

Japanese railway offers taste of 500kph maglev ride to selected audience

25 September 2014, by Bob Yirka



Central Japan Railway Company recently offered select members of the public and press a ride on the driverless Lo series maglev train it is developing—riders got to experience land-speed travel at 500kph for a few moments on a 42.8-kilometer Yamanashi maglev test track, between the cities of Uenohara and Fuefuki. The train is to be part of a massive project undertaken by the railroad to carry passengers between Tokyo and Nagoya in just forty minutes—currently it takes a little under two hours.

Maglev trains ride on air of course, held above the track by magnets. Doing so reduces friction making the trains more efficient, and presumably, faster. Such trains need a boost to get moving that fast, and the new train in Japan is no different, it relies on what its makers call L-Zero—a propulsion system that boosts the train from zero to 160kph in a little under a minute. The magnets then take over, pushing the train ever faster until reaching 500kph. Members of the media on the train reported a smooth ride—just a little jostling of the water in a cup during the highest speeds—though there was a noticeable bump when the train slowed, dropping down onto the tracks. They also

reported that the noise inside the train when traveling at high speed was similar to riding in a jet airplane—other members of the press watched the demonstration of the train from an on-looker perspective at several points along the track, mostly to gauge how loud it would be. They report that the train is quieter than conventional trains and less obtrusive, presumably because it approaches and passes much more quickly than other trains.

The new train isn't the fastest maglev in the world, that record (574.4kph) belongs to a test train in France, but it will be the fastest running in Japan—the current speed champ is the Hayabusa shinkansen—it's currently carrying passages at speeds of up to 320kph. The new train will also be one of the most ambitious maglev rail projects in any country. In order to run a train that fast, the ground must be reasonably flat and straight, which means the railroad must cut through some mountains to allow for laying track—that's why the train isn't scheduled for service until 2027.

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