

PARIS: Aeros rises to the occasion with unique airship design

By: Kristin Majcher – Flight Daily News



California-based Aeros is making its first Paris air show appearance and is pushing its Aeroscraft concept, a vertical take-off and landing vehicle designed to transport oversized cargo loads without the requirement for a runway.

Unlike other airships, Aeroscraft is designed with a proprietary internal ballast system that does not require tethering to stay grounded after unloading cargo. It will be lighter than air while flying, and heavier than air while on the ground, says Aeros.

Igor Pasternak, founder and chief executive of Aeros, has been working for more than 20 years to turn the concept into reality. A proof-of-design vehicle, the ML866, which is half the size of the final version, made its first movement and ground handling tests in late 2012.

The ML866 is designed to carry a 66-tonne payload with a cargo compartment measuring 220ft (67m) by 40ft by 30ft.

Aeros is planning to manufacture an initial fleet of 24 vehicles in two versions, the 66t ML866 and the larger, 250t ML868.

It plans to have the first production prototype aircraft completed by 2015 with a goal of certification by 2016.

Aeros has several "commitments" for the aircraft already, says Pasternak.

The manufacturer will not sell direct, instead it will wet-lease the airship to customers around the world, particularly targeting industries with a requirement to transport heavy payloads to remote areas without an airport or other existing infrastructure.

Aeroscraft's engines will be diesel-powered and Aeros estimates that fuel consumption will be lower by about one third than a traditional fixed-wing aircraft when flying up to 3,100nm (5,740km) at a cruising speed of 100kt (185km/h).

Creating the rigid, aluminum and carbon fiber truss structure integral to the Aeroscraft design was the most difficult part of the process, says Pasternak.