



## Hybrid Airships

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## ILA 2010

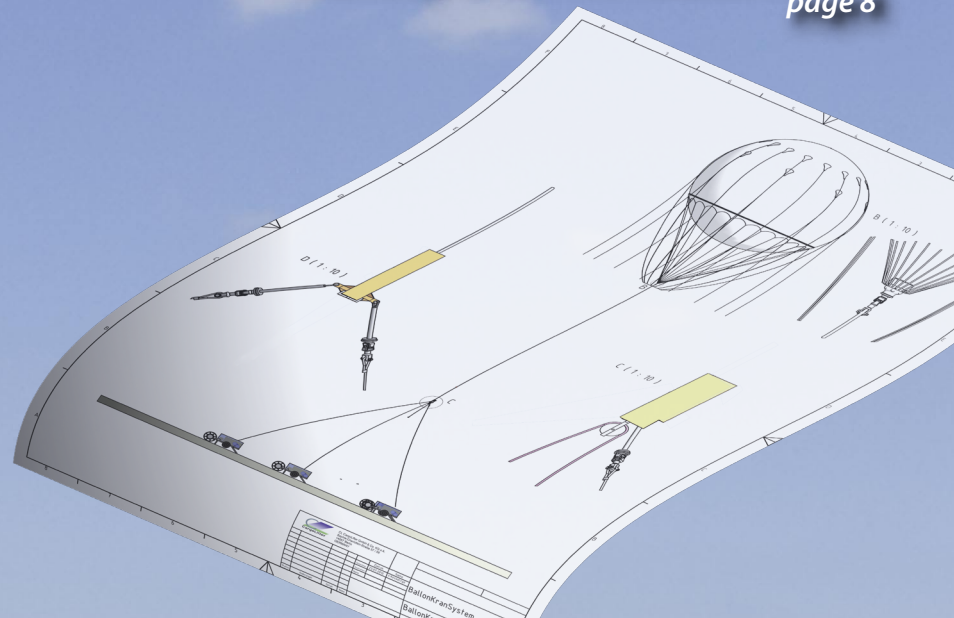
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## *Dear CargoLifter shareholders and friends,*

During the editorial meeting of the new LifterNews issue we became very aware of all the progress that took place since the LifterNews issue of 2009 – much more than has ever happened since the new CargoLifter KG!

We have a new cooperation partner in the field of balloons; the contact had been initiated during the conference in Calgary in October and today the first balloon with an 18 m diameter has been ordered from RosAeroSystems, Moscow and is expected to be delivered in September. We have a new cooperation partner in the field of winches – three SPW 7.5 from the company Zeck GmbH in Bavaria are in the production process for us. The company which is to operate the balloon crane system as a licensed aviation company is meantime 100 % owned by CargoLifter KG, together with LTA Technologie AG and the Initiative Zukunft in Brand e.V. The operations manager has completed the ground survey with ground anchors at the planned location, the offers for the helium are already available and the software for the system control will be adjusted to the steering of the Zeck-winch. In short, we're ready to go!

The whole thing would of course only make sense if the "market" would utilize it against the respective financial compensation. Matter of fact is that the customers waiting for something which is still not there and even more, something which is new are not exactly lining up. Despite all the drawings and attempts with smaller models, the decision maker still wants to see and touch what he'll be getting as a functional unit; he wants to get satisfying answers to his straightforward questions and be convinced of the party making it. The building of the system with the 18-meter-balloon accommodates for all of that: a complete demonstration with a unit that also correlates to a bigger system with all its components. At the same time, we would be able to conduct comprehensive tests, most particularly, the licensing procedure with the EASA (European Aviation Safety Agency) and the Federal Aviation Office in Braunschweig. Over and above that, the required authorizations of the civil aviation authorities, the German air traffic control, etc. etc. You will find more information on the subject in the detailed article on the CargoLifter balloon crane system in the middle of this LifterNews issue.

Parallel to that, the marketing preparations are in progress. Whether it is the representatives of the German construction industry or the wind turbine sector, the energy agency in Sweden, the World Food Programme in Rome or the logistics companies in Russia, the interest is there and talks are underway. The aim is, beginning autumn 2010, to convince the interested parties of the system in order to build and deploy the system in the 3.5 t and 20 t versions based on binding contracts. The

3.5 t version requires the SPW 7.5 winches (for 7.5 tons tractive force) and a 22-meter-balloon; the 20-ton-system requires the Zeck SPW 28 and a 38-meter-balloon. The good thing about that is that we would be able to build a complete system for demonstration purposes with the 18-meter-balloon against 250,000 Euro and that we can extend it to a product step by step while maintaining the components, respectively the product configuration. With a 3,5 t, we would be able to carry off rubble of collapsed buildings after an earthquake and with a 20 t we would be able, with a sleight of hand, to even build complete wind power stations.

250,000 Euro is a sum which is manageable, in comparison to the approx. 2,5 million required for a balloon crane system (BCS) with a 20 t loading capacity. This is something that "we" would still be able to attain through an additional capital increase – "we", the CargoLifter-shareholders and those who continuously keep track of our fate. We would be able to initiate the financing round for the bigger systems on more solid grounds with partner companies and investors given a licensed system, requisite demonstration possibilities and contracts are already at hand. The additional 50,000 shares from the capital increase would be held by a trustee and not publicly offered. We are certain that those shares will find their place.

Over and above that, we are tuned on implementation. During the company's Annual General Meeting that was held on July 19th in Berlin a new Supervisory Board was elected. Dr. von Gablenz is no longer on the Board; effective July 19th he joined Mirko Hörmann as an additional Managing Director to actively expedite the progress of the company. The spirit of time following the crisis phase 2008/9 has opened up the path to the future; we must now bring the company forward such that we are able to sustain ourselves independently through recurring revenues from the products during the next downturn. The renewed Supervisory Board members Arnd Middelmann and Christoph von Kessel have been supplemented by the new Chairman Dr. Dirk Spaltmann who until recently served as a substitute member. His follower is Peter Hilgenberg. Both gentlemen will introduce themselves in more detail later on in this issue.

As long standing companions of CargoLifter, we naturally would like to best inform you. In that sense, this LifterNews is a proven instrument. In addition, we will continue to develop our home page and most importantly, we will come to you! As early as August 14th, we will run a kind of "Road Show" in cooperation with the airship parade in Bad Homburg directly facing the district administration. Over and above presentations, you can see a model on a 1:50 scale and witness the



elegance of a CargoLifter balloon crane system in comparison to today's large cranes. As was noted in the general meeting, "If a crane were to reach over today's achievable range of 145 m, this would involve enormous construction and material efforts. When those of CargoLifter's need to reach 20 m higher, then they release slightly more than 20 m wire from the winches and they're already there". We plan to repeat these events during the following months in different cities in Germany. We will inform you in due time, of course. If you haven't yet signed up with us, you may do that any time in our web site so that we may be able to contact you per e-mail in the most time and cost efficient manner.

You may well notice through various reports of this LifterNews issue that we are not only concerned with the balloon crane systems, but also haven't lost sight of the cargo airship theme. Most notable is the order placed by the US Army for over US-\$ 517 million with Northrop Grumman for the delivery of three airships, so-called "Long Endurance Multi-Intelligence Vehicles" (LEMV) that are expected to be deployed to Afghanistan. The hybrid airships will be developed in cooperation with the British firm, Hybrid Air Vehicles (HAV) and, according to the most recent information, are expected to even be manufactured in England in the old airship hangers in Cardington. One has to think about that for a minute; a 90-year-old infrastructure in England will be used to build large ships for the US Army ... and in Brand, the most modern airship infrastructure of the world goes to waste as leisure centre!

This is in line with an interesting article that was published by the prestigious British daily press, The Guardian, on the deployment of airships as cargo transporters in which Sir Prof. David King, former advisor to the British Government and Director of the Smith School of Enterprise and Environment at Oxford University was quoted. At a world forum on economy and the environment at Oxford University, this internationally acclaimed personality reaffirmed his conviction that there will be cargo airships for the environmentally friendly transport of goods! And lo and behold! As a matter of fact, the image of the CargoLifter CL-160 depicts this article! One could sometimes really shake one's head over the innovative capability of Germany, but we will take it as a motivation for CargoLifter's progress.

We hope that you have fun reading this issue. We remain at your disposal for any questions you may have under [info@cargolifter.info](mailto:info@cargolifter.info).

Dr. Carl-Heinrich von Gablenz and Mirko Hörmann  
 Managing Directors CL CargoLifter GmbH & Co. KG a.A.

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# Flashback

In order to better understand the developments of the past nine months since the last regular LifterNews issue, the following is a short record of the course of events. We also recommend reading our special-LifterNews issue of April 2010 that you may find and download from our website.

## October 2009

Since the "Airships to the Arctic" conference in Calgary, Canada in October 2009 (a detailed account of that was presented in the LifterNews issue of November 2009), the discussions with potential users and partners take on a new shape. In particular, the discussions that had already commenced in 2008 in the occasion of the Airship Convention in Friedrichshafen with one of the leading balloons and airships manufacturer have intensified. It is the Russian group of companies, Augur-RosAeroSystems with its Chairman, Gennady Verba. They not only build the so-called aerostats for years, but also have a visitor platform, "Aerolift" (picture below) that is licensed for Europe by the EASA. In addition, the company develops, builds and operates modern blimps (non-rigid airships) of the type designation AU 12 and AU 30.

There is no other manufacturer worldwide in the field of lighter-than-air that parallels this scope! Most importantly, the company has its own production facilities for hulls and are therefore able to manufacture the balloons in the size we require for the balloon crane systems (BKS).



## December 2009 – February 2010

Mr. Gennady Verba's visit to Berlin end of October 2009 was followed by Dr. von Gablenz trip to Moscow in February where intensive discussions were held. Following thorough on site inspections of the facilities, a cooperation agreement was initiated which, in the meantime, has been signed by all partners. According to that, Augur and CL will cooperate closely together in the BKS field, whereby Augur will manufacture the balloons, CargoLifter will purchase the required winches and register

the specially developed control software with Augur in Russia as well as by the EASA.

Based on the discussions with the Governor of Uljanovsk and the Russian Commercial Representative in Berlin, CargoLifter was invited to join a delegation trip for the Federal Ministry of Economics and Technology (BMWt). This presented an opportunity to also hold intensive discussions with Mr. Andreas Neumann, senior government official at the BMWt, head of division for Russia, Ukraine, Belarus, Central Asia and the Caucasus (see picture below).



The agenda in Russia began with discussions with the Minister of Industry and Transport, Mr. Vildan Zinnurov (picture below) followed by a meeting with "Ulyanovsk Region Development Corporation".



Subsequently, we seized the opportunity to hold intensive discussions with the Minister which was then followed by an invitation to attend the scheduled Airship Conference in August 2010 in Uljanovsk. Uljanovsk considers itself as the rotating disc on the West-East axis through its transport connections, as well as through the traditions in the air freight industry (Antonov AN-124 and Tupolev TU-204).

Extensive discussions were held in Samara with both the deputy chief engineers of TsSKB-Progress – the Russian NASA so to speak. As early as the beginning of the century, airships were already built there and later Nobile semi-rigid airships. Interestingly enough, the engineers there also prefer a rigid structure and see an airship in the range of 50 t to 150 t. There is a great interest in a potential cooperation, whereby in addition to its expertise Progress would offer access to the structural material developed for the aerospace industry.

Another meeting took place in Moscow with our cooperation partner, Augur-RosAeroSystems to include visiting the "AeroLift" premises – a visitor platform similar to the Berlin Hi-Flyer ("Welt-Ballon") and a company that deploys airships for the surveillance of power lines and the collection of geodetic data.

A meeting was held on the last day of the delegation trip with the representatives of the company Locomosky. A demonstrator airship, 50 m in diameter and 3 t carrying capacity is currently under planning. Construction is expected to commence in Uljanovsk at the end of 2010 and end three years later. 40 t, 60 t and ultimately 600 t versions are expected to follow at a later point. Detailed discussions were held involving our concerns as to the magnitude of the 600 t and to the disc-shaped form preferred by Lokomosky, yet is known as instable. The discussions continued in the framework of the ILA in Berlin. Please refer to the report on the ILA on page 6 for more information.

## April 2010

### Hybrid Airships for Heavy Lift – Conference

The Patuxent Partnership (TPP) Organisation organized an airship conference on 31 March and 1 April 2010 in Southern Maryland Higher Education Center, Maryland, USA. Mirko Hörmann attended this conference which was in the immediate vicinity of the biggest Naval Air Systems Command (NAVAIR) base and which commissions, evaluates and tests all systems for the Navy aircraft. For more information, please read the article to the right.

### Progress in Sweden

The discussions of 2009 that were mentioned in the last LifterNews issue were also successful in Sweden. Our partner has currently acquired a contract by the national energy authority to examine the potential of the application of the LTA-technology for the construction of wind turbine plants in Sweden – one of the most renowned key firms plans to build over 1,000 wind power stations in the upcoming years!

We are approached repeatedly from all corners of the world, Canada, Middle and South America and even from Japan. The catastrophe in Haiti alone lead to numerous inquiries for which regret was expressed due to the fact that CargoLifter's solution was not yet available on the market for disaster relief. Although the various organizations like the World Food Programme are allocated large budgets, they are not free to invest in transport-innovation. Ultimately, they can only act as customers.

# Hybrid Airships for Heavy Lift

A conference in the USA and first achievements – by Mirko Hörmann

April 2010

The Patuxent Partnership (TPP) Organisation organized an Airship Conference in Southern Maryland Higher Education Center, approximately 100 km southeast of Washington, on 31 March and 1 April 2010. The Navy aircraft base, Patuxent River and the Naval Systems Command (NAVAIR) which commissions, evaluates and tests all systems for the Navy aircraft are located there. Hence, the density of local suppliers there from all over the world is correspondingly high. TTP regards itself as the interface between the military, science and economy sectors. The list of presenters and participants was shaped accordingly. Besides high-ranking representatives of the American armed forces, their procurement authorities and defense ministry, various universities and airship companies were also invited. Although the conference was focused on hybrid airship solutions that are not CargoLifter's quest, it was still crucial for us to find out how serious the consideration was to deploy such systems for the benefit of the materially and financially best equipped armed forces in the world.

The presentations of two Generals were particularly impressive. General Duncan J. McNabb (picture below), Commander of the U.S. Transportation Command (USTRANSCOM), described his task as a logistics service provider for all military branches. It became quickly apparent that he has been increasingly coming up against his limits with the classical means of transport due to the fact that troops and respective equipment were often required to be transported to locations where he would hardly be able to rely on any infrastructure.



Thereby he depicted the Haiti example, where the port facilities were initially inaccessible and the relief supplies were distributed otherwise with great difficulty. There was a lack of heavy salvage equipment to clear up the transport routes. "We needed something that would lift the relief supplies from the landing point and drop them only two kilometres away. The 'last mile' was and is our problem", the General said. Helicopters could have done that but had a limited carrying capacity. Lieutenant-General Ken Keen, Deputy Commanding General of the US Southern Command, underscored this assertion; he supervised the operation on site. Hybrid airships can, on the other hand, only resolve this problem conditionally because they are not able to take off and land

*The well renowned British daily press, The Guardian devoted the deployment of airships as cargo transporter an interesting article (with the picture of the CargoLifter CL 160). Sir Prof. David King, former advisor to the British Government and Director of the Smith School of Enterprise and Environment at Oxford University was quoted. On a World-Forum on economy and environment at Oxford University, he reaffirmed his conviction that there will be cargo airships as environmentally friendly means of transporting goods.*

vertically, a matter which would actually speak for a CargoLifter-solution. Other presentations showed that airships actually play a big role now in Iraq and Afghanistan. However, this role would not be for transport but rather for communication and surveillance purposes. These are unmanned, remote-controlled systems that sustain the connection between the units on the one hand and conduct surveillance over a longer period of time without having to change location, on the other hand. This is an advantage over the similarly deployed drones that can only fly for a limited length of time.

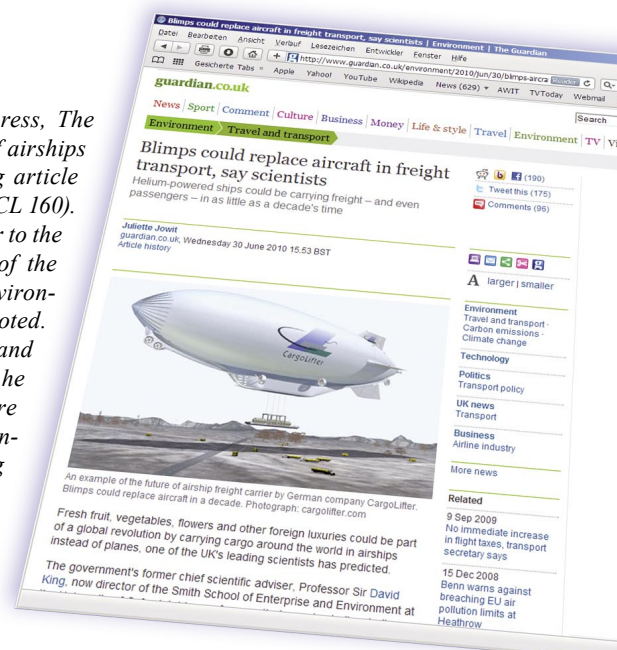
Potential civilian users also had something to say. Jacques Collignon, Head of Logistics at the World Food Programme, with which CargoLifter has been in contact since October 2008, explained the enormous efforts that his organization undertakes to bring urgently needed relief supplies closer to every point around the world. Similarly, he could also use the LTA-technique even if it only involved carrying supplies from one side of a river to the other.

## Contract for Northrop Grumman

As the company announced on 14 June 2010, Northrop Grumman acquired a contract from the US Army to deliver three airships against US-\$ 517 million. This involves so-called "Long Endurance Multi-Intelligence Vehicles" (LEMV), which are expected to operate alongside the currently deployed Spy Blimps in Afghanistan. The hybrid airships will be developed in cooperation with the British firm, Hybrid Air Vehicles (HAV).

## Production by HAV in Cardington

The hull and engine of those airships would be produced by HAV in Cardington (Bedfordshire). The airship yard in Cardington (picture) was already built in 1915 and enlarged in the twenties. The airships R-31 and R-32 were



built there and the R-100 and R-101 were also housed there. Since then, the hangers have been used for the lighter-than-air technique time and again. The company ATG, one of the predecessors of today's HAV, built the airships type Skyship 500/600 there, like the airship "Charly" bought by CargoLifter AG. ATG developed the hybrid airship "SkyCat" as well. Through this American contract, the number of personnel in Bedfordshire will increase from 20 to approximately 100 employees by the end of the year.



## Conclusion

There are currently – owing to the large scale operations – only limited resources in the US defense budget that may be made available to promote the airship techniques. But this will soon change because it became clear that the various procurement authorities will cooperate with respect to the invitations to tender. The military would like nothing more than resorting to the airship solutions the soonest, but must first adhere to the budget limitations. None of the participants had any doubt that there will be transport-airships in the near future. The real problem, that we by CargoLifter also experience, is rather the financing element. This situation is of course most familiar to us in CargoLifter. Therefore, we have determined to cautiously approach this second attempt step-by-step and not be turned away from it without good reason.



## ILA 2010

Where the heavier-than-air technology reaches its limits,  
the lighter-than-air technology is able to rise up.

by Carl-Heinrich von Gablenz

The ILA – Internationale Luftfahrtausstellung (German for International Aerospace Exhibition) – celebrated its 100 year anniversary. A large contingent in the middle of the big construction site of the new airport: the A 380 and, at last, the A 400 M. So, a lot of aeroplane with a lot of noise during the typical demonstration flights (I don't know until today why one would fancy flying spins even with a cargo plane) and a lot of military – and only a passing reference to the lighter-than-air theme. When one considers that the first ILA stood only for “Internationale Luftschiffahrtsausstellung” (German for “International Airships Exhibition”), this event sets a clear signal as to where the lighter-than-air technology stands today. It wasn't any different with wind turbines at the beginning and there is some indication that this old technology will probably flourish only sometime during the 21st century. We're working on it!

I was invited to participate in the Third European Air Transport Congress. The full-day event was organized by Dr. Vitaly Shmelkov of the German-Russian alliance for economic affairs – an old acquaintance from the times in which CargoLifter had good contacts with the TsAGI, the famous centre for aerodynamics in Moscow and Antonov in Kiev. Some may have forgotten that in May 2002, on the ILA CargoLifter had signed a cooperation agreement with the Russian airship industry (shortly after the LOI with Boeing – only, our Ministry of Economy had “considerable” doubt ...). On the other hand, Dr. Shmelkov, like a lot of Russians, has a good memory.

It was an interesting event: the State Secretary of BMWi, the Vice-President of the Russian Academy of Sciences, the General Manager

of the German Aerospace Industries Association, the Director of TsAGI, the President of Antonov, the Chief Operating Officer Innovation of EADS, Jim Grant of Lockheed Martin and many others – and Governor of Uljanovsk, Sergey Morosov and Kirill Liats of Lokomosky who talked about the 600-ton-cargo-airship. There it was again, one of those great airships that could carry everything and of course, without load exchange like it was intended at CargoLifter. One could see skepticism, at least, in the eyes of the audience – 600 tons?



Kirill Liats and Governor Sergey Morosov at the airship model, Picture: Lokomosky

I had warned the Uljanovskers and Mr. Liats about making emphasis on the 600 tons and suggested that this subject be handled carefully and instead, to stress on the 40 t and 60 t steps. But when he got going, he couldn't stop anymore. We discussed at length the relationship of Lokomosky with our cooperation partners of RosAeroSystems and the scheduled conference in Uljanovsk in spring 2011. This event was also initially scheduled for August 2010 and got postponed without any comments to 2011. We will not turn away from there but

this shouldn't turn into an event in which solely cheers for Lokomosky are cultivated. As much as we welcome Governor Morosov's active efforts in supporting the airship sector, as big the question marks are behind this airship project and Kirill Liats' approach to it. Raising 600 tons via hot air is quite remarkable if one were to consider that one would then need to heat 1.2 million cubic meters or more because hot air can't carry even half of what helium is able to in proportion.

The really interesting part was the presentation of the Chief Operating Officer Innovation of EADS who introduced a perspective of possible concepts; then Jim Grant's of Lockheed Martin, dry comment: “We won't see anything in the next 20 years (with respect to aeroplane, remark of the author) that doesn't already exist today or is in the development process today. All producers are facing enormous problems with the new programmes, like we see with the A 380, the A 400 M or the Boeing Dreamliner. One will upgrade the existing planes and prolong their lifespan. Look at the Antonov 124, look at Lockheed Martin.”

I fully support this opinion. The heavier-than-air technology has reached its limits. Every additional ton and cruising range or fuel saving element costs billions. This is not to say that all is done; only when one wants to go from 95 % to 97 % it becomes an enormous exploit. I do not want to judge where the lighter-than-air technology stands, but one can still change the world here with one billion!

Jim and I discussed the P-791 project of Lockheed Martin and other airship projects extensively. As I talked about Boeing and their

SkyHook, he just shrugged his shoulders. No one knows anything. Even Boeing's helicopter unit on the ILA had heard of it once, but no one knows more about it. It apparently doesn't look good for the SkyHook. If this project doesn't progress, the one or the other "competitor" may feel pleased, but it actually wouldn't be good for the airship arena and its credibility. Apropos helicopter, EADS exhibited a model of a super helicopter. One didn't know more details about the carrying capacity but it's meant more for troop transport and lifts around 17 tons. Boeing also had a model of the "Next Generation Rotorcraft / Transport Helicopter Concept" exhibited. Only, it isn't able to lift more than the current one too. The Russians on the other hand, had their own stand "Russian Helicopters": very well clearly displayed with good brochures. There was everything up to the Mi-26 in a modernized form with 20 t.

Conclusion: the world will basically not witness anything new or big changes in the next 20 years also in the helicopter-transport-field and the Russians will still hold the lead. An-

other conclusion: if anything actually new or in the direction of a quantum leap develops then, in the lighter-than-air-sector – and there we're right on track!

There was another event on the following day in which Kirill Liats was actually scheduled to make an appearance but had already travelled on to Paris. An opportunity to have a closer look at the ILA.



There was the incredible Airbus A 400 M (picture above). Astonishingly small for so many

billions and somehow or another, the grey, American military transporters don't look very different, not to mention the Antonov An-70. Okay, optic isn't content. Except that, 37 tons aren't exactly a big deal and when one were to believe the reports then it gets even more difficult. For some reason, I always have a problem with the A 400 M; so many billions for such a plane! This had awaited the decision in spring 2002, unfortunately, parallel to our 300 million conditional repayable loans. As the former Chairman of the German Bundestag's Budget Committee had said to me, "300 million for such a cargo-airship – well, if one only considers the sums that are wrung out of us parliamentarians just for the military transporters ...".

The Chairmen of the Budget Committees of all parties had remarked positively on CargoLifter, only, the technical department of the ministry had had "considerable doubt"; the head of the technical department is still there and refusing to cooperate. Maybe there ought to be consequences drawn.

# The Field of Product Analyses



CL CargoLifter KG has regularly been approached in the past few years with respect to questions on the options of the lighter-than-air technology; the questions ranged from general to concrete project related inquiries. Based on the exceptional 15 years of experience, CL CargoLifter KG currently offers companies and institutions consultancy services on strategy development for innovative transport solutions. The research and development activities comprise a unique knowledge basis for the customers requiring this service.

The service spectrum ranges from analysis of the specific customer requirements with regard to the transport problem, to the development of special transport solutions. The deployment of the lighter-than-air technology is thereby a possible option. The surveys are executed in two stages.

## Pilot Survey

In the first stage, the goods to be transported, the transport route and, if available, the transport cycle are examined. The study is conducted with respect to the technical feasibility, as well as the expected commercial success. In the conclusion of this survey, the deployment of the lighter-than-air technology is then classified as possible or is abandoned.

## Master Survey

Given that the preliminary study has concluded positively, a detailed study of the transport beginning with the technical solution to an ap-

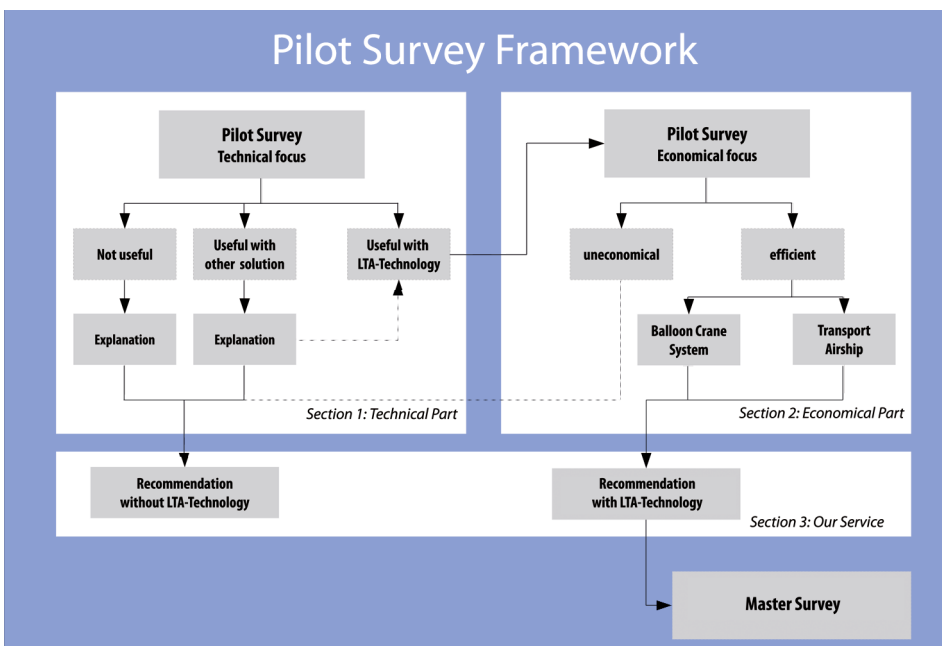
praisal of the economic feasibility is then conducted as a second stage.

## First achievements

Sweden has committed itself to being independent of oil and gas until 2020 and has planned the erection of thousands of wind power stations and power lines required therefore. The impairments in connection to that within the transport and environmental sectors have induced the energy authorities to look for environmentally friendly alternatives.

CL CargoLifter is holding negotiations with partners in Sweden who have been commissioned by the national energy authorities to verify the potential deployment of the lighter-than-air technology for the construction of wind turbines in Sweden.

On 17 and 18 June 2010, new meetings were held in Stockholm throughout which the studies under discussion for the Swedish energy authorities were taken up. In addition, a meeting was held between CargoLifter, Augur-RosAeroSystems and a Swedish airline company.





# Uplift for CargoLifter

by Carl-Heinrich von Gablenz and Christoph von Kessel

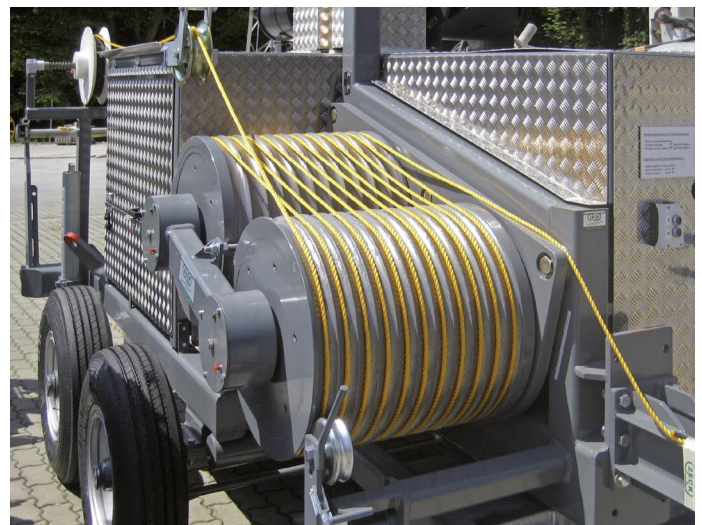
First fully operational CargoLifter balloon crane system as of September 2010

CargoLifter will begin with the concrete realization of the balloon crane system product-range as of mid September 2010. The first step is the design of a system with a lifting capacity of approx. 2 tons that will serve as the basis for the certification and the tests connected thereto and, naturally, as a means of enhancing the confidence of the interested parties in the functionality of the balloon crane system. The balloon, with a filling volume of 3.000 m<sup>3</sup>, will still be filled up with helium. This system will then be upgraded in 2011 to a larger balloon with a loading capacity of 3.5 t, whereby this balloon would have to be filled up with hydrogen. As soon as the first contracts are acquired, the production of the large system with a 20 t loading capacity may then commence. An up-front investment of over 2.5 million Euro is required for the large system, the development of which is neither reasonable nor necessary before a contract is at hand. On the other hand, the market needs a tangible product and an operational element that is comprehensible and may be related to in real conditions. For that purpose, a system that is smaller than the 20-ton-version, yet disposes of the same functionality is sufficient. Consequently, together with its partners, CargoLifter decided to build the first fully operational balloon crane system that comprises all components but that can be built and operated at a minimum of financial costs.

This system will consist of three 7.5-ton-winchs from Zeck and a used balloon, which has already been certified, from Augur-RosAero-Systems. Consequently, the basic configuration can then be built and enlarged step by step with an additional winch for a movable crane hook culminating in a configuration with navigable winches. With that, the "AirBridge", "AirCrane" and "AirHook" systems can be tested and presented.

## CargoLifter gains Zeck GmbH as cooperation partner for the winch-sector

Zeck GmbH with its headquarters in Schesslitz, Bavaria is a world-wide leader in the development of winches with over 4,500 currently operating units. For more information on this company which was founded as early as 1918 and has been a family-run-business for three generations, please refer to [www.zeck-gmbh.com](http://www.zeck-gmbh.com). Zeck belongs to the classical German medium-sized companies that are market leaders in their particular technological field. "Made in Germany", in the positive sense, becomes easily understanding when one sees and touches their pullers. Zeck was selected as the suitable partner because their pullers, for which they are market and technological leaders, are ideal for the balloon crane-steering-control.

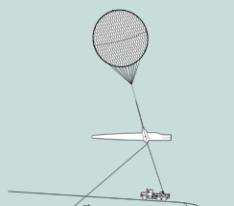


Zeck puller SPW 7,5

In contrast to conventional drum winches, the cable isn't wound directly around the drum but is rather drawn in multiple loops over two reel discs (picture above) that strip the traction force from the cable so that the cable may be wound up around the coiler without traction.

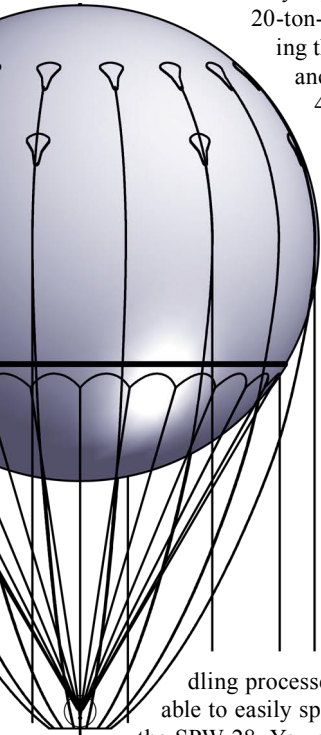


The AirBridge (left) is the subject of discussion with the UN, the AirCrane the solution for construction sites and the AirHook (right), the transport solution for rotor blades for wind turbines.



Thereby, cables of different lengths and qualities (out of steel or synthetic material) may be guided around the coiler that CargoLifter may then change and optimise depending on the nature of the application.

The Zeck puller line comprises a wide spectrum ranging from 2.5 t to 28 t traction force. The puller SPW 28 (picture below) fits, without the need for any adjustments, the requirements of CargoLifter's 20-ton-balloon crane system almost perfectly. Seeing the massive tubular steel frame with loops for anchoring, reading the data of the water-cooled 490 hp DEUTZ diesel engine and touching the over 10 t heavy and mobile machine is a testimony to the German highest standards of workmanship. That is precisely what CargoLifter needs for its customers in the field of crane operations and logistics!



In September, Zeck will supply us first with three pullers, type SPW 7,5 in rental with a purchase option. These pullers have a traction force of up to 7.5 t and a dead weight of approximately 3 t. The base upon which the decision was made for selecting the rather oversized pullers was that the SPW 7,5 had the same configuration as the SPW 28 and most importantly the same steering-control characteristics. Consequently, for the 20-ton-system "only" the pullers will have to be exchanged while maintaining the same operational and handling processes. We are certain that the customers will be able to easily spanning the mental step from the SPW 7,5 to the SPW 28. You may see and verify the system and its operation as early as autumn.

handling processes. We are certain that the customers will be able to easily spanning the mental step from the SPW 7,5 to the SPW 28. You may see and verify the system and its operation as early as autumn.

### CargoLifter deploys AeroLift balloon of Augur-RosAeroSystems as balloon module

Back in October 2009 and on the occasion of the "Airships to the Arctic" conference in Calgary, we had already commenced concrete discussions with Gennadiy Verba, President of the Russian group of companies, Augur-RosAeroSystems subject of a cooperation in the lighter-than-air technology field. We have known Gennadiy Verba since years and his assessments in relation to the market, technique and the LTA (Lighter Than Air) community align with ours to a high degree. RosAeroSystems is one of the leading manufacturers of balloons and airships and doesn't only build aerostats since years, but also has a visitor platform "AeroLift" that has in the meantime acquired the licensing from the EASA (European Aviation Safety Agency). In addition, the company develops, builds and operates modern blimps of the type AU 12 and AU 30. Next to the Zeppelin NT and the Skyship 600, the AU 30 with a volume of over 5,000 m<sup>3</sup> is currently one of the largest airships worldwide and has a highly modern Fly-by-Wire-System. There is no other company in the world that can offer this large spectrum of operation in the lighter-than-air field!

You may want to have a look and find out yourself under the following address: [www.rosaerosystems.pbo.ru/english/products.html](http://www.rosaerosystems.pbo.ru/english/products.html)

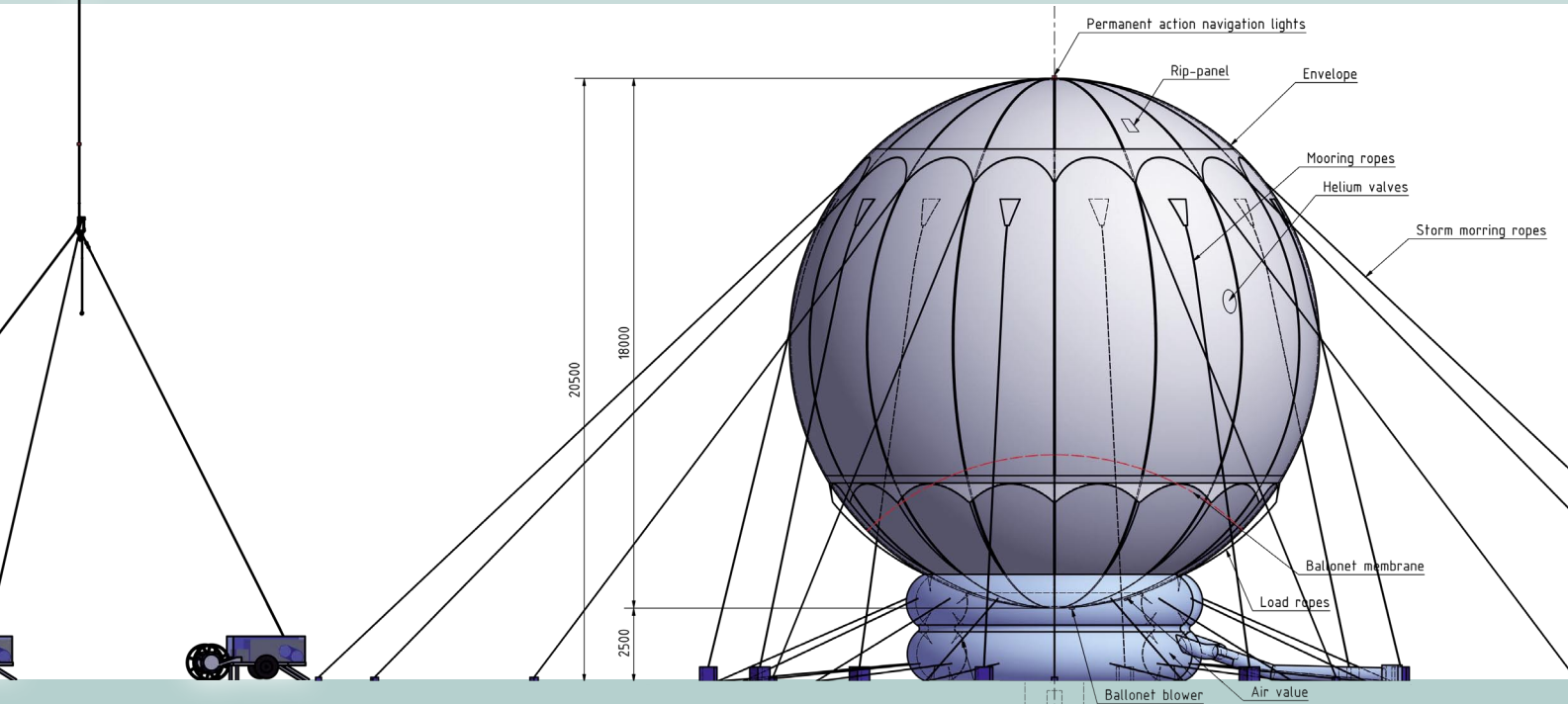
Worth noting is that the company has its own manufacturing facilities for hulls and consequently, can manufacture the balloon we need for the balloon crane system in the dimensions required. The special manufacturing technique and the low costs in Russia are such that, by the same dimensions not only is the loading capacity higher than other systems but is also lower priced than others. Moreover, RosAeroSystems has excellent access to the markets in Russia and the CIS (Commonwealth of Independent States) countries and is therefore a suitable partner. Maybe, we get to also integrate "Ballonbau Wörner" in future developments; this would certainly be a unique combination.



Meeting at Zeck GmbH (from left):  
Mr. Jäckel (mds), Mr. Zeck sen.,  
Dr. von Gablenz, Mr. Dörjler,  
Mr. Zeck jun.



Puller SPW 28



Mr. Gennady Verba's visit to Berlin before Christmas was followed by Dr. von Gablenz' trip to Moscow in February where intensive discussions were held. Following thorough on-site inspections of the facilities, a cooperation agreement with Augur was initiated which, in the meantime, has been signed by all partners. According to that, Augur-RosAeroSystems and CargoLifter will cooperate closely in the BCS<sup>1</sup> field, whereby Augur will manufacture the balloons and CargoLifter will purchase the required winches and register the specially developed control software with Augur in Russia as well as with the EASA. The partners intend, with the involvement of a logistics company in Russia, to establish a joint company in charge of the operation of this balloon crane system in Russia and the CIS countries. The cooperation with Augur is naturally a decisive milestone in relation to the ongoing discussions with potential investors; this cooperation answers all questions that may be raised on manufacturing and licensing of the system or operation.

As balloon for the first system, which will be built in Germany as of September, Augur-RosAeroSystems offered the AeroLift-system's balloon from Moscow (picture below). This balloon attains a 3,000 m<sup>3</sup> volume by a diameter of 18 m and is licensed to operate as a captive balloon with 18 passengers. The AeroLift-system works similarly to the Aéro30-balloon of Aérophile, which Göltzschtal Touristik GmbH deployed for years over the Göltzschtal Bridge, respectively, which is used in Berlin and Hamburg as a viewing or observation balloon (Highflyer). After which the authorities in Moscow declined the extension of the system's operation permit for fear that the Kremlin may be shot at from the gondola at a 6 km distance, the system is at a stand still today. RosAeroSystems offered CargoLifter this balloon at favourable conditions.



Besides the balloon, the ground anchoring with the pneumatic support system also belongs to the system. By means of this, the system on the ground next to the holding and guy lines would also be protected by a ring which acts as a neck brace, settling around and gripping the balloon's south pole thereby protecting it from potential gusts of wind. This system which is inflated under low air pressure is unique and the



construction method with wires on so-called "patches" is yet another reason why we favour the system of RosAeroSystems. That helps us eliminate the need for a net which could get soaked up with water or hold back snow from sliding down – one of the most critical points for a balloon-system during the ground anchoring. The balloon is currently in the inspection phase and will be delivered together with the pneumatic security system in September.

This balloon can be filled up with approx. 3,000 m<sup>3</sup> of helium such that an actuation of approx. 2 t is attained after deducting the weight of the balloon and wires. This compares to a standard weight of a car or a container or the rotor blade model delivered by a client and analogous with the 1:8-Nordex-rotor blade during the tests in Neuhausen.

This CargoLifter BCS CL-18 is at a scale of 1:2 in proportion to the 20-ton-system – so, it is very similar to the "large system". If all goes well, then we would even be able to lift an original part of an element belonging to a completely new tower structure for wind power stations. The company TimberTower GmbH developed a tower (picture right), which is not made of steel or reinforced concrete but instead, out of bonded wood elements – a revolutionary concept that makes the production and erection of wind power stations substantially more environment friendly! The individual tower segments don't require special transport anymore and weigh between 2 t to 9 t; therefore, this will be no problem later on for the CargoLifter 20-ton-balloon crane system. It is expected that the towers reach a height of up to 165 metres which would set all currently existing crane constructions out of breath, but not that of CargoLifter's! It would entail an enormous construction and material undertaking to further develop bottom-up-tower cranes from 145 m to 165 m. If CargoLifter were to lift 20 m higher, we would simply release approx. 23 m of wire from the three pullers and it's done! The ordered wire-length on the winch reels is, by the way, 300 m each.



### The balloon crane system will be tangible

Overall, a fully operational BCS will be built with a very reasonable budget. We are sure that the interested parties will be able to acquire a completely different impression of a balloon crane system when they get to see the acclaimed Zeck pullers with the solid steel wires, as when they would by viewing the system on paper or as a computer model; it will simply be comprehensible and tangible! The preparations for the respective demonstration appointments with representatives of the construction and logistics branches are already underway. At the same time, this system serves as a test device for our team and facilitates the realization of the licensing procedures. The EASA (European Aviation Safety Agency) and the German Civil Aviation Authority are informed and welcome this step-by-step approach.

The airport Peenemünde, at the Baltic Sea, is under discussion as a potential location. We have an offer for the rental of an area, as well as a lockable shelter for the equipment. Alternative locations have, of course, been considered but this airport would be a very good base for operations because of many reasons. One reason is that we are holding discussions with the Peenemünde Historical Technical Museum in the vicinity subject of building an AeroLift-passenger-system there in 2011. The aim is to generate revenue from the passenger-operation with the same team when the weather permits, and to otherwise be

able to further conduct tests on the balloon crane system and improve on it.

CL CargoLifter has assigned the operation of the system to GTG Göltzschtal Touristik GmbH (GTG), of which CargoLifter owns 45 % of the shares. Some of the main reasons for CargoLifter's decision to acquire shares in GTG were: access to specialized personnel and a licensed aviation company. Considering that LTA Technologie AG and the Initiative Zukunft in Brand e.V. hold the remaining shares in the meantime, the fate of this company will be secured among friends.

As Technical Operations Manager GTG, Mr. Dörjler has already obtained the necessary statements from the various authorities on behalf of CargoLifter and is carefully following up on the preparations for the set up of the system as of mid September. Considering that the balloon crane system has to be flexibly applicable, the anchorage points for the winches, as well as the balloon have to be set in the parking position using easy ground anchors instead of massive, concrete foundations. The ground-anchor-tests on the Peenemünde Airport and the alternative surfaces were successful. An anchor weighing only 12 Kg and approx. 1.60 m long can be screwed into place by hand and can hold up to a ton. Otherwise, the preparations are in full swing for the balloon crane system, as well as the close-by visitors'-balloon we aspire to.

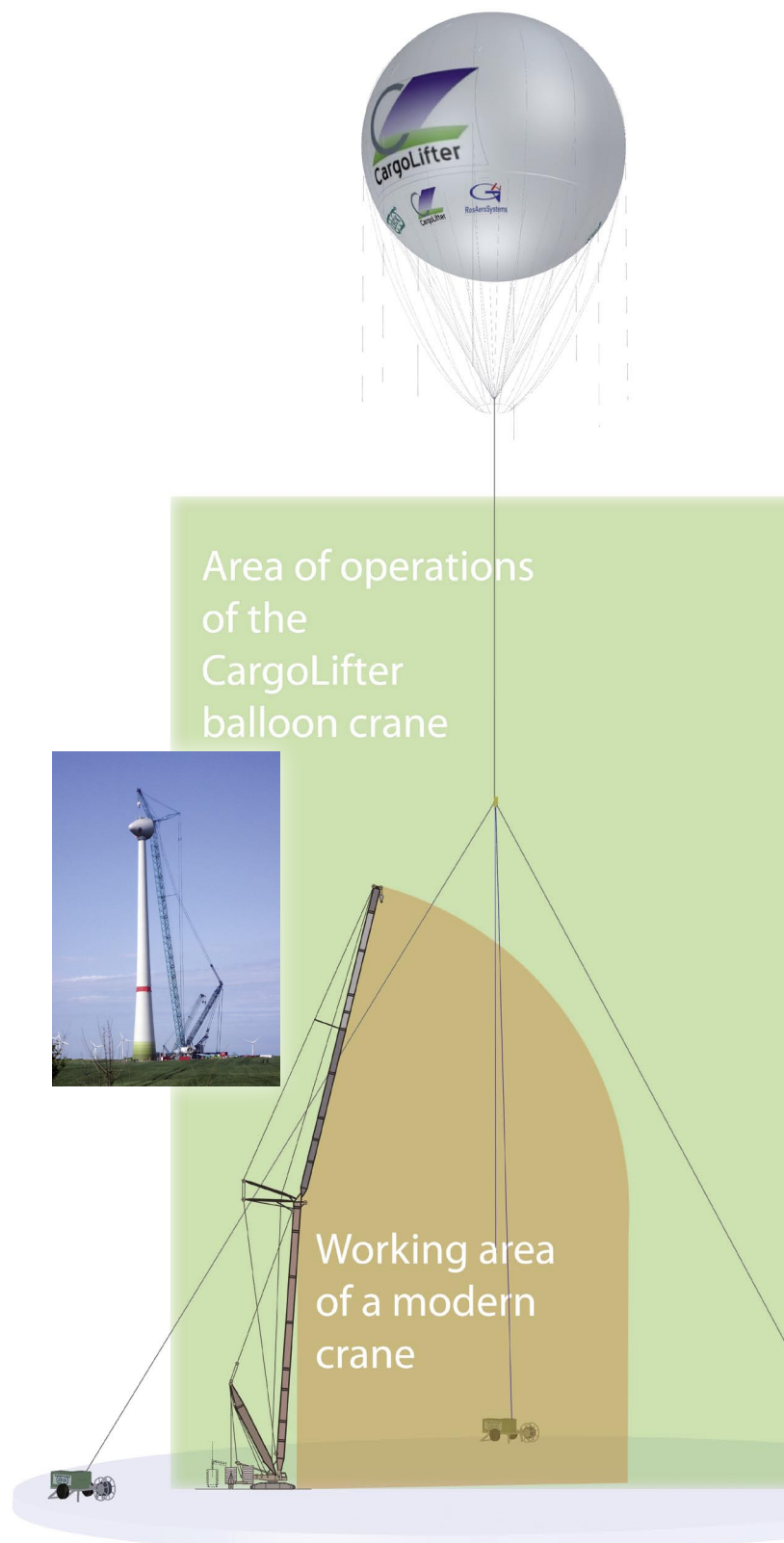
To begin the operation of this observation balloon, we plan to haul the helium-filled balloon in March 2011 to the tourist-balloons' site in order to inflate the Aerolift for 18 passengers with helium. After that, a balloon crane system with a balloon from Augur-RosAeroSystems will be built and operated; the balloon will have a diameter of at least 20 m and will then be filled up with hydrogen in order for it to lift approx. 3.5 t. On the one hand, this would represent the next step for the licensing procedures for the 20-ton-BCS, and the basis of a system which would be easily transported in the case of earthquakes and which may be filled up on site in order to lift up rubble of collapsed houses from the air, on the other hand. Those who can still remember the images in Haiti will be easily able to imagine that a crane that doesn't carry rubble from the side but rather from the top, is substantially more efficient and, most importantly, presents considerably less risk for the people trapped under the rubble and the rescue team. A system of this size could also be deployed in disaster areas as well as replacement of a bridge temporarily to, at least, carry goods from one side to the other. This was also subject of discussion with representatives of the World Food Programme in Rome, in June of this year.

*Drawing right: modern cranes can do unbelievable things, carry hundreds of tons at remarkable heights and attain bigger, so-called "deflections" – the loading capacity decreases significantly with increased height and longer jibs and at some point, every technique reaches its limits where no more can be done. Moreover, the ground loading is enormous through the weights, including the counterweights.*

*The CargoLifter balloon crane system is deployable at places where those limits have been reached as the load under the balloon is displaced while maintaining the loading capacity and thereby remaining constant independent of increased height and even an offset of hundreds of meters. At the same time, the system needs only be anchored in the ground as the actual weights are offset through the buoyancy of the gas.*

## CargoLifter – entrance into a new phase

So far, so good – what does this mean for the CL CargoLifter GmbH & Co. KG a.A.? The entrance into a new phase! The main focus is not only establishing a new company and securing the old industrial property rights or the development of the product lines for the balloon crane and "AirTruck" but also the concrete implementation of the product range for the balloon crane system! CargoLifter continues to work on the cargo-airship-objective too – only, this is still another dimension. Nonetheless, the accomplishment of the balloon crane system will fundamentally promote CargoLifter's credibility and acceptance. We're going from the classification CargoLifter "vision and bankruptcy" to CargoLifter "implementation and revenue". Then it's time for the next steps.



# The Demands on Aviation Companies

by Manfred Dörjer

An aviation company is a licensed company that acquires its authorization from the respective aviation authority. It owns aircraft (whether balloon, aeroplanes or helicopters) that are registered in the general aviation role with the Federal Office of Aviation and that constantly has a valid airworthiness certificate. This airworthiness is established through hourly, daily, monthly and annual inspections by the different responsible, specialized personnel. The aviation authority does not regard the general manager of an aviation company as the primary responsible person, but rather the flight operations manager and technical operations manager employed by the company. Those two are accountable to the aviation authorities because they possess the corresponding education. The technical operations manager is responsible for the airworthiness and the adequate provision for the continuous operation of the aircraft.

The scope of work of the aviation personnel is regulated by the aviation personnel under the Aviation Act. This applies to the balloon pilots and the ground crew. The Federal Aviation Authority of Saxony demands that the pilots and the ground crew are equally trained on the captive balloon. This is logical because the balloon pilot is in the

gondola during a flight and only the ground crew is able to react in hazardous situations. An aviation operations manager must be assigned among the pilot-crew. He has to have a grasp of the laws and regulations governing the air personnel, the flight preparation procedures and the applicable working hours.

He is responsible for ensuring that pilot licenses are valid, the annual operation examination of the respective balloons and most importantly, the emergency procedures are conducted. He must ensure that the air personnel complete the necessary medical fitness checks and fire-extinguishing-examinations. The request for approval for the entire personnel, including the flight operations manager, the technical operations manager, pilots and ground crew is submitted to the aviation authority. The air operation can begin only after obtaining the respective authorizations.

The management of the aviation company is expected to annually present the respective aviation authority with its business assessment performance report.

## Presented

### Manfred Dörjer

Technical Operations Manager GTG



Manfred Dörjer is the Operations Manager for GTG Göltzschtal Touristik GmbH and that since summer 2001. He is one of the most experienced experts in the operations field of captive balloons. Born in Vogtland, and following the completion of his studies in textile chemistry and refinement, he started working in 1972 as a scientific and technical employee for the central research institution of the cotton combine in the German Democratic Republic (GDR). For clarification purposes: the GDR textile industry was divided into separate combines like the combines cotton, jersey, wool, silk and technical textiles. He worked for this institution as Project Manager for

various areas of application until he took over the family business with 10 employees in 1982. The business was involved in the production of textiles for the local GDR market with continually increasing revenues. As early as November 1989, he travelled to Switzerland and changed the production-line into promotional textiles with focus on high-performance printing for sport textiles. He supplied all countries that were furnished by a leading sporting-equipment-manufacturer for Nordic disciplines with the corresponding national-print for the Olympic winter games. Unfortunately, he had to later discontinue the business due to a default of payment by one of the main partners.

Mr. Dörjer founded the Mylauer Trade Association in 1990 and started the initiative to use the Göltzschtal Bridge (at 78 m, the highest European brick-stone bridge) as a magnet for visitors. This evoked the idea of deploying the visitor-balloon over the bridge. A start was facilitated through a system by Ballonbau Wörner / Aérofile and the backing of regional sponsors. Mr. Dörjer completed his apprenticeship as balloon-foreman, respectively, as technical operations manager in Erlangen. In close contact with the aviation authority in Saxony, the terrain was mapped out to establish a commercial balloon operation. An aviation company constitutes a company which is subject to authorization and annual review by the aviation authority. The operation-personnel must have appropriate training credentials and substantiate those through annual reviews.

In order to obtain the authorization required for the aircraft, two hot-air-balloons were purchased to start with. One was set into starting the balloon operation and the other was used for training the pilots. Two persons acquired their theoretical and practical apprenticeships through an intensive pilot-training program starting September 1999 and ending April 2000; one of them was André, Dörjer's son. The captive balloon was ordered in October 1999 and delivered end of April 2000. The operation personnel – pilots, ground crew and Mr. Dörjer – went to Chantilly in April 2000 and started their training for the captive balloon. They flew the captive balloon in Cheverny on the Loire, Amiens and in Paris. Evidence was then provided by a written examination and an assignment to a flying balloon. In addition to Mr. Dörjer, Mrs. Dörjer similarly passed the exam as technical expert.

The aviation operation with the Vogtland-balloon was quite successful until August 2007. The number of visitors at the Göltzschtal Bridge increased from 200,000 to 400,000; up to 25,000 passengers were transported yearly. In August 2007 the balloon's ballonet was damaged to an extent where repair-work wouldn't have been feasible. The operation on the Göltzschtal Bridge was then stopped. Through his connections with Mr. Wolfgang Pest, board member of "Initiative Zukunft in Brand e.V.", Mr. Dörjer succeeded in acquiring CL CargoLifter & Co. KGaA as shareholder who, together with the society and later LTA Technologie AG, acquired the GTG shares with the aim of attaining access to an aviation company and its expert personnel. Mr. Dörjer's main task has, since then, been the preparations for the operation of the CargoLifter balloon crane system. His extensive experience in dealing with authorities in matters pertaining to the complex authorization processes and his practical experience coupled with his entrepreneurial spirit and his objective and composed manner are a definite asset. He still aspires, of course, to fly passenger-balloons again – maybe even in Göltzschtal – and his know-how and contacts to the textile research remain intact through the development of the sheath material for the large balloon systems.

Vogtland-balloon 2007



Left and above:  
Replacement of the cable at  
Vogtland-balloon

# Lighter-Than-Air-Day 2010

by Peter Hilgenberg and Andreas Werner

Within the framework of the General Meeting of Initiative Zukunft in Brand the traditional event hosted yet again interesting projects and speeches

The Lighter-Than-Air-Day took place, like in the past years as well, at the end of the Annual General Meeting of members of the Initiative Zukunft in Brand e.V., this time in the city hall of Gersthofen.

There were four themes on the agenda, whereby the last point, the visit to the neighbouring balloon-museum, had to unfortunately be cancelled due to lack of time; we would like to express our apologies to our visitors once more for the untimely cancellation. The interesting speeches took much longer than was initially planned.



## Uplift for CargoLifter

The first speech of the day was held in the customary, sovereign manner of Dr. Carl von Gablenz. Without the help of transparencies and right into free speech, the array of topics ranged from the accomplishments of the old CargoLifter AG to the insolvency and the disputes with the insolvency administrator, up to the current developments of the new CL CargoLifter GmbH & Co. KGaA. Those elements were the main focus of his speech. Please see the article "Uplift for CargoLifter" as of page 8 of this LifterNews issue.

Our society members may view the entire video of the speech on our website, [www.zukunft-in-brand.de](http://www.zukunft-in-brand.de).

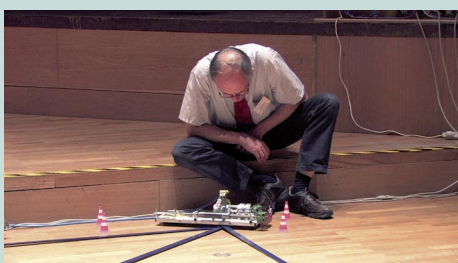
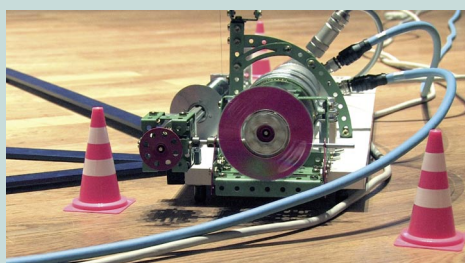
## The strategic importance of the LTA-technique – causes and consequences

In the second speech, Dirk Pohlmann engaged in the dealings of the US Government and the US Secret Services with the strategically important technologies and the methods and practices deployed therefore. As a journalist, documentary-film-author and former manager of CargoLifter World GmbH, he affirmed the interest, especially of the USA, in the lighter-than-air technology today and particularly during the times of CargoLifter using numerous original documents and citations.

In this respect, we would like to draw your attention to Dirk Pohlmann's article in the LifterNews issue of November 2009.

## The balloon crane demonstrator

Dr. Matthias Müller's contribution was a speech, only to a smaller degree. It mostly constituted a presentation of his in long years largely self-financed development work of the balloon-crane-control system including the model system. Dr. Müller was much briefer than his previous speakers as the model had already been in action on the right hand side, in front of the speakers' podium during the other presentations. It was impressive, even without having the necessary knowledge behind the engineering and programming achievements involved, how the balloon showed, even those less technical-minded, through its lifting, lowering and transfer demonstrations between the winches, the functionality and performance-capability of a balloon crane system.



The balloon crane system was most interesting – see the pictures on the next pages.

# CL General Meeting 2010

## Let the others do that!

A report on the General Meeting of CL CargoLifter GmbH & Co. KGaA 2010 in Berlin

by Dirk Spaltmann

“Let the others do that” – this may be a peculiar heading for a report on this year’s General Meeting. But, it was my father’s answer to a discussion that I had had with him exactly eight years ago today. At that time, the CargoLifter AG had just filed for insolvency and I had been preoccupied with coming up with something constructive to do. “Let the others do that”, were exactly the right words! Since there is nothing better than doing things that one, from other people’s perspective, cannot, should not or may not be doing, I decided to commit to CargoLifter.

To start with, I found like-minded people in the Initiative Zukunft in Brand, then I bid for the CargoLifter-patents and eventually cofounded the new CargoLifter Company (CL CargoLifter GmbH & Co. KG a.A.). At this year’s General Meeting, the fifth one in the short history of new CL, I was elected by the shareholders as member of the Supervisory Board. This latter then appointed me immediately as their Chairman. It has been a long way since the memorable discussion with my father. I would like to take this opportunity to thank my companions and, naturally, the shareholders who elected me in this year’s General Meeting for the trust they have placed in me. This year’s fifth General Meeting of the new CargoLifter company wasn’t only for me personally, but also in many different aspects, a memorable one. It marked the end of the “picking up of shards” era, from the old and insolvent CargoLifter AG and the introduction of products of the CL-new. To the outside, this is also reflected through a change in the management. Our reliable Managing Director, Mirko Hörmann, will receive support through an additional management-member, Dr. Carl-Heinrich von Gablenz.

Both are already very active in the implementation process of the new CL-products that they had presented in their talks. The products consisting of balloons and winches depend on one another, like in a modular system. With the CL AirBridge, the winches, for example, stand opposite one another on the banks of a river and manoeuvre a balloon, including its load, between them back and forth. If one sets the winches on vehicles, then one gets the CL Air-Hook. Using this system, one can for example, move rotor blades from wind power stations around tight curves. This bulky rotor blade is lifted up by the balloon. Consequently, the curves that the vehicle drives around become irrelevant. If the vehicles or winches are placed in a triangle or a quadrangle formation, the cargo can be displaced by the balloon to any position within the spanned area. This configuration is called the CL AirCrane that could also be examined on the basis of a fully functional model

in the foyer during the event (pictures right). The build up of this model (fill up the balloon with helium, attach winch wires) proved easier than that of a large model of a Liebherr crane (fit the crane components into one another, sort out the wires, attach counterbalances) which became clear in comparison. What the models already suggest will be proven in reality: the logistics of the CL balloon crane system is less industrious than that of a large crane.

In their speeches, our management-duet presented not only the new products but also the partners in the field of winches, Zeck GmbH, and balloon-sector, the company Augur RosAeroSystems. Both are innovative, medium-sized companies that will actively contribute to the certification process of the new products as of September 2010.

This fifth General Meeting has proven yet again that the CL shareholders and CL itself are something special. Thereby, the shareholders pledged their support to the company and this, not only in the context of buying shares. It was also the first time that I experience how a board of directors of a company discusses the future developments of the company with its shareholders.

My conclusion: a new chapter has begun for CargoLifter. As to your question as to whether you should participate in this development, I’ll respond only with the words, “Let the others do that!”

### The Author

#### Dr. Dirk Spaltmann



Born 1963, graduate physicist and employee of the Federal Institute for Materials Research and Testing (BAM-German). His areas of work are high-frequency friction and wear-reduction coating, his physical hobby: hydrogen. He held several, well-regarded lectures on “Hydrogen in airships”.

Dr. Spaltmann is married and has a daughter. He turned his attention to CargoLifter in 1999 through a colleague of his. Enthusiastic and convinced of the idea, he got involved with CargoLifter and went along with every financial measure. He joined the society “Initiative Zukunft in Brand e.V.” after CargoLifter’s insolvency and co-founded the new CL-company. Dr. Spaltmann is a member of the Board of Directors of the society and, since this General Meeting, Chairman of the Supervisory Board, CL CargoLifter GmbH & Co. KGaA.



# From Shareholder to Substitute-member of the Supervisory Board

A personal conclusion of the 5<sup>th</sup> CL KGaA General Meeting

by Peter Hilgenberg



Votes present / shares (Personally present and vote by proxy):	63,13 %
Votes	
Agenda item 1 Adoption of annual financial statement 2009	99,46 %
Agenda item 2 Approval of actions of the personally liable shareholder 2009	99,34 %
Agenda item 3 Approval of actions of Supervisory Board for 2009	99,38 %
Agenda item 4 Election of Supervisory Board	97,40 %

Results of the votes



Besides the official part of the General Meeting, the presentations and the balloon crane model, which could be seen in action in the foyer, attracted great interest.



I have been a shareholder in the old CargoLifter AG since autumn 1998. I have participated in almost all the events of the AG and took part in every capital measure in as far as my capabilities permitted. As the insolvency happened, I was very frustrated mostly over the notorious nonsense that went through the media over CargoLifter. This prompted me to join the new founded Initiative Zukunft in Brand e.V. and to also get involved. This involvement led to my having become member of the Board of Directors since 2005 and, as of autumn of this year, Vice Chairman.

I must have drawn enough attention in my function as member of the Executive Board for the society, as I was approached with the question if I would be interested to stand as a candidate for the substitute-member of the Supervisory Board for CL CargoLifter GmbH & Co. KGaA. To appoint a substitute-member of the Supervisory Board who doesn't have the right to vote and who's assigned only as a successor is important because the Supervisory Board possesses the right to act with at least three members and in the case where a member, due to whatever reason, drops out then the precondition to act is sustained. In the absence of this precondition, a tedious court order will have to be obtained.

Traditionally, the substitute-member of the Supervisory Board's role is such that he possesses a general authorization to represent the vote of the shareholder who is not able or willing to participate in the General Meeting and who isn't able to otherwise authorize any of the shareholders known to him personally. As member of the Board of Directors for Initiative Zukunft in Brand e.V. I gladly accede to this task for the welfare of our society members. I would like to take the opportunity here to sincerely thank you for the trust that you have vested in me!

As in the previous years, proxies were also agreed upon in this year's General Meeting; those were being accepted till the "last minute". More precisely, the last authorization to vote was granted online on the very morning of the meeting, shortly after 6 o'clock. The disadvantage of that is that the number of represented votes actually becomes transparent only in the course of the meeting. Overall, 266,927 votes were represented by myself, whereby the vast majority had already clearly assented to the recommendations of the Supervisory Board and management through clear instructions as to every item on the agenda.

All in all – proxies and present votes – the recommendations of the Supervisory Board and

the management were accepted by an overwhelming majority.

The highlight of the day was, not only for me, most likely the public event through which CL KG's progress was demonstrated and the 1:50 model of a balloon crane system, respectively, the construction site including a 1:50 model of a Liebherr LR 1750 crawler crane and various trucks – as well as, excavator models in the same scale that were displayed. The model showed how easy it was to operate the balloon crane system – equipped with the steering system of Dr. Matthias Müller – over the entire area between the pullers with a constant loading capacity and without any restrictions on height, as opposed to the conventional cranes with limited height and delivery (accessible radius) efficiencies and the implied loss in lifting capacity and the time and effort costs involved in attaining every additional meter.

I am certain that if we get to further improve on this scale model in the next few months, we will be able to convince those remaining skeptics of the rather simple, yet impressive logic behind the CL balloon crane system. The discussions around and lectures pertaining to the construction of the model offer enough cause for optimism.

Maybe some of you, who have had to now suffice with second hand information, may have the opportunity to soon attend such an event nearby and draw their own conclusions.

## The Author

Peter Hilgenberg



Born in 1970, married and has 2 children. He is a graduate of Business Administration with over 10 years of marketing experience in the automotive industry and is currently in the process of establishing his own business.

Peter Hilgenberg is a shareholder in CargoLifter since 1998.

Following the insolvency, he also joined the society "Initiative Zukunft in Brand e.V." and became member of the Board in 2006. Since then, he has assumed the role of Vice Chairman of the society and a substitute member of the Supervisory Board, CL CargoLifter GmbH & Co. KGaA.

## New on our home page

We have recently introduced a small video library on our home page with films on the new and old CargoLifter history. You may watch the film that was produced shortly after the insolvency, "CargoLifter – The White Whale of the Skies" by Dirk Pohlmann (Audio German only), as well as a report on the new CL company's first balloon crane tests in Neuhardenberg. The media library will be further supplemented; we hope that you'll have fun dropping by!



Additionally, we intend to improve on the communication channels with our shareholders and those parties interested in CargoLifter. We plan to expand on the functions of our home page in the next few weeks.

We therefore invite you to look into our website [www.cargolifter.com](http://www.cargolifter.com) every now and then and welcome you to register (should you not have done so already) so that you remain constantly updated.

In the process, we will gradually promote new technologies and uses within the Internet domain.

You may already take a first look under [www.secondcommerce.com](http://www.secondcommerce.com) at the virtual CargoLifter office. We naturally don't expect that you visit us there in swarms of avatars, but we will start using this opportunity within the framework of cost saving and efficient processes. A virtual conference of the management with the Supervisory Board or the partners is simply a step ahead of a telephone, Skype or video conference where all participants are then present "around the table" and are able to follow on the same information which is on the screen. You may of course visit us already today in the lobby

and watch the CargoLifter films there. Should you require assistance in this respect, please let us simply know under [info@cargolifter.info](mailto:info@cargolifter.info).

## Obituary

**Roger Munk** passed away on February 21<sup>st</sup> 2010, at the age of 62 following a heart attack. Roger Munk is regarded as a pioneer in the field of modern airships. As early as 1971, he founded his first company and shaped the face of today's airship through his developments over three decades. With Airship Industries, he achieved a significant strike in the early 80s in the form of the "Skyships" that dominate, until today, the image of modern airships as so-called blimps. The Skyship 500 and later, the Skyship 600 have been since regarded as an example for reliable airships that can easily be built without rigid structures and a hull that's maintained under pressure for deployment worldwide for advertising, scenic flights and monitoring purposes, like already deployed at the Olympic Games in Atlanta. Later on, he developed under the Advanced Technologies Group, a so called hybrid airship which due to its form required additional buoyancy on the airship's hull as "transporting surface". Only recently, was the new Hybrid Air Vehicles with its headquarters in the famous, old airship hangers in Cardington, England, able to acquire a large contract, together with Northrop Grumman, for the construction of such hybrid airships.

CargoLifter had regular contact with Roger Munk and his team not only because of the purchase of one of those Skyships 600 which was then deployed by CargoLifter AG under the name "Charly". There were of course meetings on the various airship conferences and an exchange of experience in the development field of cargo airships. Even when the opinions often differed and the "SkyCats" were seen as the competition for the CL 160, one still sat in the

same boat with respect to the acceptance problems, realization and, naturally, the financing of such large projects. It is very tragic that he unexpectedly met his fate shortly before his new company acquired the largest contract to date in the history of aircraft airships.

Shortly after Roger Munk's death, **George Spyrou**, another personality in the field of airships, passed away. George Spyrou was the President of Airship Management Services (AMS) and the Skycruiser Corporation. Skycruiser is the company that had acquired "Charly" from CargoLifter AG i.I. and had deployed it in Europe for advertising and scenic flights, as well as for special purposes during the Olympic Summer Games in Athens. George Spyrou had been one of the driving forces since 1982 with respect to the use of modern airships of the type Skyship – initially as Sales and Marketing Director of Airship Industries Ltd. in England and later Chairman of his own company, AMS. We naturally had, amongst other reasons, close contact over the years with George Spyrou and his team.



*Skyship 600 „Charly“*

It is very regrettable that the airship scene loses two of its dynamic personalities within such a short time.

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