

Planners for hypersonic SpaceLiner craft propose a 50 year timeline

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Credit: DLR-SART

(Phys.org)—Martin Sippel, project coordinator for the SpaceLiner project has announced that the German Aerospace Center believes it can plan, build and launch a suborbital craft capable of flying from Europe to Australia in just 90 minutes, in as few as 50 years.

The [SpaceLiner](#) project has been around since 2005, and is supported by the [European Space Agency](#). The goal is to build a vehicle similar to the space shuttle flown previously by the United States – the main

differences would be that the vehicles' purpose would be to transport people from point to point across the globe and that it would not actually ever reach space. It would also be launched using [liquid oxygen](#) and hydrogen based propellants – only [hydrogen](#) and [water vapor](#) would be left behind in the atmosphere, a much cleaner approach than that used by other rockets.

As with the space shuttle, a SpaceLiner vehicle would launch vertically, attached to a [rocket booster](#). Passengers (up to 50) would be taken to an altitude of 47 to 50 miles, at which point the booster would fall away. From that point on, the craft would glide down to Earth on a trajectory that would have it arrive at its pre-designated destination. As the craft glides, it would reach speeds of up to 15,000 mph, which would account for the short travel time. But such plans also pose a problem for engineers as the vehicle would experience the same heat buildup as space reentry vehicles. For that reason, the design of the craft itself is still a work in progress. Engineers are analyzing the results of FAST20XX, a joint European project that has been studying the types of high speed craft that might carry people in the not so distant future. They will also no doubt be consulting with [NASA](#) on lessons learned from the [space shuttle program](#).

The SpaceLiner project carries with it many unknowns – foremost among them perhaps, is whether enough people will be willing to pay the expected several hundred thousand dollar cost of a single ride. Other issues such as sonic booms and the safety of not just those aboard, but those on the ground that lie in its path will need to be addressed as well. Engineers and managers working on the project are well aware of the difficult issues of course, but by publicly announcing their goal, they have shown that they are confident that they will succeed.

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