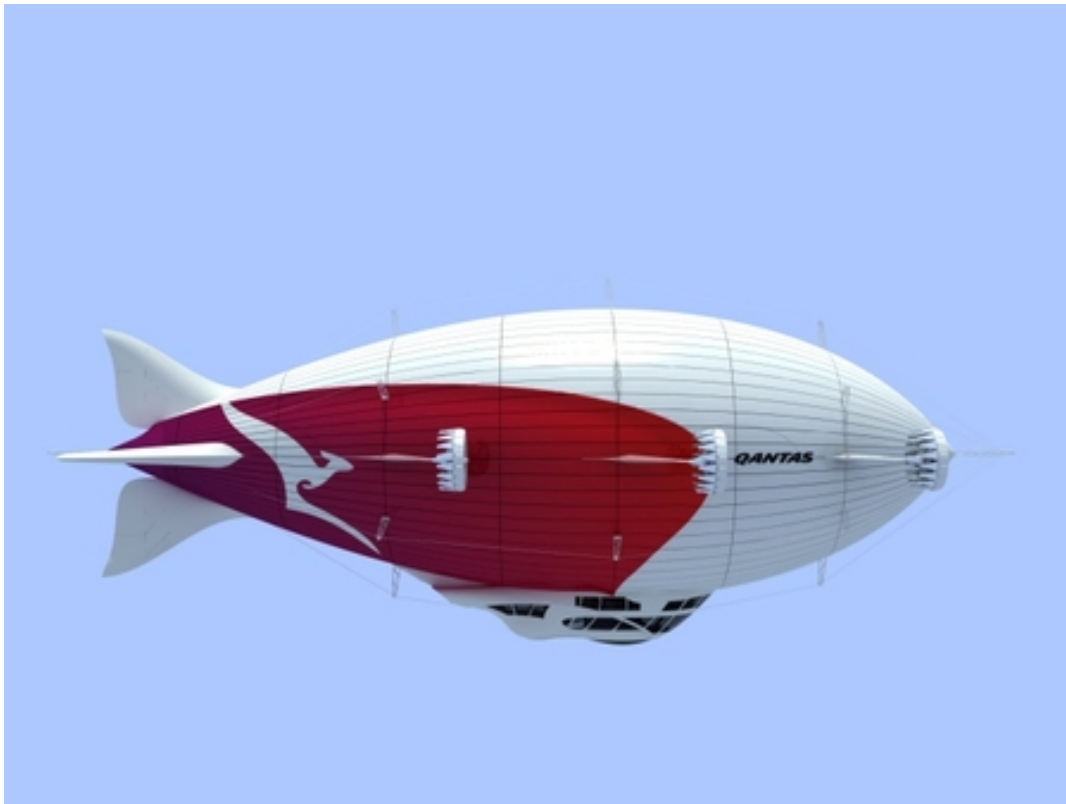


Alpha Crucis airship

Peter Lobner, 8 February 2022

The Alpha Crucis airship is a conceptual design circa 2010 for an attractive, well-proportioned, mid-size passenger carrying airship by award-winning industrial designer Simon Colabufalo from Melbourne, Australia. His website is here:

<https://simoncolabufalo.com/objects.html>

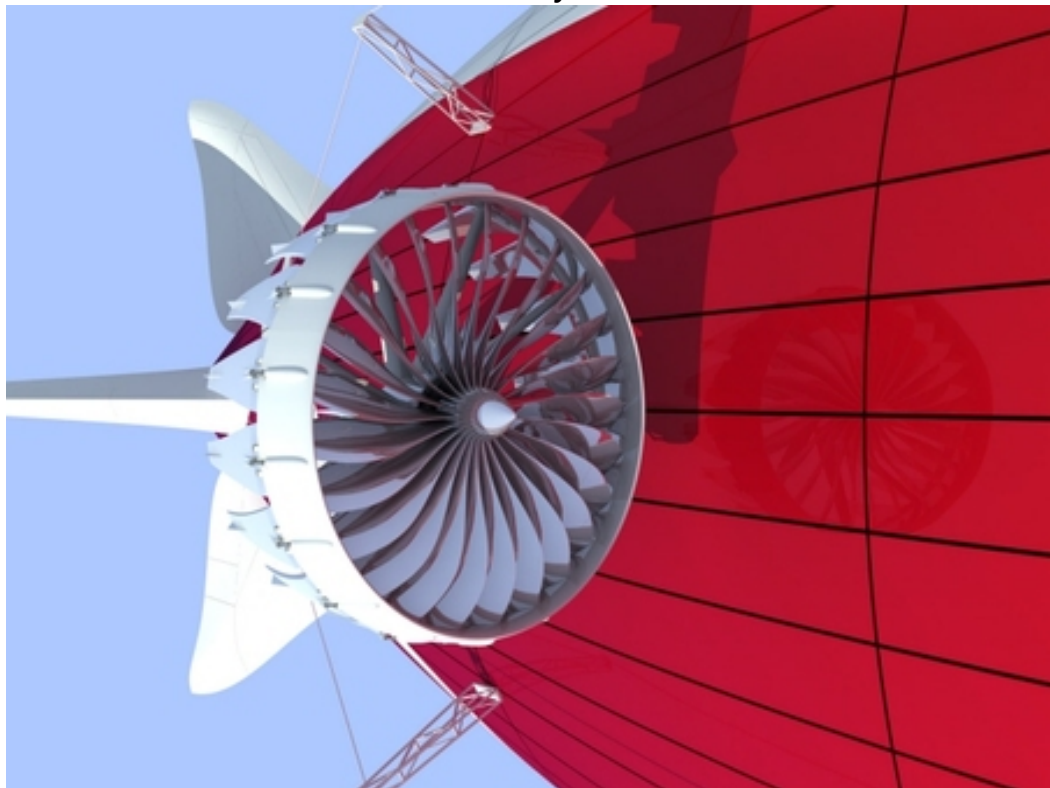


Source: Simon Colabufalo via DesignLaunches, 30 January 2010

The airship appears to have a non-rigid hull with fixed, inflated cruciform tail fins. Propulsion is provided by six large diameter shrouded fans mounted with pylons on the flanks of the airship, along the mid-plane of the hull. This placement of propulsors is similar to that found on 21st Century Airship's Voyager designed by Hokan Colting. His rationale for this engine placement was to eliminate the pitching moment that occurs when engine power is changed on a traditional blimp with low-mounted propulsors (i.e., attached to the gondola).



*Source, both graphics: Simon Colabufalo via DesignLaunches,
30 January 2010*



Each engine pylon is attached to the fabric of the non-rigid hull. Lightweight struts and cables appear to provide support for each engine.

The trailing rim of each propulsor shroud has many (maybe 20) triangular tabs that appear to be movable. Selectively moving tabs into or out of the fan slipstream can create an independently controllable thrust vector from each fan without rotating the entire propulsor. It is not known if the propulsors were intended to be fixed or movable for thrust vector control.

The coordinated control of the six propulsors would provide airship control along all three axes: pitch, yaw and roll.

For more information

- “Alpha Crucis Airship by Simon Colabufalo,” DesignLaunches, 30 January 2010:
https://www.designlaunches.com/transport/alpha_crucis_airship_by_simon_colabufalo.php

Other *Modern Airships* articles

- *Modern Airships - Part 1*: <https://lynceans.org/all-posts/modern-airships-part-1/>
- *Modern Airships - Part 2*: <https://lynceans.org/all-posts/modern-airships-part-2/>
- *Modern Airships - Part 3*: <https://lynceans.org/all-posts/modern-airships-part-3/>