Introducing Clip-Air, the plane that aims to seamlessly transition air to rail.

Posted on Jul 26, 2016

There are currently an estimated 20 million shipping containers in the world, with at least a quarter of them currently on the move on ships, trucks, and trains. In a transport world that has changed greatly in recent years, these large standardized shipping containers haven't changed a huge amount. Why? Because they are, to use the buzzword de jour, intermodal, meaning these containers can be used across different modes of transport – from ship to rail to truck – without unloading and reloading their cargo. And now the Transportation Center at Switzerland's Federal Polytechnic Institute (EPFL) of Lausanne have released their plans for Clip-Air, a revolutionary air transport concept based on a flying wing that can carry mobile and interchangeable capsules that can seamlessly
Introducing Clip-Air, the plane that aims to seamlessly transition ... http://www.smartrailworld.com/introducing-clip-air-the-plane-tha...

partners on the latest trends, opportunities and challenges within the rail industry. Click here now to see what's available to you.

OUR MOST RECENT STORIES (CLICK TO READ)

Deutsche Bahn and Hyperloop TT to build 'Innovation Train' by 2018.

5 Minutes With...

link the skies to the tracks.

The basic premise, of admittedly quite a futuristic idea, is that the Clip-Air can bring rail's flexibility to air transport and make airports reach all the way into the train station.

“Airports are becoming ever more disconnected, waiting times are becoming longer, traffic levels are increasing, and overloads and delays are increasingly becoming the norm in air travel,” says Claudio Leonardi, in charge of the Clip-Air project.

So how does this work, or plan to work? Well, on the one hand, the Clip-Air plane is made up of a support structure including wings, engines, fuel and a cockpit. Like a regular plane. On the other hand, there is the load to be transported: passengers and freight in a capsule. The capsule is the equivalent to a conventional airplane's fuselage, but without motors, without a cockpit, without fuel, without landing gear, or any of the other parts that usually make up a plane.
Introducing Clip-Air, the plane that aims to seamlessly transition ... 

http://www.smartrailworld.com/introducing-clip-air-the-plane-tha...

These capsules, are in effect detachable pods which are customizable, so they carry cargo, a regular plane cabin or first class luxury. Three can be fitted on each flight, so in theory the same flight could transport all these examples at the same time.

And, here's the rail bit! These capsules could be fitted to travel by rails, so passengers or cargo could move seamlessly between the sky and the tracks without having to be offloaded.

The team in Switzerland state they have worked through various hypotheses, and believe the estimated costs of Clip-Air are also competitive with “89% of the analyzed cases, Clip-Air generates a profit”. According to the model that is currently being considered, carrying passengers without combined cargo transport, Clip-Air is actually less...
expensive than a standard fleet, as long as it operates carrying the full three capsules.

However, don't go planning your intermodal journey quite yet, the team in Switzerland think it would take between 40 and 50 years for Clip-Air to become operational using the full three capsules. The project seeks to study the modularity by phases. A prototype the size of a private jet plane could, for example, be developed in the next five to ten years. Then, the goal would be to develop a more simple wing design that could attach to a capsule with 150 seats, about the size of an A320, which could be achieved over 10 to 15 years.

For the time being, this is just a plan from the team at the EPFL ( @EPFL_en ) but this does open up some interesting questions on inter-model travel. There must be a reason why the design of those shipping containers has barely changed since World War II and how many aspects of our industry can say that?

Like intermodal transport, them you may also be interested in....

Containers on rail: China’s next big transport opportunity.

Is Elon Musk's Hyperloop moving from science fiction to science fact?

For more on the latest trends in transit innovation SmartTansit 2016 is taking place in October in New Jersey

Train or plane? How innovation is giving rail the edge in the battle for passenger spend.