

RUN 8

May 2008



President's Message

By Bob Roth

Rock Island notes: This month, taxes and other concerns replaced research on the Rock Island. I will resume my Rock Island notes next month.

Layout Construction Notes: Progress on the layout continued. Track on our interim loop has now been extended around the southeast corner and is starting down the length of the Staging Yard. Further track installation will be delayed while some of the switches required for the yard leads are installed. I started the benchwork framing at the southwest corner of the layout at Canadian so that we will be able to complete the interim loop.

A short clinic was conducted on soldering and there is a lot of work yet to be done to extend all the drops required for the track power. During a recent Board Meeting, the Board discussed the goal to have our initial loop operational by Saturday, May 10, but given the amount of work ahead of us to complete this loop, the Board decided to push the planned Open House back one month to June 14 to ensure we should be able to operate trains during our Open House.

Notes from the Executive Board: There is no new or exciting news at this time; the Board is still working on the sale of the electric jacks. We covered the jacks under large plastic bags to protect them from the elements for the time being but so far the only contacts we have received on the jacks are from other organizations asking if we could donate the jacks to them. A concern at this time is that the faltering economy may prevent businesses from purchasing major equipment items thus we may have a difficult time selling the jacks for a while.

Other topics of discussion by the Executive Board included the need to update the ARM website with new information, storing some of our important paperwork in a fire-proof box at the ARM, need to replace the worn-out push mowers, acquisition of additional prototype railroad equipment, delays to the custom car program and approval of another custom car for 2008. Most of these items were discussed during the Business Meeting on April 3.

Upcoming: Elections for the positions of President, Vice-President/Secretary and Treasurer will occur at the May 1 Business Meeting. Each incumbent voiced his intentions during the April 3rd Business Meeting. Earl Carrell noted that he will run again for the Vice-President/ Secretary position, but given that his employer is relocating their operations later this year he knows he will have less time available and may have difficulty attending meetings. He strongly suggested that anyone who wants to run for the position should do so. Virgil Doyle said he is willing to serve another term,

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and I plan to run for another term. Remember, anyone interested in running for office should contact one of the officers.

Next Meeting: The next Business Meeting will be on Thursday, May 1 at 7:30 PM.

MEETING MINUTES

ARM Business Meeting

April 3, 2008

Old Business:

Meeting Minutes from March: Published in Run 8; Approved as Published.

Treasurer's Report: (Financial Information from the month of March)

Checking Beginning Balance:	\$ 2,013.42
Expenses:	\$ 1,794.35
Income:	\$ 1,384.46
Ending Balance:	\$ 1,603.53
Car Savings Account Balance:	\$ 6,464.41
Insurance Accrual Balance:	\$ 1,000.00
Check Book Total:	\$ 9,067.94
Savings Account Balance:	\$ 2,295.09
Total Cash in Bank:	\$11,363.03

A question was asked if there were any large purchases made this past month other than normal; the answer was no. We had some small purchases of LED's and wire. The biggest items paid during the month included the Capital One bill and the natural gas bill.

Note: The audit of the ARM books was delayed due to illness of our Treasurer during March.

The Treasurer's Report was approved as read.

Car Sales Report/Update:

New Cars: Rock Island Boxcars: Cars on-hold due to a quality problem. We are now looking at October for delivery of these cars.

ART Cars: A sample is expected soon to review the artwork; the finished product is expected in late May or June.

C&NW/Rock Island covered hoppers: Expect in June; after the ART cars.

Proposed New Car: Jerry reported he had received a contact concerning a Pennsylvania X-29 boxcar with patch-panels. The manufacturer has 300 cars sitting in China ready to assemble. The Board decided to go forward with this project; we will request receipt of these cars in September.

Layout Construction:

Comments were made in the President's Message in Run 8. Construction has been progressing with track laid along the East end of the layout around the curve at the SE corner. Through the Staging Yard, track laying will be slowed due to the need to install switches for the ladder tracks in the Staging Yard. Meanwhile, bench work was started at the SW corner for the return loop at Canadian. The next big need is to install the wiring drops from the track for power and the Board determined our next clinic will be on soldering these drops...

Other Items: President Bob Roth will provide comments on these items in Run 8 as news develops.

Housekeeping Schedule: Month of April – Joe Sweeney
Sign-up for 2008 – We need volunteers for December.

New Business:

Question: Did anyone attend Richard Raff's funeral? Andy & Beverly Lyle and Ken Fritsch all reported having attended Richard Raff's funeral and they reported it had been well attended.

Elections: Elections for President, VP/Secretary & Treasurer are next month on May 1. Each of the officers up for election indicated they would run again although Earl Carrell stated he would like to encourage anyone to take the job of Vice President/Secretary.

Proposal to have a formal Open House in May, originally planned for Saturday, May 10; the Board felt we best push this back to June 14 to ensure better chance to have the layout operational. We still have a lot of work to do to get the layout operational.

Prototype Railroad Equipment Acquisition: A suggestion was received that we should form a committee to investigate the acquisition of prototype railroad equipment particularly through donations of the equipment to the ARM. Examples: Celanese will be closing their plant in the future; one particular suggestion was made to seek donation of one of their triple axle tank cars and to see if they might pay to have the car repainted for display at the ARM. Sid Richardson Carbon Black was another example. We want to look specifically for representative examples of railroad cars used by area industries, particularly any specialized railcars. We need volunteers that might be interested in serving on this committee since most of the Board members are already committed to other assignments.

Lawn Mower: Tracy mentioned that both of the push lawnmowers are worn-out and won't work for this season. We need to consider obtaining another lawnmower to replace these old mowers.

Next work dates: April 12
April 26
May 10
May 24 *Memorial Day weekend

Next Meeting: May 1, 2008. Meeting is to start at 7:30 PM

Cleaning Schedule:

January	Earl Carrell
February	Dan Juliano
March	Jerry Michels
April	Jim Shook
	Joe Sweeney
May	Andy & Beverly Lyle
June	Tracy Ball
July	Guy Pigg
August	Virgil Doyle
September	David Jusiak
October	Bob Roth
November	Tracy Ball
	Earl Carrell
December	Volunteers needed

Age of Steam Museum Renamed

The *Museum of the American Railroad* is the new name for *The Age of Steam Museum* now located in Fair Park, Dallas. Coupled with the name change are plans to relocate the museum to Frisco, Texas, north of Dallas. The new Museum of the American Railroad will anchor other cultural heritage facilities in Frisco and compliment a 250 acre system of planned outdoor spaces and recreational areas known as *Grand Park*.

The present home of the Museum of the American Railroad, Fair Park, was the original site for the Texas State Centennial Celebration in 1936 and the home of the Cotton Bowl. Space for the Age of Steam Museum is limited at Fair Park and the exhibits are necessarily crowded.

Timetables and Timelines: Another Look at Trains Scheduled Through Amarillo in 1955

By Jerry Michels

Last month we looked at the trains that came through Amarillo according to Employee Timetable #87 from 2/20/55. This month I want to expand on this information by illustrating what the data look like on a timeline. This information is shown graphically in Figure 1. The bottom, or x-axis, shows the railroad mileposts from Canadian to Clovis. The vertical or y-axis is the time, starting at the bottom at 12:00 midnight on day one and ending at 8:00 AM on day two. The vertical red lines indicate cities and towns of interest along the route from Canadian to Clovis. Yes, yes, I know what you're thinking...Umbarger as a town of interest? Well, read on!

The amount of information can look a bit daunting at first, but if you take a look at a specific train, and follow it from Canadian to Clovis, or vice-versa, it becomes clear. For example, going to the lower left corner, Train #4, a mail train, enters our territory at Clovis around 3:33 AM, reaches Amarillo at 6:30 AM and exits our territory at Canadian at 8:58 AM. Note that the direction of travel for a given train is indicated with arrows along the line.

If you look at timetable #87 (available at the Club), you will note that only the passenger train schedules are shown with specific times they arrive or leave stations along the way. Freights are found on the last page (inside cover) and only the barest information is given, primarily times for their origin and end points, and perhaps an intermediate station. For example, train #53 is listed as leaving Canadian at 1:50 AM, arriving Amarillo at 10:00 AM, leaving Amarillo at 10:10 AM, and arriving Clovis at 2:10 PM. So, you might ask, how were all those intermediate station times arrived at? Well, I did a bit of interpolation.

Using the timetable's list of allowable speeds, speed restrictions, mileage between stations, and estimating acceleration and deceleration rates, I came up with reasonable times between stations. These are not accurate times but approximations, and a good reason why it would be nice to have engineer or conductor timebooks that show how long it really took train #53 to cross the Panhandle.

For clarity, I did not show all the trains in the timetable. If I added all the locals and mixed trains the graph gets pretty dense; especially around Amarillo. I also did not include train #34. Remember that "slow poke" from last month's discussion? It took more time to cross the Panhandle than the y-axis is currently formatted. If I did format the y-axis to show #34, it would compress the other trains too much to make a usable graph. I need to tweak the data a bit more and I can probably fit it in, but for this discussion, leaving out #34 isn't a big deal.

OK, what can we do with this graph? I would consider this an example of the core timeline for the trains we'll deal with once we get to the point of operating the layout. To be accurate, once we get our layout to this point, we'll want to completely redo this graph to make it coincide with the physical distances between our towns, and take into account any time compression we decide to use (e.g. a fast clock). But for now, any of our would-be dispatchers can get a pretty good idea of what trains ran when.

Remember from last month that there were "irregular trains" such as the "Green Fruit Expresses" (GFX). These did not run every day, but might run daily for months at a time during the perishable

rush, or run in multiple sections. These irregular trains and any extras or sections (say a hot livestock train running in the dead of winter as a second section to train #3 or #4) have to be fitted into this core timeline. The old dispatchers did this with paper and pencil and did not work with a graph, but with train orders, pads of paper and their accumulated knowledge.

We can make it somewhat easier by using the graph to keep an extra or irregular train out of the way of scheduled trains, or use a scheduled train to our advantage when creating a section. For instance, trains #2 and #24 (the Eastbound San Francisco Chief and Grand Canyon) run through the territory during what looks to be a relatively calm period. Neither meets an opposing train between Clovis and Canadian until somewhere between Codman and Miami for #2 and around Hoover for #24 where they meet freight #91. Therefore, high-priority freights could be run as extras in advance of #2 or as sections following #24 and have a pretty good time of it getting through the Panhandle.

This situation could get even more complex (meaning fun if you are developing an operating session). Say you have a LSX in Clovis (remember from last month that this was a train carrying potash from Carlsbad and picked up livestock enroute) that has 10 cars of show livestock from Portales that need to get to Chicago in a hurry. It arrived at Clovis at 3:00 PM, changed crews, and is ready to go. It can be sent out as an extra in advance of #2, which arrives at Clovis at 4:00 PM. As long as LSX arrives at Amarillo before 5:12 PM, beating the Chief which arrives at 5:35 PM and #94, the Lubbock-Amarillo connection for the Chief, it is in the clear.

However, perhaps some additional cars of livestock need to be added at Amarillo. There is no way the cars can be added, crew changed and for the train to get back on the road in front of #2, so the dispatcher in his wisdom has the train remain in Amarillo until #24, the eastbound Grand Canyon arrives at 5:55. The LSX leaves as a second section of #24, giving it first-class status across the rest of the Panhandle. Now this is just a scenario. I am in no way a Santa Fe operations expert, or even a novice. Could this happen? Perhaps. Did it happen? Who knows! Would it make an interesting operating aspect on our layout? Indeed, yes!

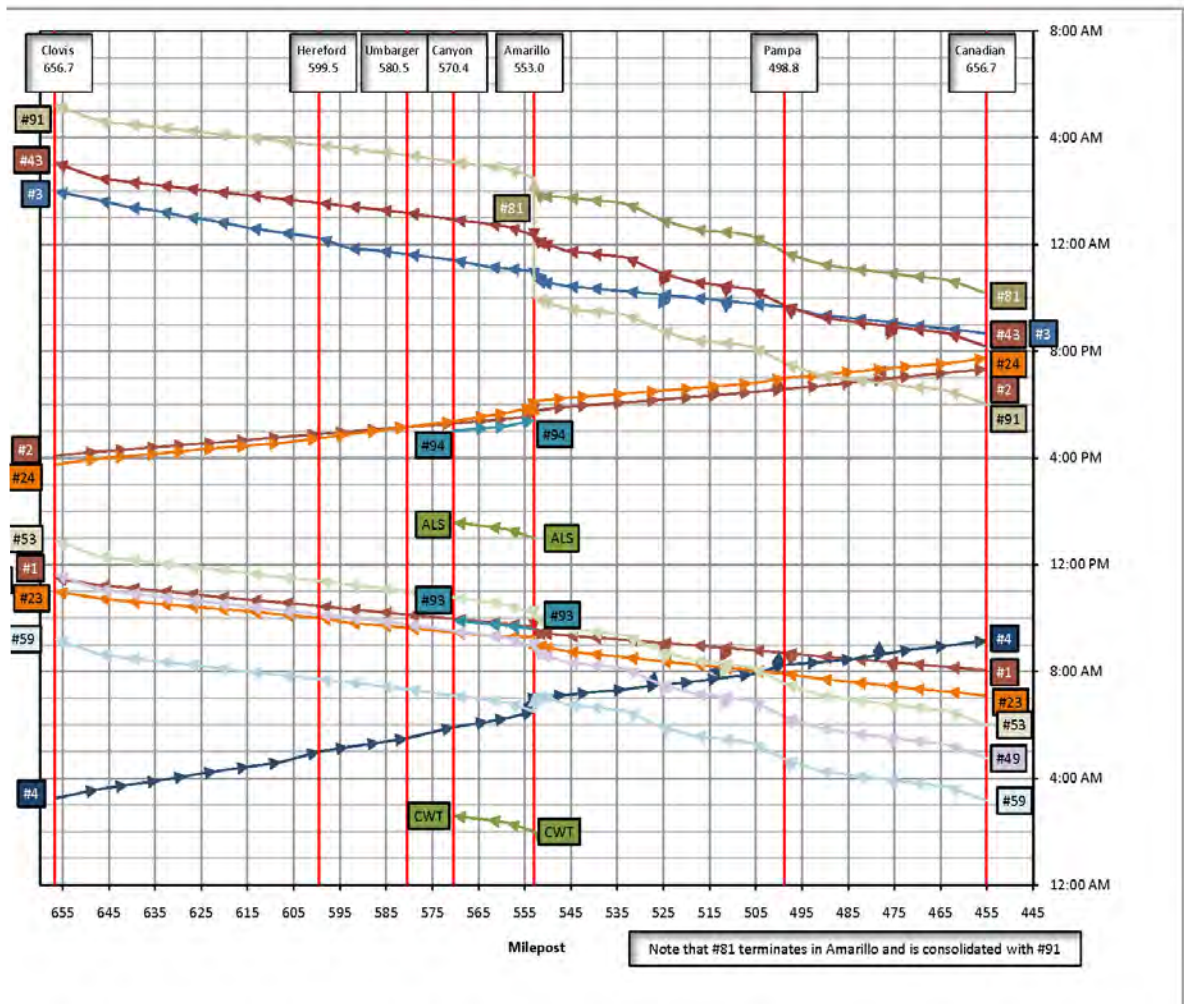
So what it comes down to is that the timeline can be used as a tool for developing gaming scenarios for our operating sessions that let them become more than running the same trains each session. The scenarios can be as simple or as complicated as we want. A dispatcher can use the graph of the scheduled trains to keep his empire fluid, and draw in his own schedule for extras and sections. Of course, there will be the time that #1 loses power on one locomotive just east of Hoover, and has to limp to Amarillo, throwing everyone's schedule off!

Want to try it for yourself? Here's a scenario Virgil Young compiled for a turn-around way freight operating from Amarillo to Hereford and return. Give it a shot. Use a pencil and a ruler to draw a schedule for this train on Figure 1. I'll show my answer on the last page of this newsletter.

Town	Arrive	Depart	Comments
Amarillo		8:00 AM	Depart
Canyon	8:35 AM	10:05 AM	Depart after #1
Umbarger	10:20 AM	10:40 AM	20 minutes switching
Hereford	11:00 AM	2:00 PM	Three hours for meal break and switching
Umbarger	2:45 PM	5:30 PM	Depart after #2
Canyon	5:45 PM	6:30 PM	45 minutes switching, pick up cars Lubbock Junct.
Amarillo	7:15 PM		Tie up

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Figure 1. Timeline of freight and passenger trains on the Plains Division, Second and Third Districts 2/20/53



List of scheduled trains through Amarillo from AT&SF employee timetable #87, 2/20/55.

Number	Name	Direction	Enter	Leave
1	San Francisco Chief	West	Canadian	Clovis
2	San Francisco Chief	East	Clovis	Canadian
3	Mail	West	Canadian	Clovis
4	Mail	East	Clovis	Canadian
23	Grand Canyon	West	Canadian	Clovis
24	Grand Canyon	East	Clovis	Canadian
34	Southern California Chicago Fast Freight	East	Clovis	Canadian
37	Mixed	West	Amarillo	Boise City
38	Mixed	East	Boise City	Amarillo
43	Southern California Fast Freight	West	Canadian	Clovis
49	Northern California Fast Freight	West	Canadian	Clovis
53	Southern California Fast Freight	West	Canadian	Clovis
59	Northern California Fast Freight	West	Canadian	Clovis
81	Kansas City Texas Fast Freight	West	Canadian	Amarillo
87	Way Freight	West	Amarillo	Canyon
88	Way Freight	East	Canyon	Amarillo
91	Kansas City Arizona Fast Freight	West	Canadian	Clovis
93	West Texas Express	West	Amarillo	Canyon
94	Eastern Express	East	Canyon	Amarillo
ALS	Amarillo Lubbock Sweetwater Fast Freight	West	Amarillo	Canyon
CWT	Colorado West Texas Fast Freight	West	Amarillo	Canyon

Those trains with a white background are not shown in the timeline graph.

Development of Boxcars from 1918 to the Welded PS-1 of 1951

1918 USRA Single Sheathed: Radial roof, Murphy corrugated ends. 25,000 Single-Sheath cars used steel hat-section Howe-trussed side bracing. Had an inside height of 9'0" and inside width of 8'6". Tichy and Accurail make single-sheathed models, but for one prototype each. Accurail has three versions with different ends and doors which are lettered for prototypes with similar appearances.



An Accurail single-sheathed car with a wood door and wood ends. All of Accurail's cars in this series are Canadian prototype, but are similar to the 1918 USRA models with the large fishbelly underframe and radial roof. This model has the molded-on grab irons and transverse running board irons replaced with wire. A-Line metal stirrup steps were also added.

1918 USRA Double-Sheathed: Radial roof, Murphy corrugated ends. 24,500 Double-sheathed cars using wooden side-framing with massively overbuilt fishbelly underframes were built. The wooden side frames deteriorated twice as fast as the metal side braces and became the first candidates for rebuilding in the thirties. This car had the same internal dimensions as the Single-Sheathed car. Accurail has a model of a similar car lettered for various railroads.

1920 USRA Steel Sheathed: Designed by the USRA but not built by the USRA. New York C built copies with 7/8 Murphy ends, but with the roof changed to U-shaped flat panels capped with U-shaped stampings. This car had the same internal dimensions as the 1918 USRA cars.

1923 First ARA Design Steel: Conflict developed over this design versus Pennsylvania designs by William Kiesel. Kiesel was the chairman of the ARA Mechanical Division and was considered to be arrogant. The Pennsylvania Railroad had the reputation of running rough-shod over the other railroads. This first design did not gain majority approval.

1924 Pennsylvania X-29: Flat Steel ends. This Car was the proposed Pennsylvania design for the ARA standard car. It was considered small, but its inside height of 8'7" was in line with the other designs. Pennsylvania X-29 and other 1923 cars had a major deficiency—deterioration of the side panels at floor level. The junction of the side plates and side sill allowed moisture to be trapped between the wood flooring and the lower sides, causing the side plates to rust from the inside out. This problem was handled by applying patches to the lower sides and thus created another detail to be added to the models.

Not all X-29 cars were the same. Variations include frame components, brake systems, side sheathing, ends and doors. The Pennsylvania built almost thirty thousand of these cars and sold many of these cars to other railroads.

Picture not available.

1924 ARA Single-Sheathed Steel: flat steel ends

1924 Defacto 1923 Standard: Utilized the Howe Truss system for the frames inside the steel sheathing. Over 20 thousand were built for several railroads after the design won approval on the second ARA ballot. Pennsylvania Railroad built its own X-29 design instead.

Picture not available

1925 ARA Double-Sheathed: Wood sides, Dreadnaught ends: Used internal “Z”-bracing in the Pratt Truss pattern.

1926 ARA Auto Double Sheathed.

1932 ARA Steel Double Sheathed, 9’4” Inside Height, 8’9” Interior Width. Introduced the Monocoque construction—uprights inside the walls and the steel skin supported the weight of the car and cargo; the center sill transmitted longitudinal pulling and pushing forces. This design eliminated the long-running argument as to which truss system, the Pratt or the Howe, was the best. The Monocoque didn’t use a truss framework in the walls, only the uprights.

Features such as ends, doors and roofs were left up to the railroads. At least five roofs were used—the new raised-panel roof, an ARA lap-seam style, a Pullman-built version of the Pennsylvania X-29, a radial and a Viking design. Ends ranged from the 4/4 and higher 4/5 Dreadnaught ends, the old riveted flat-steel plate of the Pennsylvania X-29 and the old Murphy 7/8 ribbed end.

The ribbed door design, known as the Youngstown Door was widely used on the ’32 boxcar. There were even some reverse Creco doors.

Atlas has announced that it is coming out with a 1932 R-T-R boxcar model due in July, 2008. It will have two railroad-specific body styles: 1, with long-tabbed sills, Murphy Panel roof and 4/4 Dreadnaught ends and 2, with long-tabbed sills, 11-panel flat riveted roof and flat, riveted ends. MSRP is \$29.95. Atlas did not indicate future releases, but with the variety of roofs, ends, and doors on the prototype, more versions will probably be released.

Picture not available.

1932 Pennsylvania X-31 Round Roof: Inside height increased to 10’0”. Clearances were minimized by the rounded eaves and by lowering the mounting height of the wooden running boards. The grab iron above the side ladders was also recessed. The ends were 4/5 Dreadnaught. Pennsylvania forced acceptance of this increased height boxcar by embargoing any railroad that would not accept it in interchange.

Pennsylvania eventually produced three versions of the round roof cars: X-31a, 40 foot single-door cars, totaling 6,700 and 3,700 double-door versions. X-32a and X-33a fifty foot single-door cars were introduced in 1936. X-32b, with auto racks and double doors plus X-33b with auto racks, double-doors and end doors were produced in 1936-37. Total production of fifty-foot cars was 2,110.

These cars were not widely copied, but roads which had a financial connection to the Pennsylvania acquired some of the cars. Detroit, Toledo & Ironton obtained forty and fifty foot cars, some of which were sold to Northern Pacific in the late forties. Norfolk & Western received substantially more than DT&I and 1287 forty foot cars and 296 fifty foot cars remained in 1948. The Virginian received 25 fifty foot cars and Seaboard purchased cars similar to the Pennsylvania round roof.

Other roads to acquire the round roof cars via the second hand market were Wabash, Detroit & Mackinac and Tennessee, Alabama & Georgia. In 1950-1955, any of these might be found in trains in the Panhandle of Texas. Many of the 40 foot and 50 foot versions of the round roof cars in several road names are available from Bowser.

Picture not available.

1936-'37 B & O Railroad used the ends and underframes of 1290 USRA wood-sheathed M-15 Boxcars to build 1240 Class M-15K Wagon-top Boxcars and 50 Class M-15L Wagon-top Automobile Boxcars. Soon after these conversions were completed, 2000 Class M-53 Wagon-top boxcars were constructed new. In February and August, 1941, 1000 slightly heavier M-53A were constructed. Both the M-53 and the M-53A were fitted with the Duryea Underframes. Inside height was 10'0", inside width was 9'2" and inside length was 40'6". All of the M-53 series originally had single-plate steel ends and doors. As time passed, many of the single-plate doors were replaced with Youngstown corrugated doors.

In the 1950s, the old underframes of the M-15 series reached the age of 40 years and could no longer be interchanged. The B&O then had 1,000 serviceable steel cars that could not be interchanged. Back to the shops they went, to have new underframes and doors installed. They became the M-15 N & P series and lasted through the 1970s.

All Wagon-tops were painted Oxide red until December 1939 when 25 Class M-53 cars were re-classified C-16, equipped for passenger service and painted B & O Coach Green. An additional 100 M-53 were converted to C-16 soon after. All C-16 class were eventually returned to regular freight service, steam pipes removed and repainted oxide red with white lettering.

The M-15 and M-53 series are distinctive cars, but less than 5,000 were built. It will not take but one or two of these cars to make an impression on the viewer. A styrene kit is not available, but a resin kit from Sunshine Models is available. Articles have appeared on scratch-building one of these cars by making a wood core and gluing sheet styrene around it. The flat steel ends and doors are easily reproduced. The ribs can be formed from plastic strips. Plans appeared in *Mainline Modeler*, November 1982, pg 26-27.

Picture not available.

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1937 AAR Double Sheathed Steel, 10'0" Inside Height, 9'2" Interior Width. Dreadnaught Ends. The roofs were predominately the new raised panel roof. Early cars had square corners but soon gave way to W-corner posts with rounded ends. Railroads varied the components—Erie, C&O, C&NW, C&EI and NKP substituted Viking roofs, while Erie and C&O substituted their Deco and Buckeye ends. The EJ&E was an early user of 8' doors, while the Central of Georgia used a door and a half to span a 10' opening. Railroads in the Pacific Northwest substituted a channel steel side frame and wood outside sheathing.

The 1937 car became the first broadly accepted and universally seen boxcar of the pre- and post-WWII era. It was rare for any railroad not to have some of these cars by 1950. Models of these cars are produced by Intermountain, Red Caboose, CB&T and Branchline. Separate 40' Viking roofs are available from Des Plaines Hobbies.



10'0" interior height 1937 Erie boxcar with a Viking roof installed. Viking roofs are available from Des Plaines Hobbies in 40' lengths. They may be cut and spliced to form 50' roofs

1939-40 Milwaukee Road welded rib-sided boxcar. Dimensionally similar to the AAR Modified '37 boxcar with inside height of 10'6", 40'6" inside length, 6' doors, 3898 cubic feet and 42,600 lbs light weight. A new company, Rib Side Cars, makes models of various configurations of this car. The model has separate ladders and grab-irons, but a rudimentary underframe.



A Ribside Car Company Milwaukee Road rib-sided. This model has had A-Line metal stirrup steps and brackett grabirons from Red Caboose installed.

1941 AAR Double-Sheathed Steel, 10'6" Inside Height Modified '37 boxcar with 5/5 Dreadnaught ends. The CB&Q built 16,205 of these cars over a nineteen-year period for itself and its subsidiaries, C&S and FW&D. It was the first all-steel car on the Burlington Route. 2,000 Santa Fe class Bx-37, built by Pullman, used this design.



A 1941 Modified '37 boxcar with a raised panel roof, 5/5 Dreadnaught ends and a 10'4" inside height.

1944 Same dimensions as Modified '37 car except had improved Dreadnaught ends and a diagonal panel roof. These cars, because the improved Dreadnaught ribs were wider than the original Dreadnaughts, used a 4/4 end arrangement.. On some of the cars, the top rib was rectangular. The CB&Q version was classified XM-32A and 255 were the first when built in 1945. Santa Fe class Bx-44, built by Mt. Vernon, Bx-48 and BX-52, built by Pullman, Bx-49, Bx-50 and Bx-53, built by ATSF, and BX-51, built by GATC, totaled 5,000 of this design owned by the Santa Fe.



A 1944 Modified '37 Boxcar with 4/4 Improved Dreadnaught ends, a diagonal panel roof and an inside height of 10'4"

1947 Pullman PS-1 Welded Version of AAR 10'6" Pullman roof with impressed "bowtie" stiffeners on each panel, and Pullman ends consisting of 4/5 corrugations. The design was so successful that it continued in production until 1963. 500 Santa Fe class Bx-57, built in 1950, used this design.

Kadee has the most detailed and expensive model of the PS-1, but Intermountain, Red Caboose, Branchline and Accurail also have PS-1 models. Accurail's is for the early model of the PS-1, with

flat roof panels next to each end, but it has the late version ends with the six squares impressed in the top center. The Accurail car has molded-on grab irons and ladders.

1949 ACF Welded version of AAR 10'6" Corrugated Ends. 500 Santa Fe class Bx-59, built by AC&F in 1950-51, utilized this design



A Kadee PS-1 with bowtie stiffeners embossed in the roof panels, PS-1 corrugated ends and an inside height of 10'6". Some very subtle weathering was applied. Otherwise, the car is stock.



7/8 USRA end



5/5 Dreadnaught end



4/4 Improved Dreadnaught end



PS-1 Corrugated end

1951 AAR 10'6" Light Weight Welded: Designed to use very thin 1/16" thick steel side plates. No prototypes were produced. By this time, the usefulness and production of the 40-foot boxcar had diminished in favor of the fifty-foot and larger boxcars.

What boxcars would we expect in 1950-1955?

A string of post-WWII freight cars would include USRA cars, their rebuilds, the single-sheathed ARA Pratt truss box and the Howe truss "Z"-braced cars, the ARA '32 and various '37 designs, the B&O wagon-top, along with the Milwaukee and Pullman welded designs. Various Pennsylvania models, as produced by Bowser, Red Caboose, Sunshine Models and Westerfield models would be present in significant amounts.

We would find ourselves in the same predicament as all of the subscribers to the Steam Era Freight Cars Group; kits or ready-to-run styrene models of all of the cars mentioned above are not available. However, many of the cars not available in styrene are available as resin kits by Westerfield, Sunshine, Speedwitch and Funaro & Camerlengo. The resin kits, being a different type of kit, take longer to build than a styrene kit; many are on hand, but not built. Hence, they are not available for needed illustrative photographs for this article.

The skill required for building, painting and decaling resin kits is a learned skill. Westerfield has produced an excellent descriptive video available for \$10.00 when purchasing one of his kits. Clinics on constructing these kits might be one of the goals of our organization. At the same time, many members of ARM avoid building an Intermountain styrene kit of a 1937 boxcar because they don't think they can assemble all the small parts. Again, this is a learned skill, and could be the subject of another clinic.

Member Information

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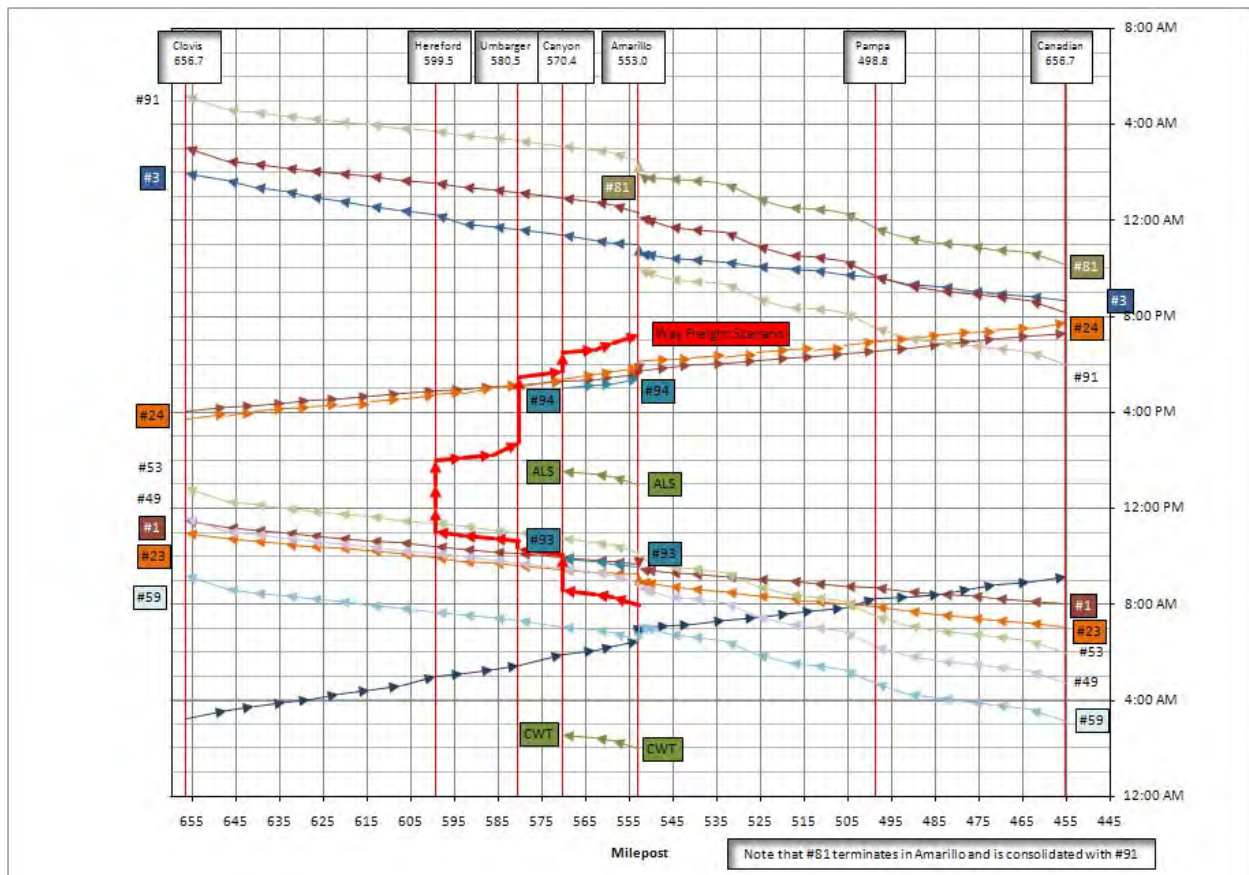


Figure 2—Solution to Problem