

Airship Archangel: large, multi-purpose airship concept

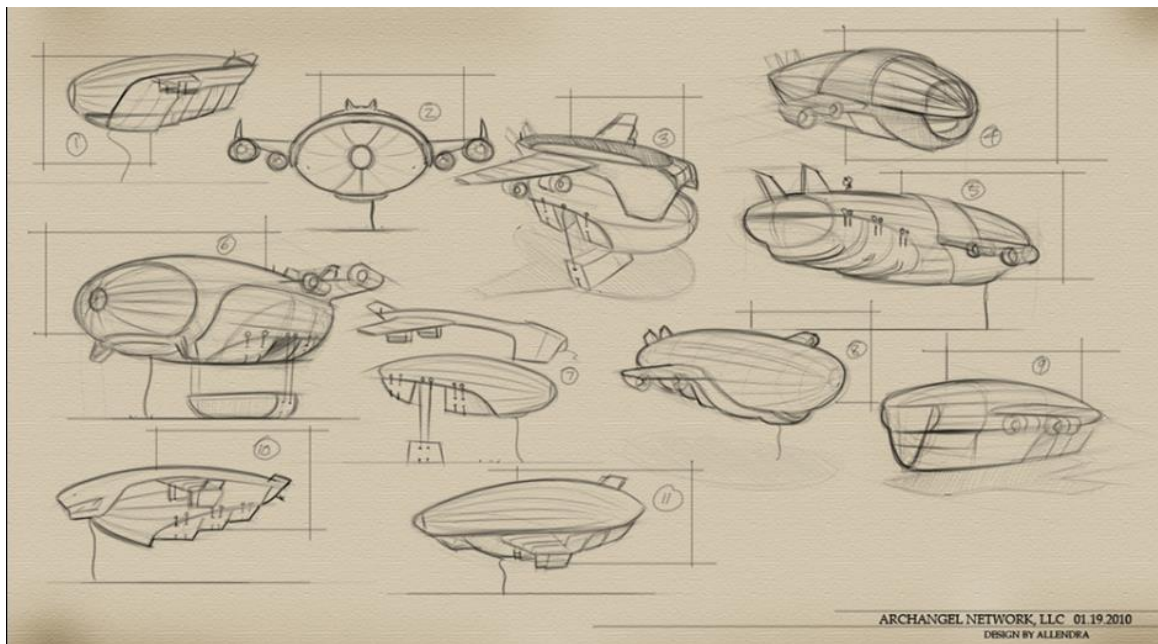
Peter Lobner, 5 August 2019

Background

Swiss designer Thomas Grimm, with design support from Reindy Allendra and technical and engineering support from Dr. Gregory Smedley developed the Airship Archangel design concept in 2010. Allendra also designed the beautiful KLM WB-1010 Spruce Whale semi-buoyant aircraft concept. Airship Archangel can be configured for a variety of roles, two of which were developed by Grimm in considerable detail:

- An airship equipped for rapid deployment in response to large-scale disasters and other critical events anywhere in the world
- A luxury airship cruise liner

The basic configurations of the Airship Archangel and its deployable ventral platform are shown in the following rough concept drawings. It appears to be a conventional, semi-rigid airship with 100% of the lift from aerostatic lift during hovering



Source: *Bēhance*

Following are selected illustrations of Airship Archangel from the Bēhance website, which includes much more detail here:

<https://www.behance.net/gallery/1985067/AIRSHIP-ARCHANGEL>

Airship Archangel as an emergency response airship

Airship Archangel's emergency response and disaster relief capabilities include:

- The airship can serve as an airborne command, control and communications center at the disaster site.
- Capable of hovering and vertical take-off and landing (VTOL) with aerostatic lift; the large propulsion / generating engines do not appear to be needed for propulsive lift in hover or VTOL.
- A deployable medical station on the large ventral platform can be lowered from the airship at the disaster site to provide immediate assistance on the ground.
- The hybrid propulsion / power generation systems not only provides propulsion in the air, but also can provide emergency electric power to users on the ground.
- The airship's landing systems can accommodate ground winds up to 80 knots, permitting operation in bad weather.
- Can land at a relatively small site.
- Cargo handling on the ground can be done with roll-on, roll-off (Ro-Ro) vehicles for fast cargo unloading and delivery.
- The airship can operate as a flying crane for use in austere and unimproved locations.



*Rendering of Archangel approaching a disaster site.
Source: Bēhance*



*Rendering of Archangel deploying its medical station.
Source: Bēhance*

Airship Archangel as an airborne luxury cruise liner

As an airborne cruise liner, the Airship Archangel would be outfitted as a luxurious travelling hotel with a unique deployable platform, which can be extended in flight and configured for a variety of outdoor uses (dining, sightseeing, etc.)



Renderings of Archangel at altitude with its platform extended. Looks like the bar is open. Source: Bēhance



Rendering of Archangel on a safari. Source: Bēhance