Flying-Yacht, Inc.

Peter Lobner, 5 August 2019

Background

Hokan Colting is an aircraft designer, pilot and the founder and owner of Flying-Yachts Inc., located in Newmarket, Ontario, Canada. His firm is designing and developing the Flying-Yacht semi-buoyant airship, which is designed to cruise in ground effect at altitudes of 30 - 90 meters (98 – 295 feet) above the water and offer an unparalleled experience for several dozen passengers on sightseeing rides. Development has progressed to the sub-scale prototype stage.

Rendering showing the general configuration of a Sky-Yacht, with the passenger deck below the helium gas envelope. Source: octuri.com

Prototypes

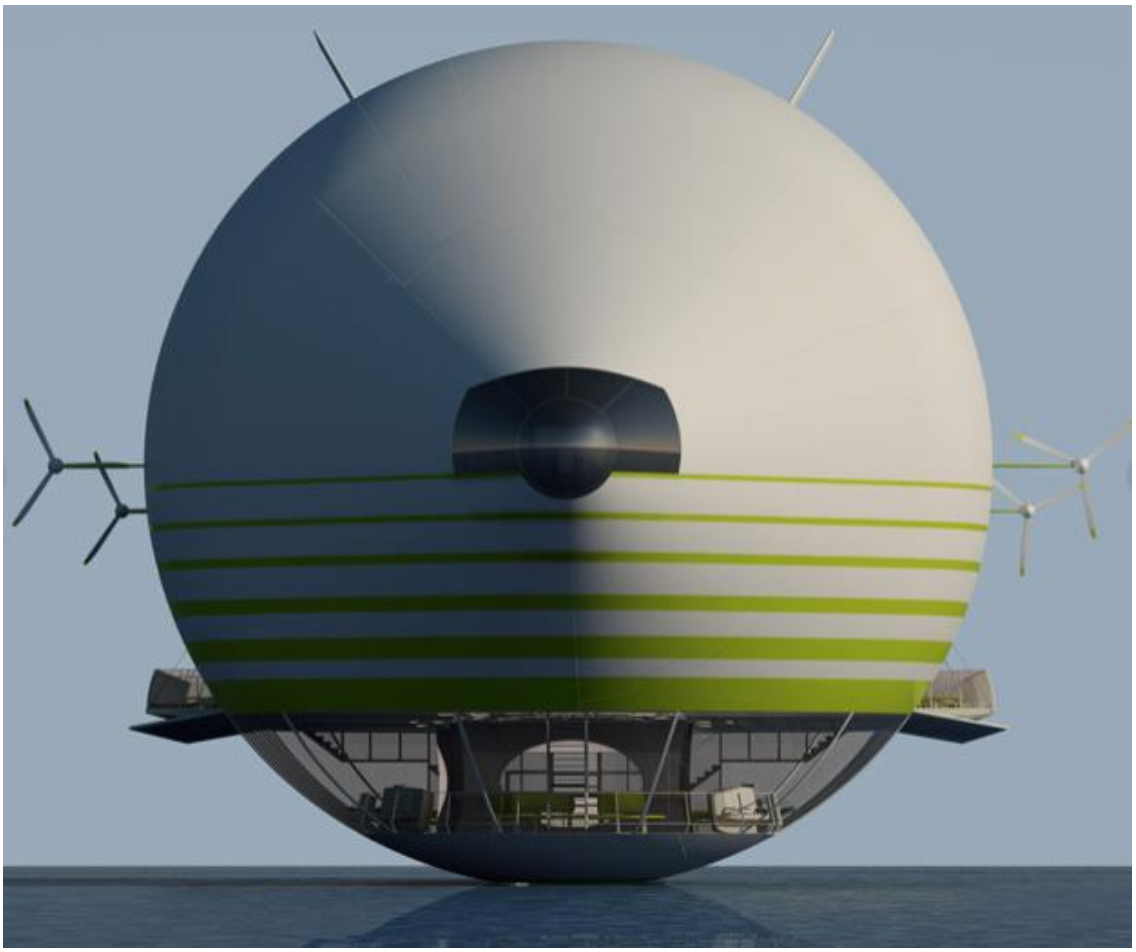
Prototypes constructed during the development were only 1/3 to 1/2 scale of the planned production version.
Source: octuri.com

Full-scale Flying-Yacht concept

This semi-buoyant airship will takeoff and land on water. It has four small stub wings, each with an electrically-driven propulsor. The airship gains lift and becomes airborne because of ground effect acting on the airframe and wings when the airship is moving close to the water surface at speeds of up to 110 kph (68 mph). Ground effect depends on forward motion, with lift increasing as forward speed increases. A stopped airship would settle back on the water surface.

Flying-Yacht is based on the water. Source: octuri.com

Two vertical viewing stations can be seen on the bottom of the airship. Source: octuri.com



The pilot station is in the nose of the craft. Note the four propulsors and the open-air balcony above the pressurized passenger deck. Source: octuri.com

In collaboration with Yelken Octuri and the Canadian firm OCTURI - Design and Interior, a design concept for a full-scale Flying-Yacht with seating for 40 passengers was developed in 2012 in impressive detail. A unique feature of this airship is the open design of the large passenger deck. This open design is enabled by pressurizing most of the passenger deck to maintain structural integrity. Access to the pressurized area is via a 10-passenger airlock.

Selected graphics from this design study are reproduced in this section. The Octuri website, with the complete design study for the full-scale Flying-Yacht available as a downloadable pdf document, is at the following link:

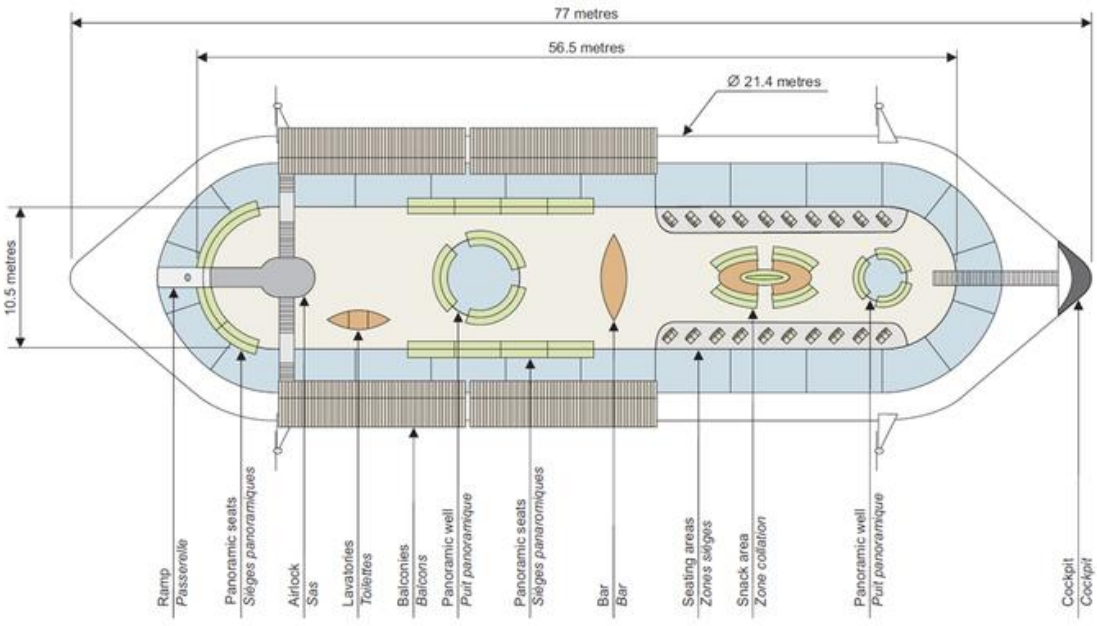
https://www.octuri.com/en/aircraft-for-today/the-flying-yacht/

Octuri describes the interior design as follows:

> “The passengers' area is a very large and continuous space. Since the hull rigidity results from the cabin pressurization, there is no need to resort to structural elements across the cabin. Such a large cabin is hence the result of the innovative architecture of the craft. The cabin's wall is in transparent polycarbonate sheets that ensure a 360° vision, perfectly suited for the flyover of landmarks. The passengers can thus walk across the large cabin while enjoying the panoramic scenery.”

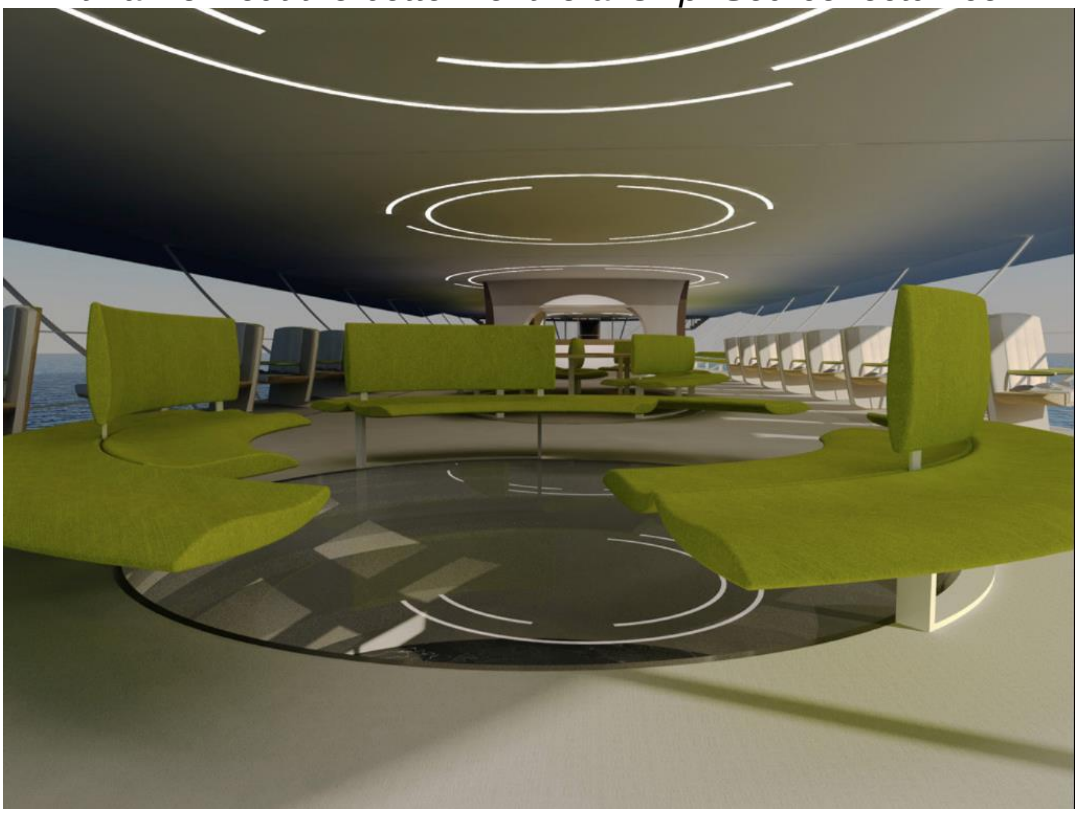
> “The layout of the craft features the following elements: the cockpit, the seating areas, the “panoramic wells”, the snack area, the bar, the panoramic seats, the lavatories, the airlock, the balconies and the ramp.”

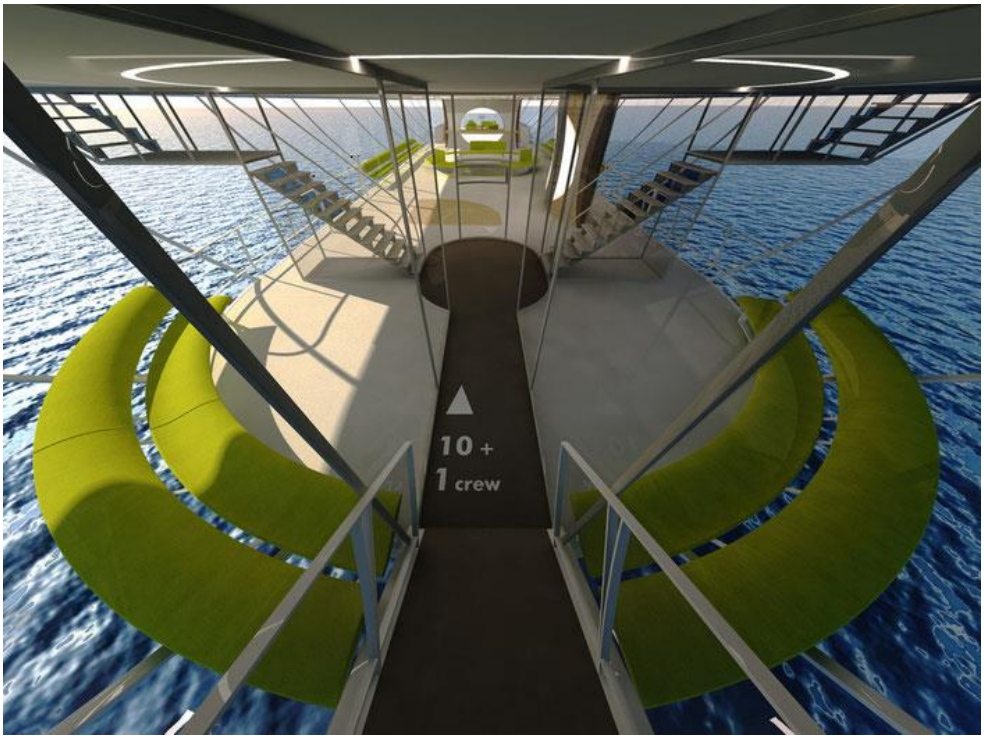
> “The passengers enter the airlock in groups of 10 accompanied by a crew member. Thanks to its architecture, the single airlock also leads to the 2 outside balconies through two stairways. The airlock is surrounded by panoramic seats at the back of the craft.”



Open floor plan of the passenger deck. Source: octuri.com

Inside the pressurized interior spaces. Below is a "panoramic well" with a view out the bottom of the airship. Source: octuri.com





Exterior view into the pressurized passenger space. Source. Octuri.com

The open-air balcony above the pressurized passenger deck is deployed when the Flying-Yacht is on the water. Note the electric motor-driven propulsor and the small stub wing. Source: octuri.com