.A. switcher would

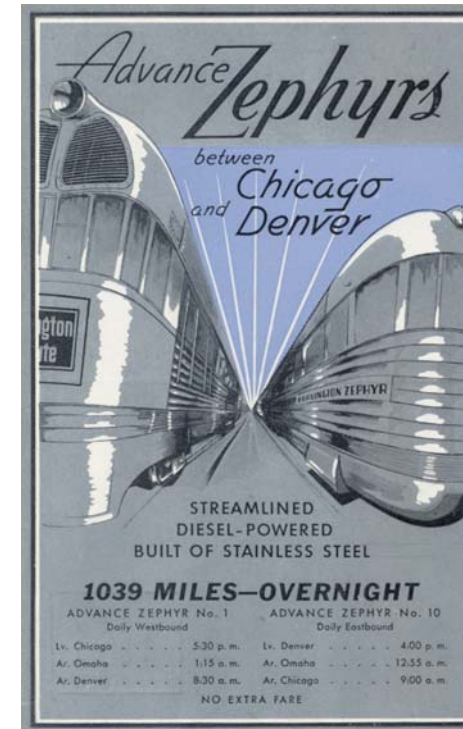
pull the train out using the coupler on the rear of the observation car.

Servicing the Zephyr also created a unique procedure in St. Louis. The normal operation was to separate the power and take it to Fourteenth Street for servicing and the remainder of the train to one of the other yards for servicing and cleaning. However, with the fixed consist of the MTZ, this was not possible. For the 9903 and her sisters, they were taken complete to the T.R.R.A.'s North Rankin Yard where the locomotive unit was refueled, lubbed, sanded and watered by means of a diesel tank truck stationed at the yard just for the Zephyrs, while at the same time the rest of the train was being cleaned. After being refueled and washed, the entire train was taken back to the train shed by a T.R.R.A. switcher, observation car going first.

Career Highlights

The Mark Twain Zephyr was well received by patrons and passenger traffic increased remarkably. However, less than a year into its new service, the management of the CB&Q had other plans for the MTZ and its sister, the original Zephyr. The increases in passenger levels on the three Zephyr routes made an impression on management, for example, in July and August of 1935, over 5000 passengers could not be accommodated on the Zephyrs. To meet the demand, the Chicago-Twin Cities service was doubled, each train set making two complete round trips per day, but that proved to be insufficient. The solution was to increase the size of the trains, but the 600 hp Winton engines would not handle the number of cars that was projected to handle the demand. The Burlington decided to try a Zephyr on

the Chicago to Denver route. Two ten-car trainsets were placed on order that would be pulled by two detached shovel nose diesels. Shortly thereafter, two new six-car train sets were ordered for the Twin Zephyrs, also with detached power units. So what does this have to do with the Mark Twain?



To publicize the new Denver Zephyrs, and to start building a larger passenger base, the Burlington reassigned the MTZ and the 9900 to be the Advanced Denver Zephyrs, one running each direction between Chicago and Denver on a 16-hour schedule daily. This service, to capitalize on summer business and to protect the US Mail contract, began on May 31, 1936 and operated until the permanent Denver Zephyr equipment was placed in service. Although there were no sleepers on either train, the timetable

provided a 5:30 pm departure from Chicago with arrival in Denver at 8:30 am the next morning, 1,034 miles at an average speed of 64.63 miles per hour. Departure from Denver as at 4:00 pm with a 9:00 am arrival in Chicago.

Business on the Advanced Denver Zephyrs was 100% of capacity with between 70 and 75% through traffic. The trains operated consistently on time and attracted not only passengers, but trackside viewers as well. It is recorded that as many as 200 people per day came to see the Zephyrs each day at stations like Galesburg and Burlington.

For a short time between November 8, 1936 and December 18, 1936, the MTZ provided Chicago to Twin Cities service.



The MTZ returned to its intended route out of St. Louis to Burlington that December, but would be reassigned again in September of 1938 to the St. Louis to Kansas City route of the Ozark State Zephyr. While in this service, the familiar Burlington Route herald on the nose of the 9903 was altered to read "Alton Burlington" reflecting the joint route with the Alton between St. Louis and KC. However, other markings on the MTZ remained



and the passenger timetables still show this train as the Mark Twain Zephyr even though it was not running to Burlington.

In January of 1953, after three and a half years, the MTZ was assigned to service with the 9900 between Galesburg, Illinois and St. Joseph, Missouri, via Quincy. The Mark Twain Zephyr's last assignment starting in May of 1957, would bring it back home to serve the St. Louis to Burlington market until its retirement in May of 1963. An interesting side note is while the Zephyrs were designed for speed, the Mark Twain Zephyr, with its 60 stops on its original 442-mile round trip, averaged only 40 miles per hour, even though top speed on the run was 80 miles per hour. Compare this to the 66.3 mile per hour average of the Twin Zephyrs with only six stops.

A Survivor?

After retirement, the Mark Twain Zephyr was stored at the West Burlington shops until Mr. Frank Dashner of Glenwood, Iowa in June of 1960, purchased it. His untimely death halted plans to make the trainset into a restaurant, so the train remained at West Burlington. In June of 1962, the

train was acquired by Ernie Hays for \$6,500 and placed on exhibit at the Midwest Old Thresher Association grounds in Mt. Pleasant, Iowa. In 1972, after many years of neglect, the train was sold to Alex Barkett of the Building Leasing Corporation, and moved to Kansas City. The other articulated Zephyr equipment also bought by BLC was later sold to Saudi Arabia, but the Mark Twain remained stored in KC and continued to deteriorate. After Mr. Barkett died, title transferred to the Civic Plaza National Bank and in September of 1987 the train was moved to the Mid America Car Corporation. In 1984, Dave Stimson, a player for the Kansas City Chiefs, purchased the equipment. After declaring bankruptcy late in 1987, the train was sold to John C. Lowe. He and two other individuals have formed the Mark Twain Corporation, which is headed by Mr. Ronald Lorenzini. This group has started the monumental task of trying to restore the train, but have run into challenges along the way. The train is currently stored in the Joliet area awaiting additional investors to help fund its completion.



Article Notes

Note 1: Burlington Directors on Trip to Omaha/Denver/St. Louis/Hannibal

Grenville Kane	New-York
R. Douglas Stuart	Chicago
Charles F. Glone	Chicago
Frank B. Kellogg	St. Paul
Wallace C. Winter	Chicago
Charles O. Jenks	St. Paul
Laird Bell	Chicago
Charles Donnelly	St. Paul
Gen. Robert E. Wood	Chicago

Burlington Officers on Trip to Omaha/Denver/St. Louis/Hannibal

Ralph Budd, President
 Edward Flynn, Executive Vice President
 Bruce Scott, Vice President & General Counsel
 H. H. Holcomb, Vice President, Traffic
 C. I. Sturgis, Vice President, Secretary & Treasurer
 W. F. Thiehoff, General Manager
 B. H. Taylors, Assistant Vice President
 F. G. Gurley, Assistant to Executive Vice President
 A. W. Newton, Chief Engineer
 T. J. Thomas, Assistant to President
 Dr. D. B. Moss, Chief Medical Officer
 A. Cotsworth, Jr., Passenger Traffic Manager
 W. J. Lahr, General Freight Agent
 J. H. Finn, Publicity Representative
 H. F. McLaury, Advertising Agent

Note 2: Other Guests on Trip to Omaha/Denver/St. Louis/Hannibal

General Charles G. Dawes	Chairman
City National Bank, Chicago	
Edward G. Budd, Sr.	President
Edw. G. Budd Mfg. Co., Philadelphia	

A. H. Swayne	Vice President
General Motors Corp., New York	
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Note 3: Guests on Trip from St. Louis to Hannibal

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Article Photos

Map from the CB&Q promotional brochure. With the diesel era so new, fueling facilities were not often available off-line. Here, the Mark Twain on its exhibition tour of the east, stops for fuel on a siding near Erie, PA on November 12, 1935. CB&Q Photo – BRHS Archives

The 660-HP, 8-cylinder, 2-cycle Diesel engine designed especially for the Zephyrs by general Motors. CB&Q Photo – BRHS Archives

Interior view of the coach section of car No. 572, "Tom Sawyer."

The clean lines of 18-8 stainless steel, fluted for both beauty and strength. CB&Q Photo – BRHS

Photo of the 10th Anniversary of the Mark Twain Zephyr at Hannibal, Missouri on October 25, 1945. CB&Q Photo – BRHS Archives

Departing St. Louis on its daily round trip journey to Burlington, Iowa, the MTZ rounds the east leg of the wye. Ray Tobey Photograph – Courtesy BRHS Archives

Front of a postcard advertising the Advance Denver Zephyr whose equipment was the 9900 and the 9903.

A heavily airbrushed image of the Mark Twain Zephyr as altered for service over the Ozark State Zephyr route between St. Louis and Kansas City via the joint CB&Q/Alton trackage. CB&Q Photo – BRHS Archives

The Mark Twain Zephyr always used track 1 at Burlington. Shown here, late in its career, Injun Joe sports the oscillating Mars light in a casing added above the original headlight. Jim Ewinger Photo – David Lotz Collection

The tail car carried a large bronze medallion with the bust of Mark Twain positioned above his signature.

DCC Tips:

Power Bus Wiring

by *Richard Schumacher*

For those who have a medium to large size layout, and wish to use a tested recommendation for new wiring, I offer the following:

1. The power bus and control bus need to be physically separate under the layout (recommend 12-18 inches or more if possible). When they need to cross, try to do so at right angles. Keep both away from any household AC (110VAC) wiring as well.
2. Use “Ethernet” network cable (termed “CAT3” or “CAT5” - Category 3 or Category 5) for the control bus runs instead of the flat “modular” phone cable. This has built-in twists that shields from interference.
3. Make power bus runs with 12AWG stranded wire. This is available from Home Depot, in a variety of insulation colors, as 500 foot spools that they label as “12AWG 19/W Type THHN or

THWN.” Stranded wire bends, and pulls through holes, easier than solid. It is also harder to damage than solid wire. For those concerned about the “AC surface effect,” stranded wire has more surface area (because it is made up of multiple individual wires) than the same size solid wire. If you have an extra-large layout, you may want to use 10AWG stranded wire. You may want to loosely twist the power bus wires together (a twist every 1-2 feet).

4. Make feeder drops from the track as short as possible, 6-10 inches is a good standard. Use 22AWG or 20AWG solid pre-tinned wire. Solid wire, and especially pre-tinned solid wire, is easiest to solder to rail. As long as the length is kept this short, it will not cause a significant voltage drop. Use rosin-core solder to make the joints. 22AWG solid pre-tinned hookup wire is available in 100 foot spools, in a variety of insulation colors, from Wire Works, Box 443, Guilford CT 06437. Local electronics or hobby shops may carry it (Gateway Electronics in St. Louis does).

5. Connect a feeder to every piece of rail. If that seems like too much work, connect a feeder at least every 5-6 feet with code 83 or 100 rail, or every 3-4 feet with code 55 or 70 rail.

6. The most reliable connection between the power bus and feeder drops would be to solder them together. I have done a number of railroads this way, and recommend against it as there is a much (much) faster, safer (no more burned fingers or legs), and almost as reliable method available. This is by using “3M Scotchlok self-stripping electrical tap connectors.” These are available from electrical supply stores for \$.19-\$.24 each in boxes of 100.

Connect the 12AWG stranded power bus (run) to the rail feeder drops (tap) using the 3M Scotchlock 567 connector (p/n 054007-14887). This connector is specifically designed to connect a bus run (12 or 10AWG solid or stranded) to a feeder tap (18-14 AWG solid or stranded). I, and a number of my modeling friends, have had very good success connecting a 12AWG stranded bus to the Wire Works 22AWG solid pre-tinned feeder with these connectors (your success may vary by the brand of 20-22AWG wire you use). No stripping is necessary, the connector clips over the power bus wire, and the feeder slides into a hole. Crimping with a pair of heavy pliers makes the connection. Closing the connector cover insulates the connection.

If you need to connect two 12AWG bus wires together, use the 3M Scotchlok 562 (p/n 054007-11032). It is designed to connect two power runs, either 12AWG solid or stranded or 10AWG stranded only. Note that significantly more pressure is required to crimp this connector correctly.

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Gateway Division July 15 Meeting Notice

The July 15, 2002 Gateway Division meeting will be a model railroad operating session at the St. Charles Model Railroad Club, in O'Fallon, Missouri, beginning at 7:00 pm.

To reach the club: take I-70 west to exit 217 (Routes K and M). Turn right (north) on Route M, (O'Fallon Main Street) and proceed ½ mile to the Norfolk-Southern grade crossing. Immediately over the crossing, turn left (west) onto Civic Park Drive. Proceed ¼ mile to a parking lot on the right. The club is in the yellow Civic Hall building. There will be no formal business meeting.



Calendar of Events

July 15

Gateway Division Operating Session, 7pm

St. Charles Model Railroad Club
O'Fallon, MO

August 3 & 4

Transportation Celebration 9am to 5pm both days

Museum of Transportation
West St. Louis County, MO
Gateway Central 2002 Project
Railroad on display.

August 19

Gateway Division Meeting, 7pm
VFW Hall, O'Fallon, IL

Clinic: Three layouts, three views:
Amsler, Schumacher, Hardy

Maps and directions to the above locations are on the Gateway Division website, www.gatewaynmra.org