

Imaginative Templar

Peter Lobner, 17 August 2019

Imaginative creates vehicle concepts related to the future of mobility. Among their unusual concepts is the Templar, which is an autonomous airship designed for agricultural roles such as planting trees to create new mixed forests from the air, and monitoring and protecting crops. The Templar concept was originated by Charles Bombardier in 2018 and the design was developed by Jorge Ciprian.



*Rendering of a Templar airship in flight over agricultural fields.
Source: Imaginative*

Templar appears to be a conventional semi-rigid airship with a fabric skin. Electrically-powered ducted propulsors are mounted near the four corners of the flat-bottomed airship. Tree planting would be accomplished from a hover at low altitude. Imaginative describes the tree planting application of Templar as follows:

“The Templar would be designed to pick up and plant trees in a whole new way. First it would be able to land next to a tree nursery and load up very young trees specially designed for this type of aerial transplantation. The operators would have the possibility of mixing coniferous and hardwood trees and choosing special species to design unique forest patterns.

Inside the airship, a palletizing system would pick up and place each young tree in a special slot where they would await transplantation by an injection system.

The cargo compartment of the Templar would be large enough to plant ... 200 trees in each sequence. To accomplish this, the Templar would need to remain stable over each area in light wind conditions, so the airship would require electric transversal fans or ducted outlets on its lateral sides...one cycle takes roughly 3 minutes to complete.”



Rendering of a Templar airship transplanting small trees en masse from the air. Source: Imaginative

There would be a significant loss of mass as 200 trees were being discharged from the airship. The method for maintaining buoyancy control during and after a planting cycle is not described, but would need to be a variable buoyancy system that can rapidly pressurize helium lift gas to reduce lift or pressurize air to increase ballast.

You'll find more information on the Templar airship concept on the Imaginative website here:

<http://imaginative.org/2018/11/templar/>