



# HOTBOX

"the Un-Magazine of Model Railroading"  
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## MODELING AMTRAK





# HOTBOX

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Please address all renewals, membership applications, address changes and complaints of non-receipt of the TAMR HOTBOX to the TAMR Secretary.

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All other TAMR HOTBOX business, except where specifically noted, is handled by the Editor. Please address all comments to the Editor.

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The TAMR HOTBOX welcomes articles, photographs (B&w only, please), artwork and cartoons pertaining to model and/or prototype railroad subjects. All items for publication must be submitted 30 days before the month of publication. The TAMR HOTBOX assumes that all items are submitted for the mutual benefit and enjoyment of the hobby by our members and thus no payment will be made upon publication.

## Front Cover:

Amtrak #631, a flat-nosed SDP40F recently repainted in Amtrak's newest paint scheme, headed northbound with the Silver Meteor shown here passing through Fort Lauderdale, FL on December 30, 1980. Photo by Mark Kaszniak.

## EXTRA board

All the news that fits, we print:

### MEMBERSHIP

By Dee Gilbert

Total TAMR membership (9-1-84): 124

Breakdown as follows:

Region	Number	Percentage
Canadian	7	5.6%
Central	47	37.9%
International	1	0.9%
Northeastern	38	30.6%
Southern	18	14.5%
Western	13	10.5%

### TAMR Welcomes New Members:

Dan Formanek, Humble, TX  
Blair Tomlin, Combermere, Ontario  
Adam Warner, Waco, TX

### Also, Welcome Back:

Lee Coley, Demopolis, AL  
Dennis Brandt, Pullman, WA

### Notes:

Michael Patrick has suggested at a change is needed on our application blanks in the modeling era section. Since most members are modeling in the 1950 to present era, we should be a bit more specific. For example, we might want to change the eras as follows:

1. Pre-1930 (steam)
2. 1930-1945 (modern steam)
3. 1945-1960 (transition)
4. 1960-1970 (first generation)
5. 1970-present (second generation)
6. No set time period (freelance)

Or, on the other hand, why could just ask for "approximate year modeled?" The year could then be listed in the Directory as '58' for 1958 or '80' for 1980. The prefix '18' would be added for those modelers of the 1800's. We agree that a change is needed, what system would you like to see in the Directory? Please voice your preference and the change implemented will be based upon the majority. However, please note that it may take some time to introduce this change as it will be incorporated on our application blanks when new ones are run off and since we just had a batch printed, that will be some time from now.

# On Modeling the Pointless Arrow



The proliferation of Amtrak models flooding the market leads us to believe that there is a growing interest in modeling our nation's passenger hauler. Undoubtly, many teens will be interested in modeling Amtrak trains simply because these are the types of passenger trains with which they are most familiar. Thus the purpose of this article is to provide important information that can be used for modeling a credible Amtrak train. Now we realize that several of the commerical model magazines have touched upon this subject recently. While we are not trying to duplicate their efforts, we hope to pass along some information that will make modeling your Amtrak train easier.

One of the most important things to consider when selecting an Amtrak train for your pike is the era of your railroad. Since its formation on May 1, 1971, Amtrak has undergone several almost total equipment changes. While these changes overlap one another, Amtrak equipment has progressed through four distinct phases with a fifth possibly on the horizon.

The first phase began with the inception of Amtrak and lasted till approximately the middle of 1973. To understand this phase, one must remember that when Amtrak started, it did not have any equipment of its own. So the passenger carrier purchased cars and locomotives from the railroads that had decided to join the system. The incentive for joining was that those roads that did could drop their existing intercity passenger service (on which they were losing lots of money) and run only Amtrak designated trains over their rails (for which Amtrak pays the cost of providing the service and reasonable terminal costs plus 5%). Twenty railroads decided to take advantage of this offer and they were: AT&SF, B&O, BN, C&O, C&NW, C of G, CMSP&P, D&H, GM&O, GTW, IC, L&N, MoPac, N&W, NWP, PC, RF&P, SCL, SP and UP. The five most notable holdouts who decided to go it on their own and continue to run their own passenger trains were the ~~DRGW~~, Georgia RR, Southern, Reading and Rock Island. Of these five, the DRGW and Southern later joined Amtrak (1983 and 1979, respectively).

Note: The Amtrak logo is a registered trademark of the National Railroad Passenger Corporation (Amtrak).

the Reading became part of Conrail in 1976, the Rock Island ceased passenger operations at the end of 1978 and the Georgia RR mixed trains were discontinued in 1983.

Thus from those who had decided to join the Amtrak system, Amtrak purchased locomotives and cars. F units (F7A's, FP7A's, F7B's and F3B's) came from the AT&SF, BN and SP. E units (E8's and E9's) came from the UP, IC, Milw. Road, B&O, PC and SCL. FL9's, RS3's and GG-1's plus the Metroliners came from the PC. Most of the passenger cars were purchased from the AT&SF, BN, SP, UP, PC and SCL. At the start of operations little concern was paid to repainting or matching consists so Amtrak trains were often made up of cars from a variety of the railroads who joined the system. One can readily see why this phase of Amtrak history has been called the "Rainbow Era." However, it should be remembered that all the equipment that Amtrak purchased was of post World War II vintage and steam heated with much it having already served a number of years in passenger service.

Phase two of Amtrak's history began with the purchase of some new equipment and the repainting of the old. One is tempted to dub this phase as the "image making" era of Amtrak. Amtrak was acutely aware of its rapidly aging equipment and decided it was time to purchase something new. As passenger cars had not been built in the U.S. since the mid-1950's, a new design would have to be developed before an order could be placed. Meanwhile Amtrak turned its attention to locomotives. Fortunately the corporation fared better here since locomotive technology had kept up with the times. On 11/2/72, Amtrak placed an order for 40 new SDP40F's from EMD. In June of 1973, the first of these locomotives began service on the Super Chief (now the SW Ltd). Over the next two years a total of 150 of these locomotives would be purchased and for awhile it looked like they would become the mainstay of Amtrak's diesel locomotive fleet. However, soon the number of derailments started to mount up. The problem with the SDP40F was that it was too heavy for most railroads' curves. Its weight would force the outside rail enough to widen the gauge resulting in a derailment. (cont'd on page 6)

# The Amtrak Era, so far...

## 1971

5/1/71 Amtrak takes over U.S. rail passenger service  
6/14/71 North Coast Hiawatha added to the system  
11/4/71 First successful 403(b) train added: Chicago to Quincy, Illinois Zephyr

## 1973

1/27/73 Inter-American added to the system  
6/19/73 First SDP40F's enter service on Chicago - Los Angeles, Super Chief  
10/73 French built Turboliners enter Chicago - St. Louis service

## 1974

2/74 RDC's appear in Midwest on Chicago - Dubuque, Blackhawk  
6/21/74 Six French built Turboliners purchased

## 1975

4/1/75 Amtrak purchases Beach Grove shops  
7/75 P30CH's begin to arrive  
8/7/75 First Amfleet I cars begin operation on Northeast Corridor  
10/31/75 Lake Shore Limited added to the system  
11/24/75 First E60CP electrics received

## 1976

1/6/76 Amtrak buys the Northeast Corridor  
2/76 RDC's taken off Blackhawk, but still operate in Connecticut  
4/76 Amfleet I debuts in Midwest  
4/9/76 First F40PH's placed in service allowing F units to be retired  
9/20/76 Rohr Turboliners enter New York state service

## 1977

3/30/77 Conversion of first 40 SDP40F's to F40PHR's begins  
5/26/77 Conversion of steam heated equipment to HEP electric begins  
6/9/77 Amfleet I order completed

## 1978

4/1/78 In Canada, VIA Rail is established  
10/27/78 First Superliner car arrives  
12/31/78 Last runs for Rock Island's Rockets

## 1979

2/1/79 Southern Railway joins Amtrak thus adding the Crescent to the system  
2/26/79 Superliners enter revenue service in Midwest  
10/1/79 Massacre of '79: National Ltd., Floridian, North Coast Hiawatha, Lone Star, Champion and Hilltopper dropped from timetable.  
HEP equipment assigned to the Lake Shore Limited  
10/15/79 Empire Builder converted to Superliners  
10/28/79

## 1980

2/1/80 United Aircraft Turboliners retired  
2/27/80 First Amfleet II cars ordered  
3/80 Amtrak debuts new paint scheme; uniform stripes of red, white and blue begin showing up on all of Amtrak's equipment  
4/80 Broadway Limited becomes all electric (HEP)  
5/9/80 AEM7's debut on Northeast Corridor  
7/3/80 All 102 Superliner coaches received  
9/80 Crescent converted to HEP, San Francisco Zephyr goes Superliner  
11/30/80 Last steam-heated equipment in Chicago  
12/80 Budd SPV2000's begin to replace RDC's in Connecticut

(continued next page)

The Amtrak Era, so far... (continued from last page)

## 1981

1/6/81 First "Sightseer" Superliner cars appear on San Francisco Zephyr  
1/28/81 Steam-heated domes disappear from Amtrak trains  
4/30/81 Auto-Train Corp. makes last run  
5/1/81 Amtrak celebrates 10th anniversary  
7/81 Superliner order completed; last car named "George M. Pullman"  
9/8/81 French Turboliners retired  
11/11/81 Amfleet II unveiled

## 1982

3/9/82 Conversion to HEP complete, all electric operation on Amtrak. All E units retired save for HEP converted units serving Boston - Washington DC Night Owl  
10/31/82 International Limited, Chicago - Toronto train added to Amtrak system. VIA LRC's start showing up in Midwest

## 1983

3/21/83 HEP domes appear on Capitol Limited  
4/24/83 Rio Grande joins Amtrak; tri-weekly Rio Grande Zephyr replaced with daily California Zephyr Amtrak train.  
5/83 Amfleet II order completed  
5/6/83 Georgia RR mixeds discontinued  
10/30/83 Amtrak starts up Auto-Train service between Lorton, VA and Sanford, FL

ALL TIME

## Amtrak Locomotive Roster\*

Number	Unit	Builder
10-20	RDC-1	Budd
30-32/34-36	RDC-2	Budd
27,28	Roger Williams	Budd
	cab cars	
100-144	RS3 (Mofw)	Alco
100-107	F7A	EMD
110-123	FP7A	EMD
150-154	F7B	EMD
155-156	F3b	EMD
160-164	F7B	EMD
200-229	F40PH, Phase I	EMD
230-328	F40PH, Phase II	EMD
329-390	F40PH, Phase III	EMD
200-352	E8A	EMD
370-374	E8B	EMD
400-436	E9A	EMD
450-472	E9B	EMD
480-491	FL9	EMD
500-649	SDP40F	EMD
700-724	P30CH	GE
730-745	SW1	EMD
760-763	GP9	EMD
900-929	GG1	GE
950-975	E60CP	GE
900-954	AEM7	ASEA/EMD
988-999	SPV 2000	Budd

\* Due to scrapping of old units and conversions, there are some number series duplications

Amtrak (cont'd from page 3)

One solution to the derailment problem was to restrict their speed on curves, but for Amtrak this could only be a temporary measure seeing as the railroad had to effectively compete with the nation's airlines and buses. Thus the SDP40F's remained until the newer F40PH's proved their worth.

New electric locomotives were also needed to replace the aging GG-1's on the Northeast Corridor, so on 3/26/73 Amtrak placed an order with GE for 15 E60CP's. After extensive testing, the first two units were accepted by Amtrak in November of 1975. Yet Amtrak did not limit its search for new equipment to the American marketplace. In August of 1973, Amtrak debuted a five car Turbo-train made by ANF of France and painted in Amtrak colors. As a result of its popularity, Amtrak bought it and five others for use in the Chicago area. These Turbos remained in service until 1979 when they were retired. One of the reasons cited for taking them out of service was their lack of flexibility. Each Turbo-train is always a five car set and thus it can not be adjusted to variations in traffic demand.

Encouraged by the apparent success of the ANF Turbos, Amtrak decided that more Turbos were needed. So on 7/26/74, seven, five car sets of "Americanized" Turbos were ordered from the Rohr Corporation of Chula Vista, CA. The first of these entered service of 9/20/76 and they run to this day, as they always have, exclusively in New York state. One of the reasons why the Turbo-trains remain in fixed areas is that they require special servicing facilities. The ANF Turbos when running were serviced out of the Brighton Park shops in Chicago while the Rohr Turbos are serviced in Albany, NY. Reviews of these new Turbos are mixed. One hand they are reliable, capable of speeds over 100 mph and have comfortable seats and large viewing windows. On the other, their fuel consumption is high, their semi-fixed consists cannot accommodate variations in traffic demand and Rohr is no longer in the railroad business.

The third phase of Amtrak's history can be called the "steam to electric transition" era. This began with the delivery of the first Amfleet cars and continued until March of 1982. An order was placed with the Budd Co. on 10/12/73 for 57 Amfleet cars. On 8/7/75, the first of these cars began operating on the Northeast Corridor. These 85 foot cars are built in four configurations and Amtrak has 492: 361 coaches, 54 cafe cars, 37 dinettes and 40 club cars.

Yet the unique feature of the Amfleet cars, and all subsequent car orders by Amtrak, is that they are electrically powered. When trains were pulled by steam locomotives, some of the steam was sent down through the train to heat the cars, provide hot water for the Pullmans and energy to run the air conditioners. As railroads converted to diesel, steam generators were placed in engines to feed the steam lines on the cars. This is one reason why passenger locomotives are normally longer than freight locomotives. Of course, steam lines have their problems as they tend to freeze and burst, especially in the winter. So Amtrak decided to break with tradition and order all electric cars which promise to run more reliably.

However, the Amfleet cars were designed primarily for short hauls and Amtrak was also looking for a way to upgrade its long distance trains as well. So a new double-deck electric car was developed patterned along the lines of the Santa Fe's El Captain high level cars. On 4/2/75, 235 of these new cars--to be called Superliners--were ordered from Pullman-Standard. The first of these Superliners entered revenue service in the Midwest in February of 1979. Over the next couple of years, a majority of Amtrak's western runs have been converted to Superliners. Superliners do not travel farther east than Chicago or New Orleans because of tight curves and low tunnel clearances. The one exception to this rule is that Superliners are sometimes operated to Indianapolis on the Hoosier State, but this is usually to gain access to Amtrak's Beach Grove shops.

In order to run these new cars, Amtrak needed new locomotives with electric generators. So on 6/24/74, Amtrak placed an order with GE for 25 P30CH locomotives. In July of 1975, the first of these locomotives went into service. Then 39 F40PH locomotives were ordered from EMD on 5/8/75. In April of 1976, the first of these units began operation. At first the F40PH was only to play a limited role in Amtrak's motive power fleet as it was designated as new power for short and medium hauls and fitted with a 1500 gallon fuel tank. Then the problems with the SDP40F's surfaced and the F40PH was redesigned to accommodate an 1800 gallon fuel tank and a larger electric generator. With the arrival of these newer units, the fate of the SDP40F's was sealed. At last Amtrak had found a locomotive which would become the workhorse of the system.

Many modelers believe that all SDP40F's and F40PH's are the same; however, this is not true. Besides having different paint schemes, which we will talk about later, there are also design differences

Amtrak (cont'd from page 6)

in these locomotives. For example, the first batch of SDP40F's (no's 500-539) have pointed noses and high cooling fan housings. Also the four air horns are mounted on a single centered bracket and the engineer side doors are not opposite one another. The second and third batches of SDP40F's (no's 540-579 and 580-649) have a flat nose and paired horn placement. In addition, no's 600-601 had "ghetto grills" affixed over the cab windows for operation between Boston and New Haven.

As for the F40PH, there are three distinct variations or "phases." Phase I are numbered 200-229. These units have rear mounted 1500 gallon fuel tanks and cross-slung reservoirs and batteries. They also have Nathan P12345A air horns. Phase II F40PH's are numbered in the 230-328 series. These units have forward mounted 1800 gallon fuel tanks and K5LA air horns. Numbers 329-390 make up the Phase III F40PH's and they have inclined bolster trucks, EPA mandated "Q" fans plus the small ventilated access panel forward of the dynamic brakes has double instead of single louvers. To still further complicate the matter, in 1977, Amtrak traded in 40 SDP40F's to EMD to make additional F40PH's. Although these units (no's 230-269) are the same as other Phase II F40PH units, they are designated by Amtrak as F40PHR's and the number of the donated SDP40F is stenciled under the cab window. Incidentally, most of the SDP40F's traded in were in the 540 to 590 number series.

The fourth phase of Amtrak's history might as well be called the "all electric" era. It began on 3/9/82 when Amtrak announced that all equipment had been converted to electric power. The older steam heated equipment had either been converted or retired from service. In May of 1977, Amtrak started to convert 590 of the old steam heated cars to HEP (Head-End Power) which will allow the new locomotives to supply electric power for all heating, air conditioning and lighting. These cars have been designated as "Heritage Fleet" by Amtrak and all the conversions were performed at the Beach Grove, IN shops. In addition, all of Amtrak's E units were retired with the advent of all-electric operations save those converted to HEP which have found a home on the Boston-Washington DC Night Owl. Most SDP40F's were also retired, but at least two are based out of Amtrak's 18th street engine facilities in Chicago and are primarily used in work train service. Most of the P30CH's are also currently in storage with only nine in operation. They normally hold down the assignments on Amtrak's Los Angeles -

New Orleans Sunset Limited.

Therefore, the type of Amtrak train you decide to model can help to effectively establish the time period in which you are modeling. In the centerspread of this issue, you will find a short chronology of Amtrak history and an all-time Amtrak locomotive roster. We urge you to use these as guides in determining the type of Amtrak equipment that would be appropriate for your layout. While the chronology is by no means complete, it does contain most of the major highlights from Amtrak's history. To show how this can be used, let us take a specific example: Suppose you are modeling a portion of the ICG mainline from Chicago to Dubuque, IA and have decided to adopt a 1975 reference frame for your layout. What would be the most appropriate equipment for the Blackhawk during this period. At look at the chronology shows that between 1974 and 1976, RDC's were used for that train. Since RDC's were used only for a short time in the Midwest, you have effectively developed a specific time period for your pike. Yet let's suppose you don't want to narrow down your time period that closely. So you decide to run conventional steam heated equipment painted in Amtrak's blunt arrow scheme pulled by E units and SDP40F's. Trains of this type ran between late 1972 and the late 1970's depending on what area of the country you model. The Florida trains were the last to be converted to HEP. Thus those types of trains on your layout would effectively place your era in the mid-1970's. Running F40PH's and Amfleet dates your layout to the mid to late 1970's. If you have Superliners with the Amfleet, the era changes to the late 1970's to early 1980's.

It is important to remember that what we are talking about here is what was common during a particular period. You can pick a period where a variety of different Amtrak equipment was available. For example, if you decide to base your layout era in the mid-1970's you can have E units, SDP40F's, F40PH's and P30CH's running with both steam heated and electric equipment. Yet you must remember that such a situation only lasted for a short period and you can not go too far without stretching things.

Finally, one must remember that F's, E's and SDP40F's normally ran with steam heated equipment and F40PH's and P30CH's normally run with electric equipment. The two could be mixed, but special steam heater cars or HEP cars would have to be included in the consist. Also remember that Heritage Fleet equipment has Amtrak's latest paint scheme of three equal red, white and blue stripes. If you model Amtrak trains correctly, they can help to establish an era for your railroad.



# HOTBOX Articles

The smooth, continuous, quality publication of the TAMR HOTBOX depends on Y-O-U. All of the articles that appear in these pages are written by TAMR members. This means our members are a very important source of information. The HOTBOX is the only national magazine which provides a measure of teenage modelers' interests and concerns. Thus your ideas and opinions are always welcomed because the HOTBOX is dedicated to serving your interests and solving your problems. Many readers ask: "What do I have to do to get something published in the HOTBOX?" In order to make both your and my job easier, here are some guidelines and suggestions to follow:

STYLE?, CONTENT? Your own writing style is fine by us; remember, you're among friends. Grammar trouble? Let the editor worry about that. The ideas are what is important. As for content, anything on modeling, using the prototype as a basis for modeling or prototype operations is welcomed. Just be sure that it is interesting to all our readers. If not, at least some of them are bound to like it.

TYPED ARTICLES? Although not required, save the Editor the cost of a seeing eye dog. HOTBOX columns are 40 spaces wide, so set your margins. If you can't type, don't let that bother you, simply print the article out in long hand.

PHOTOGRAPHS: Must be black & white only with a glossy finish and no larger than 8x10 inches. Smaller sizes (2x2 or 3x5") are preferred for inclusion in articles and larger sizes (5x7 or 8x10") for our cover. All photos must be accompanied by caption material. Please put this on a separate sheet of paper. Send negatives if you can, so proper size enlargements can be made. All negatives will be returned, photos returned when SSAE is provided.

DRAWINGS: Must be done in black ink (pen, marker or Flair are all fine) on blank white paper (typing paper is good). Required artwork can usually be worked up if detailed pencil sketches are provided. If you are drawing to scale, please include a scale measure with the drawing.

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Box 1098  
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PLACE  
POSTAGE  
HERE

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**FIRST CLASS MAIL**

