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THE 5TH MODE OF TRANSPORT: THE HYPERLOOP

студентка гр. 10114112 Немченко А.В.

Научный руководитель – ст. преподаватель Овчинников И.А.

A new mode of transport-the Hyperloop is needed that has benefits of the current modes without the negative aspects of each. This new high speed transportation system has the following requirements:

1. Ready when the passenger is ready to travel (road)
2. Inexpensive (road)
3. Fast (air)
4. Environmentally friendly (rail/road via electric cars)

The Hyperloop consists of several distinct components, including:

1. Capsule:
 - a. Sealed capsules carrying 28 passengers each that travel along the interior of the tube depart on average every 2 minutes from Los Angeles or San Francisco (up to every 30 seconds during peak usage hours).
 - b. A larger system has also been sized that allows transport of 3 full size automobiles with passengers to travel in the capsule.
 2. Tube:
 - a. The tube is made of steel. Two tubes will be welded together in a side by side configuration to allow the capsules to travel both directions.
 - b. Pylons are placed every 100 ft (30 m) to support the tube. c. Solar arrays will cover the top of the tubes in order to provide power to the system.
 3. Propulsion:
 - a. Linear accelerators are constructed along the length of the tube at various locations to accelerate the capsules.
 - b. Stators are located on the capsules to transfer momentum to the capsules via the linear accelerators.
- It quickly becomes apparent just how dramatically the Hyperloop could change transportation, road congestion and minimize the carbon footprint globally. Even without naming any specific cities, it's apparent that the Hyperloop would greatly increase the range of options available to those who want to continue working where they do or who want to live further away without an unrealistic commute time; solving some of the major housing issues some metropolitan areas are struggling with.