

## Report from Bonn by Rainer Apel

### Entering the next century by train

*Maglev rail technology for movement of freight is now being developed, improving its prospects.*

Next to space research, maglev rail systems will play a determining role in the next century. And, unlike in the space sector, Germany has maintained a technological edge over other industrial nations, with its Transrapid maglev system.

One big problem has been the slowness in building the first operational commercial track. Apart from bureaucratic and ecologist obstacles, funding problems have contributed most to the delay of projects in recent years, so that the long-discussed Hamburg to Berlin maglev project was not begun in 1992 or 1994, but delayed until 1998. But, each month of delay is also lost time in terms of contracts for export of the Transrapid. There is an immense interest abroad in the system, especially among nations that have abolished (United States) or never really had (Australia) a dense rail infrastructure.

The one experimental track that exists, near the town of Lathen, in northwest Germany, is much frequented by official visitors from other nations: U.S. Sen. John Chafee (R-R.I.) has been there, as was Australian Transport Minister John Sharp, and government delegations from China, Chile, and Brazil. The most recent visitor was Annemarie Jorritsma-Lebink, the transport minister of the Netherlands, who took a test ride together with her German counterpart, Matthias Wissmann, on July 15.

After years of struggles over the first project, the export potentials of the maglev system are finally coming to the fore. The most spectacular development has been a proposal by

Eckhard Rohkamm, the chairman of Thyssen Industrie, the mother company of Thyssen Henschel, the firm that produces the maglev. In interviews in mid-July, Rohkamm said that instead of the long-overdue project for a rail tunnel across the Alps, one could build a maglev line along the same route, with fewer tunnels, and at lower cost.

While the tunnel system along the Brenner route would require 26-28 billion deutschemarks (roughly \$17 billion) and take 20 years to complete, the maglev variant would cost half that sum, and could be built in less than 10 years. The 200-kilometer maglev route could transport commodities as container freight, at speeds up to 200 kilometers per hour (kph), and handle 25 million of the 50-60 million tons expected on that route by the year 2020. It would relieve congestion on the highways, which are overloaded with heavy trucks now, and will be for the next 10 years at least, before an efficient rail alternative could be built.

The Rohkamm proposal, which is based on an engineering survey compiled by Thyssen Industrie and Lahmeyer International, has received much coverage in German, Austrian, and Italian media—but more in Germany, although the route would almost entirely be on Austrian and Italian soil. The proposal resembles those put forward by Lyndon LaRouche for trans-European maglev development 10 years ago. One of the reasons it has been made now, is that Thyssen Henschel just completed engineering work on two versions of a cargo maglev train. While the Transrapid was origi-

nally designed for passenger transport, the company is now set to begin production of a cargo version that can transport containerized loads of 18 tons per rail car, at speeds of up to 500 kph. And, it is also ready to build a version which can transport 30 tons at 200 kph, which would challenge the standard 38-ton heavy truck that now dominates European roads.

This new technology is ideally designed for the truck-dominated cargo transport sector of the United States, which covers distances of several thousand miles. There, the maglev is much more of an alternative, than for the 290 kms between Hamburg and Berlin, or the 200 kms between Kufstein and Trent, Italy. Indeed, the prospects for the maglev to enter the United States seem to be the best, compared on a world scale.

Following the Chafee visit of mid-February, contacts between the United States and Germany have intensified, and there is a good chance that there will be a maglev program in the new "surface transportation" plan that is expected to be presented by the Chafee committee to the U.S. Senate this autumn. The traditional quarrels between the Senate and House over funding and so on taken into account, the project, which in a first phase would build a shorter maglev line along one of the three "corridors" envisioned for early next century, could have the go-ahead by next spring or summer. Which means that the first maglev rail line in the United States could be operational before the year 2005—which is when the first maglev train in Germany will be fully operational on the Hamburg-Berlin route.

The three maglev corridors that have been discussed for the United States, are: 1) Baltimore-Washington D.C.; 2) Pittsburgh Airport-Pittsburgh-Greensburg; 3) San Diego-Los Angeles-San Francisco-Sacramento.