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# Passenger train consists



Train 17 on Bill Darnaby's HO scale Maumee Route is arranged in typical order to form a believable freelanced consist. It's 1955 but the freight-oriented Maumee is still using heavyweight head-end cars. The baggage-Railway Post Office and two baggage-express cars are followed by two lightweight 52-seat coaches and a lightweight 18-roomette sleeper. *Bill Darnaby photo*

With the many varieties of passenger cars and passenger trains, assembling cars into purposeful and believable consists may seem difficult. There are a few general principles that will help freelance consists make sense, and when you're modeling an actual train you can simply follow the real car arrangement. When you look at the prototype you'll find that there are few hard and fast rules for organizing a train and lots of exceptions. The exceptions can add to the fun when you have a realistic reason to use them on your layout.

## Coaches first?

Remember that the coach is the most basic passenger car. Most trains will have one or more. An engine with one or two coaches might be an all-stops local train or an off-peak commuter run. The same engine with five or more coaches could be a rush-hour commuter express or an intercity run between towns an hour or two apart. If you want to put together a special train to a nearby racetrack or ball game, it can be mostly or all coaches.

Though there were and are many examples of trains made up solely of coaches, it's usually more interesting to have other types of cars. It can help to understand how these other cars would be positioned relative to the coaches.

## Head-end cars might seem obvious

As the name implies, if a train is to include baggage, mail, or express cars, they would usually go at the front of the train, between the locomotive and the first coach. Express reefers and box express cars might be ahead of baggage cars to maintain a continuous passage to the rest of the train, but not necessarily. Baggage cars in express service would be sealed anyway, and a working Railway Post Office might have access to a storage mail car or two but otherwise would be closed off from the train. Since all the cars have steam and air-signal lines in addition to the train-line air brake pipe, there's no mechanical reason that they can't be in almost any order. (Railway Mail Service contracts usually specified the position and orientation of RPO cars, but these preferences varied a lot on different trains.)

The so-called head-end car or cars might be at the rear of the train. One reason for this could be a terminal where it's inconvenient to turn the whole consist. The railroad would run the loco-



Union Pacific train 3, the Omaha-Los Angeles *Utahn* (on the Santa Fe near Victorville, Calif., on May 30, 1950), shows the typical arrangement of a passenger train consist. The four head-end cars behind the Alco diesels include a former Railway Post Office used for storage mail, two baggage-express cars, and baggage-RPO. Then come two coaches; a dining car; a club-lounge-dormitory car; a 6-section, 6-roomette, 4-bedroom lightweight sleeper; and a 12-section, 1-drawing room heavyweight sleeper. The coaches and the 6-6-4 sleeper are through cars from St. Louis via the joint Wabash-UP *City of St. Louis*. *Don Sims photo*



The starting point for most passenger train consists is the coach, the most basic passenger car. This and the next six photos will show a train built with Pennsylvania RR cars, starting with a Bachmann HO model of a PRR P70 coach. *Andy Sperandio photo*

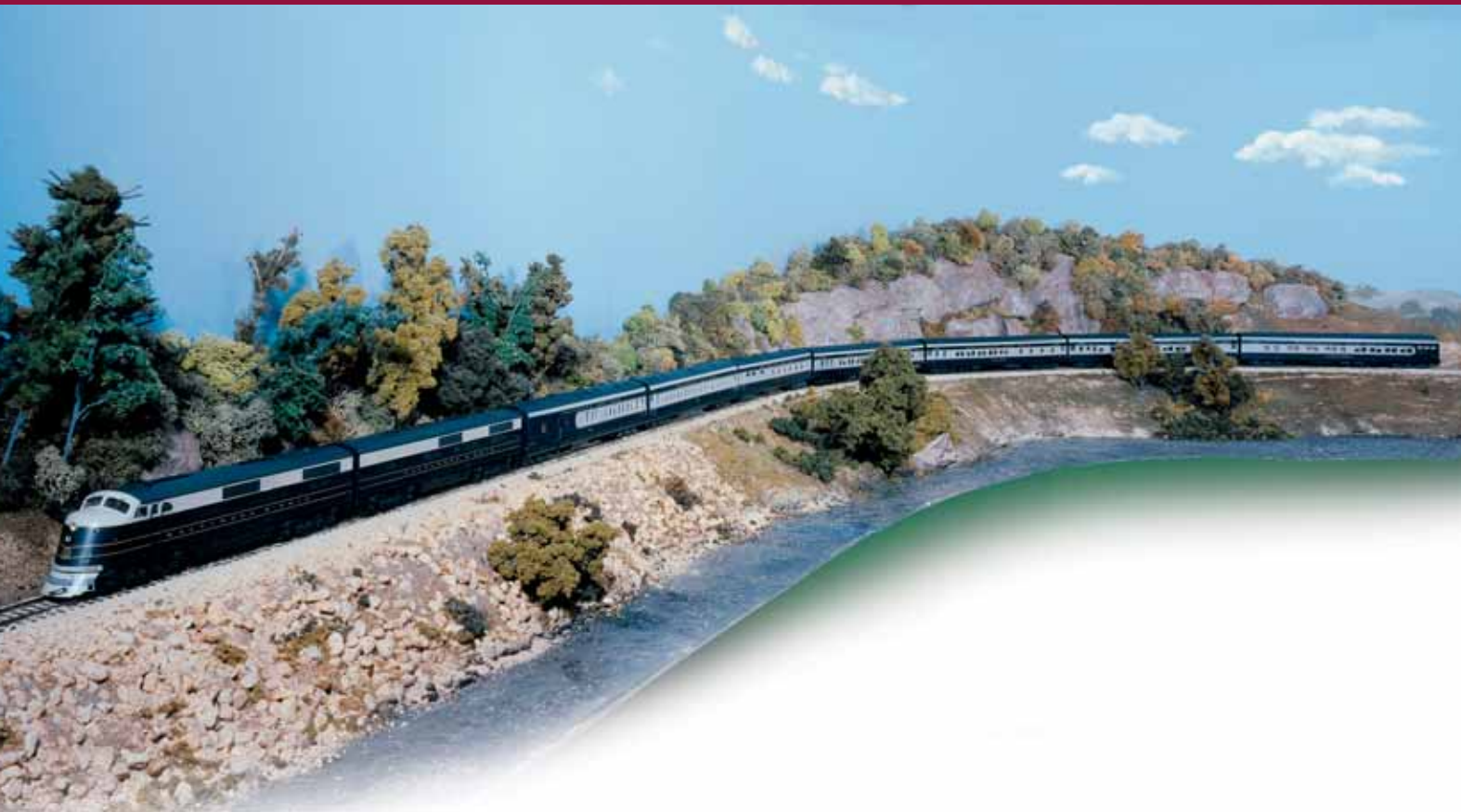
motive around to the other end of the train, only turning the engine if it's a steamer or single-ended diesel, and leave the train as it is. This became more common during the decline of passenger trains in the late 1950s and 1960s, but wasn't unknown in earlier times.

Another reason could be switching en route. Many Amtrak trains leaving Chicago Union Station used to stop at the nearby coach yard to have express cars coupled on to their rear ends. Some of these trains also set out and picked up express cars along their runs, and the switching

could be handled from the rear without interrupting the HEP connections from the locomotive through the passenger cars.

Another exception sometimes seen is a coach, sleeper, or other passenger car mixed in among a group of head-end cars at the front of a train. Usually that's a case of "deadheading," moving a car or cars out of service to some other point where needed or to a car shop for repair or refurbishing. Some railroads called these "DHQ" movements, the abbreviation standing for "deadhead equipment."

# Prototype consists



Bob Chapman built this HO model of the Baltimore & Ohio's *National Limited* streamliner by kitbashing Rivarossi and Bachmann cars to represent the B&O's modernized heavyweights. Since his aim was to duplicate the prototype consist, he knew exactly which cars to model and how to arrange them in the train. He described the project in the March and April 2002 issues of *Model Railroader* magazine. *Model Railroader* photo by Bill Zuback

When you can find consists for prototype trains you want to model, you don't have to guess. You can arrange your cars in the same order as the actual train and enjoy running a realistic replica of that prototype. Because they operated as scheduled services with specific equipment, we can model the consists of passenger trains with much greater accuracy than we can usually manage for freight trains. And the setouts, pickups, and connections indicated in prototype consists show how en route switching allowed some passenger and mail trains to serve cities and towns far beyond their core routes.

I've gathered some examples of prototype consists so you can see how trains are typically put together. Some of them, at least, demonstrate the guidelines for assembling consists suggested in Chapter Three.

## Espee's Coaster

The first example (on page 62) is a secondary overnight train from the late 1940s, the Southern Pacific's *Coaster* between San Francisco and Los Angeles via its Coast Line route. First note that it follows the classic formation of head-end cars, coaches, diner, sleepers, and observation.

The source listed on page 62 specifies that even though the all-heavyweight consist was mostly the railroad's standard Dark Olive, and Pullman Green on the sleepers, a couple head-end cars were

carrying the colors of SP streamliners. The SP was notable for having three different streamliner paint schemes in service by 1946, including *City Streamliner* yellow and gray, *Daylight* red and orange, and *Cascade/Lark* two-tone gray (similar to Pullman's two-tone gray). Espee would soon add two variations on red and silver with its *Golden State* and *Sunset Limited* streamliners. Even at this fairly early date the streamliner colors were appearing on heavyweight cars and spilling over onto unstreamlined services.

The *Coaster's* tourist Pullmans represent a form of economy service begun in the Great Depression year 1934. Using older cars with all-section floor plans – in some cases converted from other configurations – budget-conscious travelers were offered sleeping accommodations at rates in between standard Pullman service and coach travel.

By the late 1940s, however, the public saw both heavyweight cars and open sections as outdated, and tourist Pullman service after World War II was short-lived.

## Modeling opportunities

### Concentrate on featured cars to economize your modeling time (and budget).

If every car of a favorite consist isn't available off the shelf, put your efforts into modeling the distinctive or featured cars that define the train's identity. (Or look for brass models of those cars if they've ever been made.) You can fill out the train with more generic stand-in models and still put together a recognizable consist.

### Cut duplicate cars for layout-size consists.

When the prototype train you want to model is so long that it would overpower your layout, omit some or all duplicates of basic baggage cars, coaches, and sleeping cars. Keep the train's featured cars, such as lounges, observations, diners, and domes, as they help to establish its distinctive identity.

### Look for modeling and operating interest in secondary trains.

Your favorite railroad's flagship streamliner gets most of the publicity, but there may be more modeling fun in an accommodation or mail train. Mixtures of heavyweight and lightweight equipment, cars to and from connecting railroads, and online passenger-train switching may all be easier to find a step or two down the timetable.

**Think about modeling the Sixties.** The 1960s were a decade of decline in rail passenger travel, but that doesn't mean they weren't interesting times for passenger train modelers. In some



Budd tavern-lounge-observations acquired secondhand from the New York Central were the most distinctive cars on Kansas City Southern trains 9 and 10. When Andy modeled one of these four-car New Orleans-Shreveport streamliners for a *Model Railroader* article, he thought a reasonably prototypical observation car was the most important part of the project. That made it worthwhile to kitbash the HO scale car shown above from a Con-Cor Budd dome-observation, but today he'd only have to add KCS lettering to the Walther's NYC tavern-lounge-observation shown in Chapter Two. *Model Railroader* photo by A.L. Schmidt

cases, consists shrank to more easily modeled "pike-size" proportions. As railroads consolidated their services into fewer trains, the remaining trains often did more extensive switching en route to maintain connections. Passenger-train consists sometimes included container or piggyback cars for more efficient handling of mail and express or just to earn some additional

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