

# The Lyncean Group of San Diego

## Modern Airships – Part 3

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Peter Lobner, updated 9 September 2022 (post-Rev. 3)

### 1. Introduction

“Modern Airships” is a three-part document that contains an overview of modern airship technology in Part 1 and links in Parts 1, 2 and 3 to more than 225 individual articles on historic and advanced airship designs. This is Part 3. Here are the links to the other two parts:

- 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/>

You’ll find a consolidated Table of Contents for all three parts at the following link. This should help you navigate the large volume of material in the three documents.

- Consolidated TOC: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Modern-Airships---Consolidated-TOC\\_20Mar2022.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Modern-Airships---Consolidated-TOC_20Mar2022.pdf)

Modern Airships – Part 3 begins with a summary table identifying the airship concepts addressed in this part, and concludes by providing links to 49 individual articles on these airship concepts. A downloadable pdf copy of Part 3 is available here:

- Part 3 main body & tables: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Part-3\\_main-body\\_R3\\_18Mar2022-converted-compressed.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Part-3_main-body_R3_18Mar2022-converted-compressed.pdf)

If you have any comments or wish to identify errors in these documents, please send me an e-mail to: [PL31416@cox.net](mailto:PL31416@cox.net).

I hope you’ll find the Modern Airships series to be informative, useful, and different from any other single document on this subject.

Best regards,

Peter Lobner

18 March 2022

### **Record of revisions to Part 3**

- **Original *Modern Airships* post, 26 August 2016:** addressed 14 airships in a single post.
- **Expanded the *Modern Airships* post and split it into three parts, 18 August 2019:** Part 3 included 32 linked articles.
- **Part 3, Revision 1, 21 December 2020:** Added 1 new article on Walden Aerospace. Part 3 now had 33 articles
- **Part 3, Revision 2, 8 February 2022:** Added 14 new articles, moved over and updated the Halo article from Part 1 and updated 11 of the original articles. Part 3 now had 48 articles.
- **Part 3, Revision 3, 18 March 2022:** Added 1 new article, reorganized the graphic table and updated 22 of the original articles. With this revision, all Part 3 linked articles have been updated in February or March 2022. Part 3 now has 49 articles.

#### **Since Rev. 3 was posted, the following additions and updates have been made in Part 3.**

##### **New articles:**

- AirYacht SA (24 May 2022)
- WARPA TeraDrone (9 September 2022)

##### **Updated articles:**

- None yet

## **2. Specific airship concepts in Part 3**

The airships described in *Modern Airships – Part 3* are relatively exotic concepts in comparison to the more utilitarian and heavy-lift airships that dominate Parts 1 and 2. Many of the airship concepts in Part 3 are designed for operation with very low or zero carbon emissions.

The airship design concepts reviewed in *Modern Airships – Part 3* are summarized in the following set of graphic tables. I've grouped these airship concepts based on their applications rather than on their design / type (as in Parts 1 and 2) because those details sometimes are difficult to determine when few graphics and limited descriptions are available.

- Cargo & multi-purpose airships

- Mass transportation airships
- Flying hotel airships
- Touring airships
- Flying yacht airships
- Autonomous special purpose airships
- Personal airships
- Thermal (hot air) airships
- Biomimetic airships
- Rocket / airship (Rockoon) hybrids

Within each category, each page of the table is titled with the name of the category and is numbered (P3.x), where P3 = *Modern Airships – Part 3* and x = the sequential number of the page in that category. For example, “Flying hotel airships (P3.2)” is the page title for the second page in the “Flying hotel airships” category in Part 3. Within each category, the airships are listed in an approximate chronological order.

Except for a few sub-scale models, none of the airship concepts in Part 3 have flown. A few of these airships look good as concepts, but may be impossible to build. Nonetheless, all of these relatively exotic concepts point toward an airship future that will benefit from the great creativity expressed by these designers.

Links to the individual Part 3 articles on these airships are provided in Section 3. Some individual articles cover more than one particular airship.

### Cargo & multi-purpose airships (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
Airship One	Sweden	Passengers & medium-lift cargo. Likely hybrid, semi-buoyant, semi-rigid	Likely vector thrust + aero lift + ballonets		Concept circa 2007 by Gosha Galitsky
KNAAR	Denmark	Heavy-lift cargo. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2008 by Rune Kirt & Mads Thomsen.
Bauhaus Luftfahrt VTOL semi-buoyant hybrid aircraft	Germany	Semi-buoyant hybrid aircraft	Aerostatic lift + aero lift + vector thrust		Concept circa 2008 by Bauhaus Luftfahrt
Rediscovery	USA	Presidential airship. Likely hybrid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2009 by Alex Schultz

**Cargo & multi-purpose airships (P3.2)**

Airship	Country	Airship type	Lift control	Graphic	Status
Airship Archangel	Switzerland	Passenger & heavy-lift cargo. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2010 by Thomas Grimm, with support from Reindy Allendra & Dr. George Smedley
Aquarian airship	USA	Passenger / cargo carrier & stratospheric aerostat. Rigid.	Variable buoyancy control + aero lift + vector thrust		Concept circa 2010 by Marshal Savage and The Millennial Project 2.0 (TMP2)
Cloudea	France	Passenger & heavy-lift cargo. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2012 by E. Ahovi, J. Levain, F. Mahieu, M. Tran, V. Delrue & N. Lenotte
Green Solar Airship	France	Semi-buoyant hybrid passenger airship	Aerostatic lift + aero lift + vector thrust		Concept circa 2014 by JM Schivo & Partners

**Cargo & multi-purpose airships (P3.3)**

Airship	Country	Airship type	Lift control	Graphic	Status
Maform Design Studio S.H.A.R.K.	Hungary	Stratospheric airship with aerodynamic gliding under the influence of gravity	Aerostatic lift + aero lift + vector thrust		Concept circa 2020
WARPA TeraDrone	France	Rigid, catamaran, multi-role, heavy lift airship	Likely vector thrust + aero lift + ballonets + ballast		Concept 2022

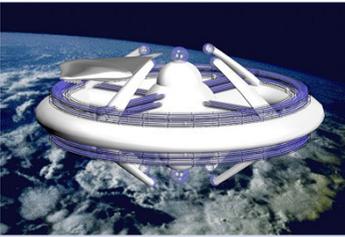
**Mass transportation airships (P3.1)**

Airship	Country	Airship type	Lift control	Graphic	Status
Flight 2.0	USA	Basic mass air transportation. Likely rigid, hybrid	Likely vector thrust + aero lift + Ballonets		Concept circa 2009 by Paul Wylde
KLM WB-1010 Spruce Whale	Netherlands	Large passenger aircraft. Likely rigid, semi-buoyant	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2009 by Reindy Allendra.
KLM Cloudliner	USA	Large passenger aircraft. Likely rigid, semi-buoyant	Likely vector thrust + aero lift		Concept circa 2012 by Chris Wren & Kenn Brown (Mondoworks)
Airbia	UK	Suburban passenger ferry. Likely rigid, hybrid	Likely vector thrust + aero lift + ballonets		Concept circa 2010 by Alexandros Tsolakis & Irene Shamma

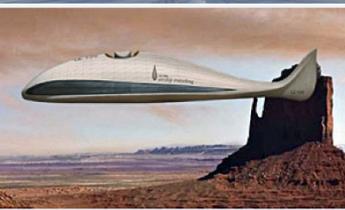
**Mass transportation airships (P3.2)**

Airship	Country	Airship type	Lift control	Graphic	Status
Alpha Crucis airship	Australia	Medium passenger airship. Likely semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2010 by Simon Colabufalo
Eco Airliner	France	Medium passenger aircraft. Likely semi-rigid (and perhaps semi-buoyant)	Aero lift		Concept circa 2012 by Daphnis Fournier
Imaginactive Aerostratos	Canada	Regional passenger transportation	Vector thrust + aero lift + ballonets + ballast		Concept circa 2018 by Ashish Thulkar

**Flying hotel airships (P3.1)**

Airship	Country	Airship type	Lift control	Graphic	Status
Walden Aerospace Earth Station One (ES-1)	USA	Stratospheric hotel / research station	Variable buoyancy control system		Concept circa 1990 by Michael Walden, ES-1 supported by Sliver Dart shuttle
Manned Cloud	France	Luxury flying hotel. Likely conventional, rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2005 - 2008 by Jean-Marie Massaud
Hydrogenase	France	Luxury bio-hydrogen airship / building. Likely conventional, semi-rigid	Likely vector thrust + ballonets + ballast		Concept circa 2010 by Paris-based architects Vincent Callebaut Architectures

**Flying hotel airships (P3.2)**

Airship	Country	Airship type	Lift control	Graphic	Status
Aircruise	UK	Luxury flying hotel. Likely conventional, semi-rigid	Likely vector thrust + ballonets + ballast		Concept circa 2010 by London-based architects Seymourpowell
Airship Traveling	Switzerland	Luxury flying hotel. Likely conventional, rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2010 by Thomas Rodemeier
Avalon Airships Ltd. Aether	UK	Luxury airship. Variable buoyancy, fixed volume, rigid	Variable buoyancy control with air ballast + vector thrust		Concept circa 2013 by Mac Byers

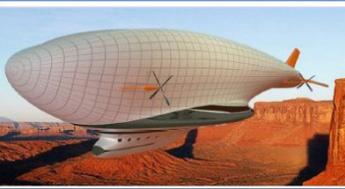
### Flying hotel airships (P3.3)

Airship	Country	Airship type	Lift control	Graphic	Status
Dassault Systems Commercial flying cruise liner	France	Luxury flying hotel. Likely conventional, rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2016

### Touring airships (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
Walden Aerospace LTA-1701-D	USA	Star Trek themed entertainment airship	Variable buoyancy control system + vectored thrust		Concept circa 1990 by Michael Walden
Airmotion	USA	Scenic touring airship. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2003 by Marcus Speck
Stalker	France	Exploration airship. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2008 by Kevin Judlin
Mario Merino Touring airship	USA	Luxury touring airship Likely rigid, conventional	Likely vector thrust + aero lift + ballonets		Concept circa 2010

### Touring airships (P3.2)

Airship	Country	Airship type	Lift control	Graphic	Status
Solera & Lucci Cruise airship	Italy	Luxury cruise airship. Likely conventional, semi-rigid	Likely vector thrust + aero lift + ballonets + ballast		Concept circa 2012 by Valentina Solera and Alessandro Lucci
Avalon Airships Ltd. Hemera	UK	Luxury tourist ferry. Hybrid, semi-buoyant, semi-rigid	Vector thrust + aero lift + ballonets + water ballast		Concept circa 2017

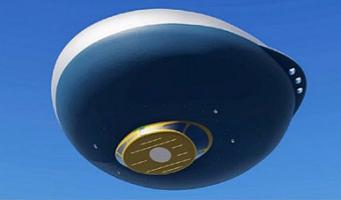
**Flying yacht airships (P3.1)**

Airship	Country	Airship type	Lift control	Graphic	Status
Strato Cruiser	Germany	Luxury airship. Likely conventional, semi-rigid	Likely vector thrust + ballonets + ballast		Concept circa 2007 by Tino Schaedler & Michael J. Brown
Bauhaus Luftfahrt Luxury cruiser	Germany	Personal airship yacht. Likely semi-rigid, double hull	Aero lift + vector thrust + ballonets + ballast		Concept circa 2008
Aeromodeller II	Belgium	Personal hydrogen airship yacht. Likely semi-rigid	Vector thrust + on-board hydrogen generation		Concept circa 2009 by Lieven Standaert
Renault Zep'lin	France	Solar-powered racing airship. Likely semi-rigid	Likely aero lift + vector thrust + ballonets		Concept circa 2009 by Damien Grossemey

**Flying yacht airships (P3.2)**

Airship	Country	Airship type	Lift control	Graphic	Status
Eunoia	UK	Luxury airship. Likely conventional, semi-rigid	Likely ballonets + ballast		Concept circa 2010 by Thomas Tzotzi
Wolke7	Switzerland	Personal airship yacht. Likely semi-rigid, double hull	Aero lift + vector thrust + ballonets + ballast		Concept circa 2012 by Timon Sager
LZ-73	Bulgaria	Futuristic airship. Rigid, variable buoyancy, fixed volume	Variable buoyancy control		Concept circa 2013 by Denislav Videnovia
Halo	UK / USA	Personal airship yacht. Variable buoyancy, fixed volume, rigid	Lift gas pressurization / release + ballonets + vector thrust		Concept circa 2015 by Winch Design, London, based on the Aeros ML866,

### Flying yacht airships (P3.3)

Airship	Country	Airship type	Lift control	Graphic	Status
Flying Diamond airship & Dare to Dream yacht	Monaco	Personal airship yacht & waterborne airship carrier yacht, semi-rigid	Likely air ballonets + vector thrust		Concept circa 2017 by George Lucian
Aeros Neona sky yacht	USA	Personal airship yacht. Likely semi-rigid.	COSH variable buoyancy control		Concept circa 2020
Lazzarini Design Studio Air Yacht	Italy	Personal airship yacht. Rigid catamaran hull.	Variable buoyancy control		Concept 2021
AirYacht SA AirYacht	Switzerland	Personal airship yacht. Rigid airship & detachable "superyacht" residence.	Vector thrust and ballast		Concept 2022

### Autonomous special purpose airships (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
Qatar University Robot Cloud	Qatar	Conventional rigid airship, solar powered	Ballonets + vector thrust		Concept circa 2011 for a large autonomous / remotely-controlled airship to provide shade on the ground.
Air Hydroelectric Station (Air-HES)	Russia	Non-rigid blimp & suspended air collection membrane & water collection system	Aero lift + ballonets + ballast		Concept & patent by Andrey Kazantsev, small prototype tests in 2013
Avalon Airships Ltd. EOS	UK	Special purpose, autonomous, hybrid, semi-buoyant, semi-rigid	Vector thrust + aero lift + ballonets + water ballast		Concept circa 2017, Generation 2 unveiled in 2020
Imaginactive Templar	Canada	Special purpose autonomous agricultural (tree planting) airship	Likely variable buoyancy system + vectored thrust		Concept circa 2018 by Jorge Coprian

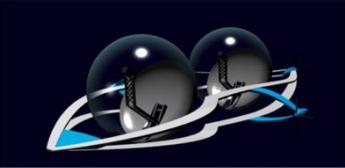
**Personal airships (P3.1)**

Airship	Country	Airship type	Lift control	Graphic	Status
Aeolus	Germany	Personal airship yacht, likely semi-rigid, pedal-powered.	Not specified. Likely ballonets, possibly vector thrust		Concept circa 2008 by Christopher Ottersbach.
Escape	Australia	Personal airship / land vehicle, variable buoyancy, variable volume	Alter volume of lift gas envelope + vector thrust		Concept circa 2011 by Robbie McIntosh
Sky Voyage	Australia	Personal airship, semi-rigid	Vector thrust + aero lift		Concept circa 2012 by Jet Shao

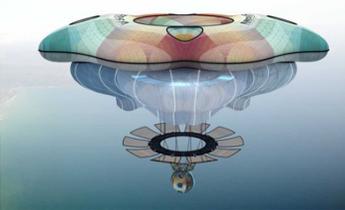
**Personal airships (P3.2)**

Airship	Country	Airship type	Lift control	Graphic	Status
Design Bureau of Moscow Aviation Institute (OSKBES MAI)  SkyBoat HELIOS	Russia	Personal airship, semi-buoyant hybrid	Aerodynamic lift from hull & tail surfaces		Concept circa 2012, Chief designer Vadim Demin
Alpha D Project	France	Personal airship yacht, lenticular, hybrid	Vector thrust + aerodynamic lift		Concept circa 2015 by team inspired by Pierre Balaskovic

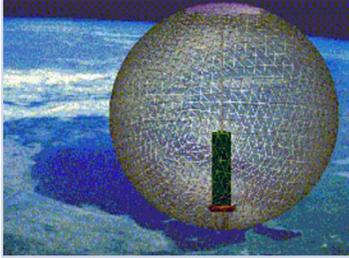
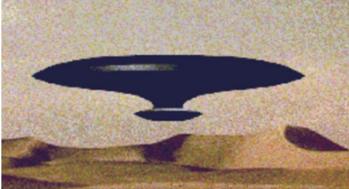
### Thermal (hot air) airships (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
lii-Solutions Gmbh Tensairity thermal airship	Switzerland	Thermal (hot air) airship	Hot air + aero lift		2009 European patent, inventor Andreas Reinhard
Sterling solar-powered thermal airship	Belgium	Thermal (hot air) airship	Hot air		Concept circa 2011 by Laurens Rademakers
Sunrise solar-powered thermal airship	Sweden	Thermal (hot air) airship	Hot air + vector thrust		Concept circa 2012 by Metin Kaplan

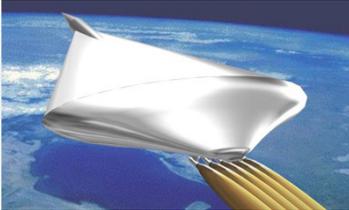
### Biomimetic airships (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
Aerolabe	France	Airship / ornithopter hybrid, likely semi-rigid	Ornithopter wings & articulated tail		Concept & model demonstrator circa 2010 by Gaspard Schlumberger
Imaginactive Medusa	Canada	Buoyant, biomimetic	“Jellyfish” propulsion		Concept circa 2016 by Adolfo Esquivel
Imaginactive Cubozo	Canada	Buoyant, biomimetic	“Jellyfish” propulsion		Concept circa 2018 by Adolfo Esquivel

### Rocket / airship (Rockoon) hybrids (P3.1)

Airship	Country	Airship type	Lift control	Graphic	Status
Walden Aerospace EARTHBALL	USA	DCB spherical rigid airship, stratospheric missile launch platform	Variable buoyancy control system		Concept circa 1977 by Michael Walden. Not developed.
Walden Aerospace HYPER	USA	DCB rigid airship, hybrid propulsion & thermal protection for flight into Earth orbit	Variable buoyancy control system		Concept circa 1977 by Michael Walden. Not developed.
Walden Aerospace W.A.V.E.S.	USA	DCB rockoon for passenger flights to 100 km (62 mile) altitude	Variable buoyancy control system		Concept circa 1990 by Michael Walden. Not developed.

### Rocket / airship (Rockoon) hybrids (P3.2)

Airship	Country	Airship type	Lift control	Graphic	Status
Walden Aerospace Silver Dart shuttle	USA	Variable buoyancy (DCB) rockoon for regular stratospheric passenger & cargo flights	Variable buoyancy control system		Concept circa 1990 by Michael Walden. Shuttle provides transportation link between Earth Station One stratospheric hotel and ground.

### 3. Links to the individual articles

The following links will take you to 49 individual articles.

Note that a few of these articles address more than one airship design concept from the same designer and these airship concepts may be in different categories (i.e., Avalon Airships, Bauhaus Luftfahrt, Walden Aerospace). Each design concept is listed separately in the above graphic tables and in the following index. The links listed below will take you to the same article.

#### Cargo & multi-purpose airships

- Airship Archangel – large, multi-purpose airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Archangel-converted.pdf>
- Airship One – medium, hybrid airship / semi-buoyant aircraft: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Airship-One-converted.pdf>

- Aquarian airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Aquarian-Airship-converted.pdf>
- Bauhaus Luftfahrt – VTOL semi-buoyant hybrid aircraft: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Bauhaus-Luftfahrt-airships-converted.pdf>
- Cloudea airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Cloudea-airship-converted.pdf>
- Green Solar Airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Green-Solar-Airship-converted.pdf>
- KNAAR – heavy-lift cargo airship: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/KNARR-cargo-airship\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/KNARR-cargo-airship_R1-converted.pdf)
- Maform S.H.A.R.K.: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Maform-SHARK-converted.pdf>
- Rediscovery – Presidential airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Rediscovery-converted.pdf>
- World Advanced Research Agency (WARPA) – TeraDrone: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/09/WARPA-TerraDrone.pdf>

### Mass transportation airships:

- Airbia – suburban passenger ferry airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Airbia-converted.pdf>
- Alpha Crucis airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Alpha-Crucis-airship-converted.pdf>
- Eco Airliner: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Eco-Airliner-converted.pdf>
- Flight 2.0 – basic air transportation: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Flight-2-point-0-converted.pdf>
- Imaginative Aerostratos & Terzi – regional passenger transport system: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Imaginative-Aerostratos-and-Terzi-converted.pdf>
- KLM – WB-1010 Spruce Whale – large buoyant passenger aircraft: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/KLM-WB1010-Spruce-Whale-converted.pdf>
- KLM – Cloudliner – large buoyant passenger aircraft: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/KLM-WB1010-Spruce-Whale-converted.pdf>

### Flying hotel airships:

- Aircruise – luxury airship hotel with land dock: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Aircruise-converted.pdf>
- Airship Traveling – luxury airship hotel: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Airship-Traveling-luxury-airship-converted.pdf>
- Avalon Airships – Aether luxury airship hotel: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Avalon-Airships-converted-compressed.pdf>
- Dassault Systems – flying cruise liner: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Dassault-Systems-airships-converted.pdf>
- Hydrogenase – bio-hydrogen airship / building with land dock: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Hydrogenase-converted.pdf>
- Manned Cloud – luxury airship hotel: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Manned-Cloud-luxury-airship-converted.pdf>

- Walden Aerospace – Earth Station One: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS\\_Exotic-hybrid-airships\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS_Exotic-hybrid-airships_R1-converted.pdf)

### **Touring airships:**

- Airmotion – scenic touring airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Airmotion-converted.pdf>
- Avalon Airships – Hemera luxury tourist ferry: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Avalon-Airships-converted-compressed.pdf>
- Mario Merino – touring airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Mario-Merino-touring-airship-converted.pdf>
- Solera & Lucci – cruise airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Solera-Lucci-cruise-airship-converted.pdf>
- Stalker – exploration airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Stalker-converted.pdf>
- Walden Aerospace – LTA-1701-D entertainment airship: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS\\_Exotic-hybrid-airships\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS_Exotic-hybrid-airships_R1-converted.pdf)

### **Flying yacht airships:**

- Aeromodeller II – personal hydrogen airship yacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Aeromodeller-2-converted1.pdf>
- Aeros – Neona sky yacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Aeros-Neona-converted.pdf>
- AirYacht SA – AirYacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/05/AirYacht-converted-compressed.pdf>
- Bauhaus Luftfahrt – luxury cruiser: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Bauhaus-Luftfahrt-airships-converted.pdf>
- Eunoia – luxury airship yacht: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Eunoia\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Eunoia_R1-converted.pdf)
- Flying Diamond airship & Dare to Dream yacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Dare-to-Dream-yacht-and-airship-converted.pdf>
- Halo – personal airship yacht: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2020/12/Halo-luxury-airship\\_update-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2020/12/Halo-luxury-airship_update-converted.pdf)
- Lazzarini Design Studio – Air Yacht: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Lazzarini-Design-Studio\\_Air-Yacht-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Lazzarini-Design-Studio_Air-Yacht-converted.pdf)
- LZ-73 – small luxury airship: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/LZ\\_73-small-luxury-airship-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/LZ_73-small-luxury-airship-converted.pdf)
- Renault Zep'lin – solar-powered racing airship: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Renault-Zeplin\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Renault-Zeplin_R1-converted.pdf)
- Strato Cruiser – luxury airship yacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Strato-Cruiser-converted.pdf>
- Wolke7 – personal airship yacht / flying home: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Wolke7-airship-yacht-converted.pdf>

### **Remotely-piloted special purpose airships:**

- Air Hydroelectric Station (Air-HES) – water collection system: <https://gkzaeb.a2cdn1.secureserver.net>

[/wp-content/uploads/2022/02/Air-HES-converted.pdf](#)

- Avalon Airships – EOS autonomous, multi-purpose hybrid airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Avalon-Airships-converted-compressed.pdf>
- Imaginative – Templar autonomous agricultural airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Imaginative-Templar-converted.pdf>
- Qatar University – Robotic Cloud: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Qatar-University\\_Robotic-Cloud-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/03/Qatar-University_Robotic-Cloud-converted.pdf)

#### **Personal airships:**

- Aeolus – personal airship yacht: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Aeolus-converted.pdf>
- Alpha-D project – personal airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/Alpha-D-Project-converted.pdf>
- Escape – hybrid personal airship & land vehicle: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Escape-personal-airship-converted.pdf>
- OSKBES MAI – SkyBoat HELIOS hybrid airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2022/02/MAI-OSKBES-Skyboat-HELIOS-converted.pdf>
- Sky Voyage – hybrid personal airship / glider: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Sky-Voyage-personal-airship-converted.pdf>

#### **Thermal (hot air) airships:**

- Sterling – solar-powered thermal airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Sterling-solar-thermal-airship-converted.pdf>
- Sunrise – solar-powered thermal airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Sunrise-solar-thermal-airship-converted.pdf>
- Tensairity – thermal airship: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Tensairity-thermal-airship-converted.pdf>

#### **Biomimetic airships:**

- Aerolabe – solar-powered airship / ornithopter hybrid: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Aerolabe-ornithopter-airship-converted-1.pdf>
- Imaginative Medusa and Cubozo – airship / jellyfish hybrids: <https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2019/08/Imaginative-Medusa-and-Cubozo-converted.pdf>

#### **Rocket / airship hybrids:**

- Walden Aerospace – Silver Dart shuttle, W.A.V.E.S. & HYPER: [https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS\\_Exotic-hybrid-airships\\_R1-converted.pdf](https://gkzaeb.a2cdn1.secureserver.net/wp-content/uploads/2021/05/Walden-LTAS_Exotic-hybrid-airships_R1-converted.pdf)