

## New York State announces a bold maglev program

by Richard Freeman

New York Gov. Mario Cuomo on Nov. 9, announced bold and innovative plans to build the nation's first intercity magnetically levitated (maglev) rail service of greater than 50 miles in length, which would connect New York City and Albany, New York, a distance of 156 miles.

Maglev is a revolutionary technology, in which trains operate like low-flying planes, traveling upon a "magnetic cushion," which they have generated, at speeds of up to 300 miles per hour. Traditional steel wheels on steel rails are abandoned.

The perspective that motivates the New York program displays a greater degree of seriousness and planning than hitherto exhibited in discussion of maglev train building in the United States.

The New York initiative pursues a two-stage plan:

1) To build a high-speed rail system, comparable in design to the French TGV, capable of going 125 miles per hour, along the entirety of the New York State railroad grid, which extends north to Rouses Point, just across the New York border into Canada; west to the Buffalo-Niagara Falls region; and south to New York City. This system will be complete by 1999, if things go as scheduled. Under this plan, the travel time between Buffalo and New York City would be six hours, a 25% reduction from the current eight hours required to make the trip.

2) In parallel, New York State would erect a maglev system from New York City to Albany, which, if completed according to schedule, would be functioning within 11 years, by the year 2004. The trains would travel at speeds of 300 miles per hour, mostly along the rights of way of the New York State Thruway, which would do away with the biggest cost of having to purchase new land corridors. The power source for the system would be electricity.

Acquiring federal government funding may be the biggest challenge that this system faces.

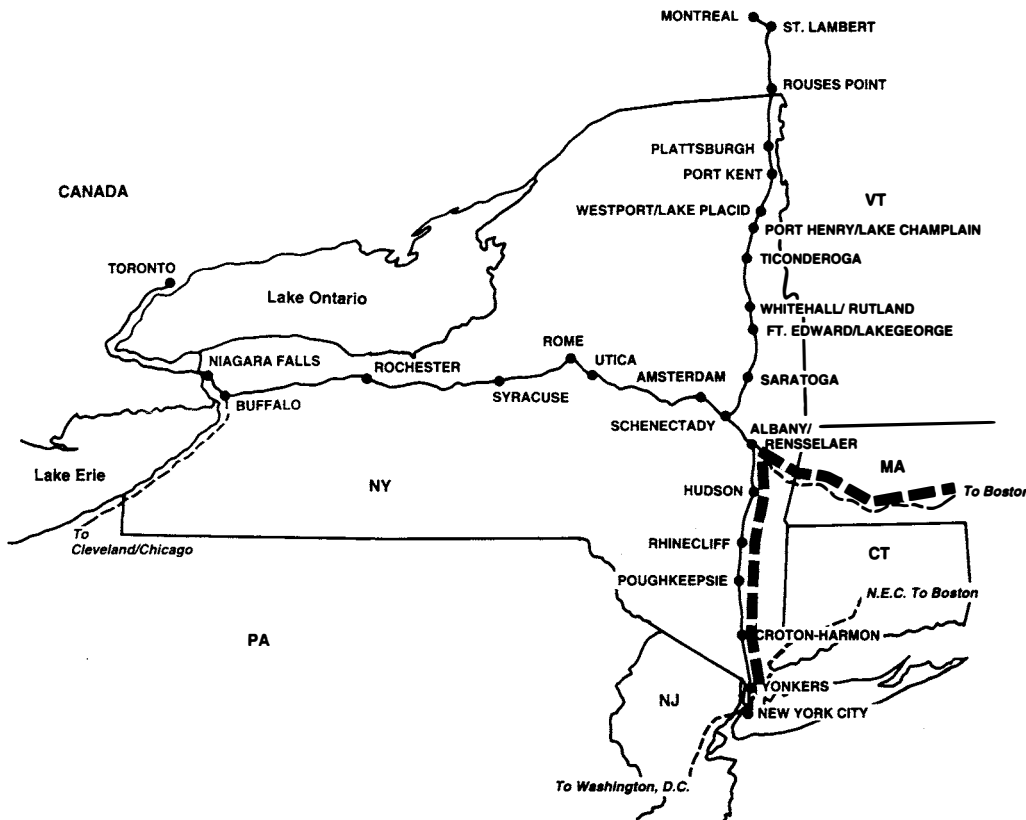
### A historic mission

The government document announcing the maglev project, entitled "Moving Towards the 21st Century," is quite clear about the benefits of the system and its place in history. Prepared by the New York State Transportation Department in coordination with other New York agencies, it states, "It was ingenuity—not nature—that transformed New York from a colony on the coast into the state that became, in George Washington's words, 'the seat of Empire.' The steamboat was born on the banks of the Hudson. The Erie Canal, dug with picks and shovels, raised 30-ton barges 565 feet from the Hudson to the Niagara River and changed the course of history. New York's great river valleys were ideal for building the nation's first railroads, but it was New Yorkers who built them.

"In the 20th century, New York pioneered in aviation, subways, and interstate highways. . . . Today a new opportunity presents itself. New York can once again lead the nation . . . by making a quantum leap in transportation technology."

The document reports that automobile and truck transportation congestion in New York State's urban areas increased by 1.5% per year in the recent period, and that some experts expect a transportation crisis by the year 2000. By the year 2010, to accommodate increased traffic flow, New York State would have to handle 50-100 additional airplane flights per day. The document estimates that by building maglev, New York would create 74,000 direct temporary jobs in construction, and 1,400 jobs in operation and maintenance of the line. A further 12,000 temporary construction jobs

## New York State's proposed maglev route



*Solid lines show New York State's existing commuter line-Amtrak system. Dashed lines show the route of the proposed maglev system.*

would be created in building the high-speed rail line. While the document does not say it, 30-50,000 jobs will be created in the industries that supply both the maglev and high-speed rail construction, from cement to the pylon supports that hold up the elevated maglev guideways, to the magnets and train bodies for the system. Total jobs: 117-137,000.

The document also addresses the critical question of the reconversion of the defense industry, which is, perhaps, the most technologically advanced and capital-intensive sector in the U.S. economy, representing "free energy" for the economy. The report states that New York would deliberately "take the opportunity to redeploy some of the highly skilled work force" from the defense industry, which is being "downsized," mentioning, in particular, Grumman Aerospace of Bethpage, New York. As *EIR* has emphasized, the crucial question of repairing and upgrading infrastructure by building a national maglev network can be met by converting idle defense capacity. The skilled manpower is there: Since 1987, the defense sector has been forced to cut back 450,000 manufacturing jobs alone, and more than 30,000 engineering jobs.

The New York plan conceives of the system going from New York City to Albany, but also extending the system from Albany eastward to Boston, thus making a New York City to Boston trip only three hours. However, Albany is centrally placed for adding on to this initial maglev grid, in a most useful fashion. Were maglev to go north from Albany

it would reach Montreal. Were it to go west, it would reach Buffalo-Niagara Falls, passing through Schenectady, Syracuse, and Rochester, thus linking up the most populous urban areas in New York State. If the system were to proceed westward from Buffalo, it would reach Cleveland and then Chicago, following the path of the Erie Canal of 175 years ago (see map). Going southward from New York City, it could head toward Washington, D.C., and eventually continue to Florida. Thus, the plan fits in very well as the cornerstone of a national grid.

However, the critical question is whether there will be funding for the project.

During September, the long-awaited "National Maglev Initiative" report was issued by the Federal Railway Administration of the U.S. Department of Transportation, the U.S. Army Corps of Engineers, and the Department of Energy. The report recommends that the United States build a maglev independently of the Japanese and German systems.

However, on a most important question, the "National Maglev Initiative" report said nothing. Four different approaches to maglev are being explored in the United States by four different research teams. The design teams are known by the lead company in each team: Grumman, Magna-plane, Bechtel, and Foster-Miller. The designs differ by the methods used for propulsion, levitation, and guidance of the maglev vehicle, called a consist. In maglev, electromagnets on the vehicle interact with the "track" or wired guideway, em-

ploying either magnetic attraction or repulsion to propel the vehicle.

After years of research and development, the best three design systems were to be selected by September 1993, and then next March, the best two design systems were to be selected. Then tracks were to be built to test out the best two systems. But the report doesn't narrow down the choice of design systems. Why?

The Congress is not forthcoming with the money. On Oct. 21, the House Appropriations Committee Subcommittee on Transportation voted only \$20 million for maglev in the 1994 fiscal year budget, and restricted the funds to "research and analysis." It refused to appropriate one penny toward constructing a test track. As one of the chief engineers at one of the four design teams told *EIR* on Nov. 18, "We've done research for years; we're ready for a test facility. Unless Congress votes money for a test facility, we cannot work out the problems that must exist in our engineering design. Without that, we will never have maglev." This source confided that the chairman of the Transportation Subcommittee, Rep. Robert Carr (D-Mich.) from Detroit, represents the auto industry, and that industry, along with the trucking, petroleum, and airline industries, are short-sightedly against maglev. Representative Carr actually deleted Sen. Barbara Mikulski's (D-Md.) recommendation of \$23 million for construction of a maglev test track, which was contained in an earlier version of a Senate transportation funding bill.

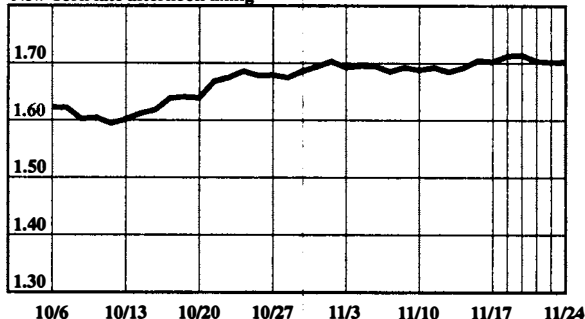
If Congress refuses to fund test tracks, which cost tens of millions of dollars, what will that mean when it comes time to fund part of the far costlier bill of actual construction of an operating maglev system? The expensive initial capital costs of maglev, such as building the guideways, paying for the vehicles, etc., cannot be recaptured by the system itself, strictly out of fare revenues. (See "The Case for Maglev: Paying More Is Cheaper," *EIR*, Nov. 6, 1992.) The above-mentioned "Final Report of the National Maglev Initiative," released by the federal government in September, reviewed 16 corridor-routes for potential maglev construction, which group into six basic regions: the Northwest; California; a Texas-Louisiana belt; a Florida belt; a Northeast corridor, extending as far south as Atlanta, Georgia; and a belt that runs from the East Coast to the Midwest. Of the 16 corridors, the report concluded, only one, the Washington, D.C. to Boston portion of the Northeast corridor, would initially generate enough revenue both to pay back its capital construction costs, and to cover operations and maintenance.

On Nov. 8, a coalition of businessmen proposed that a maglev line be constructed between Baltimore, Maryland and Washington, D.C., reducing traveling time between those cities from 45-60 minutes to 15 minutes. This, and the promise of the New York State maglev proposal, show that a positive, rational approach to our nation's pressing infrastructure may be emerging. America must now manifest the national will to fund these programs.

## Currency Rates

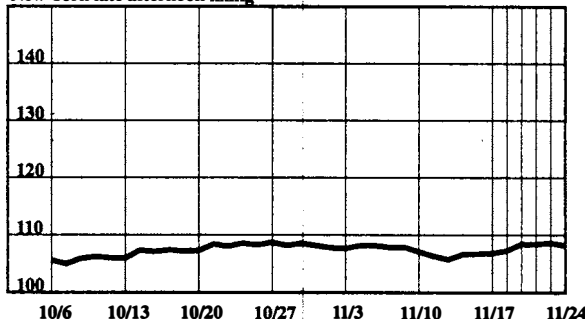
### The dollar in deutschemarks

New York late afternoon fixing



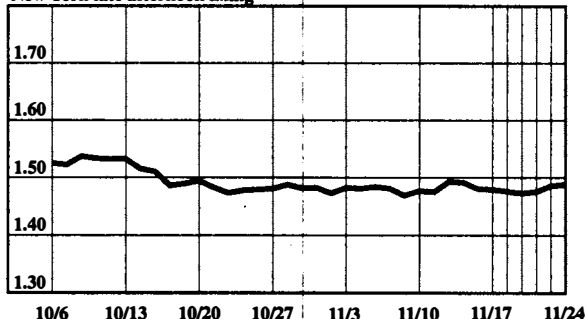
### The dollar in yen

New York late afternoon fixing



### The British pound in dollars

New York late afternoon fixing



### The dollar in Swiss francs

New York late afternoon fixing

