

CargoLifter Balloon Crane

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CargoLifter's "AirBridge"

... and help arrives!

Dear CargoLifter shareholders and friends,

We are pleased to present you with yet another LifterNews edition after quite sometime. We would like to give you a short account of all the happenings and news since the last edition; amongst others, the "Airships to the Arctic V" conference which was held in Canada at the beginning of October. Whilst the last two editions mostly dealt with the company's new beginning and first steps, the articles in this issue of the LifterNews increasingly focus on the establishment of business opportunities and customer-partner allocation. The meeting in Canada was certainly a decisive step. Over and above the reports on the conferences in Friedrichshafen and Calgary, you will also have the opportunity to read the exclusive guest editorial of the renowned TV-author Dirk Pohlmann on the global developments of the lighter-than-air-technology field; he has been involved for years in the field and with the CargoLifter.

I would like to begin with the status of CargoLifter after over 12 years of existence. A lot of you were and still are convinced of the idea of transporting heavy and/or bulky goods by air, from point A to point B accurately. The principle is plausible and certainly reasonable. Consequently, a group of people interested in the execution of the idea got together, lead by a culminating 70,000 shareholders and numerous firms within the industry. The will manifested itself in the construction of the unique shipyard, the CL75-experimental balloon and the valuable work of hundreds of highly qualified workers. Then, the caesura mid 2002 which was caused by the insolvency that, unfortunately, did not contribute to the continuation of the company as actually intended by the Insolvency Regulations anymore than did the lack of good will of some participants. As the CargoLifter patents were to be auctioned outside Germany, a few CL shareholders founded an initiative which became the base of the new CL CargoLifter GmbH & Co. KG joint stock company. This company bought the patents and registered new ones. With a step-by-step approach, we have now developed "smaller" lighter-than-air-solutions that are already able to fulfil valuable tasks, e.g., the transport and mounting of long rotor blades for wind power stations. Subsequently, in-depth discussions were held this year as well with the industry within the framework of a workshop. The introduction of a new transport system is enough of a meticulous matter that demands a lot of conviction, perseverance, capital and luck as well. There was a particular incident that was beyond our control and that brought rain on our parade: the global economic and financial crises. The figures of the last quarters of 2008 and 2009 looked very similar to those of 2002 as the participants who were on the capital market and those industrial firms retreated into their shells following the terrorist attacks on New York.

Characteristic of that, were the massive declines in the capital markets that inevitably emitted their tectonic waves in the direction of the so-called real economy, as well. Firms that were inclined towards participating in new projects prior to that were now struggling with massive slumps in sales and financing problems. This phase was overcome due to the lean structure of the new CL KG and thanks to the dedication of its shareholders.

The state activities and the gigantic sums that are being thrown in the ring today are remarkable. One talks of billions and no longer of millions. And back then? CargoLifter had initially requested the payment of 300 million Euro provisory repayable interest loans corresponding to Airbus. What then resounded by the ministry as, "Why only 300?" was rejected later on the grounds of flimsy reasons. Even the 35 million-Euro-bond that would have sufficed to maintain a down sized operation of the company was also rejected. We all know the result. The CargoLifter friends, especially, get furious when they for example, hear and read how the federal government is put under massive pressure by EADS because of the renegotiation of the A 400 M military transporter that still calls for the compliance with the agreement at the agreed-upon costs, and that despite the fact that the plane which was designed for a loading capacity of 37 tons is still years behind schedule and still doesn't fly! From today's perspective, CargoLifter's time delay appears in a different light in comparison to the delay by the A 400, A 380 or the Boeing Dreamliner.

Especially peculiar is the interest of the old and new coordinator of the National Aeronautics and Space Administration of the Federal Ministry of Economics, Peter Hintze in offering state financing for a moonshot program with an amount of 1.5 billion Euro. For insiders, this is meantime denoted "Peter's Moon-Ride". In view of the problems that we are facing on earth, one can't help but wonder what and how should that be at all of use or benefit? In contrast to that, when a party is able to set a complete new transport system on track with a "mere" one billion Euro, thereby helping solve a lot of real problems, then there appears to be a lot of lack of proportionality in the issues.

As you will deduce from the following articles, Germany's scientific and industrial positioning will seriously be left behind again. There are ongoing projects in America, Canada and Russia that are almost identical to the CargoLifter approach. The critics who accompanied the CargoLifter project mockingly a few years ago are now realizing that companies like Lockheed Martin and Boeing are now implementing exactly that which CargoLifter had already started and taken far a decade ago.

One may sense a certain bitterness between the lines that's maybe partly justified. The fact is that the CargoLifter friends



rejoice over every successful project that endorses their vision. The Boeing-project could actually be helpful in the sense that this technology gets to be seen worldwide through different eyes; this new perspective is then confirmed through an article in the "Spiegel-Online" shortly after the "Airships to the Arctic" conference. During which we stood as a lone voice in the wilderness in 1996, the importance of solving the problem of transport to inaccessible or remote regions can no longer be overlooked today, especially due to the global warming and high energy costs. Meantime, it's apparent that the solution lies in the implementation of the lighter-than-air technology. It's therefore important that we capture the spirit of the time. CargoLifter stands a good chance; nobody has taken this project as far as we did and the name still stands as a synonym for the theme whether in the field of plant construction, accommodation of remote areas or disaster relief.

This soft technology can certainly be deployed for other purposes. Only, surveillance jobs and the like that Zeppelin aspires to in cooperation with SAIC (press report: "SAIC and ZLT Zeppelin are teaming to develop the MPZ 07 airship) are not within our field or purpose. SAIC is short for: „Science Applications International Corporation“, a society who's main partners are the "US Department of Defense, the Intelligence Community, the U.S. Department of Home and Security, other U.S. Government civil agencies". We, on the other hand, want to continue on our path to bring and implement this technology in the solution of more urgent civil problems and see that, for example, the field of humanitarian aid as one of the most urgent fields of operation. The discussions with the representatives of the World Food Programme in Calgary endorse this deployment. We will continue our efforts for the acquisition of partners in the civil area whereby the dialogues of the past few months endorse our optimism.

You, who have accompanied us on our path until now, can be proud of this personal commitment towards an innovative, environmentally friendly future technology "Made in Germany". You may decide after reading this LifterNews issue to also support us. We very much look forward to your reactions! The CargoLifter team and the shareholder association "Zukunft in Brand e.V", whose support was indispensable for our success sofar, wish you lots of fun reading!

Mirko Hörmann
 General Manager CL CargoLifter GmbH & Co. KG a.A.

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Reports

Admission revocation withdrawal

On 31 July 2007, the German Stock Exchange rendered an enactment under which the shares of the CargoLifter AG i.I., effective 31 January 2008 are no longer admitted for trading on the regulated market (formerly: Official Trading). Consequently, the "Initiative Zukunft in Brand e.V." commissioned their lawyer Thomas Anton to intervene. The effectiveness of the resolution was then initially suspended following CargoLifter AG's submittal of reports to the stock exchange in due time.

On 24 July 2009, the German stock exchange announced its decision officially to withdraw its former revocation of admission. In plain language: the CargoLifter shares (WKN 540261) would remain tradable on the stock exchange in the regulated market.

The "Initiative Zukunft in Brand e.V." endeavours to circumvent the disadvantages that may arise for the shareholders through irrevocable facts before the end of the insolvency proceedings. The support of the creditors may help maintain or withhold the listed shell of the insolvent AG beyond the duration of the insolvency and guard the best interests of the shareholders after the finalization of the insolvency proceedings.

Extensive documentary film footage reappears

Another positive development evolved with the resurfacing of a comprehensive collection of film footage over CargoLifter's development as well as different international archives relating to the theme lighter-than-air; those were in CargoLifter AG's premises at the beginning of the insolvency proceedings but were not part of the insolvent assets. Until lately, the existence of this material had been disputed by the insolvency administrator. Meantime, it has turned out that the said collection together with various other material was sold to Zeppelin in 2005. For a start, we are very pleased that this valuable documentary material did not get lost amid the turmoil of the insolvency proceedings. In connection with their acquisition of the technical documentation pertaining to the insolvency and since Zeppelin has assured us access to the assets, we presume that a cooperative usage would be possible, independent of the legal issue pertaining to the question of whether the insolvency administrator had the right to sell the material at all.

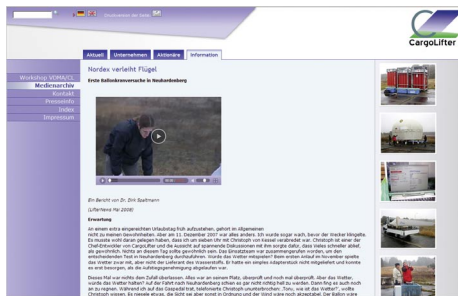
The insolvency proceedings continue to prove tough

This is due to the fact that an insolvency administrator in the German bankruptcy law is almost invulnerable as long as the proceedings are under way. On the other hand, there are better chances after the conclusion of the proceedings, amongst other things, to call him personally to account. Without going into much legal details here, the "Initiative Zukunft in Brand

e.V." will await the right time frame to address some of the issues. The initiative does not intend to lose sight of those themes. Members of the association will receive more information in the regular members' news-letters.

Readapt the web sites again

Following the announcement, in the last Lifter-News issue, that a new internet presence for the enterprise was redone on the basis of the separation CL old and CL new, we have decided to abandon this separation. The internet pages of the new CargoLifter Company are now the basis of our internet presence. All issues related to CargoLifter AG i.I., will be presented under the section "History". This was necessary because a lot of visitors who weren't familiar with the subject matter didn't know where to find the information they needed. It was even worse when the visitor ended up on our website through a search engine; the visitor didn't necessarily know as outsider, that there was an "old" and a "new" CargoLifter company.



Moreover, the pages were amended such that the various elements are depicted. So, there are videos and animations of the crane balloon, as well as the airship that CargoLifter originally planned for. The pages will be edited further in the near future to include more elements and a larger Media Library. In order to maintain low costs, those pages will only be accessible to shareholders, as a beginning.

New Board of Directors and Supervisory Board of CargoLifter AG i.I.

Dr. von Gablenz was the initiator of the CargoLifter project. In 1996 he co-founded the CargoLifter AG and was Chairman of the Board until 2002. His resignation was a political precondition for the granting of the DIP loan by the Federal State of Brandenburg which in turn was necessary to secure an orderly transition in the insolvency procedure. Since then, he has been member of the Supervisory Board. Dr. Wolfgang Schneider was Chairman of the Board from 2002 until March 2003 and was then succeeded by Dr. Hans-Georg Engelken. In contrast with Dr. Schneider, Dr. Engelken saw himself as the key organ for the shareholders and tried to implement operational concepts in the AG. On the Other hand, Dr. Engelken was involved in legal disputes with the insolvency administrator since the very beginning. Consequently, end of spring of 2008 and following a legally demoralizing campaign led by the insolvency administrator, a settlement

was reached in which it was agreed, amongst others, that Dr. Engelken resigns from his post as Chairman of the AG. Since the law requires that executive bodies be occupied, the Supervisory Board decided to **reinstate Herrn Dr. Carl von Gablenz as Chairman of the Board of CargoLifter AG i.I.**

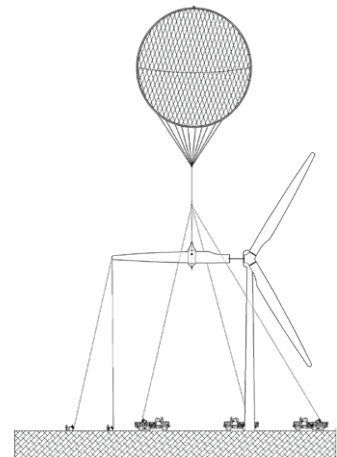
Although the Chairman of an insolvent AG possesses limited powers, he still has the right of access to procedural documents. Over and above, the insolvency administrator is obliged to cooperate with the insolvent party involved in certain issues, e.g., in the compilation of annual reports for the German stock exchange. After he demanded the resignation of Dr. Engelken, the insolvency administrator probably did not expect to be faced with Dr. von Gablenz, his new old counterpart, who was a profound expert in the dubious legal attitude in matters pertaining to the CargoLifter company as well as the entire insolvency proceedings.

As Dr. von Gablenz resigned his position as member of the Supervisory Board as well, he was then replaced through a court order on the basis of the statutory count of 6 persons. The Supervisory Board of CargoLifter AG i.I is represented through:

Arnd Middelmann (Chairman)
Mirko Hörmann
Martin Leithäuser
Christoph von Kessel
Monika Wolf
Hans-Helge Westerholt

Wind turbines workshop

In spring 2009, CargoLifter held a workshop entitled „Innovation in transport and installation of rotary blades for wind turbines“ in the VDMA premises in Berlin. Thereby, the cooperation which was mainly centred on NORDEX was now expanded into the branch of wind turbine manufacturers and their logistic partners. The target is to define, in cooperation with representatives of the branch, the exact specifications for the crane balloon, the relative fields of application and operative conditions.



Mounting can begin immediately after the transport (cf. article page 5)

The CargoLifter Balloon Crane

by Carl-Heinrich von Gablenz

Sometimes it takes years before an idea comes to fruition, but eventually it will happen.

In the fall of 2001 the doors of the CargoLifter hanger in Brand, Germany were opened and the CL-75 was guided to its tethering platform for the first time. While watching this modern airship, its load bearing framework suspended below, an image flashed before my eyes as it was pulled by ropes attached to mobile cranes. Instead of basing on flat land, mobile cranes could be positioned on either side of a gorge or river with the airship's cargo platform suspended below, traversing one bank to the other

river, regardless of whether the bridge that once spanned this natural obstacle was destroyed as a result of war, earthquake or flood.

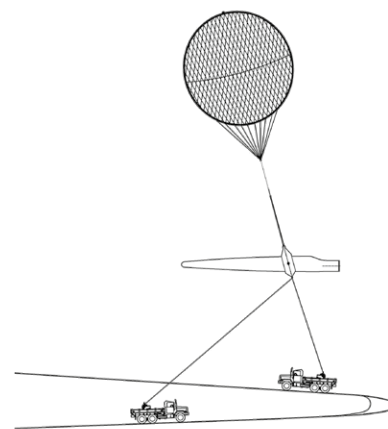
Such humanitarian emergencies would be the ideal use of the CargoLifter balloon crane system. For example, the balloon crane can be positioned on the Mackenzie River in Canada, now partially served by helicopter, to regularly transport loads up to two tons back and forth. And extremely efficient fuel consumption makes the balloon crane the most green of solutions for such areas.

to which wind turbine manufacturers and their partners were invited. In spite of a very positive response, it remains obvious that extensive work is required to move this fledgling industry forward. The greatest challenge remains funding, which harkens back to 1995 when it took three months to get 5,000 German marks from any of the large German corporations. The Swedes have already contracted and paid for an initial analysis of transportation options using lighter-than-air technology for wind energy facilities in Sweden.

At least it's a start.



The problem



A possible solution

– an “air bridge” in the truest sense of the word (see cover page). In principle, it does not matter what surface is below the balloon, whether water, land, rock or deep ravine. The airship's guiding winches pull it back and forth.

In Canada, a representative of the World Food Programme exhibited a film about the absolutely appalling conditions faced by those who supply basic sustenance to people most in need around the world – especially children (Every seven seconds a child dies of hunger). From pictures of so-called “roads,” the transportation problems faced by the world's humanitarians were obvious, and the utility of a cargo-hauling airships made obvious. How do humanitarians cross a raging river or deep gorge with critical food stuffs? The answer became clear: an air bridge could be built. An intensive exchange of ideas with the World Food Programme ensued and a future meeting set up for Rome.

The response to this dilemma is simple and effective: a 40-meter diameter balloon with load platform capable of carrying 20 tons, winches on the left and right sides. Critically-needed supplies can be transported across a gorge or

By adding another winch, the “air bridge” becomes an “air crane” – a lifting solution for large-scale construction sites that can span more than 50 meters. All tower and mobile cranes have intrinsic technical limitations. They can only carry ten tons over 40 to 50 meters in a straight line. Beyond that distance, a 500-ton crane simply falls over. The balloon crane can carry a load of 20 tons over extended distances and in any direction. The viability of this concept was demonstrated in the CargoLifter hanger in March 2002. Unfortunately, some things just need more time.

If winches are put on moveable vehicles, then air cranes can be moved over several kilometers. This makes it possible to transport items by air that cannot be easily moved over land. The picture of a transported rotor blade (upper right) speaks for itself.

Though a balloon crane – an “air hook,” so to say – does not cost hundreds of millions of Euros, the beginning phase is difficult.

A workshop was held in cooperation with VDMA Power Systems at their Berlin offices



Successful test with a 1:8 scale model of the CargoLifter AirHook (2008)

Airships to the Arctic V

by Peter Hufnagel, Chairman of LTA Technologie AG

The fifth annual "Airships to the Arctic" conference was held in October 2009, focusing on the topic, "Approaching the Tipping Point." (For a report about the fourth conference, see previous edition of LifterNews.)

Let's begin with the end. At the conclusion of the conference, Professor Prentice invited three participants to the podium to discuss the main theme, "Is the Airship Industry at the Tipping Point?" The participants were (pictured left to right) Igor Pasternak (CEO, Worldwide Aeros), Gordon Taylor (Director of Sales and Marketing, Hybrid Air Vehicles) and Dr. Carl von Gablenz (Head of Board, CL CargoLifter, Berlin).

Prof. Barry Prentice from the University of Manitoba in Winnipeg is the promoter for LTA technology in Canada and organizer of the conference. He defined the question further, asking participants whether airships will someday reach a point where they are used on large-scale projects and will transform the transportation world. It seems that CargoLifter or the SkyHook project could achieve an eventual breakthrough.

AIRSHIPS TO THE ARCTIC

Dr. von Gablenz opened the round and said the answer to this question had changed from "no" to "maybe" to "yes." CargoLifter has been on the threshold twice. Though times have changed and the Hindenburg disaster is not usually mentioned, there is still a "giggle factor"—slightly nervous laughter—when the discussion is about huge airships. Today it's a success that using hydrogen in airships can be mentioned without a negative reaction. The use of airships for cargo has become a viable topic, thanks largely to CargoLifter. Years ago at the first conference in Canada, the primary discussion was about the effects of climate change and the urgent need for solutions in the transportation sector. Now the discussion has changed from whether the airship concept could be used, to which airship and when. Even though there is still a lack of willingness to provide funding, this is indeed a big step forward. The remaining two panelists chimed in and were even more optimistic about the future use of airships.

So is a breakthrough imminent? It seems more so now than a year ago following the Friedrichshafen, Germany conference (see p. 14). It's obvious from the array of contributions presented.

Kenneth Laubsch of Boeing, new project manager for SkyHook, presented a layout of this hybrid (see p. 11). He is no stranger to Cargo-



Lifter. He worked in Brand, Germany for many months as a member of the development team for the cargo framework. His enthusiasm for his time at CargoLifter is as evident as ever. Laubsch showed slides and film demonstrating what has been known for years. It is almost the exact same presentation that Dr. von Gablenz gave about CargoLifter a decade ago, down to the logo. Regardless, Boeing speaks with confidence and expresses what seems like fact. The company presents a strong argument for using helicopter technology because of their experience with it and trust in it. Mr. Laubsch proudly expressed the fact that SkyHook uses ten percent less fuel than the Mi26 freight helicopter and has double the carrying capacity at 40 tons.

During a break, to the surprise of conference goers a representative of Lockheed Martin presented previously unpublished video footage of a P-791 flight. He spoke very openly about plans to build a hybrid airship with an initial 50-ton payload. Therefore, it looks very likely that both major US aircraft producers will use lighter-than-air technology for freight transport in the future.

The Aeros Corporation from Montebello, California, was another presenter. During the US government's heavily promoted "Walrus" project, they developed a system for compressing helium. The powerful and dynamic "Aeroscraft," that they refer to as a "buoyancy assisted air vehicle," offers a buoyancy compensation system through gas compression in a rigid internal structure, which in its first stage has about a 60-ton capacity.

Guardian Flight Systems, LLC from North Carolina was impressive with its very pragmatic approach. They have outfitted an airship with an engine configuration like the NT airship and have thus achieved very good maneuverability. The concept is to be expanded into a Polar 3000 airship with approximately 19-ton



payload capacity.
Peter Hufnagel with Prof. Barry Prentice, organizer of the symposium

So much for US companies. What about the Europeans? Similar to Lockheed Martin's project is the SkyCat, a project presented by Gordon Taylor of Hybrid Air Vehicles (the successor company of ATG) in Great Britain.

Another new competitor is the “Atlant” project from Russia’s RosAeroSystems. The company has an extensive plan to build a series of cargo airships able to carry 50 tons of cargo. Like the other projects, the Atlant is also a hybrid with a very strong dynamic component for additional buoyancy. However, RosAeroSystems is one of the few companies with a plan for managing a complete airship location that would include viewing platforms, “aerostats” (tethered observation airships) and modern airships.

Finally, Juergen Bock of the DGLR presented his concept of the LTA-Logger, which was developed with Professor Apel from the Hochschule Bremen. Similar to a motorized balloon, it can transport around 10 tons over short distances.

Together with lectures on the use of airships in Japan and California, the conference offered a broad overview of existing airships and projects used for cargo. A lecture on the supply of helium and on hanger construction completed the picture in showing that lighter-than-air technology in Canada is really at the “tipping point.”

Overall, it must be said that without CargoLifter things probably would not have come so far. Put differently, in thinking back to Dr. von Gablenz’s lectures from 1997-1999, it seems that the conference presenters have only switched out the pictures of the CL-160 and the CargoLifter logo. Furthermore, Gablenz’s statements made more than 10 years ago are more relevant than ever.

(cont. on page 8)



Representatives of the World Food Programme explained transport problems



A slightly modified projekt of the SkyCat was presented by HAV



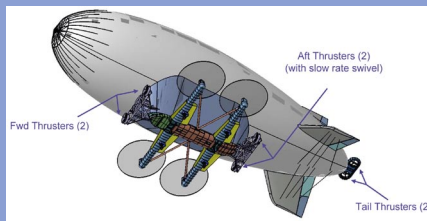
The airship project „Atlant“ of Russian airship manufacturer RosAeroSystems

Hybrid air vehicles

How hybrid air vehicles improve on airships:

- Heavier operation** - Additional width enhances 'lift efficiency' compared to 'circular' hull section. - Really provides the 'wing area' to allow 30%+ of overall lift to come from hull shape alone.
- More stable on ground** - Additional hull width provides landing system with extra width thus providing greater stability of vehicle on the ground. Aided to:
 - Reduces the 'cross flow drag' substantially (shape alone provides circa 3x reduction in drag).
 - Reduces the 'cross flow area' (windage area very key to ground handling of LTA vehicles).
 - Reduces 'height of centroid of side area' (thus reducing overturning moment).
 These features provide more than an order of magnitude better lateral stability on the ground.
- More manoeuvrable** - More installed power (vs comparable size airship) and addition of bow thruster provide enhanced low speed control and position hold capability.
- Operational flexibility** - minimises ballasting requirement.

Hybrid Air Vehicles Ltd PROPRIETARY & POCOR RIGHTS INFORMATION



Boeing explained the SkyHook project

FWS Group

Roof

- Arch is compatible with inherent shape of airships
- Minimizes roof height & wall height
- Less dead air space
- Roof skin
 - Material that can resist cold & snow load
 - May be traditional steel cladding or composite fabric (Kevlar, etc.)
- Roof arch ribs are raised as slip progresses
 - Roof arch would be part of slip form and move during pour
 - Once slip is complete, the roof ribs are anchored to top of wall

FWS

The construction of airship hangars was a subject as well

The LTA Technologie AG

Dear CargoLifter shareholders,

Some of you will surely wonder why would the LTA Technologie AG’s EM publish an article in LifterNews on this year’s “Airships to the Arctic” symposium. To make it short: as Executive Manager of LTA Technologie AG, I was also in Canada to establish new contacts. I also wanted to know how two of the few companies in the field that earn their living in the passenger service branch with the lighter-than-air technique, present themselves on the conference as newcomers to the market. I would like to take the opportunity today to give those of you who don’t know LTA Technologie AG a brief overview.

LTA Technologie AG was founded in 2003 by former shareholders and employees of the CargoLifter AG with the intention of establishing an operative unit that is independent of CargoLifter AG’s insolvency process. The former CargoLifter engineer, Dr. Ingolf Schäfer was then appointed as Chairman to the Board. Pursuant to its articles of association, the purpose of LTA Technologie AG is the promotion of development, construction, operation and sale of multi functional airships and other lighter-than-air-technologies as media of transport for public and freight and all services therewith attached, in addition to its participation in business enterprises in the field. The conservation of the knowledge that has been established in the past years relative to the lighter-than-air technology is another core purpose of the company. The first bigger planned project for the company was the construction of an air-shipping company. In 2005, it was expected that sufficient funds be obtained to raise the capital required

for the development and operation of a prolonged Zeppelin NT.

Consequently, LTA Technologie AG signed a Letter of Intent with Zeppelin Luftschifftechnik GmbH & Co KG on 7 Juli 2004. Ultimately, Zeppelin never implemented the project such that the cooperation scarcely got off the ground. What has remained of the plans for a prolonged NT is the transfer of numerous documents of the CargoLifter AG to Friedrichshafen due to the intended involvement of Brandenburg in this project.

Dr. Schäfer resigned his post as Chairman end of 2006 to leave the AG deserted. In May 2008, I was appointed Chairman of the Board. Following the reactivation and some “cleanup” efforts, we started to look into new business fields. We then heard that GTG was searching for investors to relocate their vista balloon (many of you would know or have seen those balloons in Berlin or Hamburg) from the Göltzschtal Bridge to Dresden. A few months later, a first contact was then established with GTG GmbH through the Chairman of the society “Initiative Zukunft in Brand e.V.” After we had ascertained our satisfaction in the business plan, we began to intensify our talks for an eventual participation in GTG. LTA AG will stand to support CL CargoLifter GmbH & Co. KGaA in order to enhance the setup operation of the Dresden Balloon.

Peter Hufnagel
Executive Manager LTA Technologie AG



As a representative of the pipeline industry once said, “With CargoLifter, the idea that freight can be transported with airships in rough territory was let out of the bottle. And now it can never be put back in.”

It was flattering that CargoLifter wasn’t just mentioned as an afterthought. The English language LifterNews reporting on the last conference in Canada was well received. Further advancements have been made toward using balloon crane systems for the World Food Program and additional applications. Remarkably, none of the players had thought of the possibility of using tethered balloons as a lifting and transportation solution. This area is still CargoLifter’s domain, owing largely to CargoLifter’s strong patent protection. The AirTruck concept presented at the last conference drew little attention because the technology was rather unattractive. But unmanned short airships can handle the regular supply of Inuit settlements and the mining industry in northern Canada. In comparison to the projects presented at the conference, the AirTruck is an excellent concept (see p. 10).



Airships can also be used successfully in passenger service. Brian Hall, president of Airship Ventures, spoke at the symposium about his airship cruise company. Brian reported on placing the order for his airship (at a cost of 14 million Euros), its construction in Friedrichshafen, Germany, and transporting it to the US. He detailed the difficulties of the construction phase and confessed that he had fallen in love with his airship while it was still in Friedrichshafen. In his view, the NT is by far the best



airship in the world and far superior to similarly-sized airships such as the Skyship 600. Mr. Hall answered questions from the audience as he showed pictures from the NT’s test flight over Lake Constance. After this flight, the airship was successfully dismantled and shipped across the Atlantic to the US. When it arrived on the east coast, it was painstakingly reassembled and undertook its first long distance flight across the US to California.

California is enviable in that it is one of the best places in the world to successfully operate an LTA business. With more than 300 sunny days per year and tourist attractions like San Francisco, the Golden Gate Bridge, Napa Valley, Yosemite National Park, etc., it’s an area that easily draws people in. However, while showing beautiful aerial photos from previous air cruises, Mr. Hall explained that airships don’t load themselves. It takes good marketing strategy. A look at his homepage www.airshipsventures.com makes this clear. There’s an offer for an all-day flight around San Francisco starting at \$600. Airships can be chartered for company events as well as for spending a day learning to be an airship pilot (crash course) starting at \$2,950. Shorter trips start at \$199. To sum up, something for everyone is offered to fully utilize the NT’s 12 seats.

The potential for advertising on an airship’s hull was demonstrated through an impressive time-lapse movie showing the ad campaign for the film “Up” by Disney/Pixar. There could be no more appropriate advertising venue for this movie. As for how much Airship Ventures received for this advertising contract, Brian Hall could not disclose the specifics of the deal with Disney, but he did offer this comparison: Goodyear would probably take in \$1.4 million per month for its three blimps. Such figures indicate that a large chunk of revenue can be generated through hull advertisement.

Hiroiyuki Watanabe, president of Nippon Airship Corporation (NAC), expressed delight at owning his own modern airship. His NT was purchased several years ago by NAC for use over Tokyo as an ideal photographic vantage

point for tourists. NAC has greatly expanded its offering of nighttime flights over Tokyo, probably because the city, with its immortal sea of lights, is even more attractive at night than during the day.

The enterprising Japanese have quickly discovered additional ways to earn money and now offer the airship as an observation tool. A research division of the Japanese government has booked the airship for the development of a new system to pinpoint earthquake damage. In this system, the airship allows rotation and pivot, thus providing unique advantages over other aircraft. The NT can stay up longer and can be used simultaneously for several tasks. For example, damage on the ground can be mapped at the same time that knocked down towers can be replaced. As soon as a communications network is reestablished, the same towers can be used as relay stations by rescue teams to locate earthquake victims largely via their cell phone signals.

It’s clear that there is good money to be made using lighter-than-air technology – not just in transportation, but also in passenger service, advertisement and rescue operations.

Author

Peter Hufnagel



was born in 1964 and is an independent contractor from Erlangen, Germany. Before founding his company “enterVisions,” he was employed as a bank officer and then studied at the Frankfurt Stock Exchange to become a trader. At Istron AG he was responsible for creating an electronic trading system. The “lighter-than-air virus” attacked him in 1997 at the 1st Annual Meeting of CargoLifter AG, long before LTA Technologie AG was founded. After that, he “infected” many people with the LTA concept. Since the late 90s he has been a member of the shareholder advisory board for CargoLifter AG, where his focus has been on small investors.

Lighter-Than-Air Day 2009

by Wolfgang Pest and Andreas Werner

Within the framework of the general meeting of the association Initiative Zukunft in Brand, interesting projects and experiences were presented again on this traditional event.

Our general meeting took place this year for the first time separate from CL CargoLifter GmbH & Co. KGaA's Shareholders' meeting. We wanted to accommodate those members for whom the way to Berlin was too far off. Therefore, we resumed our tradition by choosing a meeting place that was associated with the airship. After Briesen, Neuhardenberg and Zepelinheim we occupied the reception hall of the historical airport Cologne-Butzweilerhof. As is generally known, today's Frankfurt International Airport used to be an airship port before commercial aviation had come into existence. The same applies to the former Cologne Airport. It was from there that some of the Atlantic-crossings of the legendary "Graf Zeppelin" started (LZ 127).

During the society-internal part of the event and besides the various reports and the society's formalities, the situation of CargoLifter's insolvency proceedings and the direction of our judicial involvement were elaborated on by our lawyer Thomas Anton.

A number of interesting speakers could be won again this year during the following lighter-than-air day.

Dr. Edgar Mayer, Chairman of the Butzweilerhof foundation, spoke on the history of the formerly significant Butzweilerhof airfield. Considering that the airport has been inactive for a long time, the issue of preserving the building seems rather difficult. So much more meritorious are the actives who endeavour to reconstruct the reception hall and maintain the adjacent museum. Over and above exhibits from the heavier-than-air field, there are also testimonials to marvel at in the domain of airship navigation. Thus, airships were made and tested in Cologne; they even had their own airship hall.

Visiting www.butzweilerhof.de is certainly worthwhile and is highly recommended.



Zukunft in Brand

Dipl.-Ing. **Thomas Krause** held a very interesting speech on the autonomous airship for the fire department, THW (Technical Aid Society) and police department. He is a research associate at the TU Chemnitz; Mr. Krause explained the development and parameters of a remote-controlled or autonomously operated airship, as well as the current development of this project (see large picture, page 14).



Testing of the "Chemnitz" airship at the Jahnsdorf airfield, pic.: TU Chemnitz

In addition, he talked about the difficulties that arose with the steering function and how he succeeded in overcoming the problem through the development of a steering-software. A very illustrative MDR film followed subject of the practical deployment of the airship. Detailed information on this promising project may be found in the internet under:

www.tu-chemnitz.de/etit/proaut/forschung/luftschiff.html

Hands-on practice followed: **Christian Schulthess**, founder and manager of Skyship Cruise Switzerland, spoke on dealing with problems that were encountered in the operation of the passenger airship, Skyship 600.

He said that half of his activities have little to do with the operation of the airship itself; they

are instead, wide-spread over the business and social scenes. The highlight was the deployment of two airships for the Olympics 2004 in Athens for security purposes and as a camera



Christian Schulthess, Skyship Cruise

platform; the trip involved crossing over the Alps. Other than that, Skyship 600 was mostly deployed in Lake Lucerne. For more information, please refer to www.skycruise.ch.



SkyCruise-landing field, pic.: SkyCruise

Mirko Hörmann, GM of CL CargoLifter GmbH & Co KGa.A., concludes the lighter-than-air day with his speech. He presented CL CargoLifter's current state of development; the contents of the speech need not be elaborated on at this point as most of the themes will be presented in other articles of this NewsLifter issue.

We will inform you in due course of the next Lighter-Than-Air Day, which is tentatively set for June 2010, on the website

www.zukunft-in-brand.de.



5. August 1909. The citizens of Cologne await the Zeppelin LZ 5 on rooftops and squares since early morning. With its 135 metres long and 15 metres in diameter, it is the largest existing aircraft. Two attempts to transfer the Zeppelin from Friedrichshafen to its home town in Cologne had already failed; once due to thunderstorms and another due to technical reasons. But today, the Cologne citizens are optimistic. Count Zeppelin and his team will start the third attempt. They will get the LZ 5 safely to its "Reichsluftschiffhafen" of Cologne: the Zeppelin appears on the western horizon. Roars of cheers!

The Emperor's Bell sounds. The LZ 5 circles the dome, the town hall and lands in the Butzweilerhof. Thousands of Cologne citizens welcome the aircraft with enthusiasm.

The civil aviation begins officially in Cologne with the foundation of the Butzweilerhof Airport in 1926, although a large Zeppelin-airship hall had already existed as early as 1909. Flight weeks and airship testing had taken place there in Cologne. Many flight pioneers took off in "Butz", the Luft Hansa was initially based in Cologne. The dream of flying is closely knitted to Cologne. Several hundred exhibits, beautiful airplane models and the biggest well preserved airport facility after "Tempelhof", Germany-wide. (From leaflet of Stiftung Butzweilerhof)





CargoLifter AirTruck

by Christoph von Kessel

Lighter-than-Air in Its Purest Form

It is positive that there is finally some progress on the international airship scene after many years of lethargy. This progress is illustrated by projects such as the Boeing SkyHook (see right) and other airships used for cargo transport. Fifteen years ago CargoLifter began development of futuristic technology in order to reach inaccessible locations. CargoLifter's contributions have left an indelible imprint on the majority of current airship projects. Where do current CargoLifter activities stand, given these other efforts? Does its new "AirTruck" (refer to previous LifterNews issues) measure up against other hybrid airships? How is CargoLifter different?

The AirTruck differs from the SkyHook, Sky-Cat, Atlant, Aeroscraft and a Lockheed Martin effort in a very fundamental way: the AirTruck relies primarily upon flawless application of lighter-than-air technology.

Boeing's SkyHook is ultimately more helicopter than airship and is managed by the company's helicopter unit. For technical reasons dictated by its small rotar blades, the lifting capacity of a helicopter is limited to approximately 20 tons. It is therefore logical to mount helicopter technology below an airship as a support for cargo weight. Coupling helicopter engines with lighter-than-air vehicles allows possible payload to double. As plausible as this hybrid concept may seem, tests have proven unsuccessful because of the inherent high degree of engineering complexity and energy consumption rates that limit it to short distances.

Due to these limitations, other hybrids do not use helicopter technology, but rather combine an airship body with elements of an airplane

wing to create dynamic lift. By "squeezing" a normally-circular cross section of an airship, it takes on shape elements of a wing that can generate lift like an airplane. This aerodynamic approach to lighter-than-air transport allows increased load carrying, but brings with it the inherent drawback of requiring a runway to achieve lift for takeoff and landing. Though these craft would require a shorter runway than "normal" airplanes, this negates one of the advantages of airship technology: vertical takeoff and landing. In order for vertical takeoff and landing to occur, as well as floatation, the craft's engines must be swung vertically, bringing the same challenges (fuel consumption and complexity) faced by helicopter hybrids.

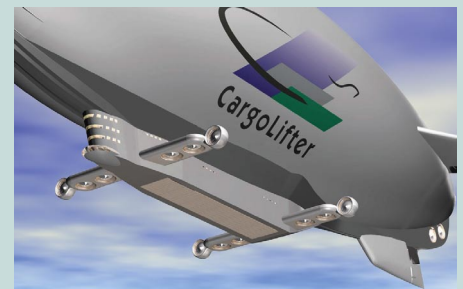
Using internal lifting gas compression, such as Aeroscraft does, large amounts of required energy, complexity and the added weight of compressors hamper efficiency.

In contrast to these other efforts, the AirTruck uses a pure airship solution that is much more efficient in terms of fuel consumption, and much less complex in its engineering. In the experimental phase of the CL 160, CargoLifter experimented with "Power Wings." The company's team of experts examined all possible technical configurations and refinements. As a result, the other approaches discussed above were rejected as too complex, too expensive, too heavy, and too energy inefficient.

Several variations of dynamic lift: hybrid (left), „PowerWings“ (right) and rotors (see page right)



**HAV SkyCat
Hybrid Airship**
CAD: Hybrid Air Vehicles



**CargoLifter CL-160
prior model with „PowerWings“**
CAD: CargoLifter

Effective technology evolves from the primitive to the complex, and ultimately, to the simple. The AirTruck is the result of this evolution. This groundbreaking aircraft possesses a traditional rigid structure conducive to mass production, simple gas cells with no balloon network, centralized engines with simple motor management, and no requirement for an anchoring pole. The AirTruck utilizes only the essential technological elements. By examining and testing the entire range of airship possibilities along the technology curve, CargoLifter has been able to turn many “must-haves” into “do-withouts.”

Dubbed “The Bumblebee,” the AirTruck is a streamlined workhorse, consuming energy only for propulsion, and not for lift, takeoff or landing. The AirTruck allows the establishment of super-efficient supply chains that rely upon unmanned air cargo vehicles to deliver supplies to previously inaccessible regions.

Hybrid proponents may tout advanced operating configurations of their craft that bypass ballast issues associated with “true” airships. However, CargoLifter owns many patents that allow simple and efficient ballast adjustment, likely the source of focus by CargoLifter’s competitors upon more complex, less efficient solutions. CargoLifter experienced the many challenges of modern lighter-than-air cargo movement long before these other efforts were even in development. The simple CargoLifter solution is a result of extensive technical experience. Those who have witnessed the CL 75—an 80-meter tall, 100+-ton aircraft—hovering noiselessly in its enormous hanger and controlled by the touch of a hand, have a true understanding of what “lighter-than-air” is capable of delivering.

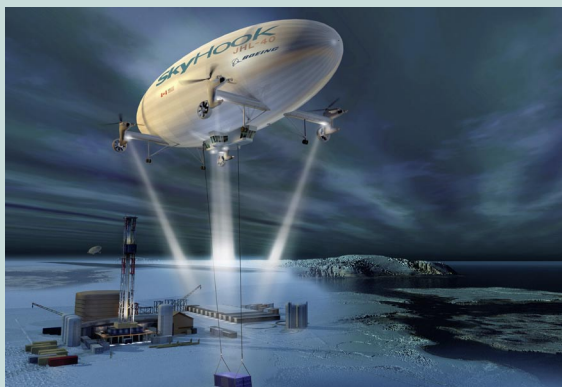
The AirTruck provides a capable, efficient solution that can be built in stages. It occupies a large segment of the market and operates more economically than any of the other “solutions” available. Talks are heading in the right direction but still lack a breakthrough. The time is ripe for cargo airships. However, transportation challenges are greater than ever, with energy costs and climate change concerns increasing pressure to act. CargoLifter was ahead of its time in 1996, but time and need have caught up with this visionary company.

There are other options available today, but the CargoLifter AirTruck is certainly one of the smartest.

New from SkyHook Project

by Carl-Heinrich von Gablenz

As the SkyHook Project became better known, the media turned its attention and began to view the airship and cargo themes more seriously. The Financial Times Germany was the first to report on it and immediately mentioned Pete Jess. He had already tackled the cargo-transport per lighter-than-air technology theme at CargoLifter via Heavy Lift Canada and continued along those tracks at SkyHook International Canada that he himself initiated. It’s the same old thing: once you’ve internalized the idea of cargo-transport per lighter-than-air technology which was born to CargoLifter, you’re no longer able to shake it off!



In its press release of 14.7.2008, CargoLifter had welcomed Boeing’s commitment which not only asserts the market impulses as such but also the practicability of LTA technology (Boeing had also signed an MoU with CargoLifter in May 2002). After the first design disclosure (picture left), we had our scruples about the helicopter rotors that were mounted on long arms, the form of the airship’s frame, the entire complexity and, not least, the fact that lifting 40 tons would require a lot of energy expenditure through the helicopter engines.

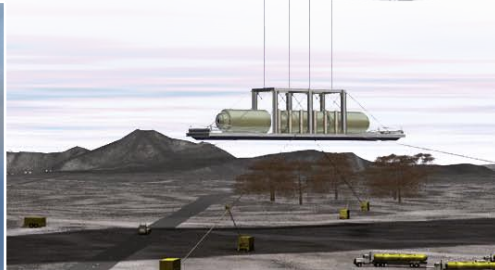
The currently presented amendments (picture below) are interesting in so far that: the rotors are near the load-centre and the airship’s frame resembles that of the Zeppelin NT, including the tail unit configuration. In coordination with the FAA as regulatory authority, Boeing made a clear separation between the load-admission-process versus the airship as load-bearing body, such that the aviation devices may still be operated as an airship independent of problems in the helicopter engines. The interesting thing is that the project manager emphasized that the TAR was adhered to; the TAR (Transport Airship Requirements) are approval guidelines developed by CargoLifter in cooperation with the German Aviation Authority for large-transport-airships that are meantime also being deployed in the U.S.A. Yet another CargoLifter step that is implemented as an international standard!

The high energy expenditure of the 4 helicopter engines that are also accompanied by 4 other propulsion engines remains a problem in the SkyHook project. With a fuel consumption of over 3000 l/h one gains advantage, like in the CL 160 situation, by carrying or setting the load down without landing - while airborne. On the other hand and in contrast to the CL 160, that would have to be achieved without releasing or taking-on ballast. This conception which



is a contingent fact in the helicopter-airship-hybrid-concept can’t be changed. SkyHook’s range is rather limited to a short to medium range, optimally 100 km up to economically (and ecologically) reasonable 200-300 km. In that sense, CargoLifter should be reassured about the deployment fields of its AirTruck-concept as this is more geared towards an uninterrupted transport distance of 500-1000 km and considerably lower fuel consumption. Boeing is more comparable with the largest helicopter of the world, the Russian Mi-26 which can carry 20 tons and consumes 10% more; from this point of view, one stands at 40% of the costs of a transport done by the Mi-26.

We wish Kenneth Laubsch, the new project manager by Boeing (and former member of the CargoLifter development team), a lot of success in the implementation process. One can only hope that the upcoming financial negotiations with the Canadian firms will be successful! And despite all the elation over Boeing, the money must come from outside and the road till the “first flight” is still long! 2014 is the target for the commercial use.



The CargoLifter Scandal

by Dirk Pohlmann

Airships can't fly in bad weather conditions; they are extremely susceptible to wind and can't be integrated in the air traffic control system. Cargo airships are at best redundant because there is no market for them. Moreover, most of the experts are convinced that they are technically not feasible. There will never be stratosphere airships. The lighter-than-air technology is a crazy idea [1] that was propagated by tricky stock traders on quasi-religious events before simple-minded victims. CargoLifter was expert on hot air issues [2]. The CargoLifter management was incapable, maybe even criminal [3] and that is why the firm is bankrupt today.

Since 2001/2002 that is, since the beginning of CargoLifter's project-end, the above mentioned allegations have received the status of reliable expert knowledge in the public opinion. Whoever discloses those allegations in an attitude of supremacy ("Spiegel-Leser wissen mehr" ["The Spiegel-readers know more"]) at a guest table has conquered the sovereignty over the airspace. How could it come to this?

After the trustworthy key media sources like the Financial Times Deutschland and the Spiegel [4] set the "critical" ton on the theme "Cargolif-f-f-f-f-f-f-ter" (according to the Financial Times' headline [5]), there was no holding back and hardly any more investigation. If journalists still investigate information at all, then the phone numbers of dissatisfied CargoLifter-engineers who were then able to live up to their sentiments of resentment due to unfulfilled career hopes in TV reportages. The insinuations and allegations got increasingly more sinister. The Stern and the TV magazine Panorama reported on "fraud allegations against CargoLifter" [6].

Meantime, the German media has a credibility problem as astonishing news has been coming in from the USA for some time now [7]. Eight years after the German media-offensive against CargoLifter, the US-armed forces announce that the first prototype of a surveillance-stratosphere-airship is expected to fly in one to two years, a total of 12 "Spy Blimps" [9] are expected to be built. The structure of a forerunner project of a HAA (High Altitude Airship) hovers in the Lockheed hangar. It had been constructed under military secrecy until the project attained its present status. US-\$ 400 million are allocated for the new Lockheed Project ISIS [10] where the first flight is planned for 2011. The sum of money allocated by the US Ministry of Defense in Afghanistan and Iraq for aerostats equipped with communication and surveillance technologies [12] is well above the billion mark [13]. Those aerostats have been in use for years. The prototype of a cargo-airship that Lockheed Martin had developed at its own risk and that has gone through 6 test-flights is built double size and is expected to be deployed in 2011 over Afghanistan as an unmanned spy aircraft [14]. Boeing is developing, together with Canadian experts, another cargo airship with a load capacity of 40 tons (see page 11). The US Navy has set up a project office for the airship theme [15]. The US Army stated that the lighter-than-air technology is a new segment in the aerospace industry that ought to be developed in a concentrated effort of the civilian and military sectors [16].

A reminder: CargoLifter AG worked on airships, stratosphere airships, cargo balloons and aerostats. In other words, on all types of aircraft that are now being built in the USA for the military [17].

How could it come to that the lighter-than-air-technology in Germany gets initiated by share-

holders and transacted on by the state [18]? How is it possible that a few years later LTA technology is granted state financing from the ground up in the USA where the same is then for shareholders to partake in? Is the US Military today as foolish and ill informed as the CargoLifter shareholders were back then? Or, could it be that the American experts draw their analyses from sources [19] other than the German key media? Should one give the US Air Force a gift of a year's subscription in the Spiegel so that they get to "know more" and be able to meet the "right" decisions?

The ones who have been following up on the situation in the USA will have also noticed the discrepancies between the German and American assessments. For many years (at least since 1992), airships have been a highly controversial discussion in the US military [20], but it has always been a matter of weighing up the chances and risks involved [21] whereby the issue of the fundamental feasibility was never considered at any point of time. In the last transparency of a presentation by the US Army [22] in 2004 was a picture of the USS Akron, a marine airship that resembles the Hindenburg; under the signature was: "If we were only able to build this in the 30s..."

In contrast, and following their initial jubilation over CargoLifter, the media scene in Germany had coordinated like in a pack of wolves joining in a howling choir and produced only variations around one wrong keynote, namely: "CargoLifter muss fail because airships are just a crazy idea."

Detachment from reality and absence of diversity are some of the basic problems in today's German media. They adapt their assessments to the coverage in the key media, in other words among themselves instead of looking

into the reality of matters. Theoretically, a free “press” provides a broad range of themes and opinions in society thereby delivering the basis for a reasonable formation of opinion. The reality however is quite different; the established media constrict the spectrum of opinion, offer a limited frame of reference where differing views are ostracised. The effect is such that there is no diversity; there is only the dissemination of a narrow opinion and analyses spectrum through all information channels. This apparent “expert consensus” insinuates competent reporting. In the case of CargoLifter, the narrowing of information was fatal. Nobody wanted to get involved anymore in this project based on shares [23] over which the media reports stipulate that nobody would get involved in anymore.

But it wasn't only the media that promoted the misjudgments; politics was actively involved in the liquidation of the Cargo-Lifter-project. Some essential decision-makers at the federal and state levels adopted the media analyses which in turn, facilitated the total sellout without having to assume any responsibility for the consequences.

CargoLifter came about as the weed beyond the state-planned-aerospace company; it was a start-up-project within an economic sector which, like in the construction industry, is dominated by dubious business practices, power play and intrigue. The aviation industry is increasingly evolving into a monopolistic planned economy. Due to time delivery delays and cost overruns during the economic crisis after September 11th, CargoLifter did not receive bridging loans but rather a mercy killing. On the other hand, Airbus suggests that

the contracts for the A 400 M be amended [24] because the time and cost plans are no longer realistic.

As a reminder: the financing requirements until the completion of a prototype during the past economic crisis amounted to app. 1 billion Euro; that was for a project that raised 320 million Euro from the disposal of shares. A sum that can easily be raised from the bonus and rewards of managers whose casino-mentality got us into the mess of the current economic crisis. The attitude of the financial elite, by the way, didn't inspire the central organ of the “Financial Times” to publish mocking headlines with seven consecutive Fs.

After CargoLifter became insolvent, the company was liquidated, completely and totally. The future shipyard was turned into a swimming pool. The CargoLifter-project brought Brandenburg a density of experts in the lighter-than-air-technology that was unique in the world. This human capital was also scattered to the winds; it is reassembling now in the USA.

The CargoLifter bankruptcy can only be seen as a disaster, especially for the credibility of the German political and media elite. The supposedly misguided shareholders out of the population had apparently a better nose for sustainable technologies as the full-time aviation experts.

It's therefore not surprising that in the randomly selected reports of the coordinator of the National Aeronautics and Space Administration from 2002 [25] and 2009 [26], the words “lighter-than-air”, “airship”, “LTA” are nowhere

to be seen. When one is ignorant then, all the way and full blast!

There are a lot of embarrassing details that are now becoming public. In 2002, Spiegel Online reported on CargoLifter's sale of the CL 75 cargo balloon to themselves and cast enough questions on the caliber of the Canadian CL-business partner Pete Jess and John Angus [27]. The name Peter Jess is now analogous to Boeing's cargo airship. He is considered a visionary entrepreneur in the Canadian media. In the USA, it is publicly stated that the persistence of the LTA-advocates has finally paid off [28]. This statement is however applicable only in North America.

The development in the USA raises many questions. If CargoLifter's management was that incompetent, as Brandenburg's Minister for Economics Fürniss who was later suspected of fraud [29] had dictated reporters, why wasn't the promising future technology simply handed over to a competent management after the insolvency? Why wasn't there at least an attempt to persuade some of the experts with unique LTA know-how to stay in Germany? Why was the CargoLifter AG totally liquidated?

Was the German politics plainly incompetent or were there other reasons for their disastrous misjudgment? Was it maybe not about LTA technology being outdated but rather the exact contrary? Is their military strategic importance such that they may only be realized in the USA [30]?

Finally: should one entrust the answers to those questions to the media which stained the theme “lighter-than-air technology” in general and “CargoLifter” in particular with everything possible aside from glory?

Sources (Click the links; State: 23.11.2009)

- [1] <http://www.explorermagazin.de/cargo/thread01.htm>
- [2] <http://www.manager-magazin.de/geld/artikel/0,2828,177413,00.html>
- [3] <http://www.spiegel.de/wirtschaft/0,1518,222344,00.html>
- [4] <http://www.spiegel.de/wirtschaft/0,1518,177449,00.html>
- [5] <http://www.wallstreet-online.de/diskussion/306533-1-10/ftd-artikel-ueber-cargolifter-cargolif-f-f-f-f-f-f-f-f>
- [6] <http://daserste.ndr.de/panorama/archiv/2002/erste7814.html>
- [7] <http://www.airforce-magazine.com/MagazineArchive/Pages/2006/November%202006/1106airships.aspx>
- [8] <http://www.infowars.net/articles/march2009/130309Blimps.htm>
- [9] http://archives.chicagotribune.com/2009/mar/13/nation/chi-spy-blimp_frimar13
- [10] http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=defense&id=news/AIRSHIP042809.xml
- [11] <http://articles.latimes.com/2009/mar/13/nation/na-spyblimp13>
- [12] <http://washingtontechnology.com/Articles/2009/10/07/Lockheed-Army-contract.aspx>
- [13] <http://www.carnetdevol.org/actualite-ballon/aerostat/usArmy.html>
- [14] <http://www.wired.com/dangerroom/2007/11/airships-but-af/>
- [15] <http://www.navair.navy.mil/pma262/news/DishmanarticleJane's.pdf>
- [16] <http://www.aiaa.org/pdf/industry/presentations/mobility05woodgerd.pdf>
- [17] <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA444479&Location=U2&doc=GetTRDoc.pdf>
- [18] http://webarchiv.bundestag.de/archive/2008/0107/aktuell/hib/2002/2002_189/02.html
- [19] http://www.airspacemag.com/flight-today/spy_blimps.html
- [20] http://aupress.maxwell.af.mil/saas_Theses/SAASS_Out/Ryan/ryan.pdf
- [21] <http://naca.central.cranfield.ac.uk/reports/1958/naca-tn-4220.pdf>
- [22] <http://www.izib.org/uploads/Mobilus.pdf>
- [23] <http://www.stock-channel.net/stock-board/showthread.php?styleid=29&t=8167>
- [24] <http://www.ftd.de/unternehmen/industrie:/ruestungsauftrag-airbus-droht-mit-aus-fuer-a400-m/50031602.html>
- [25] <http://www.bmwi.de/BMWi/Redaktion/PDF/Publikationen/Dokumentationen/bericht-des-koordinators-fuer-die-deutsche-luft-und-raumfahrt-dokumentation-501,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf>
- [26] <http://www.bmwi.de/BMWi/Redaktion/PDF/B/bericht-koordinator-luft-raumfahrt,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf>
- [27] <http://www.spiegel.de/wirtschaft/0,1518,188719,00.html>
- [28] <http://www.izib.org/aviationw.html>
- [29] <http://www.sueddeutsche.de/wirtschaft/948/341791/text/>
- [30] <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA461320&Location=U2&doc=GetTRDoc.pdf>

Author



Dirk Pohlmann

M.A., born 1959, studied communication, philosophy and law in Mainz. Acquired several pilot licenses including the commercial pilot license and Instrument Rating (IR).

Dirk Pohlmann has been working for over twenty years as a TV-author and director. Several hundred TV-broadcasts for various channels bear his signature; this includes over 20 documentaries for ARTE, ZDF and ARD. He has mainly focused on the secret-service-operations of the cold war since 2004. His historical documentaries are characterized with exceptional choice of themes and thorough research; they are among ARTE's and ZDF's most successful productions.

Dirk Pohlmann was the GM for CargoLifter World.



pic.: Airship for autonomically work, build by a team of Technische Universität Chemnitz

The Airship Scene

by Carl-Heinrich von Gablenz

The biennial International Airship Convention 2008 was held in Friedrichshafen. The event left mixed feelings behind.

Spring 1996, summer 2000 and now autumn 2008 – the “International Airship Convention” took place in Friedrichshafen at the Bodensee on those dates. I’m not sure if the succession of the season is symptomatic, but maybe one should consider cancelling the next event!

1996

In 1996 the airship-world was in joyful anticipation of the „new Zeppelin“ and celebrated the opening of the Zeppelin-Museum. For me, it was the plunge into the international world of airships and the first appearance under the label “CargoLifter”; the company itself did not exist back then. Even back then, I was actually more impressed by the visible testimonials of the large Zeppelins at the museum than with most of the speeches, if for anything, then because of the fact that many of the German speakers could only hold their speeches in German and that, for participants that have come from as far as Japan. The most lasting impression on me was the phone call with a representative of the famous Skunk Works of Lockheed Martin who was informed of the situation by an English participant. He later called me the same night and asked me first, “Carl, why do you want to build such a small one“! Half a year later, after the founding of CargoLifter AG, we were in Palmdale, sunny California debating heavily over our respective projects. Lockheed Martin changed its concept afterwards by the way; only the 500 ton-airship was unfortunately never built despite the power of Lockheed Martin!

2000

In summer 2000 was yet another festive atmosphere in Friedrichshafen; 100 year first-flight LZ-1, again with an international conference and this time at an up-market level. The high-

light was the airship-parade. Right behind the Zeppelin NT flew “Charly” that had newly arrived from England, with the CargoLifter-logo proudly over the Bodensee and past the Zeppelin house. The Zeppelin people were excited of course because of their new airship and hall; the CargoLifter’s people were naturally also excited! And as you may well know our hall was bigger and hence was the envy also as big a factor. According to the motto, “Envy is the German form of recognition“, we took on the petty quibbling calmly and tried to build up a cooperative relationship with Roger Munk’s SkyCat troupe from England. This ended later following a blatant breach of promise by this “gentleman” who presented himself throughout the Cargo-Lifter insolvency as the absolute expert von Schneider and praised Mönning and Co. until he went bankrupt again himself.

2008

Now in 2008, the occasion was already somewhat far-fetched: Zeppelin’s 100 year airship construction. Zeppelin was able to rebuild its airship manufacturing after the mishap in Echterdingen through the millions of Reich-marks from popular donations; those still are in the foundation in Friedrichshafen and yield handsome dividends from ZF and Co for the city of Friedrichshafen. Only, the city isn’t even able to pull a 20% equity capital together on the project of the greater travel-airship of Zeppelin Tours Europe!

The participants dispersed somewhat in the cool exhibition halls and paid for their lunch gracefully despite a conference-fee of up to € 440. Following the mayor’s welcome speech in which he somewhat muttered over the problem of the catastrophe in Hindenburg and CargoLifter, the mood among the CargoLifter people

got rather subdued. Unfortunately, the gentleman evaded my desire to confront him with questions by leaving the event earlier than expected. He is not running for re-election now and so there remains some hope. The extensive and well equipped program got quite confused as in 1996 and 2000 where several of the confirmed participants didn’t show up. Strangely enough, there wasn’t a single speech by Zeppelin who were actually supposed to have been the “men of the house”.

There were a few successful re-evaluations of the past and speeches on particular themes, in particular that from Dr. Spaltmann on the subject of Hydrogen and very promising results by German universities (thanks to an enormous private effort). On the other hand, there was no lack of some of the usual, amply abstruse concepts that will apparently always be there.

I also had the honour again, and still it was about CargoLifter over and over again. Contrary to what the reader may be expecting now, I did enjoy it and went home with high spirits. One is understandably happy when approached by young people, especially those who want to join in; maybe also former employees who now view CargoLifter as comparatively well organized and efficient after having to struggle with the present situation by Airbus (when is the A 400 expected to fly anyway?). Meanwhile, I’m even able to handle the nagging of some older gentlemen very well; I’ve already ridden out several of them. No, the thing that strengthened me inwardly was the recognition that the whole scene has hardly moved on and that CargoLifter is still a kind of unicum despite the passing of so many years. CargoLifter has always focused on the cargo field solely and recognized the market requirements. In this respect, no

one can fool us and nobody has ever come as far as we did!

Looking back, we have accomplished remarkable steps and have meanwhile a uniform concept that is realizable in stages and that is maybe more mature than it was back then with the CL 160. During the speech, one could notice that only the few participants from the market were listening attentively. Here, they found the answer to their question as to why they had come here all the way from Canada, Sweden, Brazil or Africa: could there be a solution for their transport problems within the lighter-than-air technology field?! As we continue our discussions today with those participants, it becomes clear that that was the most important result of the conference. CargoLifter is the contact party for all matters pertaining to the

lifting and transportation of objects and freight using the lighter-than-air technology.

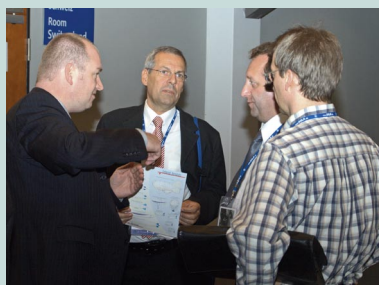
Parallel to the efforts of locating investors for the balloon crane systems and airships the opportunity is open to offer this expertise to the market as a service. The party looking to find a suitable solution for its transport problem through this technology would approach us whereby we would then present a thorough study to the effect of the technical feasibility and economic efficiency of deploying this particular solution. I've also made it very clear that this is our first product and that it is offered at a price. If we've learnt anything out of the insolvency, then that a great project alone doesn't necessarily safeguard our survival on the market while recurring revenues do! We'll just have to wait up to see whether we can implement this study. We shouldn't be aiming

only at generating revenues out of it but also deepening our knowledge of the market. This would enable us to improve on our calculation of the CargoLifter-business-case and at some point the spirit of time will rustle up investors to take action. The time is actually ripe right now for something new; a real innovation in the field of transport in the age of climate and economic crises.

It makes one's head almost spin to see the billions (= thousands of millions) we are willing to spend on the preservation of the established. A couple of millions for something new would be entirely appropriate.



There are a lot of transport problems worldwide that may very well be solved with the lighter-than-air-technology. The cargo transport in particular poses an insurmountable problem in many regions. This isn't an issue of speed but rather whether the transport is possible at all. Pictures from left: auditorium; representatives of African countries demonstrating a transport problem; Prof. Barry Prentice promoting the deployment of airships for cargo-transport in North Canada (see also page 6).



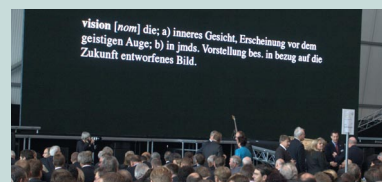
Between the speeches, there were opportunities to exchange experiences, establish new contacts and hold discussions. Pictures from left: Dr. von Gablenz presents the offer of the CargoLifter-study; Mirko Hörmann and Dr. von Gablenz talking to Gennady Verba (Chairman of the Board of the Russian airship manufacturer RosAeroSystems); Ron Browning (Lockheed Martin) in discussion with John Christopher (Airship Initiatives Ltd.) and Prof. Barry Prentice (Transportation Institute, University of Manitoba).



A well reputed airship model regatta took place following the conference. In the evening, we had the opportunity to further cultivate contacts and exchange opinions. Pictures from left: preparations for the airship regatta; Ute Christopher (Airship Initiatives Ltd.) and Dr. Dirk Spaltmann (BAM Federal Institute for Materials Research and -testing, IZiB Board member) in discussion; Prof. Barry Prentice and Ken Nippres (Editor of the Airship Journal, Tech. Manager HAV / SkyCat) in a stimulating discussion.

Right picture:

On the day following the conference, Zeppelin Luftschiffbau celebrated its centenary with an exhibition in honor of the visions of Graf Zeppelin. The beneficiaries of those visions handle the lighter-than-air technology today in a manner that's far fetched from being visionary.



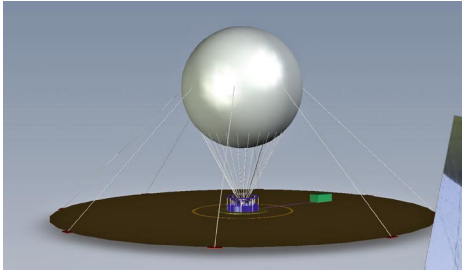
Progress in Event-Ballooning

Andreas Werner, General manager GTG Göltzschtal Touristik GmbH

Work on the Dresden "HighRise"-Balloon reaches a decisive point

As was mentioned in the last LifterNews issue, GTG Göltzschtal Touristik GmbH is planning to build and operate a lucrative event balloon from the type Aéro30 in Dresden.

As was expected in such projects, (and that is substantiated by the experiences of other balloon operators and naturally by GTG themselves as well) the preparations prove tedious and difficult.



CAD-Model, Aéro30

A close-to-the-centre property, a solid advertising partner and a sufficiently high number of visitors are indispensable for a profitable operation. The various departments of the public administration must get involved at the right time and be convinced of the desired location which despite its closeness to the centre of Dresden and the beautiful and attractive touristic location remains a difficult and laborious matter. Several suitable pieces of land that lie idle for years have not been released for a one-time intermediate use.

In order to better present the effect of the balloon to the city administrators, the property (land) owners and potential advertising partners, a CAD-model of the balloon was especially created; it can be integrated in digital 3D-environments like the "Dresden city-model", for instance, in Google Earth as well.

In the meantime, the negotiations have progressed such that we succeeded in signing a Letter of Intent with a sizeable advertising partner. The negotiations over the use of a potential plot of land that is located close to the centre are promising with respect to the owner. The construction preliminary inquiry for this plot of land is currently in process; we have already attained a positive statement by the civil aviation authorities. Following receipt of the decision on the inquiry, there will most likely be further negotiations that will need to be held with the city.

The work involved in the next few weeks will be to ensure



Presentation brochures for advertising partners and government agencies



Aéro30-Balloon in Hamburg

parallel follow-up on those tasks in order to close-up the required agreements the soonest possible. In order to facilitate the financing of the project, and in addition to CL CargoLifter GmbH & Co. KG a.A. and the Initiative Zukunft in Brand e.V., LTA Technologie AG will also participate in GTG.

We will report on the developments on GTG's website as soon as the respective publications are available. You may refer to our internet presence under www.vogtland-balloon.info and www.dresden-highrise.de.



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We are interested in your opinion about this LifterNews. Please send feedback to editor.lifternews@cargolifter.com or to address above!

