

STEEL WHEELS

PASSENGER RAIL IN CALIFORNIA AND THE WEST

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President's Commentary

Steve Roberts

Welcome to the Fall E-Edition of Steel Wheels. This edition includes articles about the status of Caltrans state owned equipment, an article by Brian Yanity on a proposed California Rail Authority, Part One of Planes vs. Trains by Brian Yanity, hybrid diesel locomotives, a new technology appearing on the market, and finally "From the Rear Platform" by Paul Dyson. I hope you find it informative.

This edition's cover is a little far afield. It is the *Heartland Flyer*. I wanted to highlight this service because over the years it has led a "Perils of Pauline" existence, almost discontinued on numerous occasions, despite its vital service and strong ridership. 2026-2027 seemed to be another repeat with the Texas Legislature adjourning without providing funding. Oklahoma funding seemed at risk as well. Then ("Perils of Pauline"), with the North Texas Council of Governments coordinating with TexDOT, the Texas Transportation Commission is transferring \$4.2 million in funding from other accounts through next year to operate the route until the Texas Legislature reconvenes and considers funding in future years.

The next chapter is very interesting. In the recent Federal-State partnership awards, Texas received over \$800 million for grade separations. Some of the grade separation awards (and one in Oklahoma as well) are on the *Heartland Flyer* route and were awarded "contingent on the continued operation of the service." Someone decided to leverage the Texas Legislature.

While many of the recent Federal-State Partnership awards were for state-of-good repair projects, others focused on improving existing rail service or making it safer. However, several others are of note. Amtrak received several significant awards and was a co-sponsor (along with states or freight railroads) for several others. The largest Amtrak award was for \$2.05 billion for fleet and facilities expansion, specifically the acquisition of forty-three trainsets and supporting facilities for state funded corridors. The number of trainsets purchased with this grant would seem to lay the foundation for additional state corridor frequencies and new routes since the number of cars appears to exceed the number of non-Venture cars currently in operation.

Another Amtrak award (\$572 million) was for the design and construction of a new maintenance facility in Chicago. This new facility, to be built at the location of Union Pacific's Canal St. yard, will be long and linear allowing the construction of long train maintenance buildings able to service road-length trains intact. This will eliminate the need to switch out cars needing minor repairs. A separate grant (\$87 million) will repair all the viaducts and bridges associated with the Canal St. yard. These two grants will free up land occupied by the current maintenance facility for a landing footprint for Amtrak's proposed St. Charles Airline direct connection

<https://www.trains.com/pro/maintenance-of-way/amtrak-unveils-infrastructure-plan-to-transform-chicago-operations/> and for property development (a new downtown city ballpark for

the White Sox has been mentioned). A third grant (\$37.3 million) is for the rehabilitation of the bridge, used by dozens of Amtrak trains daily, over the Chicago River just south of Chicago Union Station.

Brightline Florida was another major recipient with two grants – one for a new station at Cocoa (\$57.5 Million) and \$79 million for a double track replacement bridge over the St. Lucie River. The current bridge is the only single-track segment of the Florida East Coast RR south of Cocoa, requires lifting for all boat traffic and is 100 years old. The station at Cocoa also serves Port Canaveral, a major cruise port and the home port for all Disney Cruises. Both of these investments underpin future revenue growth and represent a strong show of support for Brightline's restructuring efforts.

I also took note of several grants on long-distance routes to improve reliability or deal with bottlenecks created by passenger train operations. These grants were: rockfall mitigation investments and grade crossing analysis on UP's route of the California Zephyr in Colorado. On the BNSF in Nebraska and Iowa, also on the route of the CZ, there are replacement of life-expired turnouts, switch heaters, and hot air blowers. At Havre, MT, on the route of the *Empire Builder*, six miles of double track, access roads, support tracks, and direct-to-locomotive fueling will be constructed to improve the mid-route servicing of the *Empire Builder* at this important location. This will eliminate conflicts with freight trains. On the CSX in Florence, SC a \$39.5 million grant is rebuilding 31 miles of second track and a station siding to minimize conflicts between freight trains and Silver Service trains. One final note, a major part of this grant phase was CAHSR funding that was clawed back by the Administration. The result is that the HSR funding will not be tied up in court for three years, instead will be constructing rail infrastructure.

Expanded passenger rail service is expected to begin in November when the second *Pennsylvanian* between New York – Philadelphia – Pittsburgh commences operation. The current *Pennsylvanian* has been a strong performer. The second *Pennsylvanian* should also be a strong performer offering an alternative schedule option and ridership boosted as a result of high gas prices, the crowded Turnpike, only three Greyhound schedules across the state and limited intrastate air service. Regarding route expansion, Rob Gleason, Amtrak Board member, will chair the Board's system expansion committee for both expanded state funded corridor routes and long-distance routes.

As it stands now, the proposed budget for Amtrak for FY27 is similar to its FY26 budget and will provide sufficient funds to operate all services, maintain equipment, and provide some capital dollars. The big threat for rail service is the current proposal for the new Surface Transportation Bill to replace the expiring Surface Transportation bill (the IIJA). In the proposed legislation rail and transit investment is deprioritized, the new bill is basically a highway bill. While there are some yearly authorizations for Amtrak capital, these must be appropriated by Congress each year. In other words, a return to "Stop and Go" funding. One key feature of the IIJA was not only yearly authorizations for Amtrak capital (never fully appropriated) but advanced appropriations. Advanced Appropriations allowing Amtrak, its stakeholders (states), manufacturers, and their supply chains to invest and plan for a multi-year investment program. The planning and early foundational investments enabled by Advanced Appropriations are critical for the implementation of any new long-distance route.

It is critical that you contact your Representative and indicate that the new Surface Transportation legislation include Advance Appropriations for intercity rail.

Turning to the Union Pacific – Norfolk Southern merger, there were some developments since the last issue of Steel Wheels. On July 27th Union Pacific submitted the last information requested by the Surface Transportation Board (STB) when it put the merger application in abeyance in May. BNSF, CSX and five major shipper organizations have commented that UP's updated application was inadequate and requested that the STB rejected the application. One key focus of the opposition was UP's Committed Gateway Pricing plan which they say falls short of enhancing competition. One unanswered question opponents highlighted was the UP/NS combination as a trigger for further railroad mergers and the impact of those follow-on mergers on competition.

On August 18th, the STB removed the US/NS merger application from abeyance, formally accepted the application as complete and adopted a schedule for the proceeding. Its acceptance did not indicate any decision on the merger, just that the application was sufficient to begin the merger review. The first date in the proceeding is September 30th when any party who wants to participate in the merger review must file their indication to do so. The STB also indicated that it would rule in the near future on the request by BNSF, CSX and five major shippers to deny the merger application. Final briefs on the merger must be submitted by May 28, 2027.

One major pre-merger agreement was concluded in July. As a result of this agreement Canadian National agreed not to oppose the merger. The agreement that is contingent on the merger gives CN access over UP line from St. Louis to Kansas City and usage of UP's Neff Yard. CN can eventually buy the former Missouri Pacific route and Neff Yard. CN also gains access to certain shippers on the UP and NS and will receive Norfolk Southern's ownership shares in the Kansas City Terminal Railway and the Terminal Railroad Association of St. Louis. The other agreement, which is not contingent of the merger, gives UP trackage rights on CN's bypass route around Chicago (the former Elgin, Joliet, and Eastern RR). In return CN receives haulage rights and eventually trackage rights on the UP between Memphis and the Eagle Pass border gateway to the Mexican Railway Ferromax. This is a major coup for CN as it links Mexican auto parts and assembly plants with auto parts and assembly plants in Michigan and Ontario, Canada.

Planes vs Trains, Part 1

Brian Yanity

How and where can passenger rail steal a significant chunk of the travel market away from aviation.



ScotRail train near EasyJet plane landing at
Edinburgh Airport, UK, June 10, 2018.

Photo by Graham Lamb, licensed through Alamy.

Before we know how big a chunk of the transportation market share that fast frequent passenger rail service could grab, we must understand the existing travel market for a particular corridor. A good place to start is what the existing auto traffic, bus and air passenger numbers are between two cities or metropolitan regions.

This short article is not intended as a detailed or thorough analysis of future rail passenger ridership. However, a look at the existing size of the air travel market on a specific corridor does give one a general sense of the market potential (for lack of a better term) of faster and frequent passenger rail service between two cities. Once we know how many people fly between two cities, we can see the size of the pie from which we wish rail to take a slice.

The environmental benefits of getting people out of planes, and onto trains instead, are well known. According to [2022 UK government statistics](#), the carbon footprint of different transportation modes is as follows:

- Domestic flight [within UK]- 255 g CO₂(e)/ passenger-km
- Gasoline car [single occupant]- 170 g
- Short-haul flight [UK to continental Europe] (economy) – 151 g
- Long-haul flight (economy) – 148 g
- Electric car [single occupant] – 47 g
- National rail (UK rail network ~40% electrified, 60% diesel)- 35 g
- Eurostar (electrified international rail)- 6 g

As can be seen above, the carbon footprint for someone on a domestic short-haul flight is *over 60 times* that of someone taking the same journey on an electric high-speed train. It must be acknowledged that many 'short-hop' flights, even along these major corridors, are connecting flights to longer air journeys, so not quite the same market as travelling just between the same destinations by train or car. Flights of 2,000 to 3,000 miles in length are generally the most energy efficient overall for jet aircraft, and of course most trips longer than this are only practical by plane.

So what makes a person choose a train over a plane, for the same journey, or vice versa? Aside from any difference in overall travel time, service frequency, and ticket cost for a particular route, convenience is also a major factor. The hassle of getting to and from the airport (particularly from city centers), getting through security, etc., adds substantially to total trip time, lengthening even the shortest airplane journey. Train stations are not just more convenient because they are more likely to be city centers, but because they exist in so many communities where airports do not. Besides the travel time advantages of rail on many routes, other advantages include having more space (both to sit and walk around in without worrying about turbulence), being more productive if you are doing work (as the seat tray table can be down the whole journey, unlike on a plane), and being able to walk at any time to the café car for a wide variety of food and drink. Trains are also less affected by severe weather than planes.

Research has shown that potential high speed rail (or HSR, generally defined as having top speed of 150 mph or greater) travel time advantage is greatest between 200 and 500 miles (compared to planes and automobiles). For most intercity trips in that range, HSR is virtually guaranteed to be faster than both flying and driving. Thus, for trips between 200 and 500 miles, HSR reigns supreme.

However, truly high speed trains going 150 mph or faster are not necessarily needed to compete successfully with airplanes. For example, overall trip times on the existing Amtrak *Cascades* and *Northeast Regional* (though especially the faster *Acela*) are already very competitive with flying on their respective corridors.

Here are several successful examples from around the world of specific corridors where trains have taken a serious bite of the market away from planes.

Northeast Corridor

Amtrak's competitive threat to the airlines for short-haul flights along the Northeast Corridor has long been well-documented. In the early 1980s, the upstart (and short-lived) Newark-based no frills airline People Express famously undercut Greyhound bus and Amtrak ticket prices for the same city pairs as a promotion. Such antics could not save People Express from financial ruin. Facing liquidation, it was absorbed by Continental Airlines in 1987.

In particular, airlines dropped flights between the Boston New York and Washington metropolitan areas after the higher-speed Acela service started in 2000. According to [Amtrak](#), after the launch of Acela in late 2000, Amtrak's share of the air-rail market grew from 37% in FY2000 to 83% in FY2022 between New York and Washington—carrying more than four times as many passengers as all of the airlines combined. Amtrak mode share grew from 20% to 75% between New York and Boston over the same period.

Europe

Passenger rail's intercity mode share is far higher in Europe overall than North America's. While very extensive, Europe's train network still has significant limitations in need of improvement, particularly in some regions and across many borders. An issue particularly prevalent in Europe is that train tickets can be more expensive than planes for the same city pairs, especially between different countries. Airlines can be more flexible to fill niches in travel demand. This drives travelers toward air travel, and makes it difficult for European Union member states to meet the environmental goal of reducing total emissions. So, in response, France is proposing an EU-wide 'minimum airline ticket price'. This shows that more public investment is still needed in expanding the European rail network. This is especially urgent with the rise [in total emissions from European low-cost airlines](#), and the [financial woes of the airline industry generally with the increased oil prices due to the Iran War](#).

France

France's short-haul flight ban, [introduced in June 2023](#), states that flights are to be suspended on a route that [meets the following criteria](#):

- The route must be domestic (within metropolitan France).
- A train journey must take 2.5 hours or less each way.
- Trains must allow same-day round trips with adequate time (minimum 8 hours at destination).
- The rail option must operate multiple times per day at suitable hours.

While environmentalists criticized the rule for being watered down from 6 hour train journeys, airlines fought it vigorously in court, arguing that the French government were unfairly subsidizing railway companies with this move. However, the 'open access' competition of railways in the EU helped convince the European courts to allow the short-haul flight ban, since it did not favor a particular rail operator. In practice, the law only restricts three air routes from Paris-Orly: to Lyon, Bordeaux and Nantes, which were not even operated any more by the time the law came into effect. However, the law could be expanded in the future for longer trips, and across borders into other European countries. This still has the airlines legitimately scared.

Spain

With the world's most extensive high speed rail network outside China, intercity mode share in [Spain is now dominated by rail](#), taking huge bites out of trips taken by planes and private automobiles. The Barcelona-Madrid airline route, known as "Pont Aeri" in Catalan or "Puenta Aereo" in Spanish- literally 'air bridge', was the world's busiest until 2008. Just over 300 miles (500 km)

flying distance, it had the highest number of flight operations (971 per week) in 2007. This changed dramatically in February 2008, when the Madrid-Barcelona high speed AVE line was opened by Spanish national railway Renfe, covering the distance in 2 hours 30 minutes. The new service became so popular that airlines started dropping flights. Today, about [40,000 passengers per day](#) ride high speed trains between Madrid and Barcelona. HSR service frequency and options have increased in the years since, with several competing HSR services now sharing the same lines. As described in an August 8, 2026 article in *The Economist* about competition on European high-speed rail routes:

“In 2020 Renfe launched Avlo, a low-cost brand [[though this service was discontinued on the Madrid-Barcelona route in late 2025](#)]. In 2021 came Onigo, the low-cost service of SNCF, France’s state-owned operator, followed a year later by Iryo, which is majority owned by Trenitalia. Between 2019 and 2024 prices fell by 35% on the Madrid-Valladolid route, 33% on the Madrid-Murcia route and 29% between Barcelona and Seville. Frequency on the three main high-speed rail corridors (Madrid-Barcelona, Madrid-Valencia/Alicante and Madrid-Seville/Malaga) rose from 78 to 115 trips a day. The national competition authority estimates that improvements in rail from 2019 to 2024 attracted 4.8[million] passengers who would previously have travelled by road or air. Vueling, an airline, stopped flying from Barcelona to Madrid.”

All this doesn’t mean people still don’t fly between Spain’s two largest cities. In 2025, there were 1,768,713 airline passengers between Barcelona and Madrid, or an average of about 4,800 per day. It remains Spain’s busiest domestic air route.

Italy

Starting in the 1990s, faster trains were becoming a more attractive option between Milan and Rome than planes, which hurt national airline Alitalia’s domestic revenues. The route, via the major cities of Bologna and Florence, is a similar flying distance as Madrid-Barcelona: about 320 miles (510 km). The Frecciarossa high speed train between Milan and Rome started in 2009, and the similar Italo service in 2012. These rail options slashed travel time between the two cities to under three hours, and they were often cheaper than the plane as well. So many people started choosing the train over the plane.

China

With an estimated 770 million air passenger trips in 2025, China has the world’s second largest aviation market, only behind that of the United States (which had about 900 million). However, on a per capita basis, Americans made about five times as many airline flights as citizens of China. Of the country’s 1.4 billion people, an estimated 900 million have never set foot in an airplane. There are several reasons for this, including lower average disposable incomes, and a much more restricted domestic airspace for civilian flights. However, a big factor is high-speed rail competition *by design*. Government policy in China prioritizes trains for domestic intercity travel.

High speed rail offers a viable alternative to many domestic aviation routes in China, with better punctuality and comfort. It is faster than flying on a huge number of high-demand domestic

corridors. According to a 2019 study, launching a high-speed rail route in China [has dropped parallel domestic airline passenger numbers by 30% to 50%](#).

China's national railways served an [astounding 4.59 billion intercity passenger trips in 2025](#), the majority of which under electric power. This number is close to the estimated 5.1 billion passenger trips served [last year by the entire global airline industry](#). China's intercity rail network passenger count is on track to exceed the global aviation industry in 2026. For the first half of the year, [China's railway network saw a 5% overall increase in rail ridership](#), while [China's domestic air passenger demand contracted 6.2% in May from a year earlier](#). Chinese airlines are [cutting flights and raising fares in response the Iran War's effects on fuel prices](#). Years of state-backed investment in China's rail network, along with renewable energy, battery electric road vehicles, batteries and rail electrification, have put it a relatively good position to weather increased prices of fossil fuels.

Part 2 of this article will examine the potential for trains to compete with planes on key West Coast corridors.

Observations on the California Equipment Situation

Steve Roberts

The equipment fleet used for California's three corridor routes has reached a breaking point. There are no major orders for new cars, and the rebuilding of the current fleet is just commencing. The result is mechanical failures, schedule cancellations, or the substitution of commuter equipment for intercity equipment. If new cars are not ordered regularly, at some point there will be no flexibility and services will suffer. We have reached that point. We are now seeing a triage of services occurring. This is fleet "triage," prioritizing the critical rebuilding of the fleet over consistent service, is making the best of a bad situation.

Paul Dyson, RailPAC's Vice-President of Government Affairs, has been warning about for a decade the dangers of this, a slow cannibalization of the fleet.

There are several underlying factors. The first is the stop and start funding policy for intercity rail service over the years. Stop and Go funding combined with supply chain gaps and environmental studies means any rail investment takes a very long time. The second near-term factor is the delays in certification of the Venture Car fleet, which has limited fleet flexibility for the rebuilding.

And it gets worse. Because of California's Zero Emission Rail Vehicle (ZEV) mandate, the only new equipment in the pipeline is a very expensive per car, Hydrogen MU. Because their per-car expense is higher than for standard rail cars, this H2 initiative is not bringing much capacity to the table. In addition, there is the issue of the cost and availability of hydrogen fuel.

Also, until the H2 MUs arrive it is unknown what their dispatch rate will be, and what their operating cost (hydrogen fuel and its source) will be. The California Corridors could easily face a situation where; congratulations, you have some additional capacity, new Zero Emission rail cars; the bad news is the cost of fuel associated with running them in service blows up your operating budget. It is my understanding that because of the ZEV mandate, California will likely not be able to address its capacity issues by utilizing some of the forty-three additional diesel-powered Amtrak Airo trainsets just funded by recent Federal/State Partnership grant.



Caltrans Stadler H2 Trainset

So, while there are no route discontinuances yet (as Paul warned of), what we are seeing compromises to maintain the service. Caltrain locomotives have been leased to backfill for the

overhauls of the F59s. This is now an emergency because Caltrans failed to overhaul its F59's when maintenance was due. This was masked until routine servicing shifted from Amtrak to Herzog. Amtrak had been using its locomotives to backfill F59 dispatch failures, and Herzog lacked that flexibility. Hence the Gold Runner and Capitol Corridor train cancellations that we saw earlier this year.

Caltrans is also rebuilding the first generation of California Cars. With a set of California Cars out for overhaul, this means there is no "protect" set of California Cars available in case of a consist dispatch failure. The Caltrain commuter cars have been leased to serve as this protect set and will operate when a California Car set fails at departure time. Apparently, the almost 60-year-old Comet Car set is performing the same role in Southern California. Neither "protect" trainsets has food service. So, you either get a train with no food service or a schedule cancellation; you cannot have both. Leased Caltrain Cab cars can also operate as cab cars on Gold Runner trains until the shunt antennas on the Venture Cab cars are installed. California Cab cars can then be sent for overhaul or used to build additional Southern California and/or Capitol Corridor train sets.

As was noted the Comet cars and the Caltrain commuter cars as well as the Venture Cars on the Gold Runner route have no food service. So, to reiterate there were two choices:

> Option one: Park all the Venture Cars until the cars that could be food service cars are delivered and certified for operation. The Gold Runner would continue to use California Cars. The Capitol Corridor and Pacific Surfliner would not be able to restore frequencies to reach their pre-COVID frequency levels

> Option Two: Put the Venture coaches in service as they are delivered with no food service. This frees up California Cars to bring the Capitol Corridor and Pacific Surfliner to their pre-covid frequency levels.

So, which is the least bad: fewer frequencies with food service (which only a segment of riders uses) or a service with more frequencies and ridership but no food service? Caltrans and the JPA's chose option two.

And when considering these choices, bear in mind the two root causes: the Nippon-Sharyo manufacturing failure which delayed a new car order almost a decade and resulted in the "bare bones" Venture Cars, and the transfer of the Horizon cars from California to the Cascades route to deal with the Talgo issue.

As was noted above current California situation was directly affected by the Sumitomo/Nippon Sharyo's failure to engineer and produce a fleet of new bi-level California Cars to replace leased Horizon fleet cars (now sidelined by corrosion) and rebuilt New Jersey Transit commuter coaches (the Comet Car train set). My assumption is that Caltrans and the Midwest States, to avoid a long court case with Sumitomo over breach of contract, ended up settling for Siemens Venture cars. And the Sumitomo/Nippon Sharyo court settlement Venture Cars provided to the states appear to be the "bare bones model" with hard seats and manufacturing defects that have taken months to resolve. Such is the state of the US's rail car manufacturing base.

A third complicating factor is that the cars, which could be Venture food service cars, are the last ones to be manufactured and they are only now being built, and they still must be inspected for manufacturing defects and certified for service. The reality is because of the Siemens car delivery process, the loss of food service on the San Joaquins for over a year was inevitable. It is a manifestation of the triage Paul Dyson warned of two decades ago. With the now out-of-service Horizon cars transferred to the Pacific Northwest the Venture cars needed to be placed into service without the food service cars to free up California Cars to allow the Capitol Corridor and Pacific Surfliners to return to their pre-covid frequency levels. In many ways the JPA managers are making the best of a bad situation. Worse still, the Sumitomo/Nippon Sharyo failure combined with the apparent zero interest from the car builders in Amtrak's bi-level long-distance equipment order means there will be no bi-levels built in the future.

In conclusion, the ongoing issue has even deeper roots. It is indicative of the collapse of US's, manufacturing base. It is an industrial policy failure of the first order. It also reflects the focus on short-term financial results and Congress's lack of a passenger rail car procurement policy designed to develop and maintain a passenger rail car manufacturing base and supply chain. The lack of guaranteed financial support with advanced appropriations makes it almost impossible to attract interest from equipment manufacturers. Several manufacturers took the risk, made investments to build equipment, then had to enter bankruptcy when Congress did not provide the funds for follow-on orders.



The Case for a Statewide California Rail Authority

Brian Yanity

In the governance of human affairs, there is always a natural tension, and balance to be struck, between centralization and devolution.

In California, the state government started giving up responsibility for passenger rail in the 1990s and devolved it to the counties acting through joint powers agencies (JPAs). It is the writer's contention that this devolution of authority has in many respects been a failure, and it is past time to review the existing governance structures.

There are many large organizations, both public and private, responsible for planning and executing rail transportation in California. The number of organizations involved, "too many cooks syndrome" is a critical problem resulting in project delays.

For example, there are 11 mainline rail right-of-way owners in Southern California:

- The Class I railroads (UP and BNSF)
- Metrolink member agencies (LA Metro, Orange County Transportation Authority, San Bernardino County Transportation Authority, Riverside County Transportation Commission, Ventura County Transportation Commission)
- North County Transit District and the Metropolitan Transportation System in San Diego County
- The cities of Los Angeles and Long Beach (tracks in the port areas and the Alameda Corridor)

The Southern California Regional Rail Authority JPA, aka Metrolink, was assembled rather quickly in a two-year period between 1990 and 1992. In the late 1980s, the Santa Fe and Southern Pacific railroads started selling off lightly-used mainline track segments. The counties banded together to jump on this opportunity to create a regional passenger rail network. Since a truly regional, inter-county passenger rail organization did not yet exist, Caltrans led negotiations for purchase of rights-of-way. The [state paid for these Southern California track purchases made between 1990 and 1993](#), and were effectively 100% gifted to the counties without any rights remaining at Caltrans.

Eventually counties of the greater Los Angeles/Inland Empire region settled on creating a JPA in 1991 to get service started the following year, with annual financial operating contributions from each of the five member counties. In sum, the governance structure of Metrolink was assembled rather hastily given the immediate circumstances and opportunities of the time. All passenger rail lines in the region, except for the Metrolink Antelope Valley Line, are split between multiple owners. This inherently creates a challenge for line-wide capital and service improvements. Any of the five county transportation agencies, or even one board member (a county or city level elected politician), can veto a Metrolink project or service.

Over three decades after its formation, it is evident that the local/regional governance structure of Metrolink has resulted in:

- Lack of regional vision and failure to grasp the market potential (ridership and revenue) of fast frequent service that is common in the rest of the world.
- Lack of priority – county agencies favoring local high-profile transit projects (entirely within one county) vs. projects serving regional travelers going between counties.
- County and city elected officials serving on county transportation boards are overweighting neighborhood concerns for projects while failing to consider important regional and statewide goals. In addition, “supervisor courtesy”, unanimous concurrence among Board members, leads to gridlock with nothing moving forward).

Relatively straightforward siding and double-track projects, vital for increasing reliability and frequency of the entire regional rail system, have been halted by a handful of politically well-connected neighborhood members. A notable recent example is the stymying of the Serra Siding Extension project in south Orange County- a one-mile extension of an existing siding entirely in existing rail right-of-way. The siding is located at about the midway point between LA and San Diego, so is vital for increasing the number of passenger trains (by allowing ‘passing meets’). A handful of OCTA board members (listening to Capistrano Beach residents) are effectively deciding transportation policy for the entire Southern California region of 22 million people and whether the region’s residents should have additional regional passenger service. Ortega Siding near Santa Barbara is facing similar challenges of wealthy residents who live next to the tracks and the beach.

Back in 2015, a single Los Angeles County Supervisor caved in to nearby residents who raised completely spurious concerns about double tracking on a 120’-wide right of way between Van Nuys and Chatsworth (the Raymer-Bernson segment which historically had double track), and even tried to divert the funds to another transit project. None of the other LA Metro board members opposed her. The project was already funded and permitted, and about to begin construction, but was cancelled at the last minute. Construction grant money was sent back to the state after millions had been spent on design and permitting. Passenger rail in Southern California has been impeded ever since, and a decade later, the need for the Raymer-Bernson double tracking project is greater than ever. Megaprojects like the Del Mar tunnel and Link Union Station are also taking way too long. For passenger rail to succeed in California and grow large enough to take a serious chunk of the transportation market away from cars and planes, there needs to be fewer veto actors with hyperlocal concerns.

The Caltrans Division of Rail ‘spun off’ the state-supported Amtrak services (*Pacific Surfliner*, *Capitol Corridor*, and *San Joaquins/Gold Runner*) into new county-level JPAs starting in the early 2000s. The operational funding still comes from the state, yet the JPAs create more overhead costs while at the same time even developing a self-destructive culture of cost-cutting (resulting in such indignity as food being eliminated from the six-hour runs of the *Gold Runner*).

The way forward: a new statewide unifying public agency for all rail transportation

Functioning as part of the California State Transportation Agency (CalSTA) a new statewide mega-agency, the California Rail Authority (CRA), would be created. Its key foundational components would be the Caltrans Division of Rail and Mass Transportation, California High Speed Rail Authority

and all intercity passenger rail JPAs. Some enabling legislation may be required, or even a statewide ballot measure. Politically it could be very difficult for county and local governments to give up the power of the county and regional-level rail transportation agencies. However, the purpose of this thought experiment/general concept of a CRA is not to work out every problem and solution in detail, but to look at the big picture.

The CRA would take over ownership of tracks currently owned by counties and JPAs, and purchase select Class I-owned track with minimal freight traffic (such as the UP-owned Coast Route). This would be like how rights-of-way for freeways and other major highways in California are owned and managed by the state through Caltrans. The new CRA would be responsible for developing and implementing the California State Rail Plan (and capital projects therein) and would take charge of all ongoing FRA-approved Corridor ID studies and Service Development Plans in development. A CRA would also work with Metropolitan Planning Organizations (MPOs) on incorporating passenger rail in regional transportation plans. In negotiations and working relationships with Class I railroads (UP and BNSF), a state-level agency with deep railroad expertise is needed. Negotiation power and clout would be much stronger with the state government than with individual counties.

Operating with track usage agreements, locally funded regional rail services such as Metrolink, Caltrain, Coaster and ACE could even keep their branding identity (names, logos, etc., which would save costs and customer confusion) and regional-based management, with CRA serving to integrate operations. Similar to the fact that the lettered lines in the New York City Subway's nomenclature date back to lines built by the Independent Subway System and the Brooklyn-Manhattan Transit Corporation, while the numbered lines were built and operated by the Interborough Rapid Transit Company. The line names (numbers/letters) are still used to this day, even though they all were consolidated into one publicly owned system back in 1940. The CRA would support and better coordinate regional services like Metrolink and COASTER with Amtrak service (both state-supported corridors and long distance). Amtrak could still be the operator of choice for intercity and regional rail.

All of the existing state-owned rolling stock fleet, and newly acquired intercity and regional rail equipment would be merged into one statewide, state-owned equipment pool with shared maintenance facilities and contract staff.

A CRA should be governed by full-time board with members, appointed by the governor and legislature with a bias toward those possessing railroad and transportation expertise. At present, most of California transportation agencies' boards consist of elected officials (at the county and city levels) who have no experience running a railroad and often have little interest in public transportation. Even with the best of intentions, the part-time board members have many other priorities and responsibilities in local government besides the transportation agency. Thus, boards have had neither the expertise nor the time to provide sufficient oversight of passenger rail operations and planning.

You might ask, doesn't a CRA mega-agency create just one more big bureaucracy? Some amount of bureaucracy will always exist at all levels of publicly funded rail operations. The question is how efficient that bureaucracy is. Economies of scale can help make a bureaucracy vastly more

efficient. Much of this potential comes from the reduction of overhead/streamlining of 'back office' functions. The current system involves a lot of legal contracts and financial transactions between multiple public agencies and Class I railroads. This creates a lot of need for legal and accounting staff time. The resources needed to support much of these inter-organizational relationships and agreements would be better spent running trains.

In-house engineering and construction capacity for project delivery

A CRA would need a deep bench of in-house railroad operations, management, engineering and construction expertise. Reducing excessive reliance on outside consultants and contractors is key to reducing capital project costs, and getting more passenger rail service per public dollar spent. Ample experience from around the world has proven that in-house expertise brings infrastructure costs down with fewer cost overruns and delays.

Like most state DOTs, Caltrans already has enormous in-house planning, engineering and construction management expertise for road projects statewide. The CRA would possess similar in-house capacity for the rail mode. Good salaries, competitive with those offered by private consulting firms, are needed to attract the best talent. Class I experience, preferably recently retired executives, would be sought out by the CRA.

A large, statewide rail organization is best suited to develop sufficient in-house expertise. As described by UK railroad engineer Gareth Dennis in the 2024 book, *How Railways Will Fix the Future*, (pgs. 118 – 119):

"The retention of (or at least access to) the right skilled people to plan, maintain, develop and enhance a railway system can be challenging at a city or even regional level. This is a good example of where a strong and well-funded national railway organisation adds value, as it can act as a conduit for training, in collaboration with professional bodies and institutions, as well as driving forward useful bodies and institutions, as well as driving forward useful national-level programmes that can enhance devolved railroad operations. A large body like Deutsche Bahn or British Rail can train and retain expertise at a scale that would not be either viable or efficient at city level.

Another critical element for railway operations is to avoid the duplication of necessarily laborious processes, such as the development, certification and introduction of new trains. While customisation is valuable at a devolved level, the technical specifications must be standardised as much as possible, at as high a level as possible, to ensure that connected railway networks can accommodate each other's trains on each other's tracks. Even where there aren't physical connections, there are benefits for efficient delivery of trains and infrastructure when there isn't too much duplication of design processes, components, assemblies, certifications and so on."

Training and workforce development would be a vital role for CRA. The CRA could host a 'California rail academy', apprenticeships, and support higher education courses in railroad management, operations, and engineering at California universities.

Tunnelling

A CRA rail tunnelling division would be the state's center of tunneling expertise, and would contract for and manage the state's tunnel projects, boring machines and other specialized tunnelling equipment. Major tunnel projects needed in California, which could be overseen by a CRA tunnelling division:

- San Francisco DTX tunnel
- Del Mar Coast Bypass Tunnel
- Miramar tunnels, San Diego
- LA Metro Sepulveda Pass Tunnel
- CHSR San Gabriel Mountain Tunnel
- San Clemente Coastal Bypass Tunnel(s)

Electrification

In addition to the advantages of faster service, higher reliability, and zero-emissions operation, electrification would reduce operations and maintenance costs. This in turns enables more frequency on existing track infrastructure. The success of Caltrain electrification needs to be replicated across the state.

California's existing fragmented patchwork of local agencies makes regional rail electrification, which crosses county lines, much more difficult. County-level agencies typically don't have sufficient resources to plan and build rail electrification projects. A dedicated CRA electrification division would handle all mainline rail electrification projects statewide, including the blended corridors like San Jose-Gilroy and Burbank-LA-Fullerton. The CRA could build, operate and maintain rail electrification infrastructure not only on state-owned track, but also track owned by Class I railroads (like the BNSF-owned segment between LA and Fullerton slated for electrification for CHSR).

California needs to electrify rail the way it has been successfully done around the world for over a century- with economies of scale, mass production and standardization. Why India has been so successful lately with mass economical rail electrification (of over 99% of the nation's mainline rail network) largely has to do with economies of scale: standardization and mass production by manufacturers and good contractor practices. Expertise and oversight are concentrated in the Central Organisation for Railway Electrification, the primary agency of the Indian Railways responsible for electrifying the nation's rail network, which operates regional project units across India.

Freight

Class I infrastructure improvements have public benefit on corridors shared with passenger trains by creating more capacity and reliability for both – enabling more separation between them.

Freight trains have their own public benefits to economy and environment by getting trucks off the roads. A CRA freight division could provide a focal point and lead agency for freight oriented mega-

projects and also facilitate state-sponsored, truck-competitive intrastate medium-haul and short-haul freight rail service, not currently offered by the Class I railroads (BNSF and UP), or the Class III 'shortline' freight railroads operating in the state. The CRA freight division would not compete with these existing private freight railroads but instead partner with them to offer complementary new types of freight services, which are not in competition with existing freight operations. The state should also prioritize and aid industrial development along freight rail lines.

Statewide Amtrak Thruway Bus Network

Properly planned intercity and local bus transportation compliments and enhances rail transportation, by connecting passengers from longer train journeys to more local bus service. Amtrak Thruway bus operations, currently funded by the state but managed by three separate JPAs, need to be better consolidated and coordinated statewide, and CRA could take up this function. Bus-only tickets need to be allowed throughout the system. This maximizes the public benefit of this transportation option offered and will lead to higher rail and transit ridership overall in the long run.

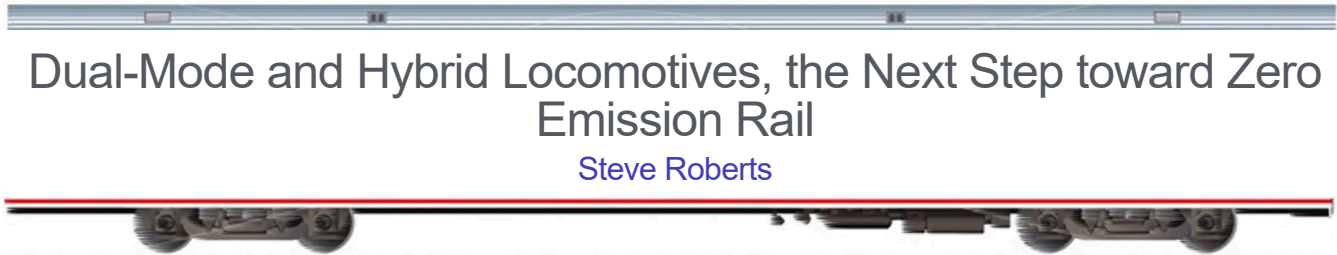
Funding

The deficiencies of California regional rail and transit funding are evident in 2026, with the notable 'fiscal cliff' examples being BART and Caltrain along with county-level agencies (particularly OCTA) trying to decrease their financial support of Metrolink. There should be a move away from competitive grant programs like California's Transit and Intercity Rail Capital Program, where worthy rail and transit projects have to compete against one another. Sequential funding of rail and transit projects, according to a well-thought long-term plan or program, would be more effective for building out the passenger rail network. Steady, predictable and dedicated funding sources at the state level need to be created for both passenger rail operations and capital projects. The CRA should have the power to issue bonds.

Other potential new sources for rail funding:

- Cap & Invest/ GHG emissions pricing programs
- Increases in gasoline and diesel taxes
- Tire tax
- Express lane or congestion fees on over capacity interstate highway segments
- Commercial/property development partnerships

An earlier version of this article appeared in the Summer 2026 issue of the [Rail Users Network](https://www.railusers.net/newsletters/) Newsletter: <https://www.railusers.net/newsletters/> .



Dual-Mode and Hybrid Locomotives, the Next Step toward Zero Emission Rail

Steve Roberts

Overview

As the rail industry moves toward Zero Emission Vehicle (ZEV) operations, additional developments have arisen – dual mode and diesel hybrid locomotives, that potentially can provide a bridge between the current technological phase and full Zero Emission operations. The current phase is the conversion of the locomotive fleet to Tier IV locomotives. California Regional Rail Operators and Amtrak either have a 100% Tier IV fleet or are moving quickly to full conversion. The freight railroads are at a slower pace and are just now starting to order larger numbers of Tier IV locomotives.

Before outlining the new alternatives, an overview of the current phase. Diesel fueled Tier IV locomotives bring an 85% reduction in criteria pollution and particulates but yield only a modest reduction in Green House Gas (GHG) emissions. However, California Regional Rail and California Corridor operators have gone a step further, adopting recycled vegetable oil and animal fats as fuel. This enhancement yields additional reductions in criteria pollution and particulates and most importantly, an 80% reduction in GHG emissions. This reduction in GHG emissions is a result of the double use of fuel feedstocks.

To weigh the importance of the reduction in emissions, one must consider the impact of the pollutants. Criteria pollution is ground level pollution, primarily Nitrogen Dioxide (NO₂) and Particulates (PM_{2.5} and PM₁₀). Nitrogen Dioxide reacts with Ozone (O₃) to form smog. PM_{2.5} are soot particles so small that they can penetrate deep in the lungs and enter the bloodstream and can cause serious health risks. PM₁₀ are larger soot particles that lodge in the upper respiratory system (like pollen) causing upper respiratory and/or cardiovascular issues. Greenhouse gas emissions (GHG) rise high in the atmosphere trapping heat and raising global temperatures resulting in more extreme and frequent severe weather events.

Because of the importance of continuing to reduce harmful emissions, it is critical to keep moving forward toward Zero Emission operations. New dual mode and hybrid diesel locomotives can provide a bridge between Tier IV diesel locomotives and Zero Emission operations. This bridge phase is especially important given the technical complexity and fuel challenges resulting in the current choice for ZEV, hydrogen, stalling.

Emerging Technology: Dual-Mode and Hybrid Locomotives

Two classes of dual-mode locomotives are being constructed for Amtrak by Siemens at its Sacramento plant. In both cases the power modes operate separately based on the choice of the engineer.

Diesel Battery

The first is a diesel battery power consist that Amtrak will use on *Adirondack*, *Empire Service*, *Maple Leaf* and *Ethan Allen* trains. All of these routes use the Empire Connection tunnel to access Penn station and Sunnyside Yard where the trainsets are serviced overnight. This requires trains on these routes to avoid using diesel power in dense New York City neighborhoods and through the underground tunnels of the Penn Station/Sunnyside Yard complex.



Hybrid-Power Empire Corridor Airo Trainset (Empire State Passenger Association)

Older Empire Service locomotives used a third rail to access Penn Station. The new Siemens diesel battery locomotives take advantage of advances in battery technology in an initiative to evaluate the viability of a diesel battery option. The diesel is Siemens newest variant of the Charger, the ALC-42E which has an electric bus to allow current from the battery to feed the locomotive traction motors and for the diesel engine to charge the batteries. The battery car contains the battery packs and Business Class seating. Siemens' design concept involves placing the heavy batteries in a separate car which means less alteration to the basic Charger locomotive design, spreads battery weight over additional trucks for better wheel/rail dynamics and reduced track stress. It also provides the flexibility to extend ZEV range by adding more battery packs. While this highly targeted (Penn Station tunnels) prototype will have limited pollution reductions, those reductions are in sensitive locations, and the range of this concept could be extended with additional battery packs. For longer range concepts, regenerative braking can be used to recharge the battery. Please note that while the illustration in Figure One is labeled "hybrid" the Airo trainset is in fact dual-mode, with each power system separate and operating independently based on the engineer's choice.

Diesel Overhead Catenary

Amtrak Airo Diesel + APV

Amtrak has another type of dual-mode power consist under construction by Siemens, it is a diesel power consist that can be powered by overhead catenary. The result is a train that can operate seamlessly between electrified and non-electrified routes. This dual mode option pairs the ALC-42E Charger with an Auxiliary Power Vehicle (APV). The APV is a car with Business Class seating and equipped with two pantographs, a main transformer and two powered trucks. The APV will pull power from the overhead catenary on electrified lines transmitting power to its two powered trucks as well as the two trucks on the locomotive via the DC bus.



Airo Diesel APV Overhead Catenary Power Consist
(Amtrak)

As with the diesel battery power consist, having the heavy transformer on the APV instead of in the locomotive means a minimally altered Charger design can be used for multiple power options. Also, spreading the weight of the transformer over the two car trucks also results in better wheel/rail dynamics and reduced track stress. Like the diesel battery locomotive, the two power systems are separate and operate independently based on the engineer's choice.

The Airo trainsets with the diesel Overhead Catenary APV will be used on *Vermont*, *Keystone Service*, *Pennsylvanian*, *Carolinian*, *Palmetto* and *Northeast Corridor Regional* trains serving Virginia. Having the flexibility of a dual-mode means there will be time saving from avoiding an engine change and loss of train hotel power during the change. Avoiding the track time associated with an engine change will result in more station throughput, especially at Washington Union Station. The major environmental benefit is that the diesel + APV can leverage the NEC electrification and avoids operating a diesel through dense NEC urban areas. Regenerative braking will be used to feed power into the overhead catenary to power other trains. It also prepares the fleet for expansion of overhead catenary i.e. New Haven – Springfield or Washington, DC – Richmond, VA. And there is a place for this type of locomotive in California, operating San Luis Obispo to San Francisco utilizing overhead catenary from Gilroy into the underground San Francisco tunnel and the downtown Salesforce Transit Center.

New Jersey Transit ALP-45DP

The New Jersey Transit Bombardier (now Alstom) ALP-45DP is a dual-mode diesel overhead catenary locomotive. Both the diesel engines, the electrical transformer and pantographs are on the single locomotive. New Jersey Transit operates seventy-two of these dual-mode locomotives representing a significant percentage of its non-electrified operations. These locomotives operate on NJT's extensive non-NEC branch lines linking into the NEC and allowing a one-seat ride from scores New Jersey communities to Penn Station in New York City.



New Jersey Transit Bombardier/Alstom ALP-45DP
(Railroad.net, public domain)

Needless to say, combining diesel traction and a high voltage electric into one locomotive while meeting Northeast corridor clearance requirements was quite the design effort. Bombardier's solution was to "wrap" the diesel traction around the transformer using two high-rpm diesel engines on either side of the transformer which is in the middle of the locomotive. The locomotive is capable of changing modes while in motion, although NJT only does this at station stops. Like the Amtrak dual-mode diesel + APV, the major environmental benefit is that the ALP-45DP can leverage NEC electrification avoiding operating a diesel through dense NEC urban areas. Also, by allowing a one-seat ride, NJT has a more attractive product shifting riders from highway mode to the rail mode. Regenerative braking is used to feed power into the overhead catenary to power other trains.

Diesel Battery Hybrid

Via Hybrid Diesel Battery Locomotive

In a striking future vision initiative, Via Rail is bringing innovative technology to the long-distance locomotive market. It has purchased forty-five Diesel Battery Hybrid locomotives from Stadler. Stadler, better known for its EMU and unique rack rail cars, also offers a wide range of electric, diesel and dual-mode locomotives. What is most unique about Via's Stadler Diesel Battery locomotives is that they are true hybrids with an integrated battery and diesel power package,

Also of note is that these innovative technology hybrids were not purchased to operate along a "close-to-home" corridor route, but along a long-distance route often far from service facilities and subject to very harsh winter operating conditions of bitter cold and fine snow.



Via Rail Diesel Battery Locomotive (Via Rail)

With hybrid architecture the diesel engine, battery, traction, hotel (car interior) power, and auxiliary systems are all integrated into a unified system with power generated, supplied, and used in a coordinated balanced system. With the combined power sources of the engine and battery, acceleration, cruising and high-performance on steep gradients is managed to yield a high-level of

efficiency. Fuel savings reduction is achieved by derating the diesel engine to optimize its operation at its most efficient RPM level with the battery providing the extra power needed for acceleration and steep gradients. Operating the diesel engine within its most optimal RPM range also extends its lifespan while reducing maintenance.

This fuel saving translates into lower criteria and GHG emissions. Reducing emissions further is regenerative braking, where the traction motors transform braking energy into electricity to recharge the batteries while slowing the train.

At stations and other environmentally sensitive areas the engineer can operate solely in the battery mode, significantly reducing noise and eliminating exhaust emissions. The battery can also enhance operational resilience by providing a “limp home” ability so the train can reach the next station, road, or inhabited area in case of a diesel engine failure. Overall, Via’s initiative and Stadler’s innovation set a new standard for operational efficiency – lower fuel consumption, cost savings, and reduced emissions.

Hybrid Tri-Mode Trains

Hitachi Great Western Railway Class 802 Trains

There are also initiatives being undertaken outside the US to develop more energy efficient, less polluting trains.

In the United Kingdom, Hitachi, and equipment owner Eversholt have rebuilt existing dual-mode diesel overhead catenary trains into hybrid tri-mode trains

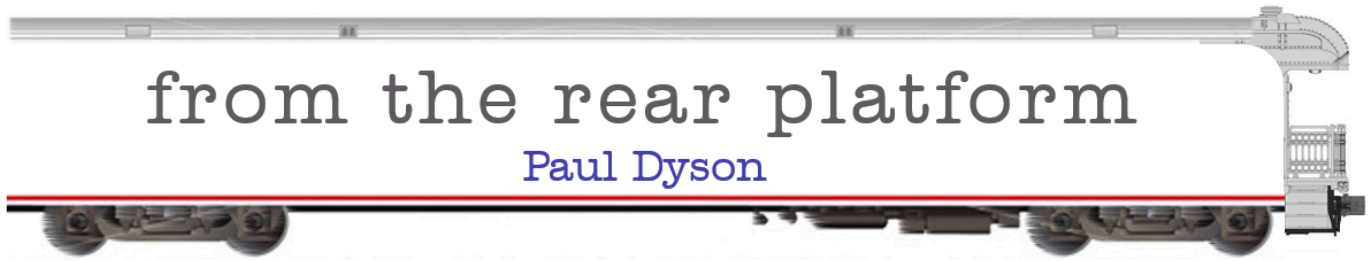
This was accomplished by removing one of the two diesel engines and replacing it with batteries. And this train is a true hybrid with the battery and diesel engine integrated to work in tandem to improve efficiency. Thirty-six trainsets were rebuilt into Tri-Mod Hybrids. The battery is used to supplement the diesel when peak power is required, and it is also used in urban areas and traveling out of stations.



Hitachi Tri-Mode Trainset

These Tri-Mode trains operate on the Great Western Railway between London and Penzance (300 miles) in the west of England. This route is partially electrified and was operated exclusively on diesel power outside of electrified territory. With the introduction of the Tri-Mode trains, the efficiency is increased over high-power demand route segments and acceleration out of stations as the diesel engine is supplemented by a power boost from the battery. This is estimated to reduce fuel consumption and emissions by approximately 20%.

In 2025 Arriva Group, operator of the Grand Central Railway which connects London and Yorkshire and the Northeast, ordered nine Tri-Mode trainsets (Class 820) from Hitachi for delivery in 2028.



Olympics service.

When an agency has been tasked to provide additional service on a route and has failed to do so after twenty years there is a tendency to clutch at straws. The 14-day straw blowing through Los Angeles in two years' time is the combined Olympic and Paralympic Games. Somehow, the rail agencies think, there is enough momentum towards making these events "car free" that there will be funds to patch together a train service along the coast route. The Coast Rail Coordinating Council, LOSSAN and Caltrans Division of Rail are concocting something between them, and we'll see whether these folks can make this happen. I hear that consultants are already in the mix. Don't the professional staff....I won't go there.

In the discussions that I have listened to, startlingly absent was any mention of the Coast Starlight. Considering that Amtrak 11 and 14 used to run with 14 cars or more and now operate with only 8 the first thing that came to Steve, Jim and I* was to add capacity to the existing train. Yes, you'll need rolling stock and likely an extra locomotive, but it avoids timetable problems given that the infrastructure between San Jose and Santa Barbara has seen no significant improvement. It also avoids having to negotiate a new deal with Union Pacific. We all know of course that the real hope is that having made a deal with all and sundry to run an additional train that it will become a permanent feature. What's wrong with that? Nothing, provided that the resources, sidings, suitable intercity rolling stock with comfortable seats for a long journey, maintenance facilities, connecting buses and FOOD SERVICE are in place. This is not the task for a four-car hydrogen powered multiple unit!

**Steve Roberts, James Smith and myself, the RailPAC ad hoc subcommittee.*

The Far North

A good friend recently had to make a journey from the Sacramento area to Yreka to retrieve a broken-down car. Coincidentally I've recently been receiving emails from a Redding resident complaining about lack of service of any kind in the I-5 corridor. In digging through the service options to Yreka I found only one. The Coast Starlight, departing Sacramento at 2349 (11.49pm) and arriving Dunsmuir at 0458 (04.58am) at a dark, unstaffed station with no rest rooms. You have then to wait until 0830 for the Cascade Flyer bus service to Yreka. The nearest coffee shop doesn't open until 0800. This level of "service" is all too typical for rural California. Other states would think that we are lucky to have anything at all.

Paucity of service is why RailPAC campaigned to open up the Thruway buses to non-rail intermediate passengers and you'd think that, seven years after the passage of SB 742, the relevant agencies would have acted swiftly to put this legislation into practice. Sadly, this has yet to happen. Growing communities like King City, Gonzales and Salinas are under served (Gonzales is about to add 3000 plus houses) and the minimal Greyhound service is frequently sold out.

Diesel Excellence – 50 years ago.

In 1976 British Railways introduced the 125mph "High Speed Train". The train consisted of a power car at each end with a luggage compartment (Guard's van), and up to 8 BR Mark 3 coaches including a restaurant car and both first and second class accommodation. Seats were aligned with the windows! The seats were well designed and comfortable, with padded armrests, the air conditioning was quiet but effective, and the ride was smooth. These trains have only recently been retired, having clocked up some amazing mileage (for a small island!). While this all sounds too good to be true I can prove it to you. The *125 Group* has preserved a train and actually runs it on special trips at the designed 125mph. www.125group.org.uk. Why can't new trains be like this? Well, the FRA wants you to add 10-15 tons per car for starters. I'd rather the money were spent on crash avoidance and not the cost of all that steel and the lifetime fuel spent hauling it around. You can't have comfortable seats because we've spent all the money on consultants and ADA access. Automobiles have safety regulations to meet but they seem to manage to build a comfortable seat. I'm anxious to hear what the result of litigation between a passenger and United Airlines about window seats will be. Every 'plane has a couple of pairs of seat rows with blank walls instead of windows. Are the seats by these walls "window seats". What if Amtrak were to institute numbered seat reservations? How many window seats have windows?



Photo: Wikipedia.

BR High Speed Train at Chesterfield in original BR livery. Note the Yellow stripe over the windows denoting First Class and the Red stripe indicating the restaurant car.

Needless to say, this is not an advocacy for diesel. In the UK in 1975 the electrification program was stalled and both the northeastern and western main lines were diesel only. They have since been electrified and the replacements for HST are electric or hybrid. There is no long-term substitute for electrification, preferably powered without using fossil fuels, and better yet tied into a national electricity distribution grid to make the best use of solar and wind power.

Metrolink Budget – On the Brink of Disaster

As I write, Metrolink has just announced a fare increase, the first in about ten years. At the same time service cuts are planned because the counties will not provide enough operating funds for the current timetable. Metrolink's plan to pivot from mostly Los Angeles based commuter service to a broad based all day regional service will in effect be reversed and off peak and weekend services will be slashed. This is spite of the fact that these "off peak" trips were the growth business.

Lightly loaded train A (say 50 passengers) is to be cancelled. Train B, on which perhaps half of those 50 use for their return trip, may lose 25 passengers, so that eventually it too may become a candidate for annulment. The result is a downward spiral for all services. I'm sure that Metrolink management understands all this, but I'm not sure that the Board does. More to the point, I don't think that the paymasters at the counties really care. Metrolink has always been an afterthought. If the counties have any loose change in their pockets after meeting their local needs then they might drop it in the Metrolink poor box, but otherwise they hope that Metrolink can fund itself with grants. I have no doubt that Board members are appointed by the counties with strict instructions not to spend county funds!

In our opinion, nothing could make it more clear than the current budget crisis that, at least in southern California, regional rail is in the wrong hands. RailPAC will be working for change in governance in the new year to meet our objective of a regional level structure above the county level and predominantly funded by the State. Watch this space.

Paul Dyson
VP Government Affairs

