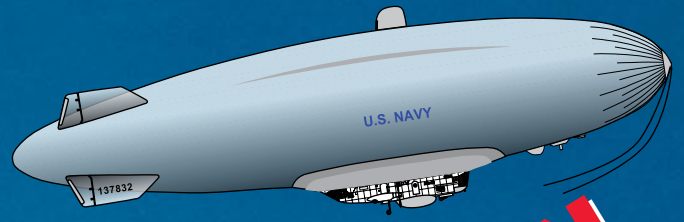
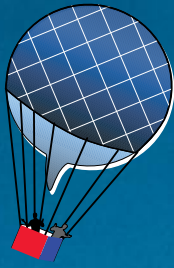
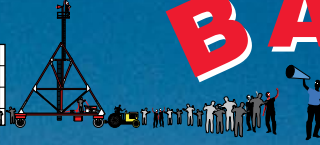


THE

NOON



BALLOON



The Official Newsletter of THE NAVAL AIRSHIP ASSOCIATION, INC.

No. 81

Spring 2009



Special Reunion Issue



Top left and right: Charlie Herbert and crew members at Glynco with the mast tractors.

Below: Mike Kolasa and a ZP2K at Gitmo.



THE NOON BALLOON

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ISSUE # 81 **SPRING 2009**

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Inside & back cover photos: *Two members sent in photos from their Glynco / Gitmo days. Mike Kolasa worked with his nephew to enhance and print slides he took (carefully) in 1952-53. Mike wrote, "Back in my LTA days cameras were 'verboten' but I took a few shots and wasn't shot by a firing squad. I wish I'd taken a few more. All were taken at Gitmo Cuba (I think)... [back cover] At sea, one of my favorite shots, our partner blimp and a DE coming around." Eureka image from Airship Ventures, see "Shore Establishments" inside.*

Charlie Herbert via **George Allen**, *sent in a number of very nice color copies. Charlie wrote, "Enclosed are some pictures I have from when I was at NAS Glynco (DEC 54 to May 56). That's me outside the EM barracks. [Below] Me again on the tractor closest to the camera; the fellow on the other tractor was from Pittsburg, PA. [Charlie identified the man on the right in the other tractor photo as Bill Cooper; they'd done boot camp together.] A funny story about a guy named Rutledge. He was from Elkridge, Virginia and one weekend he was going home. He liked to drink so I asked him if he could get me a bottle of moonshine so I could bring it home to my folks in New York City. He got me the bottle but on the way back to Brunswick he got thirsty and drank the bottle of moonshine. So I never got a chance to bring one home. Here is James J. Perino's address if you want to contact him: 7 Hollow Rd., Sewickley, PA."*



BLIMP PILOT -- As a hard-bitten chief petty officer in the Navy's lighter-than-air service Wallace Beery has one of the greatest roles of his long screen career in Metro-Goldwyn-Mayer's "Airship Squadron 4." Beery is pictured here piloting a blimp on patrol. Cast also includes James Gleason, Tom Drake, Jan Clayton, Selena Royle, and Henry O'Neill. William A Wellmen directed. Sam Marx produced.

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All material contained in this newsletter represents the views of its authors and does not necessarily represent the official position of the Naval Airship Association, Inc., nor its officers or members.

EDITORIAL

R. G. Van Treuren, rgvant@juno.com
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What a time was had in Friedrichshafen, Germany this past October, starting with Zep NT #3 (right) overflying our train as we entered the city. The UK's



Airship Association held their symposium to coincide with the Zeppelin passenger service's 100th anniversary. Fascinating technical papers were presented, and we will try to find space to list them. Superstars of today's LTA R&D from around the world were in attendance, exposing us to great new ideas; someone is even building a Wankel engine for aircraft. Editor Ken Nipress and his team keep a regular schedule with their newsletter "Airship" that meets or exceeds our own in LTA development and technical discussion; we're blessed to have them as colleagues. We somehow lost the photo of a gathering of all the editors, including Ken and John Christopher, but Debbie did manage to snap a photo of yours truly and my "opposite number" in the UK – "Dirigible" Editor **Dr. Giles Camplin** (below). The Airship Heritage Trust team puts out the #1 airship history mag in the world.



Last issue's lament of losing the chance to put U-boat defender and K-ship attacker together on TV screens earned a response from a former K-68 crewman in time for the British documentary makers, thanks to our own Fred Morin: see "History Committee." Fickle TV schedulers decided to run the *Macon* show (we helped make) without notice on 9 FEB on the ultra-premium Nat'l Geo channel. We will have a better chance with the PBS-style documentary coming up about Santa Ana for which we supplied footage. (See "Media Watch.")



Speaking of history, I can't tell you how relieved I am the "Airships vs. Submarines" book is now finally finished, reviewed herein by **C.P. Hall**. Looking back, I was lucky enough to have the late **Nelson Grills** autograph artist **Cortney Skinner's** cover painting (above), about the time the book was conceived, when then-YNC (now CWO) **Anthony Atwood** and company first started the NAS Richmond Museum effort. (Yes, that's what's left of one of the 3 hangars in the background see "Shore Establishments.") We are planning on finishing the final (actually earliest) DVD chapter of the Airship Video History Series and continue to have dreams of making a movie made out of the **Rowan Partridge** novel "ZRS," but both will be cakewalks compared to that decade-plus tar baby that finally birthed at a whopping 433 pages. With so many of our WWII vets beyond the point of caring what the declassified and translated records show, I'm tickled a couple dozen guys asked for the book. Didn't get it all or get it right? Let's talk it over at the Reunion.

Speaking of complaints, one member took me to task for not taking space to mention the *Macon's* fabric having been ignited by her gasoline on the water, which had been set off by bridge flares. No mystery there. What is still a mystery is why a Goodyear K-ship envelope being test air-inflated suddenly ignited and burned; it had no car, let alone gasoline. Neither has any cause been published concerning the fire that totally destroyed the original K-113 car, just sitting in its railcar for shipment to California. It had never seen any gasoline. While perhaps an ignition source was not pinpointed, the lesson that should be learned is to not construct our airships out of materials Mother Nature can ignite.

See you at Pensacola! Ω

- R. G. Van Treuren

View From The Top: PRESIDENT'S MESSAGE

Despite several obstacles, such as the forced relocation of our reunion site; **Mort Eckhouse, Joe Hajcak, Peter Brouwer** and publisher **David Smith** have resolved our problems and registration forms are in the mail. Congratulations to all - a tremendous team effort.

Membership Chairman **Fred Morin's** innovative idea of sending NAA brochures to colleges and universities with programs in aeronautical engineering is attracting a lot of attention. At least one graduate student is pursuing her thesis on airship operations during WWII. Her research has brought together Dr. **Alfred Friedland**, MD, and Past NAA President **John Fahey** - both of whom were classmates of the LTA class graduating December 7, 1943. Friedland served in LTA operations in the southeastern hemisphere while Fahey served on the Atlantic side of the northern hemisphere. Experiences of both pilots should provide a broad overall picture of airship operations.

My e-mail is flooded with reports of expanded operations regarding use of buoyancy aircraft all over the world. I appreciate the active interest of our Committee Chairmen in keeping on top of these experimental programs and informing our membership.

Our Editor advises he is having difficulty finding space in TNB for all the information submitted. Keep up the good work, Team.

I look forward to seeing all of you at our reunion and renewing old relationships. An election of officers will be held during the business meeting. My reservation is in! Ω

- **Herm Spahr**

MEMBERSHIP COMMITTEE UPDATE

The membership committee is still pursuing its plan to introduce the NAA to colleges and universities that offer military history courses, both undergraduate and graduate level, and to increase the awareness of the unique role played by airships during WWII and The Cold War. We recently received a request for information from a graduate student working on her masters thesis at East Stroudsburg University, PA as a result of an interview she conducted with NAA member **Dr. Alvin Friedland**. She has been reading the *The Noon Balloon* and has received great encouragement from her military history professor to explore the role played by US Navy airships in WWII. Cdr. **John Fahey** very graciously and promptly supplied her with information to help in her research. This is the type of exposure and response our organization needs to

attract new members. We will also be targeting veterans organizations, military history groups, aviation historical societies and those types of groups that cater to aviation enthusiasts and researchers. Our second half page ad in the January, 2009 issue of *The Journal of Military History*, published by the George C. Marshall Foundation and the Virginia Military Institute for the Society for Military History is being published as I write this and we look forward to an excellent response. We are still interested in other publications that could provide us with additional exposure to not only former blimp crew members, but also airship enthusiasts and aviation historians and researchers. We can consider an ad such as we have in the JMH noted above or some other sort of publicity. If anyone has any suggestions of potential publications please let us know. Please keep looking for other outlets where we can display NAA brochures and contact me with your thoughts. We will do the follow-up work and any mailings necessary.

All of the above is just one part of a coordinated plan to increase our membership and bring the US Navy airship experience the exposure and recognition it so rightly deserves. Thanks to the continued support of Herman Spahr and the Executive Council we should continue to expand our roster and attract new members into the NAA. Further thanks to Rich Van Treuren and Dave Smith. *The Noon Balloon* is a world class publication under their direction. The overall quality of the TNB, the articles and features presented, and the superior quality of the photos and illustrations certainly helps to attract new members and garners interest among airship researchers and enthusiasts worldwide. The TNB is our most prominent, physical advertisement for the NAA. Share it with your friends and associates. Ω

- **Fred Morin**

THE NOON BALLOON

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www.airshiphistory.com

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www.gyzep.com

TREASURER'S STRONGBOX

Greetings to all! We hope everyone is looking forward to our reunion on May 4, 5, 6 in Pensacola. I would like to thank all of you who have paid your membership dues. But a reminder to those who haven't, please take care of this as soon as you can. Also, let us know if you have changed an address, e-mail, or phone. This keeps our roster current. As of this issue, our financial status is A-OK. If you have any questions, please don't hesitate to contact me.

Now that I am also the secretary, please notify me if anyone has passed on. I am keeping this information to inform others and to recognize the service of our members at the Memorial Ceremony at the reunion. If you have a story to tell about your service time with lighter-than-air ground and air operations, write it down and submit it to our editor, Richard Van Treuren. You just might find it in the next issue of *The Noon Balloon*. Everyone has a story to tell! Let's help to keep our history alive! Ω

- Peter F. Brouwer Secretary/Treasurer

WELCOME TO OUR NEWEST MEMBERS

September 10, 2008 - January 11, 2009

William C. McElhaney, Greenwood, SC • Edward Cheng, Glendale, MD • S. Paul Dev, Ashburn, VA • Ralf F. Behner, Marion, OH • Francisco A. Gonzalez Redondo, Madrid Spain • Daniel D. Thomas North Canton, OH • Dale T. Benton Ozark, MO • Dr. John A. Fahey, Virginia Beach, VA • Sali Gere, Virginia Beach, VA • Walter E. Galbreath, Stockdale, NC • Mike Ashcraft, Farmersville, TX • Donald B. ORourke, Winter Park, FL • Kenneth L. Laubsch, Mullica Hill, NJ • John D. Courtney, Berkeley, CA • Gary LeCompte, Hurlock, MD • W. H. Crawley, Perris, CA.

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Daniel H.L. Gholson
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Julian H. Parrish Jr.
Elizabeth Behny (In honor of
Cdr. Herbert E. Biedeback)
Norman L. Larson
Paul Adams
Dominique Maniere
Wendell L. Snider
William W. Linkenhoker
Joe M. Lundy

PIGEON COTE

Al Robbins wrote, “Congratulations Gentlemen, The issue is a wonderful early Christmas present. Sorry, I don’t know Mr. Van Dyk’s e-mail. His illustrations, as always are superlative. I’ve studied the patents, but this is the first time I’d heard most of the story, or that MacMechen had marketed the program as a Zeppelin killer. Unfortunately, according to Bill Stout’s pun, wooden aircraft all suffered from “venereal” disease; and they weren’t all cyclicly exposed to streams of hot dry, then cold moist air. I have the rare honor of correcting Norm. Goodday Blimp, located in Bloomington IL, conducted the advertising campaign for Syngenta’s AVICTA in the Texas high country. Their 30-footer is the only one of the 15 Carolina airships that I know is still in operation. The Canadian division of Syngenta hired RATSINC, of Lac La Biche, AB to perform a second annual tour of the Canadian wheat belt, advertising it’s weed-killer HORIZON. The website www.ratsinc.net has a number of short videos illustrating it’s 35-footer, and hundreds of photos taken on the tour. I still haven’t seen the Canadian DISCOVERY interview and demonstration video. Now if we could only convince the FAA that an airship that weighs less than the tanks in a hot air balloon is not another HINDENBURG waiting to happen. I’m still bemused by Magenn: How close to the ground will they be able to haul it during lightning storms? How can they keep it pointing into the wind? How do they maintain gas purity? Who is going to manufacture those magnificent rotary joints? ps. I’ve ordered my own Christmas present, a copy of Jeffrey Cook’s latest book; particularly interested in chapters four and five. Unfortunately, airships don’t fly in wind-tunnels, and the Navy’s two “flying wind-tunnels” were the only machines ever capable of testing useful sized models under real-time real-world conditions. If wind velocity is very very small compared to ship’s speed minor changes in either one are tolerable. Unfortunately, airships rarely exceed 50 knots, and winds are rarely uniform and unidirectional.... I just rechecked our old correspondence. George mentioned working for Pavlecka on an ANCV metalclad project for the Navy in the 70’s. I was at NAVAIR at the time but never heard of the project. What did the acronym stand for, and who was the sponsor? I’d really like to be able to blow the dust off a copy of the final report. Other early LTA innovators had tried multiple approaches to developing an inelastic, light-weight monocoque shell. (MacMechen’s plywood approach, featured in the last NOON BALLOON totally failed the “lightness test”.) Unfortunately, if it had actually made it to flight status, it most likely would have suffered from severe delamination problems; blowing hot moist air through that plywood maze would have led to maintenance nightmares. Hughes launched the “*Spruce Goose*” once, but it only got wet on the outside. Vaniman’s earlier patents (which MacMechen should have been familiar with) taught the use of a balloon as a mandrel. His proposed manufacturing process consisted of laying up metal-reinforced fabric on the inflated mandrel. Once the assemblage was vulcanized and cured, the formed hull would be inflated with air while the mandrel was vented and ultimately withdrawn. (No curing ovens and only rudimentary “glues” available in 1913.) The attached illustration shows a



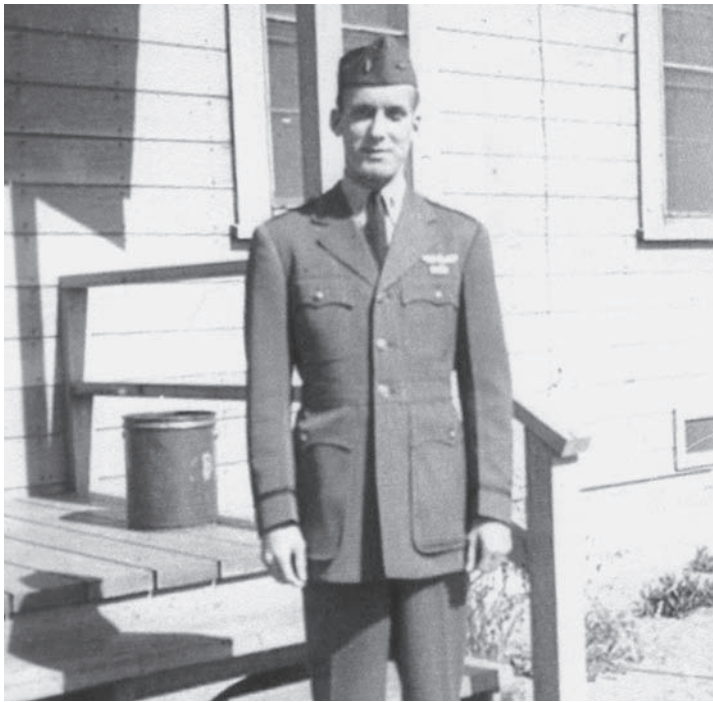
Marcella Ginger and Bill Greenwald handle a messenger in a photo dated 12 DEC 43. Anyone know these two folks?

truly impressive production fixture. Did he actually use his manufacturing facility and process in fabricating the AKRON? The two American all-metal airships of the 20’s, took totally different approaches, based on emerging capability to produce sheets of high-quality, low-cost aluminum. (Second attachment from book by Slate’s chief engineer) Perhaps we’ll see some progress in this century. I’d like to see plus-minus 10% scale models of the RATSInc 35-footer. It’s an eight gore monocoque RPA. It’d be interesting to see if any of our rash scaling projections are viable in the real-time, real world. Ω

Norm Mayer answered, “Your lack of faith on Russian historical records is accurate. They have the *Graf Zeppelin* making three trips around the world. I do not know whether Pavlecka actually had a contract with the Navy. It may have been only a proposal. He was associated with a California group who frequently contacted me with a metalclad proposal. One of the photos in your second attachment shows the ZMC-2 with its hull in two separate pieces. The photo should be rotated to get the picture upright. I believe that technology has eliminated the metalclad idea. The hull would be made with composite material. Ω (*Here are some other zingers from the Russian internet site they visited, seeming to show some translation loss*) “Exactly a century ago, in 1908, the first Russian airship blasted off in the then capital St Petersburg.” “In 1931 the legendary ‘LZ-127 Count Zeppelin’ reached the North Pole. In 1937, the German zeppelin LZ-129 *Hindenburg* came down in New Jersey after a hydrogen explosion, forcing Germany to dismantle its airships the next year.”

Website historical abuse at the 100 mark is home-grown as well: “The Indianapolis Motor Speedway Celebrates 100th Anniversary Of 1st Event... will start its 2009 season the same way the facility’s rich history began 100 years ago: with a balloon race...A helium gas-filled balloon competition was the first event to take place at IMS, on Saturday, June 5, 1909, more than two months before the oval was completed...” *And here you foolishly thought helium was then a laboratory curiosity that had been isolated in such minute quantities that the world’s entire supply would not have filled one balloon! It was on the internet, it must be true, right? (!) Ω*

Bob Forand wrote, “Pg. 76 of the Fall edition of “Foundation” shows the carrier Enterprise going thru the Panama Canal on Oct. 9, 1945 with a blimp overhead. I was in that blimp and have a couple of photos that we took of the carrier. However the date does not coincide with Foundations date of Oct. 9th. I have it as the 13th. We did not personally keep our logs so it is possible that my flight was not recorded. But I swear that I was on that flight and I have the photos that I brought back from Panama. My photos are not dated as they made up copies for our crew. I also have an official photo of our base (field). in Chorrera, PA, but that also is not dated. I have other photos that we took of the Enterprise going through the Canal. Leaving Sol Wey in early ‘45, I went to ZP-21, Richmond and then to San Jujlian, Cuba which was ZP-21 Det. 3. Then back to Richmond, then on to Chorrera, Panama, which was ZP 21-5. Then we flew the last airship from the southern squadrons back to Richmond on Oct. 29th, 1945.” Ω



William McElhaney (above) wrote, “In the Winter 2008 copy of TNB I saw a mention of ZP-32’s out base in Eureka. I spent quite a bit of time at that airstrip both as co-pilot to LT Bemis and then as Command pilot during the years 1943-1945. Enclosed are copies of three pictures that I found in the typical “stored old pictures box.” One is of me standing in front of the base building. In 1994 my wife and I took a 50th anniversary remembrance trip which included Eureka. The same building was there. The second picture is one of me with my two co-pilots. The one on the right is John Babcock and I cannot remember the name of the one in the center. Another picture is a view of the base showing the buildings and one of the mooring masts. These of course, are treasures of the past along with the stories of some of my experiences there.” Ω



Ms. Roseanne Belsito sent along clippings and wrote, “The NOON BALLOON is a first class publication. I only wish my Dad was still here to enjoy it. Occasionally I spoke with Mr. Kane, and I was saddened by his passing. I think he lost a son who lived in New Smyrna Beach. Our family has a condo there, coincidentally. I found [*the enclosed clipping, an LTA oriented article*] in “Preservation” Magazine, of which I am a member. I also have a photo of my Dad, a sailor in LTA, from a Philadelphia newspaper, crediting his airship with a rescue off our coast. Great job on the magazine.” Ω

Don Morris wrote via our Treasurer, “Dear Editor of the Official Newsletter of the Naval Airship Association ‘Noon Balloon’: After recently reading this brief remembrance from the U.S. Navy Airships Book by **James R. Shock** (page 193), I realized this reference may be the situation that I wrote about in my ‘Granddad’s Stories’ that was prepared for my young Children and Grandchildren. I’m sure there are other eyewitness accounts of this potentially disastrous Airship experience, but here is how I remember the situation when I served on active duty at Lakehurst New Jersey back around 57 years ago in 1954-1957. Ω (*Ed. regrets the story was sent in a format none of our computers could deal with; perhaps Don will retype it.*)

Mark Lutz wrote, “Wonderful Technical Reports in TNB #80 - I really enjoyed them! Yet another great issue! I read it cover-to-cover within a few hours of receiving it - took maybe 2 hours. I very much appreciate your efforts! Maybe it took 2 weeks of your time to provide those 2 hours of reading fun for me? – [Ed.: *More like two months!*] “Here’s my “2 cents worth” of comments on hydrogen and helium lifting gas in airships, and safety and cost. People such as **Rick Zitarosa** are a valuable resource for anyone looking at Hydrogen as a lifting gas in a modern airship - he is a source of good hard safety questions, which competent technologists can then take as interesting challenges to see if they can develop significant safety features to overcome. Rick would be an excellent critic for any safety features developed, which would help in developing good tests to see if they actually work. The “obvious” answer to dealing with safety concerns about venting hydrogen - design a modern airship so it doesn’t vent its hydrogen lifting gas. A second answer to dealing with the safety of a ship filled with Hydrogen lifting gas is to take sort of an “opposite” view point - by which I mean, the problem isn’t the Hydrogen, it’s the Oxygen, there are substances which preferentially remove oxygen from the air. In an updated version of the MacMechen-Kamp design, perhaps that annulus would have containers filled with such an oxygen absorbent. Of course instrumentation would monitor the reserve capacity of the absorbent and the level of oxygen in that inerting annulus, and double-check by monitoring the mass of hydrogen present in the gas cells so as to give warning if that mass started decreasing. Next, surely today’s airship bag material is much less permeable to hydrogen and helium than it was in 1943? My understanding is the best helium diffusion barrier in the 1943 US Navy K-ships was a layer of paraffin painted onto the inside of the gas bag. As a now-retired engineer who worked on various ways to try to reduce gas diffusion in a low-cost way to form “semi-hermetic” packages for high-tech micro and nano-sized devices, I would be tempted to try a composite gas bag having some kind of metal foil sandwiched in the middle – it might be metalized mylar, such as the common heart-shaped floating party balloons sometimes have – those retain their ability to float for weeks, as opposed to maybe 1 day for ordinary rubber party balloons filled with helium. For applications where the metal might provide an unwanted radar return signal, thus undoing the inherent radar stealthiness of a gas bag, I would consider some kind of glass or glass-like stuff. A very thin coating of glass, say 0.000001 inch thick, would provide some significant diffusion barrier to both hydrogen and helium, while being very flexible, so cracking should not be an issue. Glass properties are very non-intuitive when the glass is very thin. I’ve worked with very thin-walled, very small OD glass tubes - you can bend them almost like string, and even tie them in (loose) knots without breaking them. The best ones had a protective coating

of polyimide plastic, if I remember correctly, and are readily commercially available off-the-shelf. I internally pressurized one to 1,000 psi - it did not break. Another diffusion-limiting material a co-worker found is “liquid crystal” plastic - again readily available commercially. In it the plastic molecules line up parallel to each other like logs in a cord of firewood. In most plastics, the molecules are all jumbled up, providing lots of holes for gases to pass through. In the “liquid crystal” plastic, there are no such gaping holes - the molecules are tight together. Don’t be fooled - the word “liquid” - this stuff is a solid at normal temperatures - we got some and tried it, and it really does work. This plastic is about 10 times less leaky than normal plastic. For comparison, glass is maybe 100 times less leaky, and metal maybe 1,000 times less leaky. Such improved bags would be beneficial for both hydrogen and helium lifting gases. I think. I have in mind a gold outer coating 4 millionths of an inch thick (0.000004 inch thick). For those who think metric, that’s about 0.1 millionths of a meter thick. (This is readily applied to an envelope with standard commercial equipment today.) On a new Zeppelin NT-7, which I estimate has very roughly 50,000 square feet of envelope, this would weigh very approximately 200 pounds - about the weight of one of the 12 passengers - not totally out of the question as a weight adder (assuming I didn’t make any major mistake in my calculation.) My very rough cost estimate is \$2 million for the gold at today’s prices. Since the airship itself costs, I think, something like \$10,000,000, this is not totally impossible - a 20% cost adder. As helium and fuel get more and more expensive, the willingness to put significant money into a helium diffusion barrier such as this will increase. Hopefully it would reflect the sunlight away so the helium inside wouldn’t heat up too much. Gold is a fabulous barrier against weathering - completely unaffected by ozone and UV light, for example. Finally, wouldn’t a Gold NT-7 gleaming in sunlight be stunning? I think there will always be some inherent risk in a hydrogen-filled airship, but we can make it a great deal safer than it has been in the past. We accept the hazards of gasoline in automobiles, and most of us don’t even think of it as dangerous. The WWII K-ships had many a fire, some of them fatal - due to the aviation fuel on board, and due at least once to ignition of that aviation fuel being vented to reduce weight (K-51). Logically, when the risk of a fire in hydrogen lifting gas is brought down to roughly the risk of fire from the aviation fuel, the risk of hydrogen as a lifting gas is no longer particularly significant. If it is brought down below that of the aviation fuel, then again, logically, it should stop being a major concern, and stop being a barrier to construction, certification, and operation of such airships. Ω

(Ed Notes: vapor-deposited gold used on spacecraft mylar blankets is very lightweight and when the price of gold was high it was not even kept in the safe!)

Walter Lion wrote, “I am not a chemist, nor do I have any sort of science background, which allows me to ask, has anyone ever made an effort to find a means of at least reducing the flammability of hydrogen? Perhaps a mixture with other gases, or a catalyst.... or anything else....or is it hopeless?” [Ed answers: *The non-LTA world has many, such as Roketdyne’s “Tridyne.” ASEMBLON, Inc. has patented a method for storing hydrogen in a liquid called Hydrnol Fuel. Pure hydrogen is released on demand. The liquid is as safe as gasoline or diesel and is completely recyclable with fresh hydrogen. However member Juergen Bock’s recent paper shows LTA can use the simplest solution. Since the H2 fuel would be drawn from the envelope, the lifting gas would be constantly refreshed, with any intrusive contaminants being constantly consumed in the engines.*] Bock wrote in his paper AUTONOMOUS CARGO AIRSHIP OPERATIONS SYSTEM: “A further aspect of hydrogen is its future-oriented role as an ecologically “clean” fuel. Liquefied hydrogen provides the highest energy content per kilogram.” Ω

An excerpt from “THE POOPY BAG BALLONET”
by **HARRY TITUS**

(Note: In 1981, I began a newsletter - THE POOPY BAG BALLONET - wherein which tall tales of terror, as remembered by former LTAers, would be told. From a few individuals, the mailing list grew to over 700 (one individual did refuse copies, even though they were free). However, donations were later received. In the fall of 1989, the last edition went to bed and all of the photos and mailing lists were given to THE NAVAL AIRSHIP ASSOCIATION. Last year, I put the entire 258 pages on a disk and donated it to the association. (It may be available.)

Here is a short vignette as told by **Walter Ashe**:
“The Poopy Bag quotes Al Cope as fixing to write a book about what happened to that ‘Damn Scatter-Bomb.’ Well let me give you that story as it happened:

“As one of Adm. Rosendahl’s fair-haired Lieutenants, I was his staff’s tactics and ordnance officer. During Feb., 1945, BUORD sent a bunch of scatter-bombs to Lakehurst for airship use. The Admiral decided that we would test those babies on a towed target with his special airship, the King-91. With due diligence, I studied the scatter-bombs and reported verbally to the Admiral that they were unsafe. He told me he didn’t want to hear such garbage and to proceed with the test program. A couple of days later I wrote the Admiral a little note that said, ‘I wish you would reconsider testing those bombs. They really aren’t safe.’ He stomped into my office with the note and told me to get that test ready next week. Late in March, 1945, all suited up and ready to fly the test with the Admiral on board, I grinned and told the Admiral ‘to check his life-jacket for the bombs were unsafe.’ He told me to get off the airship, that Jim Punderson would be the pilot. I stood and watched them take-off with that damned scatter-bomb and wondered to where I would be transferred. In about four hours, I heard the crash alarm and learned that the K-91 was limping back to base full of holes. Everybody was ready for the crash, but old Punderson set her down a ton-heavy. Umbrella patches and helium trucks did the rest but old K-91 had 246 holes in the car and bag from the scatter-bomb explosion that went off just outside the car as it was dropped.

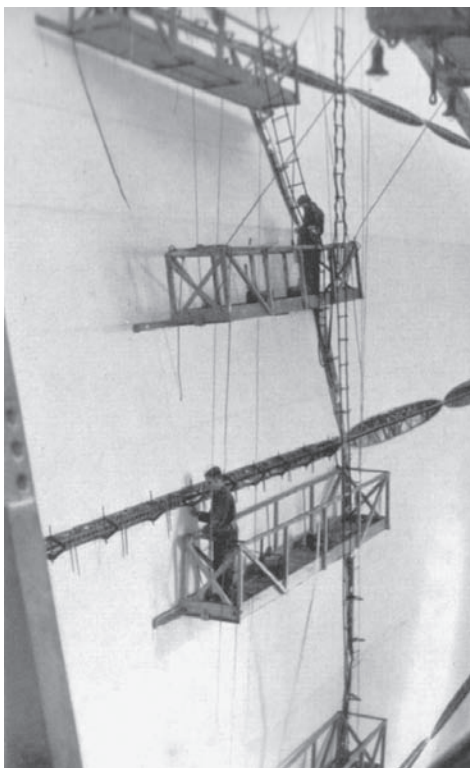
“The Admiral got out of the airship, climbed into his car and drove off towards the flag building without a word. In about a minute, back he came and stopped beside where I stood. He rolled down his window and said: ‘Get those damned scatter-bombs off this station.’ He never said another word about it and by that time I had finally learned to keep my mouth shut.” Ω

[Ed asks: *Were these the same - possibly reworked - bombs that were used a few months later on the ZP-11 ships that made the last attack in US waters?*]



Vincent Hoye’s daughter **Bunny** sent along, via Peter Brouwer, a copy of her father’s balloon license (above). This came the same week that correspondent Ivan Sampson in the UK had finished translating some of his French airship books with an eye toward combats for us. He found a revelation that a captured U-boat in 1917 had standing orders not to attack shipping protected by an observation balloon. So much for the nay-sayers who claim the sight of a blimp brought the U-boats running - in either World War. Ω

Member **John Mellburg** copied us into detailed correspondence with colleagues who also continue work on finding images and translating documentation of the final two great rigids. John's colleague **Andreas** wrote in part, "The 'model' of how the outer cover was applied still is on display in the Zeppelin museum. But on this model it seems that there first was a clear dope applied, because the coat of lead oxide is blurry. I think the fabric was first soaked with lead oxide, otherwise it wouldn't be visible on the inside of the hull. And that the stripes remained white, makes me believe that it was not painted from the inside, but the paint didn't go through the stripes which are glued onto the fabric. I also have some troubles to believe that part of the passenger facilities were already in place and then had been removed. As the passenger compartment could not be installed before all the longitudinal girders in this area were in place, at least two longitudinals on each side must have been replaced too, as the girders above and underneath the window bay were (finally) completely different on LZ-129 and LZ-130. It is terrible how little we (I!!) know about these airships... *John answered (in part)*, "...the mere fact that several coats of dope were applied to the hull is a remarkable undertaking. I wonder how they took away the fumes of the dope? Those painters likely all died of lead poisoning, or lung cancer.



Regarding the 129/130 passenger accommodations. On the 130 [left], the passenger windows bottom edge is in alignment with a longitudinal girder, the windows being placed as such, on top of this girder, while the similar windows on the 129 were located one longitudinal higher on the side of the hull, with the longitudinal girder aligned/running through the middle of the vertical height

of the 129's windows. Yes, it is terrible how little we know about these airships. Those of us who care, who seek knowledge about this are in the minority. [Others] don't actually realize the technical achievement these marvelous structures represent to the aircraft world. The building of the 129 series of Zeppelins was the equivalent in recent times to Werner Von Braun's Saturn 5 Moon Rocket. And all this was undertaken without the benefit of a computer to help configure the structure. Truly remarkable."



Deutsche Zeppelin-Reederei

©. m. b. H.

Druckort: Zeppelin-Reederei	Druckdatum: Samstag, den 20. Juni 1930 (Stadt und Sonntag nach 0122)	Verlagsnummer: Stuttgart Nr. 12433	Drucker: Wagner & Debes, Stuttgart Zeppelin-Reederei, Stuttgart
Der Empfänger: Der Absender: Die Adresse: Die Postadresse:		Midshipman Franklin Duerr Buckley Annapolis Bancroft Hall	
Frankfurt a. M., am 25. Juni 37.			

Bestenfalls

Dear Franklin!

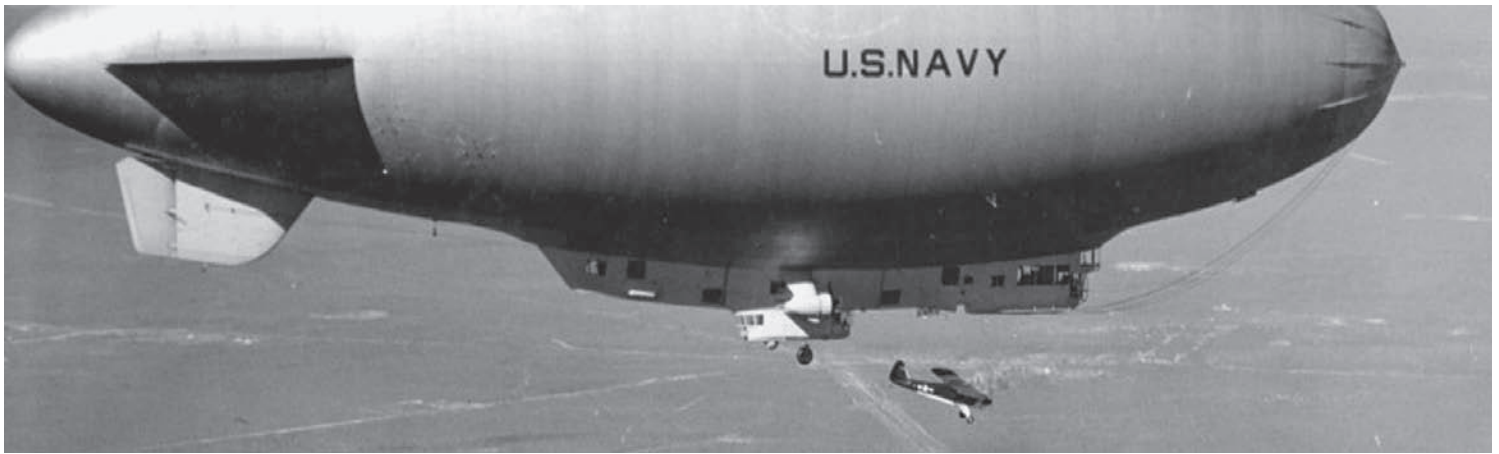
My best congratulations to your graduation!
 A long time ago I planned already to write to you, but I hope you will understand, that at the present time, I was not able to write any private letters. From the morning to the evening I have had as just enough of work to do. In the evening I just fall into my bed!
 Now it is a little better, but always quite enough to do. Sometimes I wish I could sleep for one month, hoping that within this time all this awful work would be finished by ~~then~~ ^{then}!
 The loss of our Zeppelin was a great shock also to all of us, everybody was quite knocked down. Nobody could believe, that an airship would come down in flame. After having completed so many trips across the oceans around the world everybody absolutely trusted in the Zeps. I myself having passed several times thunderstorms and having been struck by lightnings, could not believe that our ship should now be lost.
 But if we now will be able to get helium I believe that in some years nobody will remember this disaster and we hope in next spring already to come over to the states with our new ship filled by helium.
 Poor Lehmann but on the other hand I am glad that Pruss is not so badly wounded, in some months he will be here again.
 It will be a hard work for us to drive ships filled by helium, because we are always accustomed to devalve our hydrogen. In the new ship we will have water-recoverers, so we hope not to devalve.
 But for the meantime it will not be possible to carry more than 50 passengers. Our new ship was nearly completed and to lengthen this ship will be rather expensive. I believe nearly not possible. Our hangar at Friedrichshafen is not long enough only two meters about longer than the ships lengths now. The ship being under construction it will not be possible to lengthen the ship hangar.
 Hoping your eldren and your sister will be well!
 I am living now allready at Frankfurt, but the family at Friedrichshafen.

Yours truly

Hans von Schiller

On a more personal note, John included a copy of a 25 JUNE 37 Hans Von Schiller letter to USNA graduate Frank Buckley (above). In his best English, Hans notes, "The loss of our Zeppelin was a great shock also to all of us, everybody was quite knocked down. Nobody could believe, that an airship would come down in flame. After having completed so many trips across the oceans around the world absolutely everybody trusted in the Zeps. I myself having passed several times thunderstorms and having been struck by lightnings, could not believe that our ship should now be lost... It will be hard work for us to drive ships filled with helium, because we are always accustomed to devalve our hydrogen. In the new ship we will have water recoverers, so we hope not to devalve. But for the meantime it will not be possible to carry more than 50 passengers. Our new ship was nearly completed and to lengthen this ship will be rather expensive. I believe nearly not possible. Our hangar at Friedrichshafen is not long enough only two meters about longer than the ships lengths now. The ship being under construction it will not be possible to lengthen the hangar." Ω

Roy Wicker wrote, "Thank you for doing all the research and sending me same regarding the incident on August 20, 1943. I had completely forgotten the incident. Also now I recall that the crew members were changed on several occasions: Sanders, Wodzinski, Busby and Job were not regular members of my "combat air crew." The K-28 car is being restored up in Connecticut. I sent them a list of the dates the times I flew the K-28, around 500 hours while I was in ZP-14." Ω



A non-member named John Scott e-mailed into webmaster Mike Vinarcik, "I am researching the Navy's uses of the Piper J3 Cub - Navy designation NE-1 - during WWII. In my research I have come across information that connects the NE-1 to NAS Lakehurst and "Project Warbler" and I am hoping a member of Naval-Airships.org can help. In March and April of 1944 NE-1's Bu. No. 26197 and 26326 were carried and launched from the XM-1 Blimp (see attached pictures). The NE-1's USN Aircraft History Cards show that they were assigned to NAS Lakehurst and "Project Warbler". Does anyone have more information on "Project Warbler"? Does anyone have any information on the flights of the XM-1 carrying the NE-1's? I appreciate any and all information - no matter how brief - on these subjects."

Rick Zitarosa answered, "The Piper "Glimpy" was a concept put forth in 1944-45 envisioned mainly to be a spotter/utility aircraft for those who had notions of the non-rigids extending their range and utility through the use of parasite aircraft similar to the AKRON/MACON concept. The installation on the XM-1 was NOT a "hook on" arrangement as with the rigid airships but in its early stages it tested the ability of larger non-rigids to sustain parasite aircraft operations; it was envisioned that small aircraft carried aboard the blimp could be used for expanded reconnaissance, ferrying of photographs, classified material/recovered documents and personnel to shore."

Ed. following up on what Rick said, one flight was filmed dropping off and is a part of the MGM film "This Man's Navy." The late Hep Walker, Jr. crew captain of M-1, said there was eventually a plan to use the Cub as a remote-control bomb. (TV-guided Gliding bombs were being developed by/for HTA at the time.) Following the piloted flights with landing gear, as the photo shows the gear was removed. Hep said some farmer in the area wanted his barn demolished and they were trying to work out a plan to use the barn as a target. No doubt the war ended before they figured out how to make that a safe experiment. We'd need the CNATE history (I've never found one) to verify this and I've never heard it called "Project Warbler." Ω

New Spanish member **Francisco A. Gonzalez Redondo** wrote that their historical web page is: www.torresquevedo.org . "In the welcome page you find several links in the right column: "Nuevo" (New issues): (1) The New exhibition on "Torres Quevedo and the Conquering of the Air" at CosmoCaixa Science Museum. http://www.torresquevedo.org/LTQ10/index.php?title=CosmoCaixa_-_2008 (2) A biography of Torres Quevedo I've published in CIC Network, <http://www.torresquevedo.org/LTQ10/images/CICN4-TorresQuevedo.pdf> 3) My presentation at Friedrichshafen. http://www.torresquevedo.org/LTQ10/images/7th_International_AirshipConvention_71192.pdf; "Biblioteca Digital" (Electronic Library), several books, articles etc., on Torres Quevedo: http://www.torresquevedo.org/LTQ10/index.php?title=Biblioteca_Digital_Torres_Quevedo. Right there you can download, for example, my article in the Spring Issue 2008 of *Dirigible. The Journal of the Airship Heritage Trust*: http://www.torresquevedo.org/LTQ10/images/Dirigible_Journal_TorresQuevedo.pdf . Among all those works you also have the book "Torres Quevedo y la conquista del aire" <http://www.torresquevedo.org/LTQ10/images/LTQConquistaDelAire.pdf> If you go back to the welcome page, at the central-wide column, with the heading "Inventos" (Inventions), you have at the bottom several more links in blue. The first one is "Dirigibles", if you click there, you will find a summary of his contribution to airships and three more links at the bottom: "Imágenes" (Pictures), Videos and "Publicaciones" (Articles). Here you will find more articles in PDF on Torres Quevedo's Airships you can also download free: http://www.torresquevedo.org/LTQ10/index.php?title=Publicaciones_sobre_Dirigibles. (*Ed. sent a translation of Emilio Herrera's article.*) "Yes. Herrera suggested Torres Quevedo at the end of WWI to design a transatlantic airship. Torres Quevedo conceived in 1919 the "Hispania" you can see in our book. It was never built, but Herrera's studies were used later on in the Zeppelin flights from Europe to America. Certainly, Herrera was a gifted engineer. I'm right now into finishing a new book, "The Aeronautical biography of Torres Quevedo". As soon as I finish this I'll write an article for TNB which I guess should be different from those in 'Dirigible' or the 7th International Airship Convention." Ω

Gordon Vaeth has suggested VADM Rosendahl's "Lieutenant X," whom the Admiral would not identify for fear of LTA being a smear on a brilliant career, might have been one Edward Harrison. Does anyone have information as to what happened to this Harrison fellow after transferring to HTA and post-Navy? Gordon also sent nice words about the Ed.'s book and added, "Did you know that 'Japanese Warplanes' were over Lakehurst in 1944? The MGM movie, 'This Man's Navy,' with Wallace Berry and Jimmy Gleason, was being filmed there. One of its sequences called for a battle between a K-ship and Japanese fighter planes over the jungles of the Far East. For Japanese Zeroes, Navy SNJs were used, painted in Japanese colors. As their pilots and MGM camera crews began filming one day, an M-ship was making its way towards Lakehurst on a ferry flight. The pilot was unaware of what was going on at Lakehurst. First thing he knew, a flight of five 'Zeroes,' each bearing the Japanese 'meat ball' insignia went streaking by. He responded by calling for General Quarters. There were some anxious moments, but the situation was quickly recognized for what it was. There would be no official aftermath. Perhaps readers who were participants could be located to add details." Ω

Wally Turner wrote **Warren Winchester**, "When we crashed on Nov. 14th, I was the CIC officer on the flight. We were coming in with only the starboard engine working and the Air Force Lt. Col. was assigned on our patrol. He was retiring in one month and had been on every type of aircraft in his career but LTA. I had him on my watch. He was a great guy and had a wife and six kids. He had a job ready to go at Ft. Monmouth and was all set for life. After we crashed abandon ship was given and the last time we looked out the front we were heading straight for Hangar One. We thought the pilot's cabin was totaled and we couldn't go out the starboard hatch because the prop was still operative. The only choice we had was to ditch out the back which we thought was the normal 10 to 15 feet. All of the injuries, I think there were about 5 of us that got hurt, occurred by jumping out the after station. Dan Hopkins and I were in charge of getting the crew and Col. out the back and we were the last two to abandon ship. Because the helium was trapped in the rear the after station rose from its normal height to a maximum of around 40 feet. (5 stories) I told Dan to go ahead before me but he was senior and told me to go first. We couldn't see the ground so we thought we were jumping from the normal height. I crushed my left elbow and broke my right wrist. Dan had a severely dislocated index finger. The Col. jumped from a much lower height but panicked and took a running leap landing on both heels and breaking many bones in his body. They believe he died of a heart attack not his injuries. He was a wonderful man but was in the wrong place at the wrong time. I spent 7 months out the next year in hospitals going through 2 operations and much rehab. There is more to the story but that is the short version. By the way, I have the official pictures of the accident and I think I gave them to

the photog at Lakehurst reunion and he copied them. Let me know if they have them."

Warren suggested, "It might be worth it to ask Wally or one of the other NAOs from ZW-1 to do an article on the unusual mission of ZW-1 and the role of the back seat folk. [Ed did.] Reflecting on the loss of **John McGillicuddy**, "I just found a more lengthy obit in New York Times 7 Jan. edition. John was in the first class of what we called Naval Aviation Observers (NAO) back in the 50's which were specially trained for the ZW-1 early warning mission. He was a good man and a good friend. He served in ZW-1 from 1956-1958. Needless to say, he had a career afterwards which only a few ever attain.

Jim Yarnell e-mailed, Thanks to Warren, I just learned of John's death and thought you and the others might like to see and have a copy of the NY Times' obit. [See *Black Blimp*] Steve had mentioned in a previous recent e-mail to me that John was not in good health and I'm so sorry, as we all are, that he's now gone. I was also one of those that should have stayed in contact with him over the years. Steve and I were lucky enough to have had many enjoyable visits and dinners with the McGillicuddys at their home while we were young and immature (well I certainly was, anyway. Steve was more like John, as far as maturity was concerned). Suffice to say, however, that we all think John was just the finest, most admirable guy anyone could ever have had the pleasure of knowing and, his fantastic "other" half, Constance, was certainly his complement in the female department, in addition to being an attentive and caring mother to their two children then, Sean and Faith. I'm certain we all concur with the kind thoughts expressed by Steve and Bob in their e-mails regarding John. We DO all need to stay in touch with our friends more often while we're still able to do so. Ω

Herm Spahr wrote, "December 17, 1948, was the anniversary of the Wright Brothers flight at Kill Devil Hill. I was assigned to attend as a representative of the Navy. The principal speaker was a Marine Corp. General who was proud of his nickname "Bulldog". The Elizabeth City High School Band provided the music and their numbers exceeded the audience present. The ceremony was culminated by a formation flight of three Marine aircraft from Cherry Point; followed by a helicopter from the nearby Coast Guard Base and an airship from ZP-1 at NAF Weeksville. During the luncheon I was seated by a lady who was present during the first flight. I was forewarned that she would repeat her story over and over. She claimed to be the reason the flight was a success. According to her story, the first attempt ended in failure when the aircraft slid off the wooden ramp and damaged the left wing tip. They had no fabric with which to make repairs she walked to her house, removed an article of clothing from her clothesline - and presented it to the Wright brothers. The article was a pair of her large bloomers." Ω



Past NAA Pres. **Lou Prost** wrote, "I'm sending you my files on the K-14. [Also] I am enclosing a picture of my crew that ferried a K-ship from Lakehurst to Santa Ana. The officers from L. to R. are: unknown, Clarke, Russ Farley, Joe Elton and myself. One of the Chiefs took this picture and many more that he sent me. I can't find my log book and can't remember the number of the ship. The last two legs were from El Paso to Litchfield Park, AZ to Santa Ana. They would not let me take the route which I had flown several times because of a firing range on the way. They sent me up the Gila River Valley and through the mountains. On the way we had an episode which I had never experienced before. With no sensation of gaining altitude my rate of climb two blocked at 2000 feet a minute, then we descended at 2,000 feet a minute. When we got to Litchfield Park and hit the sack, the ground handling officer woke me up and told me I had to get the ship out of there because the ship was at balloon ceiling. I asked him if he put the 40,000 cu. ft. of helium available there. He said yes and it was getting colder. I told him the ship had to have a hole in it which he immediately dismissed with the answer that I just did not know how much I lost on the flight. I asked the crew if I could have 3 volunteers and they certainly came through. I asked Joe Elton if he would go with me. We flew all night at 6,000 feet and had the experience of seeing an atom bomb exploded at Devils Flats, Nevada. From pitch black to bright daylight and the horizon on fire. When we arrived at Santa Ana we hit balloon ceiling at 3,000 ft. I informed the ground handling crew to stand by as we had to cut the air to helium [valve]. Some officer came on the air and told me if I did that I would lose control. Thank God for Edgar McCartney [who] came on and told me 'you know what you have to do.' It took almost half an hour to pump

enough air to land. On the approach I felt like I was trying to land a Greyhound bus. The ground crew crapped out and there was no way I was going around again. We seemed to get a ground cushion just before touchdown and with full reverse, came to a stop in front of the ground crew one of whom looked up and told the others to grab the lines. The ground handling officer came up to the window asking me if I knew what the crapped out crew meant. I invited him aboard to take it around. I told the air officer that the s.o.b. had a hole in it. I received the same answer, that I didn't know what I was talking about. We waited three days for a plane to take us back to Lakehurst. Every morning when we checked in one of the enlisted men told me they put helium in it every night. When we got back to Lakehurst, I was told that they sent for a Goodyear rigger to see what the problem was. He went topside and advised them to put a net over the ship. There were two tears, one across the catenary which was leaking helium and one along the catenary in danger of ripping the top open. I found out later that the ship went through a snowstorm at South Weymouth and they sawed the top with a rope for hours. Goodyear had condemned the envelope. Instead they gave it to the reserves. I have to commend my enlisted crew for sticking with me through a very tough time. I hope the enlisted crew will get together with me at the Reunion and help me i.d. the crew in the photo." Ω

(Ed. apologize's for misplacing the name of the member who sent in this photo of Weeksville.)



A non member, Dr. Stanley Sandler, e-mailed a question the Ed. had to refer to NLHS. "Sir, Can you tell me why the national stars on the flanks of "Shenandoah" are at an angle? As you undoubtedly know, none of the other US dirigibles sport an angled star." **Rick Zitarosa** responded, ZR-2 (British-built R-38, which was destroyed with a heavy loss of life in a tragic mid-air structural breakup and hydrogen fire/explosion in August 1921) also had her star-in-circle insignia applied in the same manner by US Naval personnel at Howden...not that she was around to wear it very long. One explanation given to me was that the angled-versus-"straight up" star was brief notion in the 1921-1923 period intended to differentiate between NAVY versus ARMY airships. In any case, it was not carried forth with the LOS ANGELES. Ω

William Edwin's (right) daughter **Barry B. Harshaw** sent along the sad news of her father's passing (see Black Blimp). She then joined the NAA herself. Welcome aboard, Barry!
Ω



'Red' Layton sent photo and video discs and wrote, "Last week I received a telephone call from Beth, the Publicity Director of Airship Ventures, saying that they had obtained my name from the Naval Airship Association and inviting Kathleen and me to the christening of their Zeppelin NT airship on Friday, 21 November. I was asked about my relationship to airships and when I told her, she asked if I would like to have a flight. I immediately answered in the affirmative. She then informed me that they were having a flight for the film crew of ABC's Good Morning America show on Wednesday the nineteenth and I would be one of the passengers. The next day she called back and said that they had an extra seat and asking if Kathleen would like to go. Unfortunately, you have to mount a 'moving' stairway while the airship is moving in the wind and Kathleen felt that she could not manage the stairs. After being weathered out on Wednesday, I flew a two-hour flight over San Francisco yesterday on Airship Adventure's Eureka.

In addition to the pilot, co-pilot and flight attendant, the airship can carry twelve passengers. On our flight we had but nine. Four members of the ABC Good Morning America film crew, two other ex-Navy LTA pilots, Marie Wiley Ross (The



daughter of the CO of the *Macon* and the sister of the late 'Scroggie' Wiley, a friend of mine) and Baron von Zeppelin, the great grand-nephew of Count Von Zeppelin.

The Zeppelin NT has 3 engines – Two mounted high on the envelope and one in the tail. The latter engine has 2 props



– one that can be tilted up and down and one that is mounted sideways. Take-off and landing are 'vertical', using tilt props on the side engines. When the pilot landed to pick us up, she (yes, she - came into a low hover about six inches off the ground before she touched down.

Today, we drove up to Moffett Field where they were having a dual celebration – the christening of the Airship Ventures' Eureka and the 75th anniversary of NASA at Moffett. Kathleen and I were given VIP seating at the ceremonies. Among the speakers was Colonel William A. Moffett III, the grandson of Rear Admiral Moffett and the Director of NASA. Also speaking was the CEO of Nippon Airships which is flying a sister airship to the Eureka in Japan. Baron Wolfgang von Zeppelin presented **Alex Hall** (co-owner of the *Eureka*) a gold medal that had been struck for the Count and gave her husband, Brian (the other co-owner) a replica of Count von Zeppelin's famous white cap. Ω

Additional photos by Bill Wissel. More coverage of the Zeppelin NT 04 at Moffett in adjoining departments.





Shore Establishments

ZEPPELIN NT-04 ARRIVES AT MOFFETT

Airship Ventures allowed my reporter-grandson Daniel to bring me along for the press promotion flight of the NT-04 at Moffett on Monday, October 27, '08.

The Zeppelin had arrived from Los Angeles the previous Friday on it's flight up the coast, pausing off Point Sur, the site of the loss of the *Macon*, over the Golden Gate bridge and down the bay to Moffett. Flying right over the control tower, it rotated 270 degrees into the wind and settled vertically onto the tarmac. It spent the weekend in Hangar Two, getting prepped for the Press flight. Once in the gondola, we settled in one of the 12 comfortable seats next to the wide windows and soon it was "Up Ship". The three 200 hp Lycoming engines & directional propellers raised us vertically a few hundred feet, then in a forward climb to 800 ft. where we hovered over Hangar One for media photo shoots. Once at altitude, seat belts off, we walked around to talk and see everything. Zeppelin COO, Michael Schieschke, sat down with me and we talked Zeppelin:

* The trip from Texas was done in 8 days with the two tower trucks 'leap-frogging' each other to Los Angeles for their stops along the way for rest and fuel. * The trip up the coast from LA was non stop, easily in the 700 mile flight range. * Max speed is about 70 knots; the airframe is 246 feet long and weighs just 2,200 pounds. The helium cells are made of Kevlar, carbon composite and polyurethane. There is virtually no loss of helium. * Static discharge on landing? It discharges through the conductive rubber on the main landing wheel.

Next I talked to pilot Kurt Guenther while pilot Kate Board flew the airship. (*Bill Wissel photo, below.*) Kurt showed me the small color-coded lever controls used for static flight with the pitch and angle control propellers and the toy-sized joy stick controls onboard of each pilot seat which controlled



the vanes on the three fins in forward flight. Everything else on the control panel was 21st century tech. The cabin sound level was normal conversation low - almost quiet. Airship Ventures plans to do the kind of tours the other NT craft are doing in Germany and Japan. There is also some scientific research with NASA planned.

Hour flight tickets are \$495. (www.airshipventures.com)

-**Ben DeBolt**, Member NAA, Moffett Field Hist. Assn.



HANGAR ONE MAY HOUSE NEW AIRSHIP

NASA's ambitious plan could solve issue of new siding once and for all NASA Ames deputy director Lew Braxton told a crowd last Thursday that the agency was hard at work on a plan to restore Hangar One within the next 18 months in order to return it to "its original purpose." "There is a possibility we will have another [airship] out here," Braxton said. Among other things, it would mean that NASA plans to re-skin the hangar after the Navy strips off its toxic siding. Braxton said that NASA Ames is talking to two prospective tenants to find out who will share the \$15 million cost of re-siding Hangar One. Braxton would not name the airship or the company, but many who heard him speak are now certain that Moffett Field may become the West Coast base for a 500-foot-long Army airship constructed by Lockheed in Akron, Ohio -- in Hangar One's twin structure, the Goodyear Airdock. "It was obvious to anyone who knows what's going on in the world that he means the one Lockheed is building at Akron," said RAB civilian co-chair Bob Moss. Building a hangar big enough to house such an airship would cost more than \$90 million, much more than the cost of restoring Hangar One, Moss said. One source familiar with NASA Ames' efforts to lease Hangar One believes Ames director Pete Worden is pushing the Lockheed airship as a "pet project." In a speech during Moffett Field's 75th anniversary celebration last year, Worden talked enthusiastically about airships -- the "clean transportation" they could provide, how they could help with homeland security and act as "observational platforms," or to "help us understand climate change." Some brought up whether the Moffett Field Historical Society museum would be moved back into Hangar One. Braxton said it was being considered. The Navy plans to begin taking the siding down as early as October of this year, and Braxton said NASA wants to put up new siding while the scaffolding is still in place. Ω (excerpt from wire report)

RICHMOND



(Above:) Building in 1963: site for anti-Castro freedom fighters during the Cold War Era and Cuban Missile Crisis. The Headquarters is the last remaining building of the WWII Naval Air Station, Richmond (Richmond Heights). It served as the base for Navy blimps that protected South Florida against Nazi U-boat attacks. As a museum it will showcase the rich military history of the area, especially highlighting the service of South Floridians. The project has the endorsement of the Miami-Dade School Board and will contain an educational center outreach for both the young and the old. Miami-Dade County Building Better Communities General Obligation Bond Fund Line Item 283-70540 This project is to create a military museum, veteran's memorial and education center within and around the restored Naval Air Station Richmond Headquarters Building 25. The building then was the Reserve Center for generations of local Army Reserve and Marine Corps Reserves. This old Headquarters is next door to the MetroZoo and when completed, the new museum will be an added attraction drawing the public to the expanding Miami-Dade County MetroZoo complex. (Inset: Group photo of the restoration team at commencement of construction phase October 2008: architect, carpenters, general contractor, historian, engineer, asbestos removal team. Below: Artist's Rendering of how the Miami Military Museum will look once the restoration is complete.) Ω



News from Friedrichshafen

Composed and submitted by Sig Geist

As TNB readers observed in the Winter 2008 issue, Zeppelin NT S/N 004 arrived safely at Moffett Field, CA, its new home on October 25, 2008. Eleven days earlier, after a two-week Atlantic crossing from Hamburg, Germany, the airship was unloaded from a special cargo ship in Beaumont, TX. Together with the ensuing week-long flight across the Southwest, passing through Banning Pass and up along the Pacific coast, the entire undertaking was well planned and is a remarkable success in transport logistics. The airship's aerial route and more can be viewed on <http://airshipventures.blogspot.com/>



Eureka is the name owner Airship Ventures (AV) chose for its new airship during the naming and dedication ceremony. The public event was held at Moffett Field on November 21 in conjunction with the venerable site's 75th anniversary. This writer was unable to accept AV's short notice invitation to the event. Based on a pre-event joint news release by NASA Ames and AV, the ceremonies were to be attended by a host of dignitaries, among them Wolfgang von Zeppelin, Thomas Brandt (Zeppelin CEO) and Friedrichshafen Lord Mayor Josef Buechelmeier. Meanwhile, Airship Ventures commercial passengers are enjoying many of the unique sights in and around the San Francisco and Monterey Bay areas from "Eureka's" comfortable and roomy cabin aloft.

In retrospect, 2008 was a good year for Zeppelin Luftschifftechnik (ZLT) and Deutsche Zeppelin Reederei (DZR), www.zeppelinflug.de, the commercial airship operations arm. ZLT's 4th airship (and most improved to date) was completed, sold and safely delivered to its owner in California. Prior to delivery, Zeppelin NT airships received FAA authorization, thereby opening US markets for them.

Meanwhile, Zep NT's outstanding maneuverability and flight characteristics were utilized again by Germany's Juelich Research Center as it carried out low level atmospheric studies over Lake Constance from on-board Zeppelin *Baden-Wuerttemberg* (S/N 3). Testing took place over a 3-week period in the fall and was reported as highly satisfactory by Juelich. Reederei's (DZR) tally sheet for the year registered more than 10,500 paying passengers during the season that began mid March and lasted up to late fall. Besides carrying out its traditional flights around picturesque Lake Constance,

Reederei operations successfully partnered with British and Dutch enterprises to extend their reach and attractions while at the same time meeting their partners objectives. Moreover, these pre-delivery flights with airship S/N4 (*Eureka*) before its planned delivery to the US, provided the Airship Ventures team, ably assisted by Reederei resources valuable hands-on experience to subsequently run its own successful operations in the US.

The Reederei (DZR) 2009 operating season gets underway with airship S/N3 on March 13. Special short duration flights will be offered during AERO 2009, a General Aviation Exhibition from April 2-5, 2009. Due to its popularity, AERO, is now held annually on the grounds adjacent to the ZLT hangar. As in the past, DZR will again offer Munich sightseeing flights from April 25 thru May 03, 2009. Beyond that, based on local media and encouraged by progress made with international flights last year, DZR might again partner with interested parties, such as DZR to undertake destination and aerial luxury tours throughout prime locations in Europe.

Responding to an inquiry (from this writer) how today's economic and financial conditions may be affecting Zeppelin Luftschifftechnik (ZLT), this is how CEO Thomas Brandt replied: "We all know the general economic situation and of course nobody is excluded from the general economic effects." Then explaining Zeppelin's position he went on to say: "The airship number five is built subject to the market environment and we don't produce a new ship without a concrete order or plan behind it. Zeppelin did not produce an airship between 2003 and 2007, we could decide to do the same thing again. The airship is only assembled in Friedrichshafen and our capacity is very flexible, a decision to produce or not to produce has no vital consequences to our company. In fact we work on number 005 on slow mode, producing and ordering long lead items." And looking ahead Mr. Brandt concluded: "In general terms, we wait to see what 2009 brings, our engineering department is working on improvements of Zeppelin NT. The airship 004 already was 214 kg better in its lift capacity than the older models. We are working on further improvements in this respect in order to enhance performance, have more range or passenger capacity, etc."

The second half of 2008 witnessed several centennial event celebrations taking place in Friedrichshafen (FN) in honor of the founding of Luftschiffbau Zeppelin and the Zeppelin Foundation. Local papers and public events reminded readers and citizens alike of the quantum changes that both of these entities brought about as well as the benefits derived. Paradoxically, it was LZ 4's fiery demise at Echterdingen in 1908 that generated compassionate and widespread financial support for Count von Zeppelin's fledgling airship enterprise. The over six million German marks strong donations then led to the formation of LZ, Luftschiffbau Zeppelin GmbH and the Zeppelin Foundation, both yet before year end. Moreover, LZ-charged with the construction of Zeppelin airships - subsequently gave birth to

several industrial companies that to this day have prospered in Friedrichshafen and elsewhere. Among them, enjoying world-class status are ZF AG, Zeppelin GmbH and Tognum AG (formerly MTU/Maybach Motor Works). Following World War II, the Zeppelin Foundation as a private entity was dissolved. In its charter, the founder had resolved that if the promotion of airship transportation - the foundation's goal - had not been met, its assets would have to be turned over to the city of Friedrichshafen government for administration under the name of "Zeppelin Foundation" and use its income for charitable and social purposes which it has done to this day.



In order to make 12-year-old Zeppelin Museum Friedrichshafen fit for the future, city fathers agreed to improvements that museum director Dr. Ursula Zeller outlined in her presentation last November. She and her team's proposals are directed at taking care of known shortcomings in infrastructure, in initial conception and visitor friendliness. Among the many improvements anticipated are how visitors are led through the museum and how the lack of exhibition and office space can be overcome through shifting the industrial exhibit. Also waiting in the wings is a move, actively pursued by the director to bring the museum's art section into a kind of synergy with the predominant in-house technology format. Last but not least are long-range plans to acquire additional exhibit space just east of the current museum location. There, with additional space and infrastructure gained, the industrial history of the city and region, as well as large exhibit pieces could at long last be ideally presented. "Zeppelin Toys – colorful witnesses to aviation history" was an 8-week long exhibition that attracted and delighted young and old visitors to the Zeppelin Museum in FN until mid-January 2009. It featured a great selection of different toys from Germany, Europe and the USA. Featured were airships and airship hangars made from sheet metal as well as cardboard. Also on exhibit were card and parlor games relating to Zeppelin aviation. In the words of the museum's Zeppelin expert, the exhibition reflects how immediate the toy industry reacted to the Zeppelin phenomenon and the difference one can find in today's kids rooms from those of yesterday and the era of airship transportation.

The Zeppelin Museum Friedrichshafen website www.zeppelin-museum.de sports a new look. Although not yet available in English, it's still worth a visit to see for yourself what's new and what's happening. Another nice feature the museum recently initiated is a monthly newsletter. It too has been promised in English. Subscription is via <http://www.zeppelin-museum.de/kontakt.0.html> Ω

7th International Airship Convention



(Above: Zeppelin's Dr. Bernard Sträter introduced keynote speaker Mr. Ron Browning of Lockheed-Martin's Akron-based HAA.)

The UK's Airship Association held its bi-annual symposium in conjunction with the 100th Anniversary of the Zeppelin passenger service last October 6-11. Your editor, technical committee chairman, publisher and several other members attended the festivities in Friedrichshafen, Germany. (Others joined NAA on the spot; welcome aboard!) The Convention was hosted by the Zeppelin Company and the German Society for Aeronautics and Astronautics (DGLR). The new director of the Zeppelin Museum, **Dr. Ursula Zeller**, was a bit taken aback by the large enthusiastic crowd running amok at the museum night, but graciously opened the *Hindenburg* replica for all to enjoy. Your editor & wife had a boat to catch and missed the Friday evening banquet, held at the Castle Montfort near the shore of Lake Constance.



(Above: Longtime UK member **Jarvis Frith** accompanies **Debbie Van Treuren** into Zeppelin's manufacturing hangar, home of NT-03, *Baden-Wuerttemberg*.)

The Saturday centenary celebration was sold out in advance but turned out to be a light-hearted entertainment affair. Even the local official's speeches were understood by English-speakers with the aid of radio-broadcast translations. The hangar event closed with the overhead flight of a perfect scale model of the NT airship. The airport's Convention Center atrium was taken over by radio-controlled model airships of every size and shape. Some 150 participants were in attendance. A host of fascinating technical papers were presented by LTA engineers and activists from around the world. Here is a list of the papers offered:

A Cargo Project in Africa, Author: S. Vencat
 A Ground Handling Perspective on the Exchange of Payloads, Author: G. Camplin
 Airship Platforms for Photographic and Geophysical Surveying of Threatened Heritage Sites, Author: J. Christopher

Airships vs. Submarines: Combat Study, Conclusion, Author: R.G. Van Treuren
 Altitude Control of Stratospheric Platform Airship, Author: K. Harada
 Autonomous Cargo Airships Operations System, Author: J.K. Bock
 Biomimetics in Airship Design, Authors: S. Michel, C. Jordi, L. Wahl, N. Widmer, E. Fink, L. Kniese, A. Bormann
 Cargo Transportation Demand in Northern Canada: Potential LTA Applications, Author: B.E. Prentice
 Concerning the Use of Hydrogen Gas in Airships: Past and Future Aspects, Authors: D. Spaltmann, R. Grün
 Design and Assembly of a Hybrid-Airship as Part of Engineering Education, Authors: R. Larek, U. Ditschler, T. Dazenko
 Development of High Strength and Light Weight Envelope Material Zylon for a High Altitude Airship, Authors: M. Nakadate, S. Maekawa, K. Shibasaki, T. Kurose, T. Kitada, S. Segawa
 EASA and Lighter-than-Air - a Status Report, Authors: P. Stabenau, P.L. Van Daalen

(Right: Dr. Thomas Brandt, CEO of Zeppelin Luftschiff Technik, answers questions during the NT-03 [behind] open house for delegates, also below.)



Heavy Lift Airships in Humanitarian Logistics, Author: U. Christopher
 Helium - a Challenging and Irreplaceable Resource, Author: D. Baciu
 Leonardo Torres Quevedo, 1902-1908. The Foundations for 100 Years of Airship Designs, Author: F.A. González Redondo
 New Sceneries for Passenger Airship Transportation, Authors: M. Musio-Sale, M.I. Zignego, S. Grande, V. Solera
 On-going UAV R&D at JAXA's Aviation Program Group - With Emphasis on LTA Flight Test, Authors: M. Nakadate, T. Kohno, M. Okuyama
 PIV Measurement of the Flow Field Around an Airship Model, Authors: S. Kallweit, M. Dues, M. Schroll, A. Gebhardt
 Promising Lifting Body Configuration for Hybrid Airship Application, Authors: P.J. Frey, J. Seifert
 Reduction of Noise Emission of Suboptimal Operating Propellers, Authors: A. Hirner, T. Lutz, E. Krämer
 RIGID+PLUS: A Novel Airship Design With Improved Handling, Author: P.G. Boldt
 The Algorithm Synthesis for Automatic Control of Airship Thrust Vector Tilting at Take-off Stage, Authors: V.P. Gusynin, A.V. Gusynin
 Unmanned Surveillance Airship Abstract, Author: P. Lindstrand



Technical Committee

A Modern Airship



The previous issue of *The Noon Balloon* announced the successful transfer of a Zeppelin LZ NT-07 to Moffett Field, California from Germany and into the custody of Airship Ventures (AV). AV intends to conduct sightseeing flights around the greater San Francisco area and possibly participate in scientific and other missions. The arrival of the NT-07 was celebrated with naming the airship *Eureka*. Complimentary rides were offered to invited guests including some from the Naval Airship Association. The NT-07 airship being operated by AV is the fourth of its type produced by Zeppelin Luftschifftechnik GmbH in Friedrichshafen, Germany. Its number designation represents the new technology (NT) in its design and the approximately 7,000 cubic meters of its envelope volume. During its development, a 30 ft. long section was added to increase the volume to 8,225 cu. m. to provide sufficient lift but the number was not changed. This addition makes the fineness ratio (5.28) begin to approach those used in past rigid airship design. The purpose of this article is to emphasize the fact that Zeppelin was able to create an entirely new design with many advanced technology features. Although in appearance an NT-07 looks like a nonrigid, it is a semirigid with its pressurized envelope hiding a rigid framework. This patented hull structure consists of a series of triangular transverse frames and three longitudinal members from nose to tail. The longerons connect to each transverse frame and are triangular in cross section and are constructed of aluminum tubes in a Warren truss arrangement. The metal structure provides good damage resistance and lightning protection. The transverse frames are carbon-based composite structures with high specific strength. Kevlar cables provide bracing throughout the framework. The rigid internal structure provides an efficient foundation for mounting engines, car and empennage. The envelope is a two-ply fabric laminate with the outer ply consisting of a durable Tedlar film. It is manufactured by an American firm, ILC Dover, in Delaware. The envelope is fastened to the longerons with a continuous attachment. It is fitted with two ballonets, one forward and one aft. There is no resemblance between the NT-07's simple light-weight structure and the complex girders in the historical Zeppelins. The NT-07 is powered by three Textron Lycoming IO-360 200 H.P. four cylinder engines. Two engines are mounted forward on the hull driving three bladed propellers. These vector to

provide vertical thrust as well as forward and reverse thrust. The forward propellers can swivel up to 120 degrees allowing the airship to fly backwards. The third engine is mounted at the stern. It is equipped with two propellers, one of which provides lateral thrust and the other vertical and forward and reverse thrust. Engine-driven hydraulic pumps supply the means for swiveling the propellers and changing pitch. Each engine is enclosed in a nacelle making



it self-contained and serviceable. Each engine is fitted with a 28-volt DC generator. A single generator is capable of maintaining the electrical bus system. Each engine has its own fuel tank, but fuel may be transferred to any of the other units. The car (gondola) is a carbon-fiber composite structure. It provides space for 12 passenger seats, a lavatory, 2 pilot positions (although the airship is certified for single pilot operation) and a flight attendant. An observer's position is available at the aft end of the car. The car is suspended from the primary structure. Its location and the fact that it contains no propulsion units allows for substantial noise reduction. The three-fin inverted Y configuration is joined together inside the hull, thus no external brace cables are required. The horizontal tail surfaces attach at a 25-degree angle of droop to allow more ground clearance. The control surfaces are moved by electric actuators. Fin structures are built of carbon-fiber composite. The airship is fitted with two castoring landing gears, one on the car and one near the tail. When moored, only the aft gear contacts the ground. Normal take-off and landing is vertical. For maximum gross take-off weight a short run is required. Pilot commands are entered through side sticks and foot pedals. The latter are used to obtain an aileron effect from the elevator control surfaces. A fly-by-wire system transmits all side stick and pedal control signals to the control surfaces. Below about 20 knots, the thrust vectoring systems provide the required control forces. These systems reduce or eliminate the need for carrying ballast and reduce the number of ground crew personnel. Considerable savings in weight and maintenance are achieved by extensive use of Active Matrix Liquid Crystal Display in the cockpit. A full electronic flight instrument system displays attitude and heading information including weather radar and other navigational data. An NT-07 has a maximum speed of 69.8 knots and 61.7 knots at 75% power. It has a useful load of 4,800 lbs. for a vertical take off and 5,460 lbs. for a short take-off and vertical landing. It has been certified in Germany, Japan and the U.S. Besides the extensive use for sightseeing, it has been equipped with various scientific gear for environmental and geological missions. Of the four airships produced, one is in operation in Japan, one was used

for a while searching for diamond bearing soil (and wrecked in a severe storm), and two continue for sightseeing (by Zeppelin and Airship Ventures). The schedule for the NT-07 airships' development reflects the careful engineering approach which has led to the success now being demonstrated. Design began in 1993. First flight occurred in 1997. Early in 1995, I was invited to visit Friedrichshafen and discuss the design with Klaus Hagenlocher, chief engineer, Mathias Mandel, his assistant and other members of the Zeppelin team. I had the pleasure of flying on the first NT-07 later in 2000. Ω

- Norm Mayer, Chairman



LTA Carrier Landings in 1951

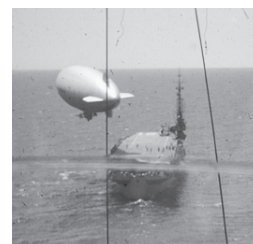
By **Thomas R. Cuthbert, Jr.**, Ph.D, ZPK Airship Crew Commander 1952-1956, Squadron ZP-2 and Training Unit.

This is a brief pilot's view of landing ZP2K Navy Airships on CVE Jeep Carriers and in-flight hose refueling in 1951. We flew blimps out to aircraft carriers where we could hover above the carrier and pull fuel hoses up to refuel. This was a World War II concept for remaining with convoys from the United States over the Atlantic Ocean to Europe for full-time protection against submarines. A more difficult maneuver was to land the blimp on the carrier for provisioning, crew change, and even engine exchange using quick disconnects. The carrier would sail into the wind to provide about 28 miles per hour airspeed, but it still was hard to keep the blimp from going off the side of the deck. Also, a CVE carrier deck can pitch as much as 6°, or about 25 feet in extreme conditions. Even with far less than that, the large mass of the blimp car going down meeting the carrier deck coming up could smash the wheel on the blimp car and propellers would then hit the deck. It was a hazardous operation performed with some consistency over six years, losing only one blimp in a fluke accident (NB #79, pg 6).

There is a significant difference in landing airplanes and blimps on WWII aircraft carriers without canted decks. On April 7, 1950, just two days before my 22nd birthday, I made the required six landings in an SNJ-5C on the USS *Cabot* offshore from Pensacola, Florida. On June 28, 1951, in ZP2K-87 and again on September 20, 1951, in ZP2K-98, I performed in-flight refueling and landings with a CVE carrier off the North Carolina coast. Landing airplanes on a carrier is a brief pain

like a kick in the stomach, but landing a blimp on a carrier is gut wrenching in slow motion. LTA gives the pilot more time to observe and think, but airship response is painfully slow and provides plenty of time to pray and plead with nature.

Photo (left) shows the ZP2K ZL-4 airship on the CVE-122 USS *Palau*, where the airship occupies about 45% of the flight deck. Both elevator and rudder pilots are severely challenged during blimp carrier landings. The carrier crew has the short lines in hand, the left-seat pilot is concerned with engine power and maintaining touchdown, and the rudderman has precious little carrier-deck width margin. Often the car would move to an edge of the flight deck, the blimp's one wheel contacting what I always imagined was a several-inch-high gutter, and then the car would lean over like it was just about to drop down into the catwalk. That would stop an engine, of course, and that recurring threat stressed every man in the crew. (Right) shows a blimp leaving the flight deck with the rudderman ensuring that the nearby carrier island is cleared. Upon takeoff



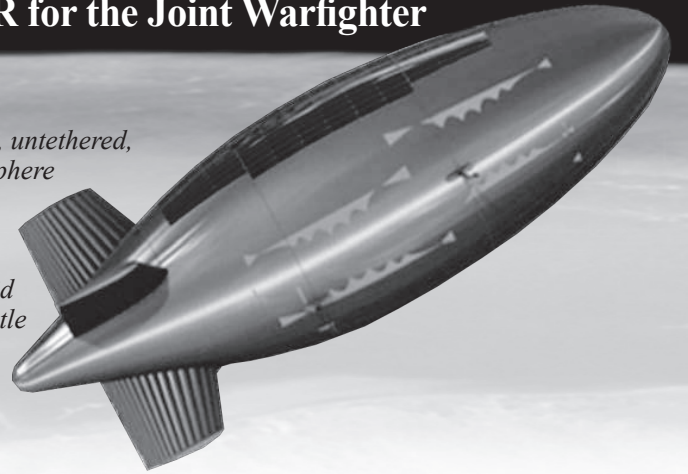
the deck crew had to immediately abandon the short lines and jump into the catwalk to avoid the propellers. In-flight refueling was hazardous for both airship and carrier (see pictures in NB #79, pages 6 and 33). It was not difficult to hover over the aft flight deck at about 200 feet with 28 knots airspeed and neutral buoyancy. The hydraulic-powered winch located at the aft end of the ZP2K car lowered a steel cable to the carrier deck. A bayonet fitting engaged the carrier fuel hose, and that fuel bonnet marked with a white pennant was hoisted up and mated to the blimp's fuel receptacle. The hose had a sound-powered phone system for spark-safe communication between the blimp and carrier.

CVE commanders worried that for some reason the blimp might use the emergency release cable cutter and drop the hose back onto the ship, even more dangerous if fuel was in the hose. The airship command pilot usually was worried about what was going on back there, because we routinely shut off the main DC power bus due to the numerous electric dynamotors with rotating brushes in much of the electronics equipment. The draft in the K-ship cars was always strongly forward right through the cockpit and out the pilot's side windows. On one occasion the fuel bonnet did not seat properly, raw gasoline entered the aft end of the car, and the fumes in the cockpit were frightful. Of course the elevator pilot had to deal with an increasingly heavy airship, but that was not too difficult.

I appreciate the impressive history of earlier pioneer airship operations over oceans and docking to ship masts long before these adventures in 1951. Although I was very young and perhaps nonchalant about risks, my experiences are still vivid 57 years later. Ω

HAA™: Persistent Communications and ISR for the Joint Warfighter

The Lockheed Martin High Altitude Airship (HAA™) – an unmanned, untethered, lighter-than-air (LTA) vehicle operating autonomously in the stratosphere for sustained, ultra long endurance (months) missions as a stable, geostationary platform suitable for multi-mission sensor operations. The HAA will provide the Warfighter affordable, real-time, ever-present Intelligence Surveillance and Reconnaissance (ISR) and rapid beyond-line-of-sight communications connectivity over the entire battle space. The technology is available now and ready for integration and flight test. An HAA subscale prototype will demonstrate these integrated technologies during flight testing in 2009.



Proven Team

Lockheed Martin first delivered LTA-based persistent Intelligence, Surveillance and Reconnaissance (ISR) systems to the U.S. Navy more than 75 years ago. This began the enduring legacy of LTA innovation, engineering, production, and operations resulting in more than 300 airships and thousands of aerostats in support of military operations worldwide. Lockheed Martin's LTA

Persistent Surveillance Systems in Akron, Ohio encompasses a world-class team of technologists



and engineers; specialized design and calibrated analytic tools unique to LTA aircraft; comprehensive system and sub-system testing capabilities including a dedicated LTA System Integration Lab; and expansive facilities for production, final system assembly, integration, check-out, and flight operations from the Akron Airdock.

Low-Risk Solution

Integration of modern technologies with proven operational approaches enable the HAA to achieve affordable, ultra-long endurance at stratospheric altitudes (65,000 ft) with large, multi-mission payloads. High-strength fabrics to minimize hull weight, thin-film solar panel arrays with high-efficiency energy storage media for the regenerative power system,

and lightweight propulsion units are key elements of this new generation all-electric airship. Under continuous control from launch through recovery, the HAA will maintain its geostationary position above the jet stream and controlled airspace, or transit to specified mission locations. As required, the system will be recovered to reconfigure mission payloads or perform periodic maintenance. Key HAA performance attributes are:

- Persistent Global Operations (Months)
- Large Coverage Area (>300,000 mi²)
- Much Lower Cost Than Other Aircraft
- Extremely Durable / Survivable
- Recoverable; Repairable; Re-Taskable
- No In-theater Logistics

Partnering to Meet Customers' Defining Moments

In April 2008, the HAA program was transferred from the Missile Defense Agency to the U.S. Army Space and Missile Defense Command (USASMDC) in Huntsville, Alabama. The USASMDC is continuing to develop and demonstrate the HAA to align with anticipated mission needs. USASMDC is the Army-specified proponent for space, high altitude, ground-based midcourse defense and serves as the Army operational integrator for global missile defense.

High Altitude Long Endurance - Demonstrator (HALE-D) Summer 2009 Flight Demonstration

Delivering Disciplined Performance

Lockheed Martin is currently on contract to build a subscale prototype airship system, the High Altitude Long Endurance-Demonstrator (HALE-D). The performance goals for this prototype HAA include sustained operations for at least two weeks at 60,000 feet altitude, while providing 500 watts of power to a user-defined 50-lb payload suite. Driven by two electric propulsion motors, the HALE-D is powered by thin-film solar cells and rechargeable lithium ion polymer batteries. The HALE-D will demonstrate long-endurance station keeping and flight control capabilities.



HALE-D Performance Parameters

Station-keeping Altitude	60,000 ft
Payload Weight	50 lbs
Payload Power	500 watts
Endurance	> 15 days
Recoverable	Yes
Reusable	Yes

HALE-D Characteristics

Hull Volume	500,000 ft ³
Length / Diameter	240 ft / 70 ft
Propulsion Motors	2 kW Electric
Energy Storage	40 kWh Li-ion Battery
Solar Array	15 kW thin-film
Cruise Speed	20 ktas @ 60 kft

Lockheed Martin MS2

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www.lockheedmartin.com/ms2/product_contacts

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PIRA # AKN200807001
HAA_0106.qxd

Short Lines

The Russians announced, “Congratulations to the flight crew of Leonid TUKHTYAEV! World’s Record in flight distance for



a non-rigid airship has been beaten twice! September 12-14th the largest Russian AU-30 airship has successfully performed the record flight across Kirzhach (Moscow Region)-Borovichi (Nizhny-Novgorod Region) – Manushkino (Saint-Petersburg) – Kirzhach covering about 1,300 km in total. During the flight the non-rigid airship world’s flight distance record has been beaten twice. This unique achievement celebrates Russia’s lighter-than-air engineering 100th anniversary.” Ω

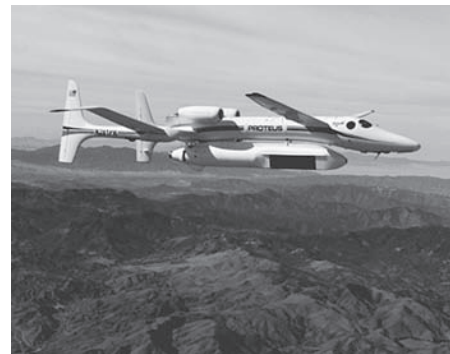
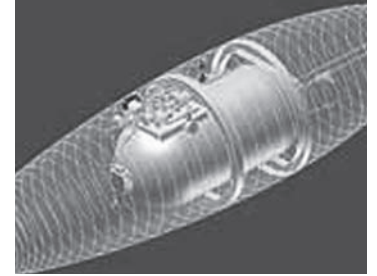
On Tuesday 30 September 2008, the German Aerospace Center (Deutsches Zentrum für Luft- und Raumfahrt; DLR) presented the world’s first self-launching piloted aircraft with fuel cell propulsion at Stuttgart Airport, in the presence of Prime Minister Günther H. Oettinger of Baden-Württemberg. The Antares DLR-H2 flying test bed was developed by the DLR



Institute of Technical Thermodynamics (DLR-Institut für Technische Thermodynamik) together with Lange Aviation GmbH. The aircraft’s maiden flight will take place powered by energy from its own

on-board fuel cell system. “With the Antares DLR-H2, DLR and Lange Aviation have created a technology platform that will significantly advance the use of fuel cells in aviation”, said Professor Dr. Joachim Szodrich, the DLR Executive Board member responsible for aeronautics, underlining the importance of this research project. DLR’s research is aimed at the deployment of fuel cells as reliable on-board power supply for civil aviation. “In this context, the fuel cell is an important alternative for the energy delivery systems used at the moment”, said Professor Dr. Hans Müller-Steinhagen, head of the DLR Institute of Technical Thermodynamics. The fuel cell combines high efficiency with low pollutant emission, safe aircraft operation and increased passenger comfort. “The advantages of using fuel cells in aviation lie in the fact that they generate electricity with a high level of efficiency and low emission levels”, explains Professor Dr. Josef Kallo, project manager at the DLR Institute of Technical Thermodynamics. “The basic process taking place inside a fuel cell, the electrochemical oxidation of hydrogen, proceeds

without generating noise and vibrations - this makes them even more useful.” A special feature of fuel cell systems for use in aviation is their multifunctionality: In addition to generating energy, fuel cells also yield other products and advantages that can be put to use in the aircraft, such as the water that is produced in the electrochemical reaction. This makes it possible to carry substantially less water on board at takeoff. The exhaust air, which is very low on oxygen when it leaves the fuel cell, is also used in an innovative way. It is ideally suited to reduce the flammability of the kerosene-air mixture in the tank, thereby enhancing the aircraft’s operational safety. Ω



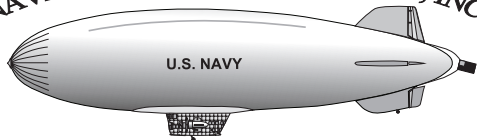
A Proteus aircraft flies over Southern California Sept. 30 carrying the Global Hawk variant of the new, Multi-Platform Radar Technology Insertion Program radar. (U.S. Air Force photo)

By Chuck Paone ESC Public Affairs HANSCOM AFB, Mass. “The path to greatly enhanced intelligence, surveillance and reconnaissance capability became clearer Sept. 30, 2008, with the first developmental test flight of a new, state-of-the-art radar system. The radar system being tested is the Global Hawk variant of its Multi-Platform Radar Technology Insertion Program, often referred to simply as MP-RTIP. The team is conducting the tests aboard a Proteus, a manned, twin-turboprop, high-altitude, multi-mission aircraft about the same size as a Global Hawk... the aircraft climbed to 22,000 feet and orbited at that altitude while radar system checks were conducted.” Ω

Airships need? Posted on Nov 25, 2008:

Shipping lanes off the Horn of Africa have been disrupted by a surge in piracy. Somali pirates have hijacked a Yemeni cargo ship, reported to be the 39th successful hijacking by pirates off the Horn of Africa this year. Such hijackings have become a common occurrence off the coast of Somalia. Ship owners have called on the U.N. to police the affected waters.

Head of the East African Seafarers’ Association, Andrew Mwangura said the MV Amani was taken in the Gulf of Aden. News of its capture comes 10 days after the giant Saudi super-tanker, the Sirius Star, was hijacked with \$100m of oil and 25 crew members. Ω



**Itinerary for 2009 NAA Reunion in Pensacola, FL
4, 5, 6, May 2009**

Monday - 4 May 2009 - Arrival Day

1200-1800 Registration, Small Stores, Hospitality Room, Refreshments

1500-1630 Council Meeting

1700-2000 Welcome Aboard Reception

1700-2000 Cash Bar, Individual Dining Arrangements

Tuesday - 5 May 2009 - Blue Angels & Museum

0715 Assemble in Lobby

Transportation using personal vehicle or bus will be provided

0830-0930 Blue Angel Air Show

-- NOTICE -- BRING --

Cap or Hat • Sunglasses

Sun Block Lotion or Long Sleeves

Bottled Water • Visit Restroom

1000-1545 Tour Museum

1400 Business Meeting in Radford Lounge

Flight Line Tours - 1000, 1100, 1300, 1400

Museum Tours- 1000, 1100, 1300, 1400

Imax Movies - You must purchase ticket at museum

Cubi Bar available for lunch

**Wednesday - 6 May 2009 - Free Day to visit
Pensacola and Area Attractions**

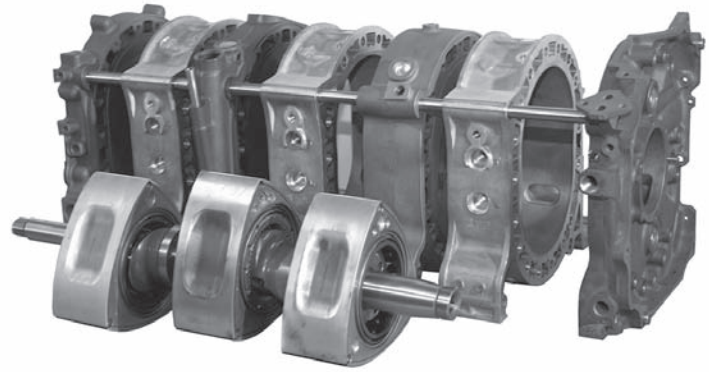
We will announce side trips to Biloxi, MS and Battleship Park at Mobile, AL

1830-1900 Banquet Cocktail Reception

1900 Banquet



Rotary technology provides MISTRAL engines with a set of advantages unique on the market: 90% less moving parts than its counterparts: high reliability and longevity, extremely low vulnerability to catastrophic failures; 3,000-hour TBO, excellent power-to-weight ratio and extreme compactness for



optimal cowling aerodynamics. Unchallenged power density for a non-turbine engine with turbine-like smoothness Multi-fuel, the MISTRAL works on most grades of gasoline whether leaded or unleaded, avgas or mogas, mixtures thereof, and can readily accept ethanol-blended fuels. Liquid-cooling allows faster warm-ups, eliminating thermal shock problems. Ω

Boeing Patents UAV That Can Fly For One Month New Scientist (11/26, Mullins) reported, “Aerospace giant Boeing wants to build uncrewed planes that can stay aloft for as long as a month, and a new patent application says powering them with hydrogen is the way to do it.” Ω

Ventura Aerospace has developed an anti-fire monitoring and flame-based extinguishing system for cargo hauler Federal Express. Concern over exotic material fires in cargo containers was prompted by recent fires with Class B lithium batteries. The fire-retardant foam is one of the few materials that work well with both lithium and sodium fires. (Sodium all but explodes when hit with CO² and lithium will burn even when flooded with nitrogen.) The system monitors cargo container temperatures. When a given heat is reached, a hole is punched and the long-lasting foam is injected. The system is being deployed as you read this. Ω

A next generation pilotless airship has taken to the skies for the first time - in a hangar! The GA22, a 22-metre-long airship developed by Swedish balloonist Per Lindstrand, uses technology created by experts at defense giant BAE Systems’ based in Warton, near Preston. Richard Williams, director of Civil Autonomous Systems at BAE, said: “Although significantly smaller than the majority of its competitors, the GA22 can deliver the same level of performance. “It is easily transportable and does not need an airfield or runway to operate from. It only needs three ground operators to manage the airship and the required skill level of the flight operator and the cost of flying it is lower than an equivalent conventional aircraft.” He said that the GA22 was “ideally positioned” to open up a range of potential new markets for the company. The next stage of its development is to use BAE’s technologies to make the airship pilotless. Ω



LAKEHURST LTA HANGAR #5 & 6

CROSS SECTION
 TYPICAL WOODEN
 ARCH & BEAM CONSTRUCTION

exterior
 length 1,086
 width 297
 height 183

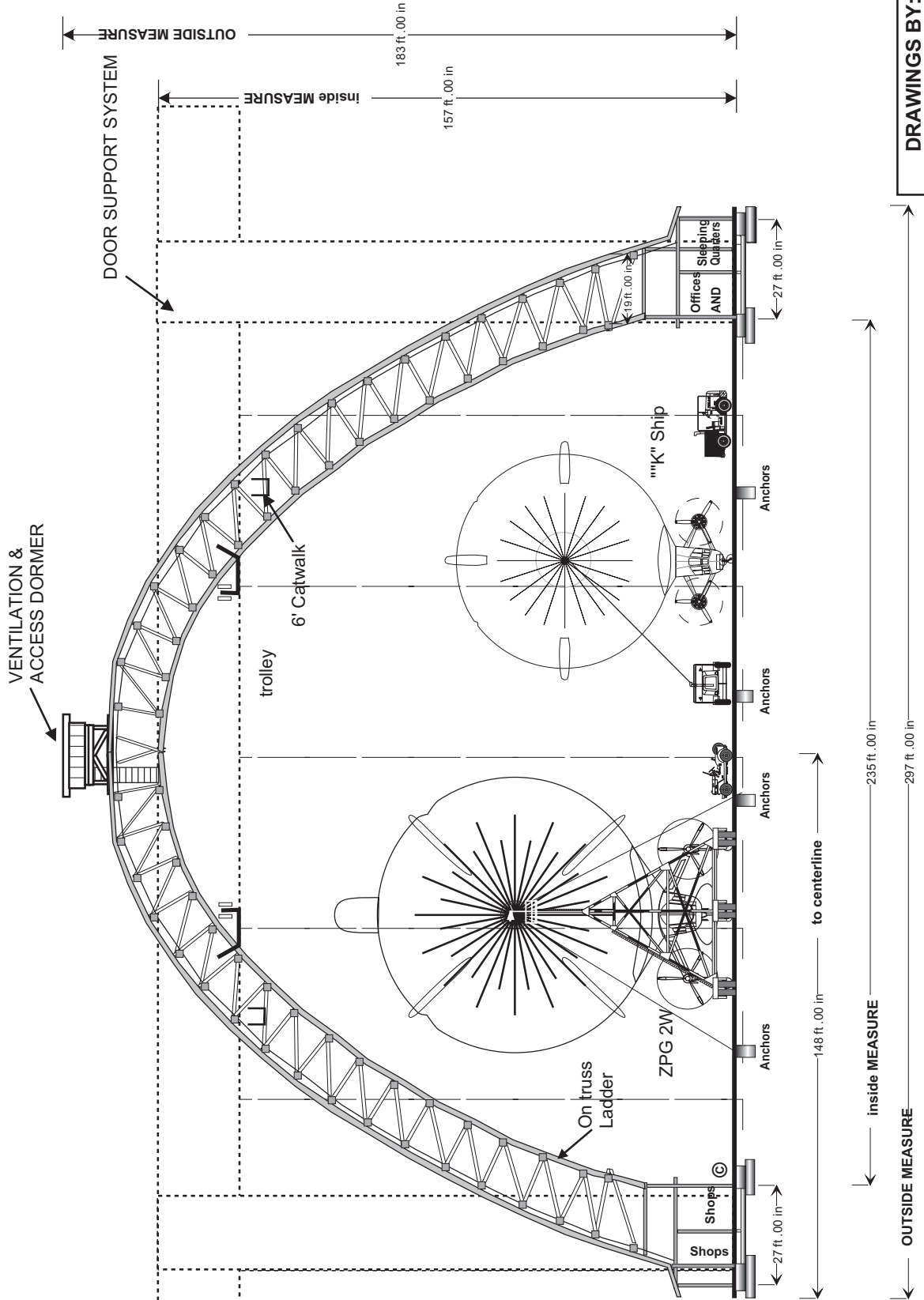
interior
 length 1,026
 width 235
 height 157

clear door
 height 120
 width 220

hangar area
 241,110 sqft



LAKEHURST LTA HANGAR #5 & 6

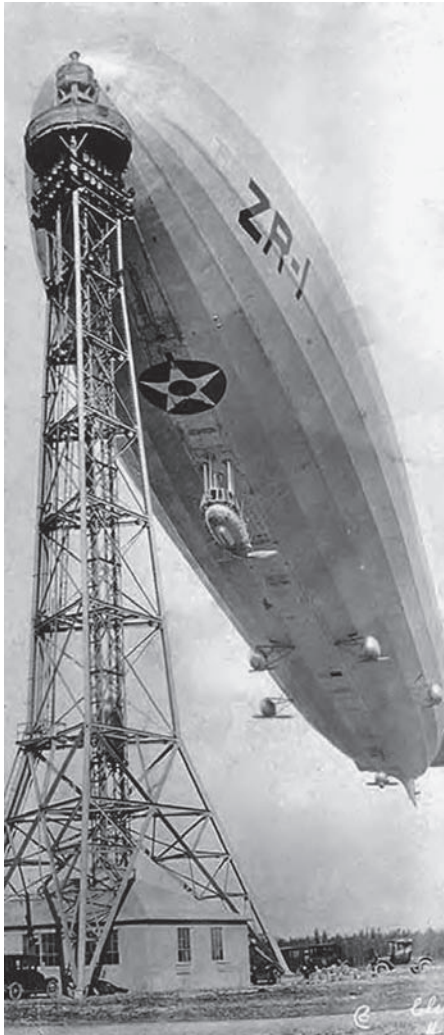


DRAWINGS BY:
BO WATWOOD ©1991

SCALE: 1' = 40'

HISTORY COMMITTEE

USS *Shenandoah* “Breakaway Flight” January 1924



(Left)

USS *Shenandoah* (ZR-1) on the NAS Lakehurst “High Mast” prior to the January 16, 1924, incident.

(Inside Cover)

The 160-foot NAS Lakehurst High Mast was considered “state of the art” rigid airship mooring technology and featured high-speed mooring/yaw winches as well as helium, fuel and water lines to the masthead and an electric elevator to the operating platform. Tower was last used by the *LOS ANGELES* in 1930, dismantled in 1934-35. Some concrete “snatch blocks” tower footings and “pit area” remain on site today. Note the “outhouse” in the foreground, later replaced when the mast house was enlarged in 1926.

Rigid Airship USS *SHENANDOAH* (ZR-1) was a storied ship of many adventures in her two years of existence. A new concept and “learning experience” for US Navy LTA, the *SHENANDOAH* and her crew had so many “firsts” and so many “God, how’d we ever do that but it sure was great” experiences that the airship almost seemed to lead a “charmed life.” At their unique time and place in which they were regarded as THE ELITE OF NAVAL AVIATION, the crew even began using the term “Shenandoah Luck” with a nod and a wink amongst themselves when something good took place, on or off duty.

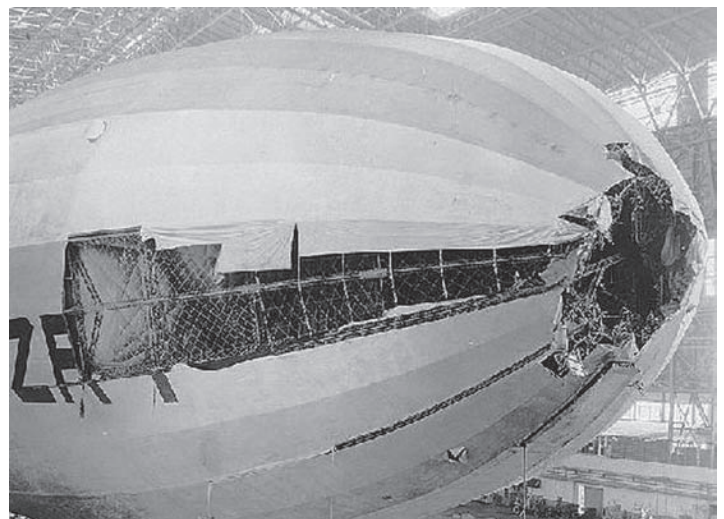
Eighty-five years ago, on the night of January 16, 1924, *SHENANDOAH* (ZR-1) survived one of the CLOSEST CALLS of any airship in history when she was torn from the 160-foot-tall Lakehurst “High Mast” while riding out a gale amid “mooring out” tests for a proposed extended mission to the North Pole.

The bow was ripped open, two forward gas cells were destroyed and most of the fabric covering was torn from the big upper fin. The loss of the two gas cells represented about 5,000 lbs. of lift, somewhat offset by the fact that a good deal of the heavy bow mooring gear and reinforced nose section was torn off at the outset, but winds pounding thru the gaping hole in the nose could pose dire threat to the remaining cells, which were only made of light cotton fabric lined with cattle gut. Concurrently, with most of the fabric missing from the (largest) upper fin, the ship’s stability and steering capabilities were severely compromised. The “Mast

Watch” skeleton crew including 20 officers, enlisted men, Army Air Service LTA students and German Zeppelin Test Pilot/Flight Instructor Anton Heinen rose to the occasion. Heinen, who had trained under Hugo Eckener (and later fell out of favor with him, which is why he was now in America) had the immediate and undoubtedly correct instinct to RUN WITH THE STORM (the old German training syllabus stressing DON’T FIGHT GUSTS, RIDE THEM!) Had Heinen not been aboard, it is doubtful the *SHENANDOAH* would have survived that night.

Many casual (as well as serious) observers of the rigid airship era imagine the ships as stately leviathans of the air in serene, stable flight. In fact, when the elements got hold of a rigid airship, particularly in the case of a damaged airship in a severe gale, it was anything but serene. The picture that emerges from reports of the *SHENANDOAH* incident is one of desperate men sweating through their fur-lined winter flight suits, wrestling with sluggish rudder/elevator controls trying to “go easy” and maintain a “feel” on control surfaces linked by chain/sprocket and cables running along hundreds of feet of pulleys/sheaves while riggers and engineers tended the roaring Packard motors in bouncing power cars and ran along wind-swept, teetering catwalks trying to dump ballast and spare parts to trim the ship while the gas cells cupped and flapped overhead. In what was left of the nose section, a couple of men were trying to pull the remains of Gas Cell #19 into some semblance of a temporary emergency “bulkhead” to protect the fragile (but still holding) Cell #18 and the interior of the ship from dangerous wind gusts. For the first two hours of the adventure, the radio operator was frantically going thru his parts and spares in the swaying, bouncing radio cabin, trying to reassemble his radio transmitter as it had been partially dismantled at the time the ship tore from the mast and several pieces, along with his tool kit, had flown out the window in the initial mayhem, with officers continually sticking their head in from the forward gondola asking “Anything YET???” And (for good measure) Student Aviator LT. Earl Kincaid and German flight instructor Heinen had a HUGE BLOWOUT which ended up making the “front pages” and even ended up bringing some questions from Congress as to WHO was really running the show in this high-profile program.

As the storm abated, the *SHENANDOAH*’s crew slowly got on top of the situation. The wind died down, though for a time looked like it might blow the ship out to sea past Long Island. Radio communication was established with Lakehurst, the hangar and mooring mast were brightly lit and some 300 officers, sailors and Marines on the base were on stand-by ready to form up a landing crew on arrival. With four of her six engines running at half





The crew that “rode the storm.” Heinen is in the back row in civilian dress. Student Aviator LT Kincaid is to Heinen’s left. To Heinen’s right, back row center, is Lieutenant Commander Maurice Pierce, who would serve in LTA thru World War II. In the front row, Spratley (second from left) and Broome (fourth from left) would both be killed in the wreck of the *SHENANDOAH* on September 3, 1925 while Bettio (third from left) would be lost with the J-3 searching for *AKRON* survivors on April 4, 1933.

power, the battered *SHENANDOAH* made her way homeward at low altitude through the dark night, eyewitnesses on the ground mesmerized by the buzzing of her engines and clearly visible figures of men moving about in the dimly-lit gondolas.

The weary airship made a smooth descent in remarkably good trim into the welcoming hands of the ground crew about 2:30 am and was secured in the hangar a half hour later. The exhausted flight crew staggered to their quarters (one Army student aviator was originally thought MISSING because he got off the airship the moment she touched down and bee-lined for his warm barracks, dispensing with any post-flight debriefing formalities!)

The next morning, throngs of photographers and reporters descended on the Naval Air Station to chronicle the details of the great event. Being that the fledgling rigid airship program was a very high-profile “hot potato” and though the *SHENANDOAH* demonstrated impressive durability in this incident, there was some political fallout because the event highlighted friction between various officers and men in the crew, as well as civilians and administrators at the Air Station and even in the Bureau of Aeronautics. The most notable and controversial event was the vocal “creative differences” between test/instructor pilot Heinen and student naval aviator LT Kincaid. (It might have blown over had Kincaid taken the “high road” and been smart enough to keep his mouth shut, instead, he aired a lot of dirty laundry, including the “sweetheart deal” whereby Heinen was being paid \$500 a week to serve as a flight instructor.)

With the North Pole project still under consideration and Lakehurst personnel problems being discussed in the press (and even at congressional hearings) Admiral Moffett at BuAer felt obliged to do some serious house cleaning. In February 1924 there was a bitter, acrimonious “personnel shuffle” at Lakehurst and many men were re-assigned when Lieutenant Commander Zach Lansdowne came up from Washington to take over. (This did not sit well with Lansdowne’s Annapolis classmate, Commander Ralph Weyerbacher, who had built the *SHENANDOAH*, and who

was pretty much “running things” at Lakehurst up to this time. He was sent off to be chief engineer of the naval aircraft factory in Philadelphia. Commander Frank McCrary, who had been Commanding Officer since the *SHENANDOAH*’s commissioning, was transferred to submarine tender *CANOPUS* at Mare Island, telling reporters he was fed up with the politics at Lakehurst and “tickled to death” to be getting relieved. His executive officer, Commander Jacob Klein, made a lateral move and became Commanding Officer of NAS Lakehurst, despite his own ambitions to command the *SHENANDOAH*, which would later lead to another round of gruesome personal politics in LTA-land. Earl Kincaid had his student aviator’s license revoked. Heinen, whose excellent shiphandling had undoubtedly saved the damaged airship that night, had been stepping on toes for months and he was subsequently shunted aside and his contract was not renewed when it expired on July 1, 1924. Another officer, having been involved in an arrest for a suspicious fatal auto accident in Manhattan a month before, had performed admirably during the “Breakaway Flight” but with the spotlight coming down on the LTA program he was judged to be a “bad risk” and ended up being transferred as well.)

Repairs took the better part of four months. The dollar amounts seem almost quaint today with the total bill coming to about \$78,000, some \$50,000 of which went to replace lost helium.

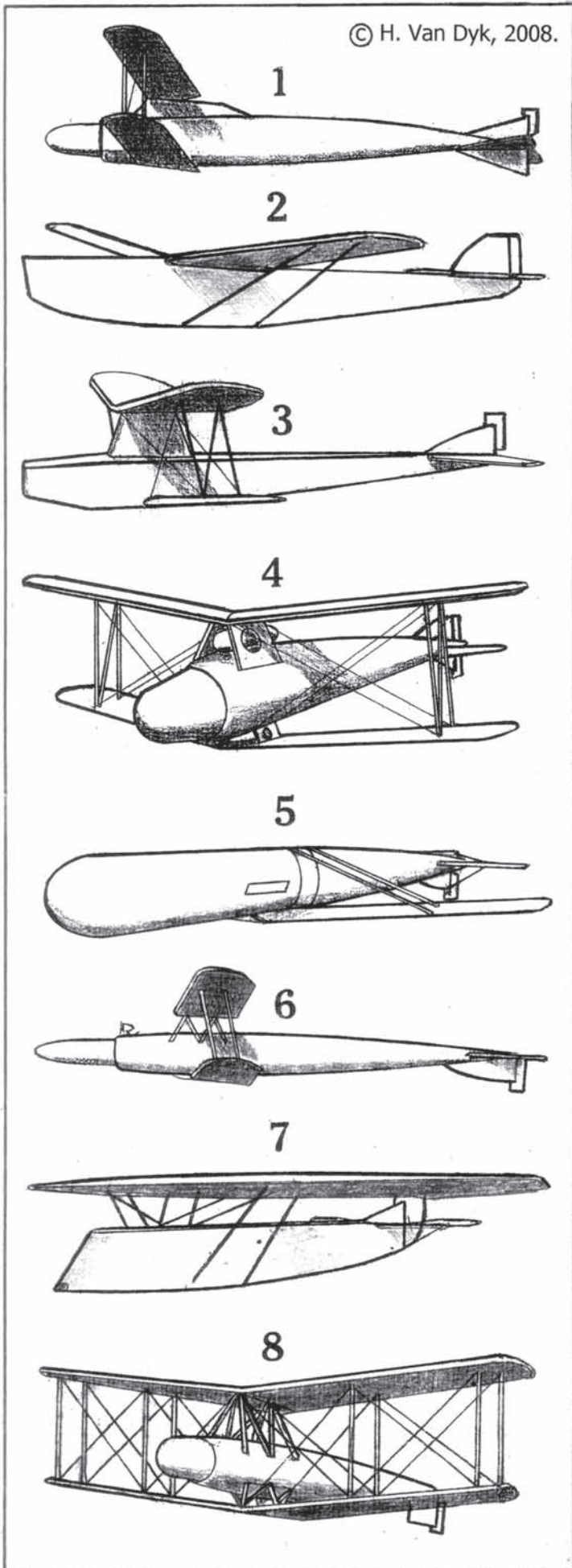
On May 22, 1924, the *SHENANDOAH* was once more airborne. Nine days later, she would be centerpiece of a Decoration Day “Air Carnival” in which over 50,000 people converged on Lakehurst to see America’s “wonder of the air.” *SHENANDOAH* was basically front-page news from then on; her exhaustive training flights up and down the coast, her triumphant mooring at sea to the fleet oiler *PATOKA*, a 9,000-mile flight across the United States and back, always on the front pages.

The *SHENANDOAH* would be a great symbol of triumph and achievement, then later a great symbol of terrible tragedy. But on January 16, 1924, *SHENANDOAH* was epitomized LUCK. Ω

-Rick Zitarosa

Stand-off Weapons for Zeppelins by Herman Van Dyk

© H. Van Dyk, 2008.



Not long after the introduction of observation balloons in the 2nd half of the 19th century, observers longed for some means of attacking their enemy, whom they could clearly observe, far in the distance and hundreds of feet below them. One of the first scientists who actively worked on this idea was the German scientist Werner von Siemens, the founder of the company that, up to now, still bears his last name. In 1870 he began to design an electric wire guidance system for small boats, with the intention to use it later for torpedoes. The first practical experiments took place in 1872. Wilhelm Von Siemens, a son of the founder, continued experiments with the objective to develop a glider that could be launched from a balloon or airship and guided to an enemy target.

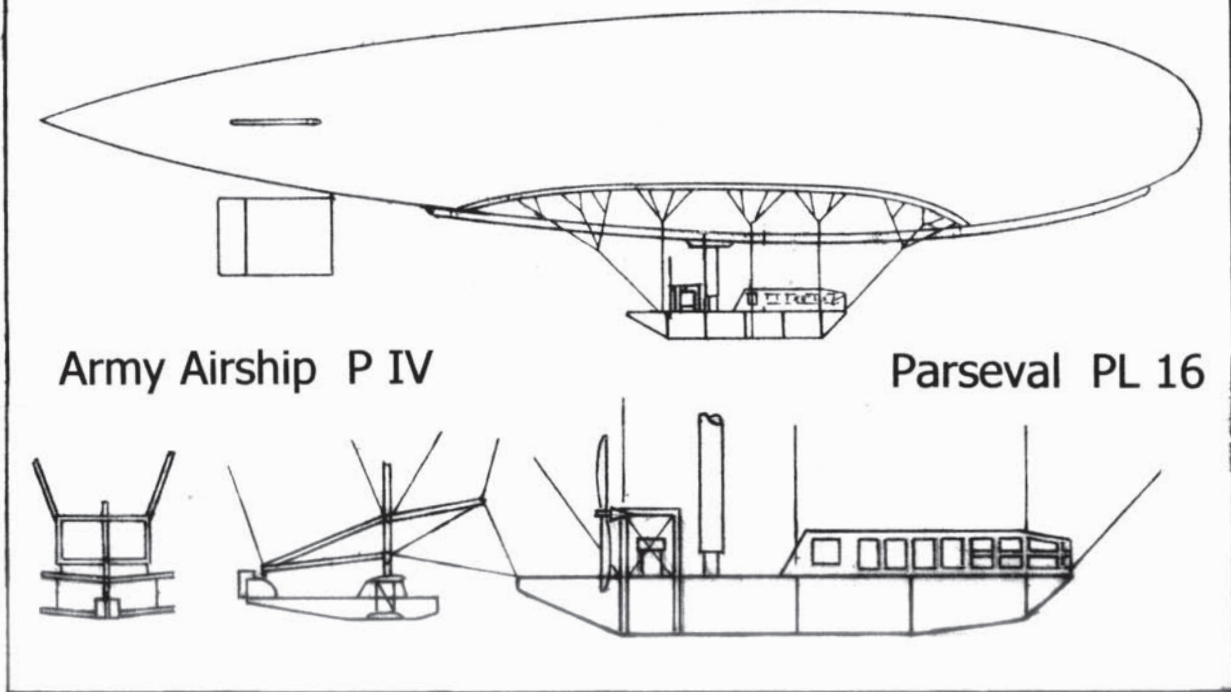
Technical difficulties brought the activities to a halt in 1911, only to be re-activated after the outbreak of WWI in 1914.

Siemens wanted to broaden the scope of their activities to evolve into the new technology of aircraft, both, LTA and HTA, thus joining the Schuckert Company to form the Siemens-Schuckert Aircraft Company.

In 1910, they had the world's first rotary airship shed built in Biesdorf near Karlshorst, Berlin. A well-known scientist, Hans Dietzius was hired and given the task to develop unmanned guided missiles capable of carrying an explosive charge to an enemy target. He was soon joined by his brother Steffen, as well as: Prof. Reichel; Dr. Franke; F. Dornier and others.

Preliminary tests merely served to establish the aerodynamic stability of different models. The first successful flight was made on January 9, 1915. The model was launched from the roof of the airship shed at Biesdorf and had a height of 82 ft (25 m). The model had a span of 5 ft (1.5 m). Its weight could be varied between 92 and 150 lb (42-68 kg). Further experiments were carried out by launching the gliders by means of a catapult, built on top of the roof of the shed. The next step was to drop the gliders from captive balloons. Launched from an altitude of 1 ft (500 m), several models, successfully, made guided flights up to a distance of 10.000 ft (3000 m). Most of the early type of gliders had a monoplane configuration, but, with steadily increasing weights it became more advantageous to go over to biplanes. By the end of 1915, the 10th Airship Troop of the Prussian Army Airship Battalion, based at Biesdorf, was ordered to assist Siemens with the program and make their airship P IV (Parseval PL 16) and Parseval PL 25 available as a launching platform. They were used until early 1917, when the rigid airships Z-XII (Zeppelin LZ 26) and L 25 (Zeppelin LZ 58) became available. Both had to be taken out of service because of their age, early in 1918. They, in turn, were replaced by L 35 (Zeppelin LZ 80) which was based in Jueterbog, until it also had to be taken out of service and scrapped in October 1918.

© H. Van Dyk, 2008.



Suspending a glider below the keel of a rigid airship was a relatively simple matter. However the non-rigid Parseval airships required a special metal frame, attached to the hull, to prevent the glider from flying into the rigging or propeller of the mother-ship after its release. The steering mechanism of the gliders consisted of a battery; a continuous running servo motor; electro magnetic couplings connected to the rudder and elevator controls and a coil of wire. This coil was held in a small container attached to the top of the fuselage. Two operators were required to control the missile after its release; one for directional control and one for altitude. After release of the glider, the airship could not yet reverse its direction, but had to fly in such a pattern so that the operators could keep the glider in the center of the direct line of sight between themselves and the target.

To improve visibility, the missiles could be equipped with a flare that, for safety reasons, would ignite a minute after launch from the hydrogen-filled airship.

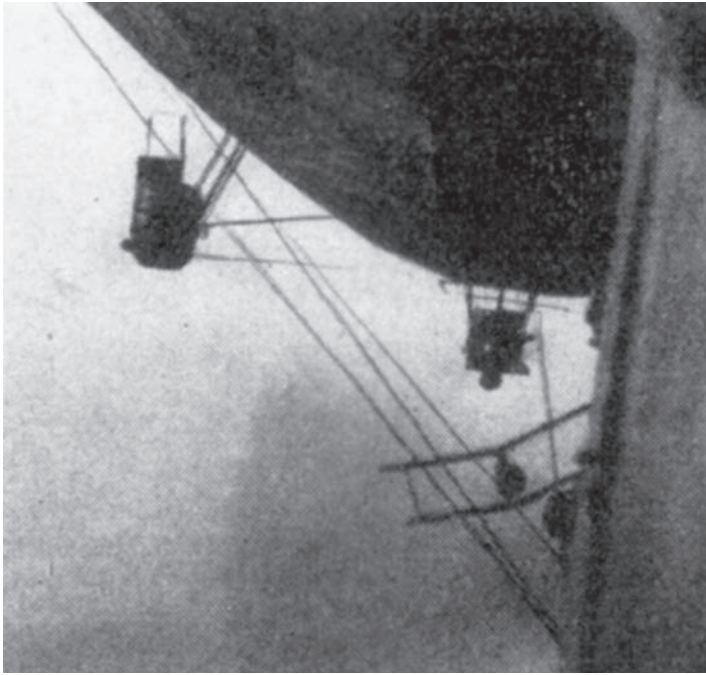
Despite many failures, progress was steady. The size and the weight of the missiles was gradually increased from 92 lbs (42 kg) to 2,200 lbs (1000 kg); the wing span from 3.6 ft (1.1 m) to 16 ft (5 m) and the length of the wire to 5 miles (8 km). The very last missile launched had a weight of 2,200 lbs and was released on August 2, 1918, from the Zeppelin L 35 at an altitude of 5,000 ft (1500 m). It narrowly overflew its target after a flight of 4 min. 20 sec., covering a distance of 5 miles (7.5 km).

Early 1917 it was realized that, if the gliders could be designed to carry a torpedo, it could become a very serious threat to enemy shipping, including submarines. The German navy had discovered, under the right conditions, submerged submarines could be observed from airships.

Several different torpedo carriers were designed and successfully tested. The fuselage consisted of two half shells that were hinged at the top and held together by a pawl at the bottom. Attached to this pawl, by a short length of wire, was a weight. When the weight touched the water, it pulled the pawl free; the fuselage halves, with their attached wings, folded to the top and released the torpedo which continued its course to the target.

The front part of the torpedo was not enclosed by the fuselage but protruded. In 1917 it became clear that airships could no longer be utilized in an offensive role. Plans were made to arm the new, multiple engine, giant bombers with the guided weapons. However, limited vertical space between the fuselage of the airplane and the ground posed a serious problem.

Besides Siemens, there were other companies that were active in the field of wire-guiding or wireless-guiding explosive carrying missiles, such as: the Radio Technical Research Company in Doberitz; the Junkers Aircraft Company; the Wireless Electric Company and the Mercur Aircraft Company in Berlin. The Mannesmann-Mulag company in Cologne, working under the direction of a Swede, V. Forsman, had been granted a patent for a guided torpedo, and the Air Torpedo Company in Berlin, founded by Max Schueler, had a patent for a wire guidance system. Despite its name, work on any air torpedoes was never performed. Anthony Fokker was requested by the German Kriegsmarine (Navy) to submit proposals for a guided bomb or torpedo. Fokker was aware of the space problem below airplanes and the ground, and therefore suggested to tow the missile behind the airplane rather than carry it. A piloted prototype was designed by R. Platz, the V-30.



The Armistice on November 11, 1918, prevented any test flights. Shortly thereafter, Fokker bribed some officials and thus was able to transport all airplanes, engines, machinery and tools from his factory and airfield, by train and smuggled everything across the border into his native Holland, including the V-30.

This glider really was a modified Fokker D-8 fighter. The engine was removed and the cockpit moved forward of the wing. In 1921, it was displayed at the Aeronautical Show in Paris and was advertised as a sport glider. When the French noticed a German cross under a fresh coat of paint, it caused a huge furor.

A total of more than 100 missiles were launched before hostilities ceased on Nov. 11, 1918, and brought all activities to a halt. Many different configurations were tested; not all of them are illustrated. Twenty years later, new clouds of war gathered on the horizon in Europe. Germany began to rearm and several companies started to develop newer versions of guided missiles based on the experiences gained during WW1. They included: Henschell; Ruhrstahl; Blohm & Voss and others. Blohm & Voss built and tested a flying torpedo with the same configuration as those tested in 1917 and 1918. The BV type L-11 consisted of a hinged fuselage, which opened up when touching the water and released the torpedo. However, WWII came to a close before it was fully developed. Ω

References:

- 1, Krueger, E., Missiles, 1959, No. 2
- 2, Lange, Bruno, Book of Aircraft Types, Mainz, 1970
- 3, Schneevogt, J., German Army Airships, No. 4
- 4, Schmalenbach, P., German Navy Airships, Herford, 1977
- 5, Trenkle, Fritz, Development of the Air Torpedo, Koblenz, 1987
- 6, Weyl, A.R., Fokker, The Man and the Aircraft, Letchworth, 1961

Ed. Note: During a recent trade show a winged version of an airborne ASW torpedo was shown, called the 'Long Shot' kit, appearing to finally perfect what the Zeppeliners tried over ninety years ago!

Reconition Contest

by Herman Van Dyk

Here is a chance to test your knowledge and win a prize to prove it. Shown on the ID.? page are silhouettes, approximately to scale, of twenty different airships which served anything from a minor part to a major role in the history of American LTA. They may have served in the US Army; the US Navy; private enterprise or just individuals. They range from the successful to the disastrous and they may have been constructed in the USA or in a foreign country.

Here is what to do:

On a sheet of paper write down the numbers 1 through 20 in a column. Then by each number write down your best guess to indentify the airship: proper name or manufacturer's type number, service designation, or anything that identifies the airship.

We'd of course like to have members of the NAA participate in this contest. Non-NAA members can participate by enclosing a check for \$25 USD made out to "NAA" - which will make you a member.

Write your name and address on the back of the paper and mail to:

Herman Van Dyk
7 Birchwood Ave.
Peabody, MA 01960-2015

All entries must be postmarked July 31, 2009.

Grand Prize: A signed copy of "Airships vs. Submarines". (a \$30 value)

Second Prize: Membership in NAA for the year 2010 for U.S. person of your choice. (\$25 value)

Third Prize: 2009 Airship Photo Calendar. (\$15 value)

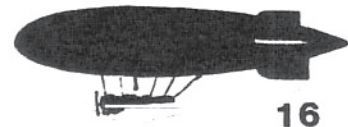
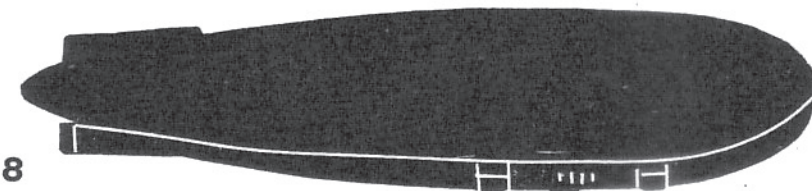
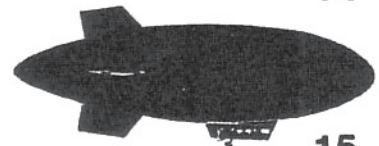
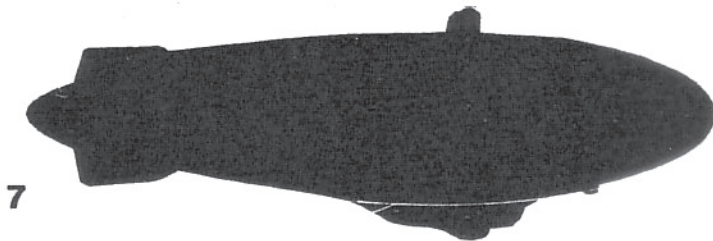
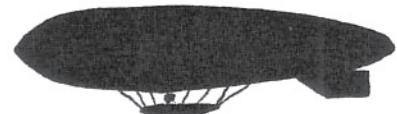
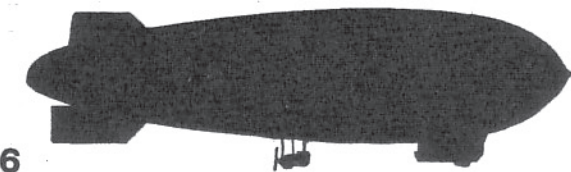
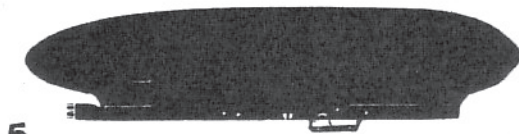
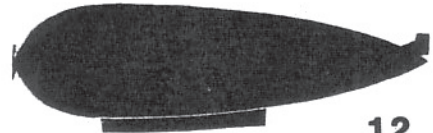
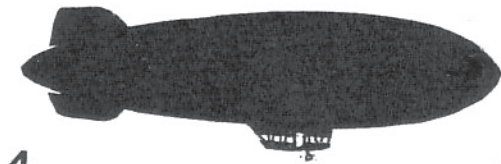
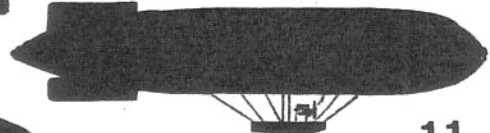
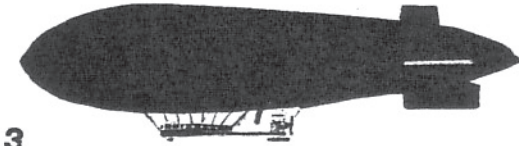
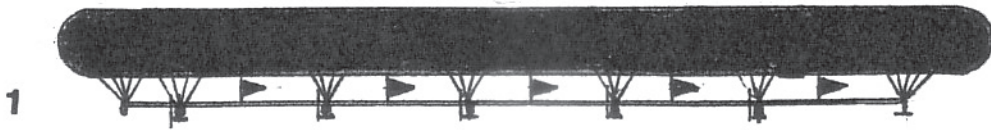
Since you're sending an entry in, take a moment to tell us what you like and dislike about NOON BALLOON: More today's tech, less history? More current events, less bookkeeping?

We greatly appreciate your input. Ω

Approx. 100 ft

ID. ?

© ,09, H. Van Dyk.



K-72 case: CAPT Jerry Mason e-mailed, "attached is the latest of my plots. I have firmed up the newspaper reports of the U-boat wreck discovered by USS *Sunbird* in conversation with author Jerome Priesler and hope to get some actual records from the folks at the *Scorpion* Yahoo group. I still haven't been able to get in touch with any *Sunbird* veterans but am still hopeful. I don't expect the records to have any position for the U-boat wreck, just confirmation that it was identified as such. If the U-boat wreck can be dived on and identified as U-857 or U-879 (which should be possible with help from my friend Axel Niestle) then you would have a very strong case that the K-72 attack was responsible for her loss. To get further we may have to get *Sunbird's* reports on the *Scorpion* search operation and/or her deck logs. I don't want to encourage you to spend money on this just yet. Let me work the problem some more and see what I can come up with." Ω



K-14 case: The menu mentioned in issue #80 had been reproduced in an earlier TNB and is seen again below. The surviving crewmen signed congratulatory messages to command pilot McDonnell. Chairman has been corresponding with K-74 radioman **John Rice**, responding: "I had sent a rough draft of how we are carrying the K-14 story in the book. I appreciate your comments and will send you the pages in a more final form shortly. Your belief in the Board of Inquiry as seeking the truth and nothing but the truth is probably not shared by a younger generation weaned on Bay of Pigs and Watergate. Sadly the justice system is no better than the less than perfect people who work it. Remember the top commander in that naval district is the same one who insisted the Eagle-56 was a "boiler explosion" vs. an attack by the submarine seen by the few survivors. The Admiral need only have exercised his authority to "prevent public panic" in the K-14 case as well. The War Department's PAO was called a "fountain of phony news" for good reason. Since command pilot McDonnell to his dying day said only "The Navy had good reason to do what it did" lends weight to the argument the crew, who'd signed the menu "only one to get a Bosch sub," etc, was told to dummy up when testifying. Add "National Security" to a few threats to family and you have a loyalty to the grave. PE-56 champion Paul Lawton insists someone of the blimp crew would have wanted to talk before they died. Since McDonnell's son no longer is active on the subject, we can't even verify the supposed deathbed revelation they knew they were shot down. We know of no communication with Doenitz or any other German (other than our own) in the K-14 case. The best indication of which U-boat was where any given day is in their KTB or daily log. Of course it shows U-107 already gone, U-233 inbound but too far away, and no boats in Bar Harbor for weeks until one discharged some agents there. However that is only as good as their information, which we have seen proven wrong three times with front boats; in the U-869 case they were off by more than 1,000 miles. Nor would "special ops" boats necessarily be listed.

4th of July 1944

TURKEY RICE SOUP		
SALTIMES		
ROAST TOM TURKEY		
GIBLET GRAVY		CRANBERRY SAUCE
SAGE DRESSING		
BUTTERED BIRDS EYE PEAS		POTATOES SOUFFLE
QUARTERED LETTUCE		RUSSIAN DRESSING
ASSORTED OLIVES		
ICE CREAM AND CAKES		
BREAD	BUTTER	COFFEE
	CIGARS	FRESH MILK
		CIGARETTES
		C. E. GUNTER, CCS (PA)
		U. S. Navy

The large problem with the K-14 verdict is the basic impossibility of any pilot being able to do anything that would account for the given evidence and the result. Many vets who want to believe the official story begrudgingly admit the command pilot, "captain of the ship," would always be blamed for "pilot error" regardless of who was at the controls. Yet no one can tell us what action any crewman performed to have holes develop in the bag aft, which lead to the tail collapse and subsequent rapid entry into the water with such force four men could not get out, not to mention two drowning separately. Ω

UNITED STATES NAVY SECTION BASE
BAR HARBOR, MAINE

ALEXANDER W. MOFFAT
Commander, USNR
Commanding Officer

A. H. SCHROEDER Lieut., USNR	P. G. BRAYTON Ensign, W-V (S), USNR
D. CAMERON Lt. Comdr. (MC), USNR	E. B. HONE Ensign, W-V (S), USNR
E. J. MULROY Lieut. (DC), USNR	M. J. LARKIN Ensign, W-V (S), USNR
J. V. SHUTE Ensign (SC), USNR	M. V. RAFTUS Ensign, W-V (S), USNR
J. E. GRAY Lieut., USNR	
J. W. SHYNE Lieut., USNR	
A. N. WHITING Lt. (jg), USNR	
C. L. N. ERDMAN Lt. (jg), USNR	

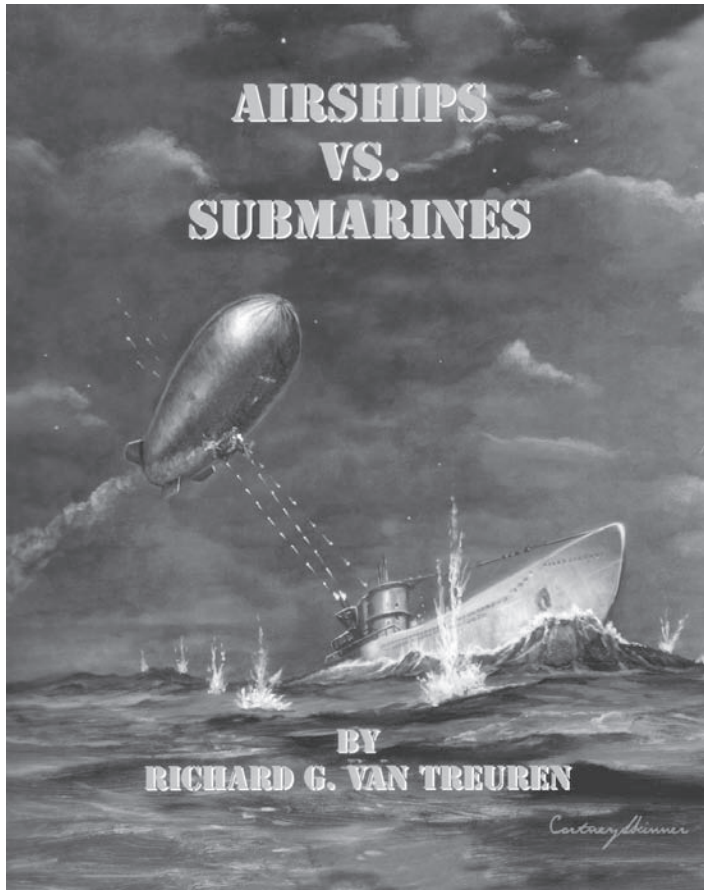
*Our first one
Buddy. It looks
like staying together
plays off. The outfield
dodger - miles -
the man on your right -*

*To the best skipper ever -
C. M. Johnson*

*congratulation Rd. (44) Mac Donald!
Wishing you the best of everything,
although you are the only one that I
wouldn't touch with a 10 foot pole.
v.o.c. by 7/12/44*

*First time at sea, Mac?
v.o.c. Sharp*

*Great luck
Winston -
Wynne
Wynne*



Book Review: Airships vs. Submarines

by Richard Van Treuren, 434 pages, color cover art by Cortney Skinner, B&W photos and diagrams, softbound. Copyright 2008. www.airshiphistory.com

Reviewed by **C.P. Hall**

In January 2009, I received an e-mail which included the following comments: “Looking back it seems to me that the non-rigid story of 1915-18 in the UK was a huge success. The Rigid story, apart from the double crossing of R34 and general performance of R33, achieved so very little despite its cost being so much greater. It seems to me that this is a fact which has very much been lost by history and the two efforts need to be put into better perspective.”

This coincidental observation certainly suggests both interest in the history of military, non-rigid, antisubmarine airships and the opinion that further history needs to be written. “Airships vs. Submarines” is the latest contribution toward fulfilling this need.

“Airships vs. Submarines” is a complex tome with several diverse sections and a few secondary agendas. The author is in agreement with the spirit of my previously cited correspondent’s comment feeling that history has shortchanged the record of American non-rigid, lighter-than-air, antisubmarine efforts. His first

two chapters are a review and critique of that history. There follows two more chapters chronologically citing the history of airship and submarine development primarily throughout the 19th century to 1914. The story continues through World War I and then the period of minute progress and minimal LTA development leading up to World War II. Two secondary agendas herein are the author’s advocacy of the advantages of hydrogen as a lifting medium and the double standard shown by the media in the ways that airplanes’ “crashes” were handled as compared to airships’ “disasters”.

The core of this volume is the struggle between U.S. Navy Blimps and Axis submarines during World War II. There are more anecdotes of engagements, with U.S. Navy records cross-referenced against German submarine records, than I have ever seen in one reference prior to this. There are insights regarding deployment of technical innovations, their usefulness, and their effects upon combat tactics. Having read this book, you will come away with a more rounded understanding of 20th century anti-submarine warfare.

There are a small number of factual errors primarily involving the details surrounding the sinking of ships. Every book contains a few of these and the search for them is an added amusement which comes at no extra charge.

History books fall into two categories: one type tells the author’s interpretation of the story, period. The second type tells the story but is also strewn with clues suggesting where else to look to find out more! “Airships vs. Submarines” definitely falls into the second category. It is a significant addition to our knowledge but it will not be the last book written about this topic. Ω

Herm Spahr e-mailed, “Just spoke to Beth Pursley, Press Relations for Airship Ventures. She advises that some NAA members will appear on “Good Morning America.” Among them are: **Donald Layton** and **Dick Rosenbloom.**” It was finally shown on the weekend. LZ-129 was mentioned. Also, several NAA members appeared on another *Hindenburg* documentary screened on the Weather Channel for an entire week. As has been the case with most of this ilk, most anything positive our members might have said was left on the digital equivalent of the cutting room floor in the never-ending “Oh the humanity” lament. Royalty-free film of the “disaster” insures TV producers will milk this cash cow forever and have no trouble finding people who “heard gas leaking” or “saw fabric flapping.” Too bad there is no paycheck in noting just thirteen passengers did not make it in the entire history of the airline, and those because they jumped out before their airship landed. Ω

TNB 80's cover photo arrived as the interior was on the press, so here are some excerpts from the extensive media coverage given the first Zeppelin to arrive in California in some 80 years:

-Airship Ventures' Zeppelin to be Officially Dedicated at Moffett Field Diamond Jubilee Celebration

WHAT: The largest airship in the world, the Airship Ventures' Zeppelin will be officially dedicated and named in a historic open-to-the-public event, staged in conjunction with the 75th anniversary of Moffett Field - featuring a host of dignitaries from around the world, on

WHEN: Friday, November 21 (Event will be held rain or shine)

•10:00 am - Airship Ventures' Zeppelin lands at Moffett Field/public viewing begins in viewing area/free exhibits & entertainment

•11:00-11:30 am - Official program on ceremony stage featuring comments by NASA Ames Research Center Director, S. Pete Worden, Airship Ventures Founders Brian & Alex Hall, and special dignitaries • 11:30 - Airship officially dedicated with champagne salute • 12:00-2:00 pm - V.I.P and Press flights aboard the Zeppelin

WHERE: Moffett Field/NASA Ames Research Center Mountain View, California

Attending dignitaries slated to take part in this historic event include: Col. William Moffett III, grandson of Admiral William Moffett; Wolfgang von Zeppelin, great-great-grandnephew of Count Von Zeppelin; Thomas Brandt, CEO Zeppelin Luftschifftechnik; Josef Büchelmeier, Mayor of Friedrichshafen, Germany; and representatives from Nippon Airship Corporation/Japan. Also attending will be honorary dignitaries with connections to WWII airship operations, including former pilots and NASA historians. Manufactured in Germany by Zeppelin Luftschifftechnik GmbH, the Airship Ventures' Zeppelin is the world's largest airship, and one of only three Zeppelins currently flying anywhere in the world (others in Germany and Japan). At 246 feet in length, the airship is 15 feet longer than a Boeing 747, and 50 feet longer than the largest blimp in the U.S. From its new home base at Moffett Field, utilizing historic Hangar 2, Airship Ventures' is one of the newest partners in the NASA Research Park. Moffett Field helped give birth to the country's lighter-than-air program when it was commissioned in 1933. 75 years later, as NASA also celebrates its 50th anniversary, NASA and Moffett Field are helping to give rise to a new era in airship flight. Airship Ventures offers the only passenger airship flight service in the U.S., with flights from Moffett Field, Oakland International and Sonoma County Airport. For information and to purchase tickets visit: www.airshipventures.com or call 650-969-8100.

SAN FRANCISCO, California (AP) -- Zeppelins, the giant floating airships used to carry passengers and drop bombs until the 1930s, hasn't been seen in American skies for more than 70 years. Now, a California company is bringing the iconic aircraft back to the United States, with plans to offer aerial tours of the San Francisco Bay area in a newly built zeppelin. It's one of just three in the world; the others are in Germany and Japan.

Airship Ventures' Inc.'s zeppelin arrived in the Bay Area on Saturday, passing over the Golden Gate Bridge en route to its new home at Moffett Field, a former naval air station in Mountain View, about 40 miles south of San Francisco. Fifteen feet longer than a Boeing 747, the 246-foot-long Zeppelin NT (New Technology) was built in Hamburg, Germany, and transported by container ship to Beaumont, Texas, before a cross-country flight to California. Though they may look like blimps, zeppelins have rigid internal frames that are covered with a canvas hull.

Starting Friday, Airship Ventures will offer rides that provide a bird's-eye view of Napa and Sonoma wine country, the Big Sur coastline, San Francisco and other parts of the Bay Area. The cabin

holds 12 passengers and two crew members, and tickets start at \$495 per person for a one-hour ride.

"It's a way to see the world in a way that you haven't experienced it before," said Brian Hall, a software entrepreneur who started the company last year with his wife, Alexandra. "In a zeppelin, you're flying low and slow. You're going at a leisurely pace. You're seeing things that you wouldn't see from the road."

Invented by Ferdinand von Zeppelin of Germany in the late 19th century, zeppelins were used for commercial passenger transport and military operations until the start of World War II.

The zeppelin's golden age ended in 1937 when the LZ-129 *Hindenburg*, the largest airship ever built, caught fire and burst into flames in front of thousands of spectators in Lakehurst, New Jersey, killing 35 of 97 people on board.

A German company, Zeppelin Luftschifftechnik, began building a zeppelin about a decade ago and has been offering passenger rides since 2001. Although the *Hindenburg* was fueled by flammable hydrogen, *[sic]* the modern version is kept aloft by nonflammable helium. They have carried more than 80,000 passengers without a safety incident, Hall said. The Halls came up with the business plan for Airship Ventures about two years ago after Brian, 43, took his first zeppelin ride in Cologne, Germany.

The German company agreed to build another zeppelin so that Airship Ventures could start offering rides from its base at Moffett Field, which has three of the country's 13 remaining airship hangars.

Airship Ventures has ordered two more zeppelins, which take about 18 months to build, and plan to offer tours on the East Coast, most likely from New York and Florida, starting in 2010. Despite the slumping economy, the company hopes to sell about 15,000 tickets a year in the Bay Area, aiming to attract passengers for special occasions such as birthdays, anniversaries and even marriage proposals.

Majestic airship lands at Moffett Field

By Sean Webby, Mercury News

Article Launched: 10/26/2008

For the first time in 71 years, a rigid airship was coursing American skies, floating up this time from Salinas like a majestic, singular cloud. It passed over ocean whales, children playing Saturday soccer games and literally bowed to a gawking crowd on the Golden Gate Bridge. Then, in the afternoon, it languidly touched down at one of its new local terminals — the tarmac of Moffett Field in Mountain View." Grins. Handshakes. Champagne. Pilot Kate Broad celebrated by firing up a cigarette.

It had all gone — to put it mildly — a heck of lot smoother than the last time a zeppelin had come to the U.S. from Germany. That was 1937 with the airship *Hindenburg*, which caught fire and exploded *[sic]* as it landed in New Jersey after a transatlantic flight.

On Saturday it was the 246-foot-long Airship Ventures' Zeppelin NT, the world's largest, making its maiden Bay area voyage. And this was also the launching of a brazen business plan of a Silicon Valley couple who hope to turn the dirigible into a \$500-a-spin tourist attraction with potential for airborne scientific experiments (and a huge white surface for advertisements). Brian and Alexandra Hall were hoping the Northern California voyage would get people talking and lining up for rides in the quiet, posh 12-seat gondola. And that idea seemed to be working well Saturday, the Halls said, with e-mailed reservations coming in as the great white ship sailed over the Peninsula at 1,200 feet. A crowd had gathered in a nearby parking lot to watch. Priscilla and Gordon Carl, of Pleasant Hill, breathlessly snapped telephoto shots and planned their first trip.

"Amazing, it hovered so gracefully when it came down," said Priscilla Carl. "I think riding in it would be a once-in-a-lifetime thing." Afterward, the Halls walked around their new airship as it

gently shifted on its tether with the wind. Proudly they poked its sides and made jokes about its “belly button” like it was very large, docile baby. “It’s like flying a yacht in 3D,” said Brian Hall, who first thought of the idea after flying in one over a World Cup soccer match in Cologne. For the founder and CEO of Mark/Space, a Los Gatos software company, modern zeppelins played into many of his interests — high technology, history and aeronautics.

They are hoping they can recreate at least part of the success that similar zeppelin ride companies have in the Alps and Tokyo.

Alexandra Hall — the former executive director and CEO of Chabot Space & Science Center in Oakland — talked about the airship’s potential to fly about 150 times a year — riding the gentle, thermals that so regularly surround the Bay area. Only grounding during rain and windy conditions, they will launch the ship from Moffett and airports in Oakland and the Wine Country.

But it was as one of Saturday’s passengers that had her waxing poetic, describes the V of the bird formations underneath them and the way that the jets of the agricultural water sprinklers looked like giant feathers.

“Everyday we fly we will be taking 12 people in that gondola - maybe it’s their 50th birthday, maybe they have had an operation and they’ve come through OK. Maybe they’ve just got back from Iraq — they will be getting a special memory,” Hall said. “You can blow \$300 on a massage these days. This is as relaxing, I can tell you that.”

The \$13 million aircraft is lifted aloft by helium. Unlike a blimp, it has an internal skeleton — allowing for engines to be placed on the sides and end of the ship. This, according to its pilot, gives it a quiet ride and superior maneuverability.

“We flew up right up next to the Golden Gate Bridge, parked, reversed a little bit, pivoted, bowed and kept going,” said a very pleased captain Broad. “We caused a small traffic jam.”

Lighter Than Air in America’s Only Zeppelin

By Thomas B. Haines, AOPA Pilot

A stunning aerial sight awaits AOPA Expo visitors—a 246-foot-long Zeppelin plying the skies of the San Francisco Bay area. The stunningly beautiful and huge white airship made its first commercial flight in the United States on Nov. 5—the first time a Zeppelin has flown over this country in 71 years.

The ship’s owner, Airship Ventures, purchased the aircraft from Zeppelin Luftschifftechnik (ZLT), a German company with direct ties to the famed 100-year-old Zeppelin company that built the enormous airships that crossed the Atlantic in the 1930s, including the famed *Hindenburg*. One of only three Zeppelins in the world, N704LZ flew for two months over London on sight-seeing missions before being crated up and shipped to United States. It arrived in Beaumont, Texas, a few weeks ago. It was then reassembled and flown to its new home at storied Moffett Field near San Francisco, home of the U.S. airship development program of the 1930s and base to the USS *Macon*.

Like the airships of old, the new one has a semi-rigid frame inside the giant envelope, which is what separates an airship from a blimp. However, unlike the 1930s versions, which used hydrogen for lift, N704LZ uses helium, which is considered safer because it is not flammable. And that’s about the only similarity.

Airship Ventures’ craft is powered by 3 210-hp Lycoming IO-360 engines—one on each side of the envelope mounted on sponsors and one on the tail. The envelope-mounted engines can rotate to provide vectored thrust. The one on the tail actually drives two propellers—one that is parallel to the ship’s lateral axis to provide yaw control at low speeds and another that pivots from a level “helicopter rotor” position for assistance with takeoff lift to a pusher configuration to provide thrust in level flight.

The pilot controls the engine positions and the flight controls through a single joystick connected to a fly-by-wire control system.

There are no mechanical flight controls. An automated system also manages the flow of air in and out ballonets inside the envelope to provide the desired balance—pumping air in makes the ship heavier and can raise or lower the nose. Removing air makes the ship lighter than air. In a normal configuration the ship carries 7 tons of mass, yet may “weigh” only 880 pounds.

The ship is currently certified for VFR day and night flights. It will soon be certified for IFR flight and is currently equipped for IFR with a Bendix/King KLN90B GPS, dual navs and coms, an ADF, DME, and transponder. An electronic HSI and EADI provide position and navigation information to the pilot. A KMD550 MFD provides moving map information. A pair of glass displays in the center console shows engine data and information about the positioning of the ballonets and helium levels.

Because of the semi-rigid design and the three engines, the ship can be landed with only one ground crew person, although as many as four are needed for commercial passenger operations—compared to 12 to 18 people on a typical blimp ground crew and as many as 240 on an airship the size of the *Hindenburg*.

“AOPA Pilot” Managing Editor Julie Walker and Photographer Chris Rose joined me on the Airship Ventures’ first commercial flight for a two-hour tour over the San Francisco Bay area. The airship cruises at about 40 knots and typically at around 1,200 feet agl. The composite cabin seats 12 in first-class-sized seats and includes a restroom. The windows are enormous, giving passengers a tremendous view. Two of the windows open for clear photography. A panoramic aft window with a bench seat also provides a spectacular view.

Pilot Fritz Gunther noted that airship travel is the most remarkable way to see the world. “We’re low, slow, and everyone loves us,” he says. “And they pay me to do this.” Gunther is on loan from the German company to help Airship Ventures get established. Their pilot is Kate Board, who was featured in AOPA Pilot’s “Pilots” column. The ship is based at Moffett, next to three enormous airship hangars, but Airship Ventures plans to occasionally offer flights out of other regional airports, such as Oakland and Sonoma and will even venture to Long Beach, Calif., in February for a convention. Currently, the flight schedule calls for one two-hour flight a day and multiple one-hour flights. Prices start at \$495 per person for one-hour flights. As Walker notes in her blog, the experience is truly once-in-a-lifetime. Our trip took us just off the end of the runways at San Francisco International Airport out to the Pacific Coast, up to the Golden Gate Bridge protecting the entrance to San Francisco Bay, right over Alcatraz, and up the bay past downtown San Francisco—an unbelievably beautiful excursion offering sights only possible from such a craft. It’s so quiet inside the cabin that we could hear fire truck sirens on the streets below.

Golden Gate Seen By Eye In The Sky Sunday, October 26, 2008

SF Chronicle The Zeppelin NT, a 246-foot blimp-like airship, passes over the Golden Gate Bridge on Saturday en route to its new home at Moffett Field in Mountain View. California startup Airship Ventures plans to offer aerial tours of the San Francisco Bay area in the newly-built zeppelin, one of only three in the world. It carries 12 passengers and tickets start at \$495 per person.

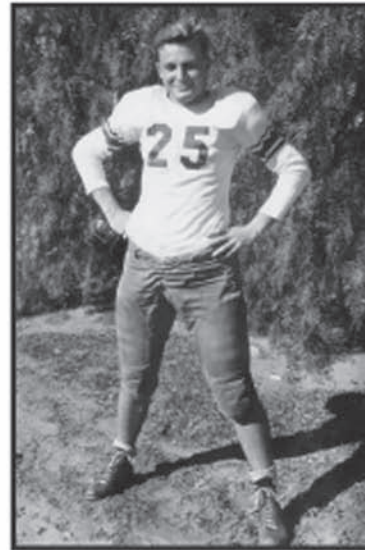
AV has already begun day-trips to local cities.
Zeppelin Day Trip to Monterey!

Airship Ventures’ is flying to Monterey for the day this Thursday, Dec. 11th! And, if you’re already in Monterey, now is your chance to fly on a Zeppelin tour around Monterey Bay. On Dec. 11, 2008, the Airship Ventures’ Zeppelin, Eureka, will fly passengers to and from Monterey for the day and offer tours around Monterey Bay.

Your Ed. suggested Eureka visit Eureka, CA.



**Commander
Herbert E. Beidebach
NAA Past President
Born: January 24, 1922
Died: January 13, 2009**



Commander **Herbert E. Biededach**, U.S. Navy (Retired) passed on January 13, 2009. Born in Pasadena, California, Commander Biedebach became an Airship Commander flying convoy anti-submarine patrols. He served his country as a naval officer and naval aviator for 27 years in a variety of demanding assignments during World War II and the Cold War. As a senior naval aviator he directed the combat information center aboard the USS *Franklin Delano Roosevelt* (CV-42), then became a principal operations officer and briefer for the Commander-in-Chief U.S. Pacific Fleet and the Chief of Naval Operations at the Pentagon. Upon retirement he joined the Paine Webber Investment Company. He became an investment executive for Paine Webber in the Santa Ana office until 1996. He dedicated his later life to the interests of naval aviation and the proper recognition of all those who served in its squadrons. Biedebach is survived by his wife Sallie Coles Biedebach, his sister Betsy Behny, his children Bruce, Betsy, David, Cindy Coles Sullivan, and Melissa Coles and their spouses, grandchildren, and great grandchildren. He was preceded in death by his son Brian. Military Services for Commander Biedebach were held Friday, February 6th at Riverside National Cemetery at 11 AM.

Black Blimp

Frederic M. “Buzz” Lloyd, 93, passed 13 SEP 08 in Jacksonville, Florida. Born in Cleveland in 1915, he attended Allegheny College before entering the Navy in 1942. Serving with ZP-31 at Santa Ana, Lloyd piloted the K-29 during the first experimental blimp-on-carrier landings pioneered by his squadron (not senior leadership). Postwar he became one of the few Navy public information specialists. Lloyd originated “Operation White Hat” to bring caring sailors together with patients at Chicago’s Children’s Memorial Hospital. Retiring as CAPT in 1967, Lloyd entered a second calling in education.



John McGillicuddy (above) passed 4 JAN 09. McGillicuddy played on Princeton’s undefeated football teams in 1950 and 1951 before heading to Harvard Law School. John was one of the early NFOs trained to be a CIC officer in the ZPG-2W. He was a graduate attorney before coming into the Navy. He was a Princeton graduate and a Harvard Law school graduate. John left the Navy in late 1958. After stints in the [LTA] Navy and at the law firm Simpson Thacher & Bartlett, he joined Manufacturers Trust Company in 1958. Thirteen years later, at the age of 40, Mr. McGillicuddy was elected president, becoming one of the youngest executives ever to run a major money center bank. Mr. McGillicuddy is survived by his wife, Constance, a friend since childhood to whom he was married for over 50 years; his sister, Mary Jean O’Connell of Harrison; five children and six grandchildren.

As sadly happens at every membership renewal time, our Treasurer receives belated word and few details about members who have passed. A bell will be rung at the Reunion for each and every member.

A.C. (Bud) Wartman February 8, 2008
Alpine, CA

Charles J. Modzinski February 16, 2008
St. Clair, MI

Philip Epstein March 22, 2008
Fitchburgh, MA

Ivor B. Morrison (Joe) March 6, 2008
Evansville, IN

Harold G. Shonka November 2, 2008
Jacksonville, FL

Ronald C. Martin November 13, 2009
Jacksonville, FL

G. Patrick Henry



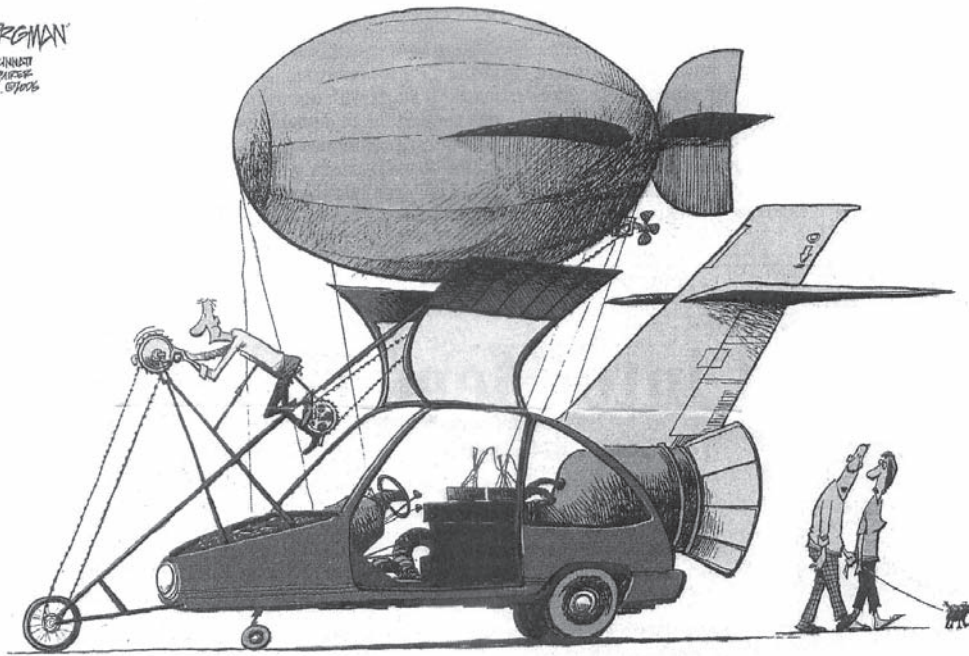
William Edwin Jr. (above) passed 12 OCT 08. William was a NAVCAD graduate and Naval Aviator. He is survived by his wife Miriam, daughter Barry Harshaw, and two grandchildren.

The recent passing of football hall-of-famer Samuel “Slingin’ Sammy” Baugh, 94, got the editor digging in his laserdisc collection (today’s equivalent of cylinder recordings). The Joe Namath of his generation, Sammy went Hollywood and starred with Duncan “Cisco Kid” Renaldo in “King of the Texas Rangers.” The 12-chapter 1941 Republic serial warned of “fifth columnists and sabotage agents that threaten our America” in rather spectacular fashion. The traitorous henchman flew his airplane up to hook-on the bad guy’s super bullet-proof Zeppelin hovering above. In the final chapter Ranger King crashes his biplane into the hydrogen-filled rigid and all get their just desserts.



Borgman's World | But it gets 942 mpg

JIM BORGMAN
CINCINNATI
FEBRUARY 15, 2009



"THERE GOES ANOTHER ONE OF THOSE NEW HYBRIDS."

Lighter Side of LTA

A U.S. Navy Admiral was attending a naval conference that included Flag officers from English, Canadian, Australian and French Navies. At the cocktail reception, everyone was chatting away as they sipped their drinks. A French Admiral suddenly complained that, while Europeans learn many languages, Americans learn only English. He then asked, "Why do we always have to speak English at these conferences rather than speaking French?" Without hesitation the American Admiral replied, "Maybe it's because the Brits, Canadians, Aussies and Americans arranged it so you wouldn't have to speak German." :)

John Lutz recommended Reunion 2010 could be at Moffett Field, with maybe NAA group rates for, say, 1/2 hour rides on the Zeppelin NT (to hold the price down)? :)

Ready Room

Owing to our quarterly schedule the announcement of the DGLR workshop on 27-28 MAR was exclusive of our deadline and delivery timetable. Also, the 18th AIAA Lighter-Than-Air Systems Technology Conference 4-7 May 2009 Hyatt at Olive 8 Seattle, Washington - that's right, the exact days of our NAA Reunion (no joke). It offered: "Interest in the potential of lighter-than-air (LTA) systems to meet modern requirements continues to grow as fuel prices and the cost of conventional aircraft transportation infrastructures increase. An added incentive to airship and aerostat development comes from the worldwide concern over the negative environmental effects of jet aircraft on the global climate. LTA systems have become the subject of renewed interest due to their unique qualities of low energy (propulsion) needs and significant static lift."

Airships to the Arctic V Approaching the Tipping Point

Date: October 7-9, 2009

Location: The Coast Plaza Hotel & Conference Centre, Calgary, Alberta, Canada

Registration: Early Bird C\$495 + 5% GST
Regular C\$595 + 5% GST

(Registration includes all meals and conference banquet)

Synopsis: The Airships to the Arctic is a business conference focused on the potential to use airships in the northern latitudes. The first day of the conference examines the demand for better transportation in northern Canada. The second day presents an update on the supply of airship technology worldwide. All presentations are invited.

In addition to the formal program, ISO Polar will be holding a pre-conference airship workshop, and a free public lecture.

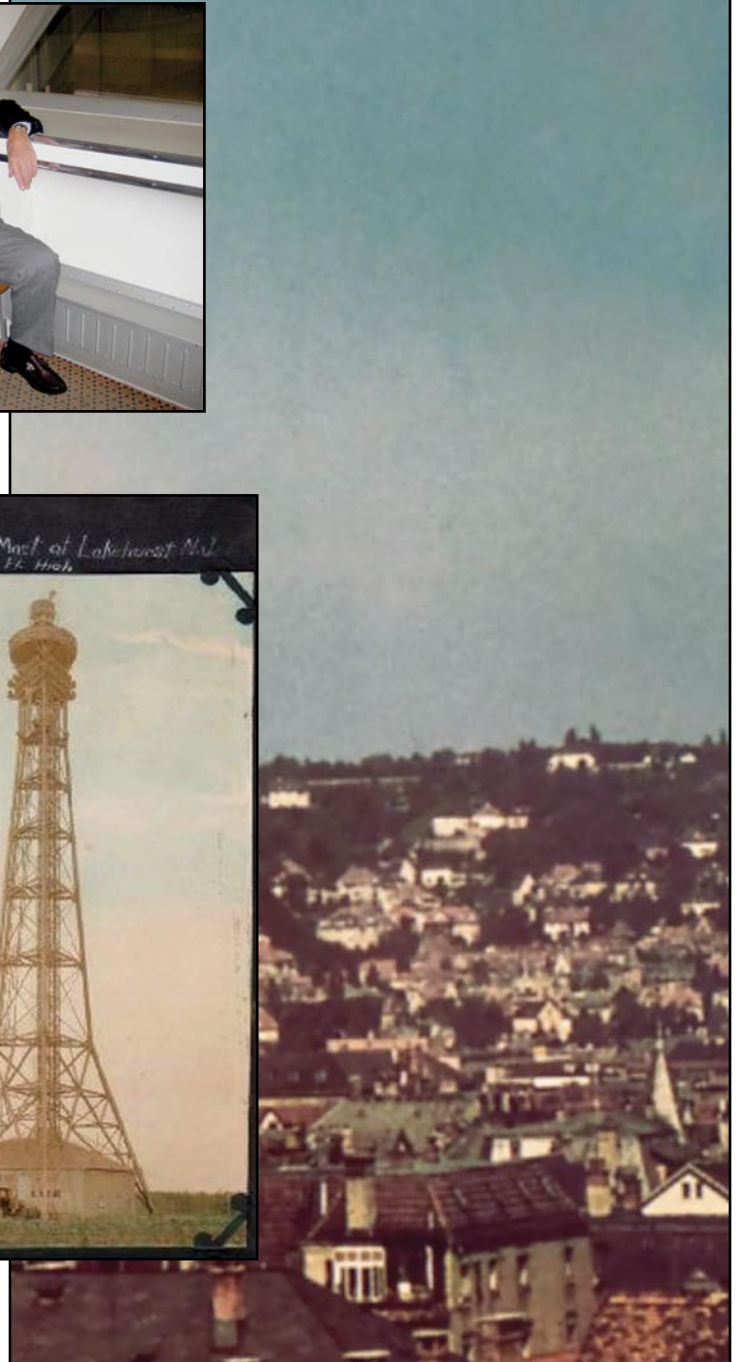
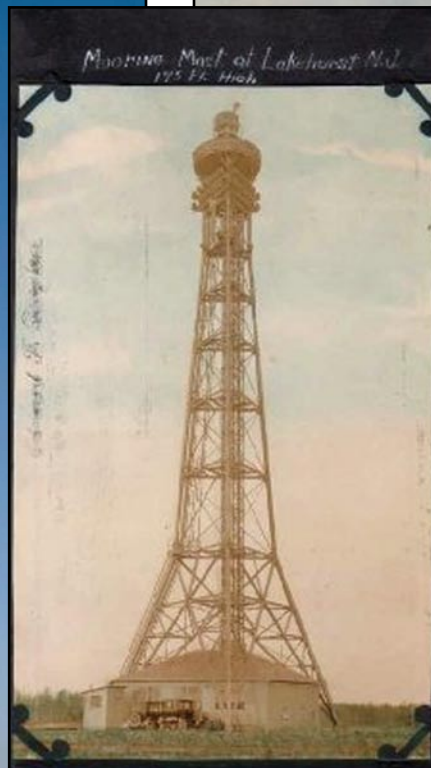
Website: <http://www.airshipstotheartctic.com/>



Top Left: Zeppelin NT 07-02 dazzling in the night sky over Japan.



Norm and Margret Mayer enjoy a quiet moment on the promenade of the "Hindenburg" in Friedrichshafen.



Left: San Francisco's Golden Gate welcomes the Zeppelin NT 04. Center: Colorized photo of the Lakehurst Mast. Right: Extremely rare original unretouched color photo of the Graf Zeppelin II, LZ-130.

Then as now...



ZP2K at Gitmo



NT-07-04 Airship Ventures *Eureka* at the Golden Gate.