Congressional Fight Could Set Stage To Reverse Rail Infrastructure Decay

by Richard Freeman

A new push has been launched in the U.S. Congress, especially during the past three to six months, for railroad infrastructure building, including proposed legislation for high-speed rail and magnetically levitated (maglev) train systems. This is necessary to begin to address the decades-long decay and obsolescence of significant sections of the U.S. rail grid.

The proposed legislation represents an increase in the tempo of the organizing for rail and other infrastructure construction, as the crisis of the breakdown of the U.S. physical economy intensifies.

The two principal legislative thrusts are the "High-Speed Rail Investment Act of 2001," which is sponsored mostly by Democrats with some Republican support, and the "Rail Infrastructure Development and Expansion Act" (RIDE), which is a largely Republican-sponsored bill, with some Democratic support. The two proposals share some important premises, but also have differences. Both would rebuild sections of the U.S. rail grid, and also build high-speed rail networks, including maglev train systems.

What is important, is that the debate on infrastructure is concentrated on relatively sane and rational purposes, as opposed to the insane and often dangerous discussion of these issues that has predominated in Congress for the past 35 years.

Now that the myth that the "U.S. economic rebound is just around the corner," is shattering, it is possible to think beyond the budget-balancing constraint which has shackled the minds of members of the U.S. Congress. This had created a climate in which a fundamental change in axioms of thinking of long-term economic policy can be made, and the underlying U.S. financial-economic disintegration can be addressed.

The momentum toward rail and other infrastructure constitutes a useful first step. *EIR* has projected that the United States has an $8-9 trillion deficit in fundamental infrastructure, which it is necessary to construct over the next 15-20 years, to overcome decay and obsolescence. This includes some great projects for the North American continent. The combined projects would generate several millions of productive jobs per year in infrastructure and the manufacturing industries that produce goods for infrastructure. As a precondition, we would have to start with Lyndon LaRouche's New Bretton Woods proposal for bankruptcy reorganization of the world financial system, to clear away hundreds of trillions of dollars of worthless financial paper, and generate credit for productive undertakings.

Rail infrastructure is critical in moving goods and people in such a way as to increase the efficiency and productivity of the U.S. economy as a whole. That is, if one thinks of the transportation grid as an extension of the manufacturing assembly line and of the farm, each increase in the productivity of transportation, increases the productivity of the factory and farm. Rail is that mode of transportation that has the greatest potential for scientific improvement, *if tackled as a totality;* yet, the U.S. rail grid has moved in the opposite direction.

In looking at what the rail legislation proposes, we must view it from the standpoint of the collapsed state of rail, and the best way to improve it, is by conceptualizing the functioning of the rail system as a whole.

The Proposed Legislation

First, we summarize the principal features of each of the two major pieces of legislation to improve inter-city rail.

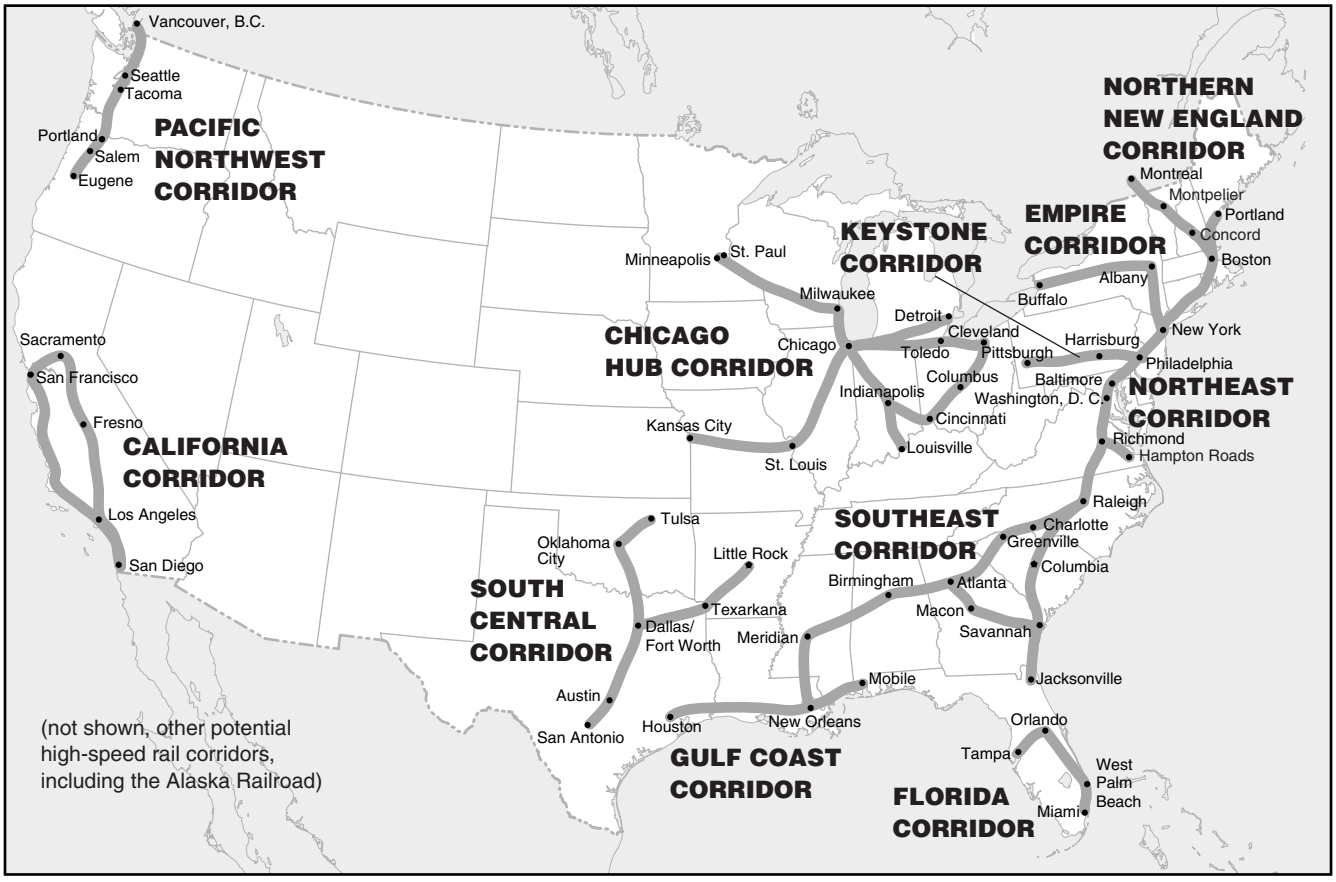
The High-Speed Rail Improvement Act (HSRI), H.R. 2329, is co-sponsored by Reps. Amo Houghton (R-N.Y.) and James Oberstar (D-Minn.). It was introduced into the House in June of this year, and its companion in the Senate, S. 250, was introduced in February.

The bill calls for $12 billion to be authorized for investment over the next ten years, specifically in high-speed inter-city rail. It states that the funds should be expended for "the acquisition, financing, or refinancing of equipment, rolling stock, and other capital improvements (including the introduction of new high-speed technologies, such as magnetic levitation systems)."

To provide funding, the bill would authorize the National Passenger Railroad Corp. (known by its nickname, Amtrak) to issue $12 billion of long-term bonds of up to 20-year maturity. Individuals and companies that buy the bonds would not receive annual interest payments (the bonds therefore have no annual yields), but would receive Federal tax credits equivalent to what a private corporation would pay on its long-term bonds, and which could be deducted against the individual's or company's taxes. Thus, since the Federal government is advancing the tax credit, the Federal government is effectively covering the "interest payment" (though the Federal government pays no interest, but allows the bond owner to

FIGURE 1

High-Speed Rail Corridor Designations



deduct the tax credit equivalent to the interest payment from his Federal taxes).

While Amtrak would be the bond issuer, it would build only some of the high-speed rail systems. The bill authorizes Amtrak to "re-lend" a portion of the money to companies or state and local agencies that would be established to build inter-city high-speed rail. High-speed rail is defined as a rail system that travels at 90 miles per hour (mph) (150 kilometers per hour, km/h), or greater.

The HSRI bill states that it would facilitate the construction of the high-speed rail, with all the necessary improvements, such as track upgrades or electrification, including a maglev system if it is decided upon, in some or all of the 12 high-speed corridors which the Secretary of Transportation has designated. These 12 corridors connect America's major cities, representing more than three-fifths of America's population. **Figure 1** shows 11 of the corridors. Such systems would reduce travel time by one-tenth to one-third, and in the case of maglev, by more.

A source close to those drafting the legislation told *EIR* on Oct. 2, that an increase of the funding for the HSRI Act, above its initial $12 billion, would be viewed positively. He said that the sponsors of the RIDE Act have stated that their legislation proposes $71 billion in bonds and loan guarantees, and they point out that the HSRI Act only calls for $12 billion. He said, "We proposed $12 billion before the Sept. 11 incidents. If we had proposed $70-80 billion then, we would have been denounced as crazy, and the legislation wouldn't have been considered. But since Sept. 11, things are changing." He stressed that, in reality, a much larger sum is needed "to do the whole job." He said that, though it was not likely, if the $12 billion were spread over the 12 corridors, that would be only $1 billion in investment per corridor; but even funding only some corridors would still not leave adequate money to sufficiently build the chosen corridors.

He said, "I rode the TGV [France's high-speed rail system] from Paris to Lyons, and it travelled at 125 to 150 miles per hour. We must make improvements in the tracks in America to travel at those speeds." Many of the American tracks are shared with freight trains, which wear down the tracks, and the tracks are insufficiently tilted to enable trains to go around turns at 150 mph.

"Any travel that can be done between three or four hours or less, should be done by train," not plane, he said. "The events of Sept. 11 have shown some limits of air travel, and increased the interest in upgrading rail and high-speed rail. I'm getting calls from groups every other day from all over the country."

The RIDE Act

The approach to building high-speed rail that a section of the Republican Party has chosen, is the Rail Infrastructure Development and Expansion Act, co-sponsored by Reps. Don Young (R-Ak.), and Jack Quinn (R-N.Y.). RIDE proposes:

1. To permit the states to issue $36 billion in Federal tax-exempt "private activity" bonds for eligible high-speed railroad projects over ten years (a holder of these bonds would not have to pay Federal income tax on the interest earned).

2. To substantially increase the amount of money available under the existing Federal government Railroad Revitalization and Infrastructure Financing (RRIF) program to $35 billion, for loans and loan guarantees for freight and commuter rail improvements.

3. To reauthorize an existing program, which would make available, through fiscal year 2009, $35 million a year for corridor planning and technology development.

Representative Young, who chairs the House Committee on Transportation and Infrastructure, held hearings on the bill on Oct. 2.

Compared to HSRI, RIDE seeks to have the states pay more of the funding and have more of the control over the high-speed rail systems, and to reduce Amtrak's role.

A source who is close to those who drafted the RIDE Act told *EIR* on Oct. 10 that under the Act, the high-speed rail systems would be built wherever the states and rail companies decided, and would not have to be in the 12 corridors designated by the Secretary of Transportation.

This source stated, "The support for high-speed rail is much greater than it was five or six years ago." He said that before the current session of Congress ends, which could be sometime in November, "one or the other of the bills could pass the Congress. Because the rules of the Congress change near the end of the session, the bill might not have to come up through committee, but could go straight to the floor for debate, if there's sufficient support."

The source close to the HSRI Act, reported that he sees a possible combination of portions of the HSRI and the RIDE bills. "It's not an either-or. For example, the use of the $36 billion in Federal RRIF loans or loan guarantees for rail improvement, which is in the RIDE bill, could be adopted into the HSRI bill," he said.

What is refreshing about the debate over high-speed inter-city rail, is that, while many other Congressional debates are over insane alternatives, both the HSRI and RIDE legislation would benefit the nation. The only drawback, is that neither of the bills goes far enough or would be implemented fast enough, in terms of solving the immense dimension of the problem.

The Dimensions Of The Problem

The U.S. inter-city rail grid has been shrinking for 70 years, is grossly under-used for passenger transport, and has been increasingly prone to accidents and collisions. The need to overhaul it, is manifest. The problems with the rail grid can be seen with respect to both freight and passenger transport.

Among several reasons for the reduction in the size and, in significant ways, the efficiency of the U.S. rail grid, three principal ones stand out: 1) the overall anti-production, pro-speculation, "post-industrial society" policy that has been governing in the United States since the mid-1960s; 2) the practice of using trucking in preference to rail for certain categories of goods transport; and 3) the deregulation of the rail industry through the Staggers Act, which became law in October 1980.

One severe consequence of these policies is the following: In 1929, there were 229,530 road-miles of track in operation in America by Class I rail carriers. This was reduced to 164,822 miles by 1980; today, there are only 99,430 miles, which is a contraction of 40% since 1980, and 57% since 1929. As a result of the drastic downsizing, thousands of cities and towns have been eliminated from the rail grid, and many farmers have only one rail line on which to transport their grain or other products.

The dimension of the problem is underscored by three other parameters:

- When the four principal modes by which people travel inter-city are considered—by car, airplane, rail, or bus—rail accounts for a scant 0.6% of the total volume.
- More than 70% of all rail travel operates at a speed of less than 90 mph (150 km/h), which is incredibly slow, in light of the technology available in this day and age. This is sorrowful compared to rail travel in France, Germany, and Japan.
- Rail safety is deteriorating. The Federal Railroad Administration reports that in 2000, there were 2,059 derailments, compared to 1,741 derailments in 1997, an increase of 18.3%. This is a rate of 40 derailments per week, some of which entail fatalities.

These problems cannot be solved by palliatives. The rail grid must be expanded, to service the whole nation, and be vastly upgraded overall, and simultaneously in crucial areas of performance.

The Case Of France's TGV

To address the problem from the top, were the United States to adopt a high-speed system, it would first have to achieve at least the level of functioning of the high-speed rail system in any of three countries: France, with its TGV (Train à Grande Vitesse); Germany's ICE (InterCity Express) and ICT (InterCity-NeiTech); and Japan's Shinkansen

("Bullet Train").

A quick look at the TGV and its history, for example, defines the direction the United States should take.

In 1972, the French National Railways, the SNCF, which owns and operates the TGV, launched a high-speed TGV prototype for test purposes. In December 1972, the test vehicle set the world speed record for a train in autonomous traction at 198 mph (318 km/h). On Sept. 27, 1981, the TGV officially opened for commercial revenue service, and passengers started taking it in increasing numbers. Its first major line, the Paris Southeast, ran from Paris to Lyons in the southeast of France. One TGV line from Paris heads westward to several cities on France's Atlantic coast, and another heads northward; the latter splits, one part branching off northeastward toward the French-English Channel Tunnel, and the other part branching off northwestward to Belgium. Thus, the TGV grid links up France, and connects it to the rest of Europe.

TGV typically runs at speeds of 186 mph (300 km/h), but it has achieved higher top speeds. According to a TGV report, the line from Paris to Lyons "was incredibly successful," to the extent that it eventually "gutted . . . the airline business" on that route.

To function well *as a system,* the TGV, or any high-speed rail, must build and integrate, as preconditions, several important features, including well-maintained tracks—for its fastest trains, the TGV runs on dedicated tracks, that is, tracks used exclusively by the TGV; an overhead electric catenary (suspension wire) system which feeds power to the TGV; an advanced electric-power locomotive/power unit; and well-developed suspension systems and braking systems, the latter of which are capable of dissipating a very large amount of energy. To power the TGV, France relies heavily on nuclear power, allowing France to move beyond diesel-electric locomotives to the more efficient, strictly electric locomotives.

The U.S. high-speed system is far behind the systems of France, Germany, and Japan. First, the U.S. definition of high-speed rail—a train system travelling at a speed in excess of 90 mph (150 km/h)—is a fairly low threshold. Even by that limited definition, 70% of U.S. train travel occurs below high-speed levels.

Second, America's high-speed rail operates for the most part in one corridor: the Northeast Corridor from Washington, D.C. to New York City to Boston. The fastest high-speed train system is the Acela, which is owned and operated by Amtrak, and which is America's only significant inter-city train system, which started operation in July 2001. Acela's advances have allowed it to shave off 45 minutes, or about one-eighth of the travel time in the Northeast Corridor. When it reaches top speed, the Acela travels at 150 mph (250 km/h). But because of the poor condition of the track and other impediments, the Acela must slow down in several stretches, and its average speed over the entire route is only about 130 to 135 mph (217 to 225 km/h). This is far below the TGV's typical travelling speed of 186 mph (300 km/h).

Use of the Acela has not been generalized to other rail corridors in the United States.

Were the United States to connect itself up through high-speed rail, using the 12 corridors designated by the Department of Transportation (DOT), it would have to make the major investments we have indicated, which demands a government role. In a recent study, the General Accounting Office of the U.S. Congress estimated that the cost of building such a minimum system would be $50-70 billion in constant (inflation-adjusted) 2000 dollars over approximately 20 years. The investment cost, in noninflation-adjusted dollars, would be more than $100 billion.

The fact that only 0.6% of all inter-city passenger traffic by the four major modes goes by rail, is pitiful. Rail traffic is more efficient. U.S. policy should aim to have initially 10% of all inter-city passenger traffic go by rail, and then increase that percentage.

The United States should also expand its shrunken rail grid, back to its previous dimensions. That doesn't mean that the United States needs to have parallel rail systems competing right next to one another, but there are whole stretches of the United States that are not served by rail.

Among the necessary rail expansion proposals is a critical project: Transportation engineer and consultant Hal Cooper has proposed building a tunnel across the Bering Strait, to connect eastern Russia with Alaska, and thus connect the United States into the Eurasian Land-Bridge. Cooper envisages the construction of an advanced high-speed rail link from Alaska, across Canada, to the continental United States (see interview with H.A. Cooper, "Bring The Land-Bridge To America," *EIR,* Oct. 19, 2001). The total tunnel and rail project would carry a price tag of at least $100 billion.

Both the building of high-speed rail in the continental United States, and the Bering Strait tunnel and complementary high-speed rail link from the tunnel to the continental United States, would speed the transport of goods and people, create the conditions for increased industrial development, and increase the efficiency and productivity of the U.S. physical economy as a whole; the benefits would more than pay for the initial investment costs.

Creating A Maglev Rail System

Within America's overall thrust to new forms of rail, the greatest concentration should be on maglev. Among all modes of transportation, maglev represents the greatest scientific advances in rail transport, because it is based on revolutionary principles.

Even the best advances of high-speed rail still operate on the basis of a steel wheel travelling, through traction, upon a steel or iron road track. In maglev, the relationship between the wheel and track or roadway is replaced by a magnetic or electromagnetic interaction operating at a small distance. There are no wheels in maglev. Magnetic forces lift, propel, and guide a vehicle over or under a guideway. This eliminates

the major source of vibration, friction, and wear on the vehicle, which slows all traditional modes of railroad and road transport. At the same time, maglev systems permit revolutionary methods of locomotion and control of moving vehicles.

Maglev systems are capable of cruising speeds of up to 300 mph (492 km/h), three times America's definition of high-speed rail. This would reduce the 250-mile travel time between downtown Washington, D.C. and downtown New York City, for example—allowing for the acceleration and deceleration of the maglev vehicle for stops along the route—to one hour. Compare this to an airline flight between Washington and New York, which, counting air travel time, waiting time at the airport, and the travel time between downtown and the airport, takes two to three hours, or more. For the most part, maglev would replace airlines for distances of 500 miles or less, and would be quite efficient for distances of up to 1,000 miles.

Of perhaps greater consequence than for passenger transport, a maglev system would produce tremendous breakthroughs for transport of freight.

Further, as work on application of maglev progresses, its testing, construction, and development provides a laboratory for potential discoveries of other technologies which will advance the economy.

Both Germany and Japan have done significant work on maglev. The German Transrapid 07, which works on a maglev magnetic attraction propulsion system, and which has been tested repeatedly, runs on a 21-mile figure-eight test track in Emsland, Germany. The test teams have achieved velocities of 280 mph (450 km/h), and passengers ride smoothly and in comfort, without seat-belts or other extraordinary safety measures.

The United States operates a DOT-supervised National Maglev Initiative, which has conducted studies on several maglev technologies. The DOT has commissioned seven regions to conduct maglev feasibility studies, and after reviewing the studies, narrowed potential maglev routes in the United States to two: a 45 mile (72 km) route linking Pittsburgh Airport to Pittsburgh, and a 40 mile (64 km) route linking Baltimore, Maryland to Washington, D.C. The consortiums running these two projects, which are comprised of government and private interests, are preparing a full battery of further studies, including environmental impact studies, and around 2002-03, the DOT is to select one of them to build a maglev test system within these routes.

Both the HSRI and the RIDE bills call for the development of maglev. But their shortcoming, is that once one of the two above consortiums is chosen, according to their own documents, they would not have a maglev system functioning until about 2009-10. This still would be effectively a test system, though operated on a commercial basis. While there is time needed for maglev scientific testing, the ten-year timetable for construction and operation of the program reflects the oppressive weight of political inertia. There should be sufficient funding and resources made available for maglev work, and the original seven maglev test proposals, some employing different technologies, should all be constructed.

Thus, Congress' current momentum behind the HSRI and RIDE legislation for high-speed rail infrastructure, could shake things up and be a positive first step. The problems of the U.S. rail grid are immense. The solution should not be piecemeal, but sweeping and fundamental, including the greatest possible use of scientific discovery. The fullest vision must include LaRouche's proposal for bankruptcy reorganization, so that the complete transformation of U.S. rail infrastructure can be realized.

Airline Bailout Is For Wall Street, Not General Welfare

by Anita Gallagher

The $15 billion airline bailout legislation which recently sailed through a panicked Congress exemplifies exactly the wrong approach to take to the reorganization of bankrupt industries essential to the general welfare of the United States. The airline package is shaped to appeal to the market by forcing mergers of "weak" airlines with stronger, to promote union-busting and give-backs by skilled employees, and even to allow the government to make money if the airlines were to turn "profitable" again.

U.S. 2004 Democratic Presidential pre-candidate Lyndon LaRouche blasted this approach in a Sept. 17 statement, "Policy On Financial Crisis Management: Terror As Used For Bailout" (see *EIR,* Sept. 28, 2001). LaRouche warned, "The added danger at this moment is that lunacy in Washington will insist that everything must be wasted in the futile effort to 'save the market,' throwing away precious assets for a 'bailout' of 'the market,' instead of conserving our national sovereign credit for the urgent need, that of saving the real economy.

"An emergency financial reorganization of the national airline industry must occur, preferably in parallel with kindred emergency measures by other nations. This means, that we must forget the Wall Street financial capital-gains market, and concentrate on long-term flexible budgeting of Federal and other credit-resources to keep the industry functioning physically, using 10- to 20-year financial organization as the way of stabilizing the industry, both financially and in physical functioning."