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Backers of less traditional high-speed projects air plans



COURTESY of AVT solatrek

Developers of AVT SolaTrek's system envision transporting vehicles and passengers on an elevated network of rails.

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Backers of three upstart transportation systems vying to be the ride of the future could all agree on one thing at a forum conducted Monday night at UNLV – it won't be easy for them to be accepted by the public and by regulators when their ideas are so far from mainstream thinking.

And far from it they were.

Boosters of AVT SolaTrek, America's Sunlight Bullet Expressway and Tubular Rail offered outside-of-the-box thinking and then some, leaving some of the 50 in attendance nodding their heads in agreement and others shaking their heads in disbelief.

The session, the third in a series sponsored by UNLV's Transportation Research Center and the Ward 5 Chamber of Commerce, brought in new, unusual technologies that their backers contend could be better alternatives to the conventional steel-wheels-on-rails DesertXpress proposal and the more futuristic American

Magline Group magnetic levitation system, both of which have plans to link Las Vegas with Southern California.

The up-and-comers concur that their plans are largely conceptual and far from the point of carrying passengers.

The two plans that seem to have the most momentum are Houston-based Robert Pulliam's Tubular Rail and Thousand Oaks, Calif.-based Frank Randak's SolaTrek systems.

Pulliam spent more than an hour with a team of prospective developers to explain Tubular Rail, which he thinks could be applied on a Las Vegas-Los Angeles run with a different route than those proposed by DesertXpress and American Magline.

Tubular rail would operate as a single rigid train unit that runs through elevated support rings like thread through a series of needles. The train would be in contact with at least three of the rings at all times as it passes from one to the next. Guidance rails would be mounted on each train and electric motors would be a part of each O-ring. Pulliam said trains should be able to achieve speeds of up to 150 mph.

Pulliam introduced his team of developers who explained their contributions to the project: Triumph Group, an aerospace company that would build the vehicles; CB&I – the old Chicago Bridge and Iron company that now builds water towers and wastewater system vessels – for the precision O-rings; Rockwell Automation, which would develop the locomotion system; and Raba Kistner, which would handle much of the administrative coordination.

Pulliam said he came to Las Vegas a few days early so he could drive along the proposed route to Southern California. Instead of using the Interstate 15 right-of-way as DesertXpress and American Magline have proposed, Pulliam suggests a route along U.S. 95 south along the eastern edge of the Mojave National Preserve toward Twentynine Palms, Calif., then west from near Palm Springs to the Ontario International Airport.

Pulliam said his system is less expensive than traditional rail because it eliminates the need to build track. The O-ring pillars would be far less expensive to build, greatly reducing the expense.

“For places like San Francisco and Pittsburgh, our system wouldn't be very good,” Pulliam said. “But for long, straight routes across the desert, it would be ideal.”

Randak's AVT SolaTrek (the AVT stands for “Advanced Vehicle Transport”) is actually a maglev hybrid system. The company's patented design envisions a system that would take cars off highways and put them onto solar-powered maglev trains on elevated guideways.

The Randak system proposes cars pulling into an automated shuttle vehicle that increases its speed until it matches the speed of a moving train and then loads it with a conveyor system. Once loaded, passengers can get out of their cars within their private train compartments that have air conditioning, vending machines, restrooms and entertainment centers.

Randak said the power of his system is that it doesn't try to alter the behavior of motorists who like their cars. Instead, the car is on the train with the passengers and can be used when the passenger arrives at his or her destination.

Both Tubular Rail and SolaTrek are to the point that developers want to build a full-scale proving track to demonstrate the technology. Pulliam has a site he's eyeing in Pecos, Texas, to build the Tubular Rail demonstration, while Randak wants to take advantage of the millions of visitors to Las Vegas and build 600-foot demonstration track at an overflow parking lot near the Thomas & Mack Center.

Randak said he thinks his test track could be built for \$5 million while Pulliam wants to raise \$30 million to build a two- to three-mile track in Pecos.

The third technology, America's Sunlight Bullet Expressway – known as ASBE – is a system advocated by Las

Vegas-based Transcontinental Transmission & Transportation Network, which proposes a nationwide network of electricity-powered trains with guideways that also could house high-tension transmission lines.

Lou Baker, who gave the ASBE presentation, described the transportation element as a broad-based air-cushioned vehicle similar to a large hovercraft. The main routes of the system would extend from San Francisco to New Orleans and from Newport, Calif., to Chicago with the tracks intersecting at Las Vegas.

Baker said he expects the system would be built in connection with the U.S. Department of Defense and that up to 1,400 passengers could ride each train at speeds of up to 500 mph.

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