Airship do Brazil (ADB) airships

Peter Lobner, 1 May 2019

Airship do Brazil (ADB), with offices in São Carlos and Brazilia, is developing the ADB 3-3 and ADB 3-30 commercial manned airships and other airship projects for unmanned surveillance and high-altitude “atmospheric satellite” applications. This development is part of a national program to build an indigenous airship industry. The ADB website is here:

http://www.airshipdobrasil.com.br

The ADB airship prototype, the 48 meter (157 ft) long ADB 3-X01, made its inaugural flight on 24 July 2017, becoming the first indigenous, manned airship built and flown in Latin America. This prototype is designed to carry six people and loads up to 1.5 tons.

ADB 3-X01 prototype. Source: Airship do Brazil

The ADB 3-3 airship

Airship do Brazil’s 138S airship, which is the base model for the certification of the airship line ADB 3-3, received its type certification on 24 May 2018 from the national certification agency of Brazil (ANAC) and became the first indigenous airship certified in Latin America (and the entire southern hemisphere). The ADB 3-3 will be certified via an amendment to the 138S type certificate.
The ADB 3-3 is a modest-sized airship, significantly smaller than the Zeppelin NT, designed for operation by a single pilot with five passengers or a useful payload of about three tons. The airship’s envelope is a low-permeability fabric with aluminum control surfaces. It is intended for pilot training, electric transmission line inspection, surveillance, demonstration of airship technologies, marketing and other functions.

The ADB 3-30 airship

A larger semi-rigid cargo airship, the ADB 3-30, is being designed to transport 30 to 52 metric tons (66,139 to 114,640 lb) and can fly with a cruising speed of 125 kph (78 mph) to an altitude of about 400 meters (1,200 feet). The concept drawing show a semi-rigid airship with a long gondola / keel with vectored thrust propulsors under the envelope and another propulsor mounted at the stern of the envelope.

ADB 3-30 concept drawing. Source: Airship do Brazil

The great majority of Brazil's roads are unpaved, making ground transportation very difficult in some areas of the country. This cargo airship will be capable of handling heavy cargo in an internal cargo bay or as an under slung load, making it useful to a wide range of industries and other applications.
In 2017, Paulo Caleffi, president of Airship do Brazil, reported that at least five private and two state-owned companies are already negotiating the purchase or lease of the aircraft. Potential applications include:

- State-owned company Eletronorte plans to use an airship to inspect high voltage lines in difficult-to-reach places such as mountains and forests.
- The Post Office intends to use the aircraft to deliver parcels

A schedule for certification and delivery of the ADB 3-30 to customers has not been announced.

*Relative sizes of the ADB 3-3 and the larger ADB 3-30 cargo airship. Source: Airship do Brazil*