

Douglas J. Malewicki
SkyTran

Doug Malewicki is the founder and chief visionary of SkyTran, Inc. His partners are always twisting his arms to convince everybody on the planet that SkyTran is the ultimate solution to the world's transportation problems. Unfortunately, Doug says, this is absolutely untrue. The world needs SkyTran PLUS Elon Musk's Hyperloop, along with future supersonic (or better yet, hypersonic) commercial aircraft all working together to solve that problem. (Or maybe just one, yet to be born, genius kid who will invent functional Star Trek teleportation.)

The day (year?, decade?) is coming when SkyTran, Hyperloop and supersonic jets will be perfected; ready for safe human passenger transportation; and affordable to build, maintain, operate and use. All the different sciences that are uniquely combined to enable these major innovations already exist. At this point, it takes time and money from wealthy believers. This is no longer the early days of aviation when you could build something in your garage and bravely test it, while risking your life. Those who survived obtained better insights into the math and physics of flight and changed the world - forever. Today designers and engineers have to deal with other types of obstacles to progress - regulations, permits & certifications.

The Hyperloop monorail system, conceived to connect city pairs that are less than 1,500 kilometers apart, will operate at high 700 MPH (1,100 kilometers per hour) continuous speeds inside a sealed tube under a partial vacuum to reduce aerodynamic drag. It is being proposed to carry passengers the 400 mile distance (650 kilometers) between the major cities of Los Angeles and San Francisco in a mere 35 minutes.

However, when traveling between those same two cities, Hyperloop does not solve the additional problem of how long it takes for passengers to get to the LA Hyperloop Station and how much more time to get from the SF Hyperloop Station to their actual desired destination in San Francisco. Travelers making that Hyperloop trip could easily spend 3 hours over and above the Hyperloop's 35 minutes to complete the door-to-door trip. It is the same total travel time problem that 640 MPH cruise speed commercial jets have.

SkyTran is THE needed intra-city travel time saving solution. It was designed from the beginning to eliminate commuter congestion in metropolitan areas. SkyTran pods carry two passengers, whereas typical monorails carry 100's of passengers. That means the overhead guideway structure for SkyTran no longer has to be gigantic like the guideways that carry those 100,000 pound monorail trains. Since the weight is down, the costs per mile goes down in proportion to the amount of raw materials required; way down, in fact surprisingly similar to the cost of sidewalks per kilometer. Thus, it doesn't take a zillion dollars to cover a city with a 1 km by 1km 3D grid of overhead interconnected guideways. Because of the advances and corresponding cost reductions in sensors and controls and using offline stations, we can have SkyTran Pods traveling all over a city non-stop at 100 MPH (160 kmh).

A single, low cost SkyTran bi-directional guideway will carry more passengers per hour than carried by a 6 lane freeway. California state's CalTrans proclaims that 2,100 people per hour per freeway lane is the average. Do the math and you will quickly realize that this proposed 3D grid cannot be saturated. Overhead SkyTran traffic will move uncongested forever. The Los Angeles to San Francisco Hyperloop trip that includes full SkyTran service in the departure and destination cities becomes a 1 hour and 35 minutes total door-to-door trip!