

The International Maglev Board

www.maglevboard.net

Editorial No 12 - June 18, 2009

Where Is America's Vision?

by Kevin C. Coates

When the price of car and jet fuel hit unimaginable levels, how are people going to get to Vegas? Sig Rogich and his DesertXpress proponents think people in Los Angeles are going to drive 2 hours through heavy traffic congestion to Victorville and wait (how long, they aren't saying) to get on a diesel electric train for the rest of their trip. To coin a popular NYC phrase, "fagetta bout it!"

Is third rate train technology the best example of America embracing the future? The proposed DesertXpress vehicle vendor, Canada's Bombardier, had problems with on time delivery with both the Amtrak's Acela and the Las Vegas monorail (admittedly, not all their fault). By contrast, the maglev in Shanghai ran perfectly from the start and was delivered on schedule and within budget.

Las Vegas is known for thinking big. So, why not build a fully automatic 310 mph capable electro-magnetic levitation transport system between Los Angeles and Las Vegas? [The DesertXpress is not automatic and the Federal Railroad Administration (FRA) is still experimenting with automatic train control.] Once deployed, Americans will wonder why such a system was not built sooner.

Since transportation infrastructure projects take years to implement, it is important to note that in the midst of a recession oil is hovering around \$71 per barrel. It doesn't take a genius to see that oil prices are destined to go higher as the economy recovers. This means that America is doomed to a cycle of boom and bust for as long as our transportation sector remains 97% oil reliant – and as long as politicians continue to subsidize the oil industry.

For the record, maglev is not traditional train technology. It is basically a long electric motor when accelerating and cruising, and a generator when decelerating. It is the most advanced and reliable ground transportation system ever developed and absolutely ready for prime time service. The 267 mph (310 mph capable) system in Shanghai has been running for over five years with 99.97% on time reliability. Where in America is there a system that comes close to that level of performance? The answer is: nowhere. ... → → →

Yet, all the ersatz competing technologies and their proponents have for years been denigrating maglev as “unproven,” “too costly,” or “pie in the sky.” The reality is that maglev is the most cost effective high-speed system ever invented because of its extremely low maintenance and low life cycle costs. In other words, maglev is the perfect definition of “sustainable,” both from a maintenance and economics standpoint. It is also a new technology that will build the foundation for the next era of economic growth in America. Quite frankly, obsession with initial capital costs is a loss leader.

Mr. Rogich has made a career out of distorting and defining his opponents’ positions. In classic form, he has others (i.e., politicians or their spokespersons) espousing DesertXpress’ fictional and unsubstantiated claims that the maglev system “could” cost up to \$40 billion. DesertXpress claims lower capital costs despite not even deciding upon diesel or electric locomotives - the two have a substantial cost differentials. Regardless, DesertXpress’ yearly maintenance costs would be 3 to 4 times higher than a maglev system and make economic sustainability problematic. Just think about desert sands sticking to oil-lubricated moving train parts or how windblown sand does tremendous damage to steel rails in a surprisingly short amount of time. In contrast, maglev never touches the guideways that are elevated above the zone where sand does the most damage.

The entire 19-mile Shanghai maglev system including vehicles, maintenance facility and stations cost \$1.2 billion, despite being built on terribly unstable soil that required extensive pile driving. Since its construction in 2001, new designs, materials and construction techniques have lowered the guideway costs by a whopping 30%. In other words, the new deployment costs for maglev are now totally competitive with high speed rail. This is in spite of an entire maglev line being elevated (and completely grade separated). And, the small footprint of guideway support piers does not require the extensive grading necessary for traditional “steel wheel on steel rail” systems.

Now, think about that phrase for a moment: “steel wheel on steel rail.” Now think about wet and slick steel tracks. This is why trains typically do not travel on grades much more than 2%. To build a rail line between Las Vegas and Los Angeles through the mountains would require extensive tunneling and/or extensive use of switchbacks for a train to climb through mountainous terrain. Maglev is capable of climbing 10% grades regardless of how slick the surface conditions and can easily travel over the 7% grade of the Cajon Pass in all weather conditions – and with no need for tunnels.

So why build a slow, noisy, polluting, and expensive to maintain train – a throwback to the 19th century - when we can build a sustainable high-tech bridge to the 22nd century? The fact is, nobody with the DesertXpress has current maglev construction cost data. Problem is, few people in the U.S., including transportation experts, have that data. So who would know that DesertXpress’ claims about maglev costs are a Big Lie? ... → → →

The trick is for America's policy leaders to get accurate data so that they can make informed decisions on deploying maglev systems. Problem is, that expertise lies mostly with overseas companies and no longer within the FRA.

But, there are some of us who do know. And, by building a 310 mph maglev through the desert and combining solar power generation and transmission along the right of way, Nevada and California can demonstrate to the world the energy sustainable vision put forth by President Obama.

America desperately needs federal involvement for implementing a maglev oriented high-speed intercity ground transportation policy. Without this sustained vision, there will be no great leap forward for American transportation.

— ... —