Trial run of ODU maglev gets it off the ground

By DEBBIE MESSINA, The Virginian-Pilot

NORFOLK - Maglev train research at Old Dominion University has chugged further down the track with successful trials in a campus laboratory.

Aerospace engineers have achieved stable levitation of a small-scale test sled and are preparing to move their work to the elevated guideway that traverses the campus.

"We've developed procedures that work in the lab and are expected to work on the track," said Jeremiah Creedon, ODU's director of transportation research. "We're not saying we'll plug it in and it will work perfectly from the get-go."

During the next few months, the 4,000-pound test sled will be moved to the guideway where testing and tweaking will continue. The sled, or bogie, is essentially half of the chassis that's attached to the bottom of a complete vehicle.

Eventually, researchers hope to transfer the technology to the full- scale train that has sat idle on the track for nearly four years.

Magnetic levitation is an emerging technology that uses electromagnets to float a vehicle about half an inch above a guideway.

A working maglev vehicle has eluded ODU for years. Georgia-based American Maglev Technology Inc. and its partners, including Lockheed Martin Corp., promised in 1999 to deliver a working maglev transportation system in 2002.

Technical glitches, overrun costs, unpaid bills and lawsuits derailed the project. The train levitated and moved, but instead of floating on a cushion of air, it bumped, rattled and vibrated.

With $14 million in state and private money spent, federal authorities stepped in with $2 million in 2004 to try to fix it.

That's when ODU took control of the money and the work.

After maglev's ill-fated start, expectations changed. It's no longer a transportation project, but a research project with a goal of producing a prototype of a low-cost magnetically levitating train. ODU officials say the system could be years and millions of dollars away from being usable as mass transit.

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ODU also took control of the guideway. Instead of having it removed at American Maglev's expense, as provided for in the original contract, the university has taken ownership of the 3,200-foot-long concrete guideway that runs east-west across campus and spans Hampton Boulevard.

With the federal money spent, ODU's Office of Research stepped up in June to financially back the project, granting $94,000 for the next year to keep the research moving forward.

Creedon warned that the recent technical breakthrough does not guarantee success.

"We've let it run for 20 minutes, and it's quiet and stable," he said.

"It has sensors that can be subject to electrical noise in the area, and we got rid of that in the lab," he said. "We don't know yet if the electrical noise environment is the same on the track as it is in the lab."

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