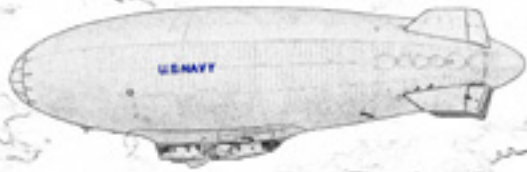
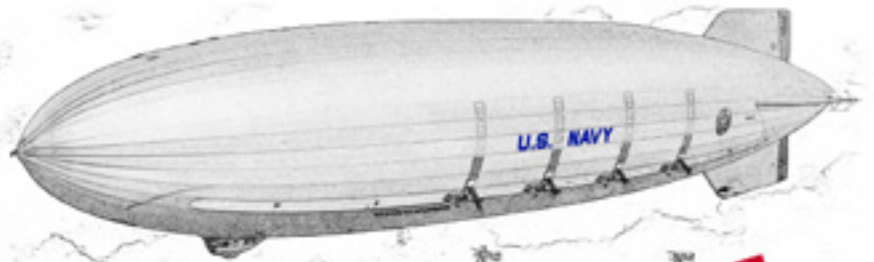


THE NOON



BALLOON



The Official Publication of THE NAVAL AIRSHIP ASSOCIATION, INC.

No. 119

Fall 2018



REUNION AND BANQUET 2018



Goodyear's 101-year-old hangar in Suffield Township, Ohio, was the first stop for happy Reunion attendees during festivities in Akron last September. The hangar, built in 1917 and enlarged in 1918, and again in 1942, was extensively renovated just a few years ago. Last August the Ohio History Connection placed a permanent bronze marker at the site (See page 9) Photos by Cindy Slater, LTAS. (Below) Thanks to a great deal of hard work (and some weather luck) the Reunion attendee's field trip to the hangar was blessed with *Wingfoot Three's* liftoff and departure for an assignment. Ross Wood took this photo but attendees were staring at the airship and would not close ranks for a portrait!



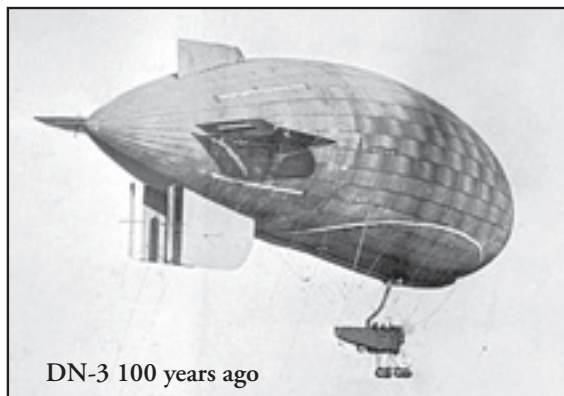
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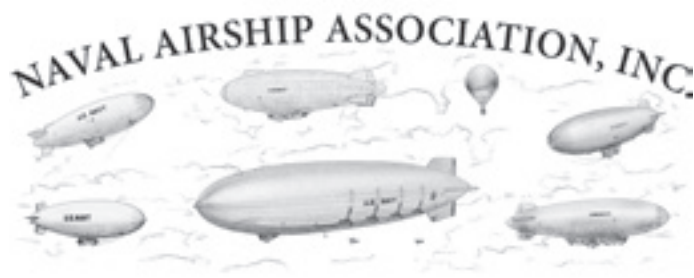
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Nowadays "getting lucky" means walking into a room and remembering why I'm there. ☺

On the Cover: Happy reunion attendees pose in front of the new high tech Zeppelin, *Wingfoot Three*. Ω



THE NOON BALLOON

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EDITORIAL

Richard G. Van Treuren, PO Box 700, Edgewater, Florida 32132-0700, rgvant@juno.com



Executive Committee members at our October, 2018 Akron Reunion. Left to right; Mark Lutz, Richard Van Treuren, Fred Morin and Bill Wissell.

Another Airventure is behind us, and although there was little more about dirigibles than my usual airship spiel in Forum #1 and a photo of the Zeppelin NT in the engine pavilion, it was certainly another incredible aviation experience. Here are the quick stats for 2018's 66th annual EAA fly-in at Wittman Regional Airport, Oshkosh, Wisconsin:

- More than 500,000 participants from more than 70 nations.
- More than 10,000 airplanes, including more than 2,500 showplanes.
- More than 800 exhibitors with aviation innovations.
- Nearly 1,500 forums, workshops and seminars covering the entire world of flight.
- Daily afternoon air shows featuring the world's finest aerobatic performers.
- Two night airshows (Wednesday's was rescheduled for Thursday on account of rain) with pyrotechnics.

Words fail one in describing the week-long event, one simply has to put it on the bucket list and enjoy the experience first-hand.

How lucky Debbie & I were to have been able to spend a few hours with George & Dottie Allen before George passed last June. It was under George's presidency that NAA accomplished so much in the years following the work of founders CAPTs Eppes and Van Gorder. Just now home from the Akron Reunion and Banquet, I can't seem to remember a past Reunion that did not feature George in a prominent role. George got us started on what became the five-part airship video history series. Although his successor did not want it to be an NAA project, George nonetheless helped complete the project, narrating our postwar chapter, "Airships Fight A Cold War." George Allen will be sorely missed.

Whenever the accomplishments of WWII airshipmen (basically the story of the K-type) comes up in discussion, it's not unusual for vets to point out very little credit is ever given the LTA effort in ASW. History Chairman Mark Lutz remembers his uncle lamenting that so little of the LTA history is published, he wondered what he was actually doing with airships in WWII. As Past NAA President John Fahey just mentioned in an e-mail, "I am in a three-year war with the present CNO who insists that we flew 'J' scouting flights rather than 'J' patrol flights, and did nothing to contribute to antisubmarine warfare during World War II."

For many years as Editor, I have offered my findings, concluding that the "official," or at least accepted, wartime record of the K-type airship suffers from various problems. My 10-year effort to write the book Airships vs. Submarines has raised a couple eyebrows, but few people want to devote the time to read its 433 pages – and I can't blame them.

So, when USNI held a history contest last year, I took it as a challenge to make an "executive summary" of the WWII portion of the book. Their essay length being limited to 3,500 words, no graphics of any kind were allowed. I took advantage of formatting which allowed footnotes to not be included in the final word count, and after endless re-writes, mailed off my entry, exactly 3,500 words. Here is the response USNI's Fred Rainbow e-mailed me, following the winners being named:

"Mr. Van Treuren, Thank you for entering the CNO Naval History Prize Essay Contest. The competition in this contest was very impressive — we received 292 essays. The judging of the contest has been completed, and even though we were impressed by your essay, it was ultimately not selected as a prizewinner. After considering your essay for a prize, we reconsidered it for possible publication in Proceedings and Naval History. Unfortunately, your essay was not selected in this second review."

Readers of this magazine will hardly find that surprising... and as far as I know, mine was the single submission with the letters LTA in the body. However, unlike the other 285+ essays that received that let-down-softly letter, my piece, "Obfuscation via Classification... and Prejudice," will take its chances with you NOON BALLOON readers. (If tomatoes are thrown, we can make Bloody Marys!) In our pages, I had the luxury of adding a few photos to make it fit our format and to give it some much needed graphic representation.

Let us know what you think.

– R G Van Treuren

VIEW FROM THE TOP – PRESIDENT’S MESSAGE

Fred Morin, PO Box 1926, Lecanto, Florida 34460-1926, frmorin@verizon.net

The 2018 Reunion has now been completed and the reviews have been great. We began with a nice Meet & Greet on Wednesday night and had a good chance to get together with some older and newer friends. The Holiday Inn Express Akron South was an excellent location and the staff was very friendly and accommodating. Our Ready Room was nicely laid out and the catering from the Waterloo Restaurant was superb.

On Thursday, we travelled to the Goodyear Wingfoot Lake facility where a new Goodyear NT airship was waiting on the mat, Ed Ogden, PR Manager and Goodyear Historian, greeted us and led us through the office area of the hangar which was loaded with a historic collection of Goodyear blimp photos. We then proceeded through the hangar, past a new NT undergoing routine maintenance, and out onto the apron. There, the other NT was just about to lift off for a trip to Pennsylvania to cover a college football game. Spectacular is the only word I can use to describe the departure. The airship backed off the mobile mooring mast, rotated the engines and lifted off, no ground crews holding the ship or bouncing it prior to departure. The ship circled back over our heads; a fantastic photo opportunity and chance to wave to the crew. We then went back into the hangar for a tour around the other NT and another great photo op. Next, we travelled to the Akron-Fulton airport and a tour of the phenomenal terminal with an incredible history. Then came an outside tour of the Lockheed-Martin (ex-Goodyear) air dock. We parked out on the overgrown mat and railroad tracks for some more photo taking. Then onto the LTAS workshop for a quick tour. They had a nice display of airship artifacts and photos on display, but many of us know that behind the curtains there are many more artifacts and photos, too many to have on display.

Friday began with a trip to the MAPS Museum (Military Aircraft Preservation Society) where we had free reign over the inside and outside displays. Tour guides were available for small groups or you could wonder as you desired. The restored Goodyear blimp control car earned a lot of visitors as did the outside display aircraft and MASH tent. Lunch followed and then a trip to the chocolate factory or back to the hotel as you desired.

Saturday began with an Executive Council meeting where we discussed many issues important to the NAA. A preliminary decision was made to investigate Moffett Field in CA as our next Reunion in about two years. Pima Air Museum and Davis-Monthan was also addressed as a second choice depending on attractions and activities available at Moffett as well as costs.



Next we held our general meeting for all members and reviewed the discussions at our Executive Council meeting. We thank all who attended.

Saturday evening concluded with the combined LTAS Annual Meeting and banquet and NAA banquet. Jerry Copas, author of the book, “The Wreck of the Naval Airship USS *Shenandoah*,” was the principal speaker. The book’s foreword was written by Julia Hunt, granddaughter of the ship’s captain, Zachary Lansdowne, who was also in attendance at the NAA Reunion and banquet. The highlight of the banquet was the awarding of the Ren Brown Award to Theresa and the late Bryan Rayner. The Rayners are the keepers of the USS *Shenandoah* Museum in Ava, Ohio, and have been working tirelessly to keep not only the mobile museum, but also the three crash sights well maintained and open to the public. This was a very deserving award to a family who has worked hard over many years to keep the *Shenandoah* story alive. We were quite honored to have had Theresa and two of her daughters, as well as Julia Hunt at our Reunion and banquet.

Finally, I would like to thank Lorraine Madden for all her efforts in registering our attendees, manning the Small Stores table and sales, and keeping my blood pressure in check. Last, but not least, David Smith was our “feet on the ground” in Akron. He arranged all the details of our visits and even drove one of our passenger vans, along with Bill Wissell and me, to the different sights. Who else could have arranged a Goodyear NT departure for our visit?

Thank you for your continued support of the Naval Airship Association. I hope to see many of you in 2020 at Moffett Field.

– Frederick R. Morin

PIGEON COTE

We lost George Allen last June (see "Black Blimp"). He was a long-serving President of NAA and tireless LTA advocate. Ross Wood, also a Past President, sent along this photo of George officiating at an NAA Reunion. Ed. attended George's Celebration of Life on the 7th of July. The chapel was filled with family, friends and colleagues. Dottie Allen told me to pass along her best to all their NAA friends. George's daughter told of being taken from Disneyland to ride on the Goodyear blimp. The pastor told of George's service and achievements, sadly not mentioning NAA, so afterwards I gave the pastor a TNB and explained George's Presidency. By happenstance as we cleared the chapel of flowers, memorabilia, etc., I wound up carrying George's ashes to Dottie's car. George's son-in-law, a retired sub and surface officer, wants someone to come to his Ohio MENSA group and talk blimps. He'll be in touch.



Dottie had arranged a fitting wake at a nice country club. A number of Retired Officer's Ass'n members were there, George had also been active with that group. Interested in LTA, they accepted TNBs and said they looked very nice, and they'd like an airship speaker at their meeting.

Dick Trusty e-mailed, "Sorry to hear of George's passing. We corresponded a number of years ago, when George sent out a call for any members who might have WWII L.T.A. Squadron Emblems. I waited about a month before writing him saying, that I had an original ZP-12 patch. He wrote back, saying he was thrilled to hear my news, as no one else answered his call. As I remember, it was a Disney creation. So, I took a couple of pictures of it and mailed them to George. He notified me as soon as the patches were made, and I'm happy to say, that I bought the first three reproductions. As you no doubt have noticed, they came out great, just like the originals. Yours in L.T.A. Dick Trusty ZP-12" Ω

History Chair Mark Lutz responded to the challenge mentioned on NB #118 Page 4 - Blimp lost in fog, guided to mooring by Greentown Volunteer Fire Department truck. I discovered Greentown is an Akron suburb - shares border with the Akron Airport. It looks like the *Akron Beacon Journal* may have an article about the blimp in the fog on 14 Oct 1947 edition. Can anyone in Akron access these records to shed some light on this one?

Dr. Barry Prentice e-mailed, "Thank you for your vote(s) everyone. The CanInfra People's Choice Award was won by the Electric Airship Transportation System. We hope that winning the People's Choice Award at CanInfra will help spread the popularity of using cargo airships to serve remote areas. We are already in contact with the CanInfra winner chosen by the judges. They propose to build wind turbines throughout the North to replace diesel generators. They like the idea of using airships to carry wind turbine blades to the remote communities. This would make an interesting demonstration of green technologies." Ω

We again heard from the Georgia folks who want to open a museum including NAS Glynco. Here is part of that stream to and from Ed.: "We often get requests for information, but after answering, we find no one joins the NAA or follows up. So it was nice to hear from you again.

Museum: > As far as I know, "Ol Swampy" is still in the marsh. Do you want me to check...

Ed: Most certainly, and I will anxiously await your answer. Previously I was told the summer growth obscures the wreck so winter was better viewing... hope for the best (to see if it is a 4K as we suspect).

Museum:>Would you mind sending me a photo of the hangar bolt?



Ed.: Attached, it is the bolt mounted on a plank from the hangar (not hanger! Ha Ha) and was a gift from NAA member Larry Lanchonie. Last year I made a presentation on WWII airship history to a historical group in Houma, LA., and they had also saved some timbers. Its hangar foundation and footers are now an industrial storage yard. Best wishes" Ω

Bill Althoff e-mailed that one Lowell Ford wishes contact concerning a USS Macon three-bladed propeller. The e-mail contact is ford2705@sbcglobal.net Ω

History Chair Mark Lutz e-mailed, I keep wondering how often 1950s US Navy Blimps found Soviet Submarines off the US Atlantic Coast. By luck, I found this article from 11 April 1957 saying Blimps sighted 12 submarines off the Florida Coast:

“Red Subs Keep Watch Off Coast of Florida”

by Drew Pearson

Found in the *Winona Daily News*, Winona, MN.

HOBE SOUND, FL.

US Navy blimps in their routine policing of the American coastline have sighted about a dozen foreign submarines lying off Cape Canaveral, Florida. Since these are not subs of any allied nation, such as England or France, the conclusion is inescapable that they are Russian, and that they are lying off Florida to watch for and spy on the first intercontinental ballistic missile, which presumably is due to be fired soon.

This is the missile which, when perfected, should be able to fire from the United States to Moscow in about 30 minutes, carrying a hydrogen warhead. It is no secret that experiments on the ICBM have been taking place at Patrick Air Force Base, Florida, and the Russian subs unquestionably have received reports of an impending test. Since they are more than three miles offshore, there isn't anything much the US Navy can do about them - - unless we want to risk war with Russia.

However, it will be difficult for the subs to learn much about the ICBM or to jam it, since it is not radio controlled. Jamming is possible with a radio-controlled missile, but the new intercontinental and intermediate range missiles are guided by the inertia system, involving a gyroscope.

Russia has about 400 modern postwar submarines as of last year and was building them at the rate of 85 a year, so the total must now be pretty close to 500. The concentration of Russian subs off the Florida coast indicates the extreme vulnerability of the U.S. to submarine-launched missiles in time of war. Ω

(See Mark's article opening our History Section.)

History Chair Mark Lutz e-mailed: “Brooklyn's” Scrapbook, TNB 118, page 25: upper right-hand photo, officer identified as “Winnich.” Al Robbins' spreadsheet of WWII blimp pilots lists Thomas Winnovich, Lt-jg, commissioned, 1 May 1943, assigned to ZP-42, if we take out the “ov”, we get Winnich. Maybe?

Page 26, upper left-hand photo, “Harper.” There was a John F. Harper, Lt-jg, assigned to “Blimphedron 4” in 1945..... Not a CPO, of course. Maybe? Ω



Charlie Weithaus shared this photo (above) from his scrapbook: anyone remember what the wavy line above the -2W's fuel tank interface might have been about? None of the other ZW-1 vets at Reunion remembered what they might have been for. Ω

Stan McNabb wrote NAA President Morin, “As we all grow older, so quickly it seems, we know that difficulties must arise in meeting the demands of collecting interesting aviation information related to lighter-than-air. Most of us with family obligations and health concerns would find your job as President simply too taxing. Thank you for your service for us.

One point that I would emphasize is that the first thing some of us look at is the “Black Blimp.” We look to see if any that we served with have deceased and some of the history of their service, if we had lost track of them. Capt. Jim Kissick is an example. I was in the Training Command at NAS Glynco when he lost direction control of a 5K. He and his crew, after two tries, managed to jump out simultaneously while the 5K rose to over 10,000 feet and drifted around in the airways for several hours before descending into the swamp. When I got out of the U.S. Navy, my wife and I moved next door to Jim in Key West.

The Black Blimp reported that he was the only four aircraft qualified pilot in the U.S. Navy. Jim also had me operate his boat while he, with air tanks and riding on his homemade directional water sled to find cannon balls in the ocean. Sometimes he would shoot put the cannon balls into my back yard. Later, he decided to polish one, and after getting it fairly shiny, he took it to

his helicopter squadron, it was suggested that it should be tested in the furnace. That night, Jim brings home fragments of the exploded cannon ball.

One night, Jim and I were in our yard when we heard a tremendous explosion a far off. I immediately called the Coast Guard and told them that a ship or aircraft exploded at sea in specific direction, but the Coast Guard apparently decided to ignore me. The “Sulfur Queen” was determined to have become another victim of the “Bermuda Triangle.” Years later, the ship’s wooden name plate “*Sulfur Queen*” washed ashore on the lower Eastern coast of Florida.

John D. Chilcoat came to our NAS Lakehurst ZP-3 crew commanded by Lt. Bud Harsh who put together many of our #448 crew which had previously hit hangar #3 in solid fog, killing Ensign David Lloyd and injuring several others. We were a very close crew when John arrived and he fit in quite well. Since I did not know John’s Navy experiences after ZP-3, I asked Capt. Ernest Anderson to write up John’s obituary. I hold in my hands the obituary that was written by Ernie. It described 10 Cruises as OinC of helicopter detachments aboard multiple carriers. That would have been the kind of information the obituary should have had. Sincerely, Stan McNabb, former Lt(jg), the survivor of the shortest free balloon flight in the ZPG-2, #716 and, of course, the #448. Ω



Ed.’s Twister-builder pal Andy McKee e-mailed from Kaunas, Lithuania, with photos he took of hot-air airships and balloons working there (above). He wrote: “I visited the Lithuania Aviation Museum. There was an airship hangar on site in 1915 it seems (top right).

Did you already know about it?”



We did not! This hangar is not listed in the comprehensive “Housing The Airship” large format book. Ω



Ross Glover sent some photos of NASL in 1960 including this station inspection in which CAPT Eppes is annotated; Ross says he believes Commander Eckert is a step back to his right. Ω

SHORE ESTABLISHMENTS

Richmond



On Saturday morning, September 1st, the Miami Military Museum and Memorial came into existence with its Soft Opening ceremonies. The event was staged on the front lawn with about 300 people attending. Every one of the 200 folding chairs was occupied and standing room bunches of Boy Scouts and the NAS Richmond Sea Cadet Detachment crowded around in back.

The museum is housed in the historic NAS Richmond headquarters building, Building #25, located south of Miami, Florida. The Richmond base was built by Navy LTA in WWII to combat the Nazi U-boat attacks on Florida and the Caribbean. The building was HQ for both ZP-21, and COMNAVAIRWING TWO, which controlled ASW from the Gulf of Mexico to Trinidad. Although the hangars burned in a fire after WWII ended, Building 25 itself experienced no damage.

It had a colorful history for many years after. During the Cold War, the building was taken over by the CIA and was the base for clandestine anti-Castro operations by the Cuban exile community. Until the 1990s, it was an Army Reserve Center and then the local Marine Corps Reserve Center. Its heritage is ideal for a military museum. It's next door neighbors are Zoo Miami and the Gold Coast Railroad Museum, both of which are also on land that was part of NAS Richmond and donated to Miami Dade County by the Department of Defense.

The official party included Air Force chaplain Luis Fernandez, State Senator Annette Taddeo, School Board Chairman Dr. Feldman and School Board Representative

Lubby Navarro. Museum Director and NAA member Anthony Atwood, Ph.D., served as emcee. The Guests of Honor were Paul Russo, Director of the Miami VA Hospital, and Georgie Carter, the Gold Star Mother of posthumous Medal of Honor recipient PFC Bruce Wayne Carter of Miami Springs. Dignitaries present included the president of FIU, former US Secretary of Education Donna Shalala, NAA President Fred Morin and Lorraine Madden.



A County proclamation was read and the Gold Star Mothers placed a wreath and released doves in memory of our fallen. The bugler played Taps concluding the ceremony and the first indoor tour then took place. Exhibits will focus on WWII and airship operations in the Caribbean; Cold War activities against the Castro dictatorship, and the modern military. The Sea Cadets and the VA Hospital outreach center will have offices inside.



A robust educational program will include school field trips and history classes. The building is listed on the National Register of Historic Places.

– **Anthony Atwood**

Akron



Blimp Spotters Annual Meeting and Picnic

Northeast Ohio Blimp Spotters, an association of airship enthusiasts, held their annual meeting and picnic in Akron on the weekend of July 14-15. On Saturday, the 14th, one of the day was a visit to the display area at The Lighter-Than-Air Society's Workshop. The exhibit was well received and the visitors expressed their delight in seeing that the Society was displaying some of its more notable artifacts which had not been available for viewing since the City of Akron closed its Historic Exhibit at Lock 3 Park in downtown Akron.



The annual picnic took place at Wingfoot Lake State Park in the large pavilion directly across Wingfoot Lake from the Goodyear Airship Base. This year The Lighter-Than-Air Society participated in the event. The picnic was attended by more than 50 people, who besides the delicious grilled food and desserts, were treated to displays of items belonging to private collectors and a sales



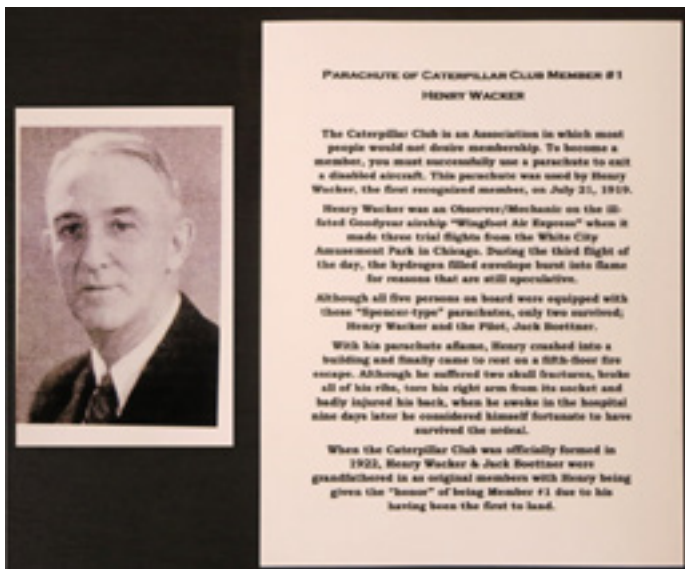
table where some of the Blimp Spotters and the LTAS had items for sale. Wingfoot One, Goodyear's Florida based Blimp-NT, graced the event with a fly-by as it departed for one of its promotional flights.



Props and Pistons Air Festival

For a second year, the LTAS participated with a display at the Props and Piston Festival held at the Akron Fulton Airport (recently renamed as Akron Executive Airport). The principal attraction of our display was the parachute used by Henry Wacker, member # 1 of the Caterpillar Club.





Membership in this Club is exclusively for survivors of a parachute jump from a crippled aircraft. Wacker jumped from the Wingfoot Air Express airship which caught fire while flying over downtown Chicago on July 21, 1919. The exhibit also included a sales table of LTAS items which reported brisk sales.

Wingfoot Lake Hangar Historic Marker 3 NT Blimps in Akron

Goodyear and the Ohio History Connection unveiled the new Ohio Historical Marker commemorating the 100th anniversary of the construction of the Wingfoot Lake Airship Hangar on August 16th. Construction was started in 1917 and completed in 1918. Originally 200 ft. long, 100 ft. wide and 100 ft. high, it was immediately extended to 400 feet, before the doors had been installed, although some balloons were already being assembled there. In 1940 the hangar was again doubled in length to its current 800 feet. The airship base, known as the Kitty Hawk of Lighter than Air Flight, is the oldest airship base in the United States.

At the time, all three NT airships were at Wingfoot Lake, although only two of them flew together.



Roger Durfee Photo

Wingfoot Three Christening

On August 30th, Goodyear christened its third and final Zeppelin NT. Shaesta Waiz was the guest of honor who broke the bottle of champagne across a railing on the airship. Last year Ms Waiz, a 30-year-old Afghan American became the youngest woman to fly solo around the world in a single engine plane, a Beechcraft Bonanza. She is also a strong supporter for women in STEM (Science, Technology, Engineering and Math) studies through the nonprofit organization she founded, Dreams Soar. After her flight on *Wingfoot Three*, which she had a chance to pilot for part of the flight, she expressed her new-found respect for blimp pilots, adding that she had a lot of trouble keeping the airship on a level flight path.



Shaesta Waiz breaks a bottle of wine on *Wingfoot Three* as Pilot in Charge of Wingfoot Lake based airships Jerry Hissem and Goodyear Chairman Richard J. Kramer look on.



Shaesta Waiz takes a hand at piloting *Wingfoot Three* on her christening flight.



Wingfoot Three on her first flight after christening over the Wingfoot Lake base hangar.

**American Institute of Aeronautics (AIAA)
and Lighter-Than-Air (LTA)
Technical Committee's Annual Meeting**

The 2018 Technical Committee's annual meeting was conducted via telecom from AIAA Headquarters in Reston, VA, on 16 AUG 18. The matter of electing new officers for 2019 was first on the agenda as Chairman Mike Connors opened.

17 - 21 June AIAA Aviation 2019, Hilton Anatole, Dallas, Texas: Comments by Stojan Stevanovic, Technical Chair/General Discussion: Abstract deadline for papers is 7 November; want to touch base with the student branches to solicit student papers. AIAA's Ann Ames will be providing Scholar One training in mid-to-late October for the new technical discipline chairs.

General Discussion of the Name Change of the LTA Systems TC to Buoyant Flight Systems TC: The TC considered changing the name to Buoyant Flight Systems. Unanimous decision by TC members present on call: do not change name now; wait until there is an industry event.

Toby Page will speak with Patrick Walsh (AirSign Corporation CEO) about what role his organization, which owns the largest fleet of airships in the world today, may want to play in the TC.

STEMwinder Reception for local AIAA Student Chapters at the College Park Airport: To take advantage of a new facility: College Park Aviation Museum; connect with local university students to bring LTA awareness to them. Lockheed and other corporate entities are interested in recruiting opportunities with students. UMD and Johns Hopkins, Catholic University approached previously; want to expand the scope of the invitation. Past Chair Curt Westergard has volunteered to do some outreach with other universities (VT) Planning for October with increased outreach.

UM student airship: Decision to donate \$1,000 of the remaining TC custodial balance of \$4,122 with the caveat that the students share a status update of the project at the STEMwinder event; specifically the propulsion parameters. Richard VanTreuren offered to locate and share the video of cycloprops in use with the students. (Roy Gibbens was the originator of the cycloprops and former TC member).

LTA Year-In-Review/Comments by Alan Farnham and General Discussion, Round-Robin: LTA News:

- Lockheed: LM1 - not "cancelled", financing fell through for the 24 ships planned (not end of the program, engineering work continues)

- Goodyear - third and last zeppelin will be at the event. Inflatable hangar debuted.
- Airlander deflation; Farmborough airshow, showed artist rendering of commercial tourist airship - every aviation media outlet went with the story & image. Why does this luxurious mode resonate?
- Worldview Balloon - significant financing raised. Hydrogen explosion.
- Sergey Brin project @ Moffett Field - it is real, but no public information has been released. When they do make an announcement, we should be the first to know.
- Helium supplies - new discovery off of Africa; the available supply has decreased since last year, so concerns the industry; GasWorld - last helium sale; government keeping its reserves to itself.
- 1863 Balloon Ascension over Potomac River was re-enacted by Mars Program at NASA last year. FAA allowed tethered balloon over the Mall.
- Airship do Brazil: Moving forward with tethered balloons and airships
- Flying Whales France - funding from Chinese? 200-300 million euros if so? Massive development (was this the Lockheed financing that fell through?)
- LTA Technology text book translated from German (a mix of theory/practical exp./case studies) rolling out in September Naval Airship Ass'n Reunion. 350+ page, hardcover, not planning an electronic version. Ω

The AIAA LTA TC elected new officers effective immediately and through 2020:

Chairman: Alan Farnham; afarnham127@gmail.com
For several years, Alan has been the author for our annual article on the LTA community published in the December edition of *Aerospace America*.

Vice Chairman: Kyle Crawford; kylecrawford@comcast.net
Kyle has over 30 years' experience with commercial and military LTA programs, both airship and (primarily) aerostat.

Secretary: Jonatas Sant Anna Santos; jonsjc89@gmail.com
Jonatas is a young LTA designer/developer with experience in aerostats and unmanned airships. He has recently completed his Doctoral studies in Aeronautical and Mechanical Engineering. Ω

Ed. followed up the TC's monetary donation to the UM with Roy Gibbens' demonstration video, writing: Your reports will be edited for inclusion in *The Noon Balloon*, magazine of the Naval Airship Association, each quarter. We'll squeeze a general announcement of your project into the already-stuffed Fall issue (#119). The deadline for the Winter issue is Halloween, so we'd like to see the first report by the last week of October. Obviously, the magazine can't use videos, so we'd like a good .jpeg, captioned, to accompany the report. Ω

NASA's "Big 60" Balloon Breaks Altitude Record



NASA's largest scientific balloon, called the "Big 60," is pictured here taking off from Fort Sumner, New Mexico, on Aug. 17, 2018.

NASA's gigantic, ultrathin balloon, known as the "Big 60," broke a record by reaching 159,000 feet (48,500 m) during an 8-hour flight on Aug. 17, traveling into Earth's stratosphere and ascending about 5 miles (8 km) higher than the next-largest balloon prototype. The space agency released the football-stadium-size, 60-million-cubic-foot (1.7 million cubic meters) scientific balloon from Fort Sumner, New Mexico, on Aug. 17 and Aug. 25. Two student payloads in NASA's Undergraduate Student Instrument Project and a larger, interplanetary cubesat-antenna experiment from the University of Arizona ascended on the Aug. 17 flight, floating for eight hours.

The Big 60 is NASA's largest zero pressure balloon to date. If all of the polyethylene material were spread out on the ground, it would be enough to cover about 20 acres of land. The larger size allows the balloon to float about 5 miles higher than any other zero pressure balloon — that's about 20 Empire State Buildings closer to the edge of space than NASA's next largest balloon.

In addition to its size, the Big 60's thin film, or balloon skin, supported the accomplishment by withstanding temperatures as low as minus 130 degrees Fahrenheit (minus 90 degrees Celsius) — though Earth's stratosphere is, on average, much warmer, at minus 76 degrees F, or minus 60 degrees C, officials said. Half as thick as the other balloons that NASA flies, 0.0004 inches wide, the plastic film covering the balloon is a little less than the thickness of kitchen plastic wrap.

Because the Big 60 design is still in its testing phase, the gondola primarily contained support instrumentation, such as tracking, video and telemetry, with some tertiary experiments flying to round out

the 1,650-pound suspended payload. Sarah Fischer, a technologist in the Wallops Balloon Research and Development Lab, said the Big 60 can lift a payload the weight of a small four-wheeler, but also had room for a few smaller missions.

This test flight evaluated the Big 60's overall design and ability to carry science missions, but future test flights will go a step further and also allow researchers to test new instruments. Harvard University Stratospheric Chemistry Experiment flew Aug. 24 through the NASA Undergraduate Student Instrument Project.

Soaring to great heights doesn't come without sacrifices. In order to float to a higher altitude, the Big 60 lifts only about a quarter of the weight of the workhorse 40-million-cubic-foot zero pressure balloon. However, Fischer said that even though the Big 60 lifts lighter payloads, the higher altitude will enable new science investigations on balloons.

According to Fischer, Fort Sumner makes an ideal launch site for balloons primarily for its geography. She explained that it's easy to ship supplies and bring in experimenters compared to other launch sites, and allows the balloon to fly on a trajectory that avoids high population centers. Ω

DARPA Back In Near-Space With ALTA Project

After a hiatus of several years, DARPA has returned to the stratospheric domain with a project aimed at demonstrating that a lighter-than-air balloon can drift between wind layers to navigate at altitudes up to 90,000 ft. for days or weeks at a time. DARPA's Adaptable Lighter Than Air (ALTA) project, first disclosed at the agency's D60 symposium, uses a balloon but with a few, DARPA-style attempts to push the state-of-the-art.

The prospect of dwelling in near-space (usually defined as within the atmosphere above about 65,000 ft.) once inspired stratospheric vessels such as the Integrated Sensor is Structure (ISIS) and High Altitude Airship. As those efforts faded, several commercial companies launched into the domain with a series of attempts to dwell for weeks or months in the extreme environment of the high stratosphere to provide a range of commercial services, including broadband internet and other communications links. Google's Project Loon and Arizona-based startup World View use balloons. The

prime contractor is Sierra Nevada; the subcontractor supplying the balloons is Raven Aerostar, the same company working with Project Loon.



ALTA subcontractor Raven Aerospace's Super Pressure Balloon for Project Loon, fully inflated in conditions simulating air density above 65,000 ft. Google photo

ALTA balloons have performed several flights up to 90,000 ft., but the program is gearing up to perform a campaign flight test. DARPA has charged Raven to deliver a version of the balloon that can dwell for shorter periods in the more extreme environment at 90,000 ft. and use a newly developed Ball Aerospace lidar sensor to detect surrounding wind currents in real time.

As a generic rule, air density halves with each 15,000-ft. increase in altitude, aggravating the challenge of navigating to remain on station almost 30,000 ft. above the level for Project Loon. To ascend and descend, Raven uses a "ballonet," a smaller balloon within the larger gas bag. Altitude is controlled by inflating or deflating the ballonet with surrounding air, which is no simple task in a region featuring less than 1% of the air density found at sea level.

Ball's lidar sensor, named the Stratospheric Optical Covariance Wind Lidar, or StratOAWL, also is a potential breakthrough in wind measurement. Ball repackaged the normally bulky lidar, originally developed as a space-based sensor, into a compact form-factor. DARPA's Walan declined to identify potential military applications for the ALTA technology, but the commercial projects suggest a wide array of communications and intelligence-gathering possibilities. The project also could help Bell demonstrate the OAWL technology in environmental conditions similar to an orbital spacecraft. (Adapted from Aerospace Daily & Defense Report Sep 07, 2018, Steve Trimble) **Ω**

SHORT LINES

Facebook Cancels Solar-Powered UAV Broadband Internet Plan CNET News (6/26) reports that Facebook Director of Engineering Yael Maguire announced that the company "has abandoned plans to build its own massive, high-altitude drones to beam broadband internet to all corners of the globe." Facebook had planned to use the Aquila UAV, "a solar-powered aircraft with a wingspan of a Boeing 737...to beam internet connections to remote areas of the globe via high-frequency radio signals." However, Maguire explained that it "is the right moment to focus on the next set of engineering and regulatory challenges for HAPS [high-altitude platform] connectivity." Maguire added that the decision "means we will no longer design and build our own aircraft, and, as a result, we've closed our facility in Bridgewater." Bloomberg News (6/26) reports that Facebook plans to "work with partners like Airbus SE on high-altitude connectivity technologies." **Ω**

AeroVironment, SoftBank Plan Joint Venture To Develop Solar-Powered "Stratospheric Airplane" To Provide 5G, IoT Connectivity CNBC (9/13) reports that AeroVironment President and CEO Wahid Nawabi announced that HAPSMobile, the company's joint venture with Japan's SoftBank, will "pursue the business of 5G and IoT" connectivity through a plan to "develop and demonstrate a stratospheric airplane that is powered 100 percent by solar power, energy." According to Nawabi, the aircraft will "fly on the edge of the atmosphere to...beam 5G IoT connectivity for the 7 billion people around the world." Described as a "super cell tower up in the stratosphere...providing connectivity for everybody that needs it." Nawabi also cited robotics, sensors, software analytics, and connectivity as AeroVironment's "4 future-defining technologies." **Ω**

German Investment Company To "Strip" Two Unwanted A380 Jets For Parts Reuters (6/5) reports that a German investment company announced plans Tuesday to "strip two unwanted Airbus A380 superjumbo passenger jets for parts after failing to find an airline willing to keep them flying following a decision by Singapore Airlines not to keep them in service." The decision by Dr. Peters Group "deals a fresh blow" to Airbus' attempts to maintain market interest in the jet. **Ω**

FedEx Express Orders 24 Boeing Freighters Valued At \$6.6 Billion Reuters (6/19) reports that FedEx Express ordered 24 Boeing 767 and 777 freighters. According to The Boeing Company, the freighters have a list price of \$6.6 billion. FedEx's order comes four months after UPS announced that it had ordered 14 additional Boeing 747-8 cargo jets. Bloomberg News (6/19) reports that according to FedEx President and COO David Bronczek, the company has been using new aircraft orders to replace aging freighters and to improve fuel efficiency and reliability. Bronczek cited the company's strategy to add "very few incremental planes along the years here," although he admitted that if "we continue to see strong growth like we're seeing now we could use them to add capacity." The Seattle Times (6/19) reports that fears of potential trade wars have raised concern about air cargo recovery. However, "the FedEx order is a vigorous bet by the U.S. freight carrier that global trade will not be restrained long-term." FedEx CEO David Cunningham described the company's order as "another positive step in our fleet modernization program as we add more efficient, lower emission aircraft to our global fleet." Ω

Goodyear Moves Away From Airship Production *The Washington Post* (6/9) reported that Goodyear will launch its "newest airship," the 246-foot *Wingfoot Three*, later this month as part of a "break from the company's century-long tradition of blimp-making and to adopt sleek, modern airships designed by Germany's Zeppelin conglomerate." The "faster, more maneuverable Zeppelins provide smoother coverage of more events," and do not lose helium as quickly. The Zeppelins can also "carry twice as many passengers and provide more billboard space for the tire and rubber company." Ω

Boeing Wins \$1.7 Billion South Korean P-8 Poseidon Contract Reuters (6/25) reports that the South Korean military has chosen Boeing to supply maritime patrol aircraft in a deal worth \$1.71 billion, according to a senior Boeing official. The South Korean Defense Acquisition Program Administration (DAPA) separately confirmed the decision to acquire the P-8 Poseidon in a US government foreign military sales purchase. DAPA spokesman Kang Hwan-seok "told a media briefing the decision was made after a comprehensive review of

legal aspects, cost, schedule and performance." Boeing's Poseidon has been considered the "likely candidate" due to its features such as its "large payload and distance of flight [that] more than clears South Korea's requirements," according to a military source with direct knowledge of the matter. Ω

Liebherr Aerospace & Transportation partners with General Motors (GM) to develop a fuel-cell auxiliary power unit (APU) for future single-aisle aircraft

This move comes at a time when fuel cells appear ready to emerge as a viable alternative as a primary power source for electric cars. The hoped-for bottom line for a fuel cell-based APU is more environmentally sustainable operations. Liebherr and GM still have to decide between embarking liquid and gaseous hydrogen. GM, thus far, has chosen liquid hydrogen, which involves complex cooling to a very low temperature. The aircraft would likely be refueled with hydrogen at the airport. Ω

Northrop Reveals Vanguard Radar With Modular Panels Aviation Today (9/20) reports that "Northrop Grumman has revealed its new modular, user-definable Vanguard radar, built on an open architecture to be scalable based on size, weight and power requirements." According to the company, "the Vanguard is comprised of small radar panels that can be assembled together with no practical limit." A Northrop Grumman spokesperson "said the company isn't sharing the exact process yet, but panel directives are software-defined so no hardware adjustments are required to reconfigure settings." Ω

Unmanned NASA Aircraft Flies Solo For First Time.

The AP (6/12) reports that NASA flew a "large, remotely piloted aircraft equipped with detect-and-avoid technologies through the national airspace system for the first time without a safety chase plane following it." According to NASA, the flight over California moves the US closer to allowing unmanned aircraft operation within the US national airspace. NASA's Ikhana, a "non-military version of the Air Force's MQ-9 Predator B," was used in the test, and flew west from Edwards Air Force Base in the Mojave Desert "into Class A airspace where airliners fly, north to Fresno and south through Class E general aviation airspace, including an approach to Victorville airport." As part of the test, the aircraft also transitioned between air traffic controllers. Ω

HISTORY

What The Soviets Knew About Us Navy Anti-Submarine-Warfare During The 1950's And 1960's

Excerpts from "*Aviation vs Submarines*" by Sotnikov, I.N. and Brusentsev, N.A. translated by the US Air Force Foreign Technology Division (in 1970?) and now declassified 215 pages.

Found online Aug 2018 by Mark Lutz
(beginning page 95)



Above: 250 ft long Soviet Whiskey Class long-range Diesel-Electric Submarine. 215 completed 1950-1958. 18 kt on surface (10 kt cruise) 13 kt max submerged.

TOWED SONAR

"Sonars towed by **blimps** can conduct considerably better search" (than the AN/AQS 4 dipping sonar deployed from helicopters hovering about 30 feet above the ocean) "The range of the AN/AQS-2 (blimp) sonar is 4 miles. The total weight of this equipment seemingly does not exceed 150 kg (330 lb) Their action is most effective at a towing speed of up to 65-74 km/hr (35-40 knots)

FUTURE: "Foreign experts (meaning US experts) note that the increase in the range of detection can be achieved by lowering the operating frequency and by the application of very powerful sources of radiation with a sharp directional pattern.....American Firm Acoustic Associates has developed... a rod emitter with a narrow directional pattern along the axis..... such emitters can be created for powers on the order of a megawatt."

MAD GEAR

"The maximum range of foreign (meaning US) magnetometers does not exceed 300m (1,000 ft). Search by magnetometer (requires) the lowest possible (flight) altitudes ... great skill is required on the part of the operator to be able to distinguish between the signal of the submarine and an interference signal... The tactical capabilities of magnetic detectors are as yet comparatively small. The utilization of magnetometers for an independent search of high speed nuclear

submarines in a large area is considered almost useless. The use of a magnetometer in combination with other means of search, for example sonobuoys, increases the effectiveness. AN/ASQ-10 magnetometers have been in the (capitalist) armament since 1952. Despite their limitations, all NATO antisubmarine aircraft have been equipped with them..."

FUTURE: "The utilization of superconducting elements as airborne detectors of magnetic anomalies is considered very promising."

CLINKER

(Infrared detection of submarines – infrared meaning 0.75 to 300 micrometer radiation) "It is known that during motion of a submerged submarine there occurs a certain heating of the water particles from the shock and friction of the hull on them. With average surface conditions and depth of submersion of a submarine up to 30m (100 ft) the difference of temperatures of water in the wake and surrounding water medium fluctuates within the limits of from 0.05 to 0.50 C (0.09 to 0.90 F – or about 1/10th to 1 degree F). The first infrared instruments were used even in the period of WWII for the detection of surface ships. Such infrared search equipment consists of a monoblock design which includes an infrared detector, electronic amplifier, and visual indicator. In the post war years in the USA a thermal detector has been created for **blimps**, which is sensitive to drops in temperature to 0.0001C, by means of which it is allegedly possible to detect a submarine at depths up to 40m (130 feet)."



Above: Soviet Romeo Class long-range Diesel Electric Submarine. 20 completed 1957-1961. This one has two streamlined missile tubes in the bow. It is an improved Whiskey Class submarine.

“In the opinion of foreign (meaning US) experts... advantages of infrared means (include) conducting a search at any time of day...(and) being passive, the infrared means cannot be detected by the enemy. However, as the foreign press points out, infrared equipment operates normally only in good weather. In mist and strong rain, the range of action of the equipment is sharply reduced ... as yet such means can only reveal submarines which are running at shallow depth and high speeds.”

RADAR

“At present the airborne antisubmarine armament of the USA includes the AN/APS-20 (on the ZPG2-Blimp), AN/APS-59, AN/APS-80, and AN/APS-88 radar sets...The range of detection of submarines by modern airborne radar comprises: on the surface – about 50 miles, at snorkel depth – 10 miles, and at periscope depth – 1-2 miles. The range and reliability of radar detection at periscope and snorkel depth, to a considerable degree, depend on the state of the sea.

TORPEDOES

“The torpedo MK43 (has) electric motor and acoustic homing system. It was accepted into the armament in 1957. Its weight is about 113 kg (250 pounds) length 2.43m (8 ft), range 4600m (5,000 yards). The torpedo can be released from aircraft, helicopters, and airships...”

FUTURE: “According to the press, U.S. Navy specialists are working on the creation of a torpedo with a speed of 100 kits.”

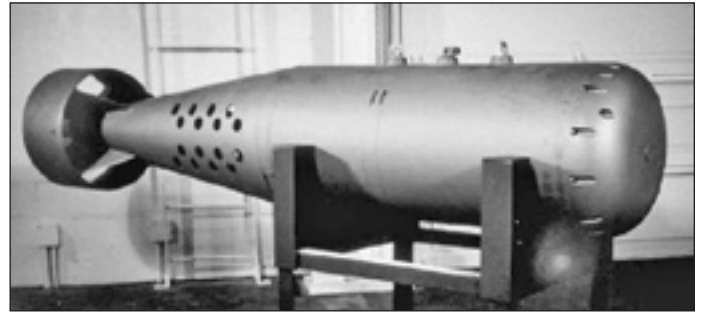
Editor's Note:

A postwar LTA vet told of carrying a nuke depth bomb aboard a ZPG-2 airship, but of course no photographs or documentation has surfaced.

Right: We believe this to be the N-1, following the removal of its original radar dome and installation of the twin radiometer fairings visible, as part of Project Clinker. (An M-ship carried the first, we believe.) We have no clue as to what the black lines along the envelope indicate or what their possible use was. Anyone with experience is urged to contact the History Comm. Chairman, the

Editor, or any NAA officer as soon as possible. If we don't uncover more info soon, there may be no one left who could even indicate how to phrase a Freedom of Information Act request targeted at Clinker.

NUCLEAR DEPTH BOMBS



Above: 7.5 foot-long, 1200 pound 'Lulu' nuclear depth charge

“At present in the US Navy, two kinds of atomic depth bombs exist: ‘Betty’ and ‘Lulu’. ‘Betty’, ... equivalent to 10 kilotons of TNT, entered the inventory of the US antisubmarine aviation in 1957. The destruction radius of this bomb at a depth of 30m (100 ft) (is) 1000m (1100 yards) and at a depth of 150m (500 ft) is 1600m (1760 yards = 1 mile). ‘Betty’ weighs about 1650 kg (3,500 pounds). ‘Lulu’ is smaller, weighing about 550 kg (1,200 pounds) ...(and ‘Lulu’ has about half the destruction radius of ‘Betty’) For comparison, a conventional depth bomb weighing 150 kg (325 pounds) has a destruction radius of only 8m (25 feet).” (The Soviet authors suggested that submarines confronted with ‘Betty’ or ‘Lulu’ should not run deep as the kill radius is bigger at depth.)





NAA reunion attendees gather in front of the historic Goodyear Wingfoot Lake, where so many Navy airships were built over the past 100 years.



Our NAA crew in the Goodyear Airship Operations photo history hall, before we enter the hangar.



After lunch in near-by Hartville, our ground transportation trolley delivered us to the beautifully restored former Akron/Fulton Airport passenger terminal building. This building was designed and built in 1930 to be the first Zeppelin passenger terminal in the U.S.



In the Wingfoot Lake hangar lobby, David Smith explains to the NAA attendees our plans to tour the Wingfoot Lake facility and view the departure *Wingfoot One* as it flies to Pennsylvania for a college football game TV coverage mission.



Anthony Atwood and Fred Morin get a close up view of *Wingfoot Two* and its ground support equipment in the Wingfoot Lake hangar.



Our NAA members in the terminal, which was restored several years ago by Randy Theken, for his orthopedic medical devices business. Randy has given the city of Akron a pristine restored very historic building. Note the original ceiling lamp in the Art-Deco ceiling.

LTAS 66th Annual Banquet

On September 29, the Lighter-Than-Air Society held its 66th Annual Banquet and Silent Auction. This year's event was held in conjunction with the Naval Airship Association Reunion & Conference.



Bryan and Theresa's daughters, Tiffany Wehr, left, and Emily Yonkers, right, joined their mother Theresa, center, in accepting the Ren Brown Lifetime achievement award at the joint LTAS and NAA banquet.

The Theresa and Bryan Rayner Family were recipients of this year's P. Rendall "Ren" Brown Lifetime Achievement Award. For years Bryan Rayner (1957-2013), his wife Theresa and their daughters have brought the history of the U.S. Navy rigid airship USS *Shenandoah* (ZR-1) to the public. They honored the memory of the men who served aboard the airship, which crashed near their home town of Ava Ohio, by organizing commemorative, community-wide events that have drawn national attention. They have created a unique mobile museum inside a camper, where they display and interpret a large array of artifacts and photographs. They have also helped to maintain and improve signage, the appearance and access at the major *Shenandoah* wreck sites in Noble County.

The guest speaker for the occasion was Jerry Copas, a balloonist and author of *The Wreck of the Naval Airship*



USS *Shenandoah*. Mr. Copas spoke about the crash of the *Shenandoah* from his unique perspective as a balloon pilot who has flown over the area where the airship encountered severe weather leading to its crash. He shared his experience with the weather patterns that prevail in the area, that make lighter than air flight challenging. He also shared how current technology allows for prediction of weather that could have prevented the crash, had it been available in 1925.

The silent auction was highlighted by a blimp ride for two, donated by the Goodyear Tire and Rubber Co. and a round of golf at the world-famous Firestone Golf Club's South course, courtesy of ChemStress Corp. In total, between the auction and several donations, The Society raised approximately \$ 4,500.



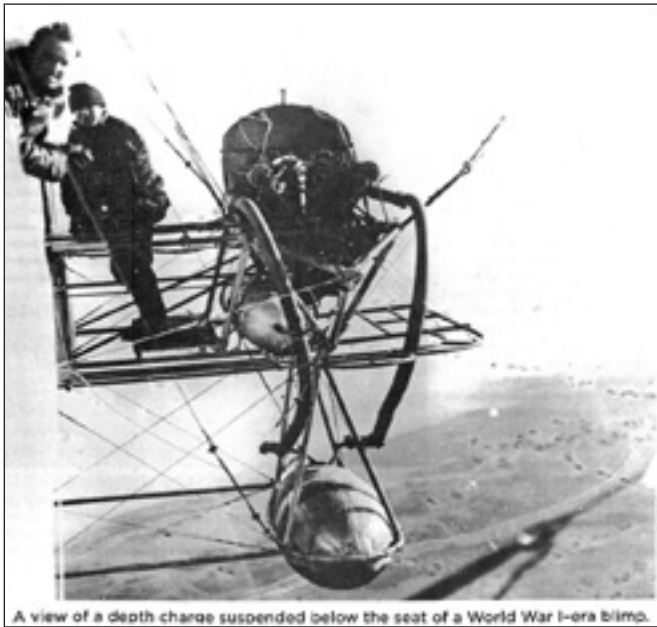
Above: LTAS member Hendrick Stoop shows Art Paulson the detailed virtual tour of the Graf Zeppelin II that he has developed.

Below: Theresa Rayner enjoys Hendrick's virtual Graf Zeppelin II tour using his Oculus head-set for the full immersion effect.



Left: Joining guest speaker and author Jerry Copas at the banquet were Julia Hunt, granddaughter of *Shenandoah* Commanding Officer Lt. Cdr. Zachery Landsdown and Wick Elderkin Grandson of Navigator Lt. Author Haughton.

100 Years Ago in USN LTA



The USNI recently ran this photo and caption on the closing page of PROCEEDINGS for September 2018:

The late LTA guru Dr. Dale Topping lamented that in any given book or publication about LTA, at least one photo will always be mis-identified. We often offer gently worded guidance to well meaning LTA-inclusive media to help over previous hiccups, but we are respectful, since we too have to recruit from the human race, and allow too many typos to count. While we LTA nuts realize the photo contains neither a seat nor a depth charge, we held off telling USNI it's a North Sea, the engineman did not rate a seat, and that is a bumper-float for alighting on the water. (In the meantime their October issue carried a reader's comment that he thought the photo might be a "C-class or possibly a D-class," while the magazine's editors responded that captions usually come from information on the photo, sometimes written in by the donor.)

On the off chance the USNI might have been in possession of an image of the long-lost NS-14 that was purchased by the US Navy but not believed to have been flown in the U.S., we got in touch with our UK comrades-in-arms to hopefully offer USNI more details. Ed. wrote Dr. Giles Camplin, Editor of DIRIGIBLE, and Nigel Wells, Vice Chairman, Airship Association: Hi Giles & Nigel, PROCEEDINGS just arrived with this photo as its "parting shot." Is there anything in the photo, like the mechanic's watch cap, that would i.d. it as flying in the UK, in the vain hope this could be an image from the NS brought back to the U.S.?

Brian Turpin responded, "The ship is North Sea 3 after it was modified to the design of Flt Cdr J.S. Wheelwright. The officer leaning out of the window of the control car is believed to be Lt Cdr G.H. Abell, who with Wheelwright, was responsible for the design of the modified control and power car. The power car, which in this ship was attached directly to the end of the control car, had two flotation bags underneath and landed on the water on a number of occasions.

NS 3 was based at East Fortune from July, 1917, and was modified there over the winter of 1917 - 1918. After successful trials and acceptance by the Admiralty, NS 3 continued to fly from East Fortune until the night of 21 - 22 June, 1918, when in appalling weather she crashed into the sea with the loss of half her crew of ten. However, the new design was used successfully on several other North Sea airships. The men are: WHEELWRIGHT, John Sylvester DSC; Born 25/7/1885 Burnt Oak Farm, Edgware, Middlesex. Died 22/5/1962.

ABELL George Henry Engineering Officer OBE 19/3/19

Concerning the NS sent to the USA, the Aircraft Record card is for NS 14, built at Kingsnorth in late 1918 with Wheelwright modified cars. She made flying trials on 14 December, 1918, and was then deflated and shipped to the USA. Her subsequent history is a bit hazy but this is what I have:

- Packed up and shipped to America for US Navy, 22 April, 1919.
- Given Navy Bureau serial number A5580.
- Sent to Wingfoot Lake N A S, Suffield, Ohio, for evaluation. Arrived on 17 May. Not inflated.
- On 13 December, transferred to Hampton Roads, Norfolk, Virginia. Arrived on 30 January, 1920.
- Turned over to US Army 22 September, 1925.
- Stricken from the Navy List 28 January, 1926.

So far no records have come to light to determine whether this ship was ever inflated and flown in the United States. I would be interested to know if NS 14 was ever flown in the US."

Art Lewry also responded to add, "Notice the fact that the RR Eagle engine is level with the control car and the struts are actually coming out of the car. The airship is the Wheelwright/Abell modified N.S.3. That is Lt Abell standing on the platform. We could probably

narrow down the date to May/June 1918 on patrols or experimental flights over the North Sea. The photo appears in Brain Turpin's upcoming book."

Interesting to note that the RR Eagle engines worked really well in this set up as the propellers were direct drive from the crankshaft. As you know, the extension shafts, universal joints and bearings on the early NS-Class airships were very problematic.

Alastair Lawson added, "They are in fact floats for the rear of the ship, to support the engines as a form of undercarriage. I've heard people mis-interpret them as fuel tanks, but those were of course held in the tri-lobe part of the outside of the envelope and can often be seen on the earlier NS ships."

Ed. responded with thanks to all and, in searching for an North Sea airship photo to show the whole ship, thought to ask: (attached) I doubt NS 8 here was carrying huge double flags because Americans were training aboard that day, but rather something more important - perhaps the eleventh hour of Nov.11? Would make a nice 100th anniversary note if anyone has the story.

Art Lewry quickly responded, Yes, definitely something MUCH more important. NS 8 was flying over Chelsea Stamford Bridge football ground, while a baseball match was held between the US Army and US Navy teams on 4th July 1918. There is an account of the game in the 1919 Spalding Baseball Guide. "An historic celebration of July 4th by the British. The first time British King and Queen recognize celebration of American Declaration of Independence. First pitch thrown out by King George. Significant and historic Baseball Game that was widely covered globally at the time, and has since been heavily documented and published in books. Hall of Famer Herb Pennock pitched for the Navy team which was captained by his Red Sox teammate Mike McNally. Ed Lafitte, Detroit Tigers, pitched for Army. Navy won 2 to 1. Arlie Latham, New York Giants, was the umpire. The first pitch baseball was signed by King George and ultimately presented to President Woodrow Wilson. A young Winston Churchill was also in attendance."

Video record:

<https://www.britishpathe.com/video/VLVAE4X022PXONZVNA1A8H5IO99CD-KING-QUEEN-WATCH-BASEBALL-GAME-IN-CHELSEA/query/Watch> Ω



Obfuscation via Classification... and Prejudice

Submission to the 2017 USNI History Essay Contest

By R. G. Van Treuren



Anyone who has ever worn the uniform knows the official log isn't always the gospel truth about what actually happened. With later evaluations dependent on the original scribe's penmanship or human recollection, and subsequent revisits limited by study parameters or outright bias, one has legal right to be suspicious of many published histories. In the record of Anti-Submarine Warfare (ASW), one must also consider its shadowy nature, i.e. a sensor blip disappearing, or a visible target submerging, doesn't guarantee victory.¹ To that, add a maniacal obsession with classification even decades after the actions, and it's small wonder the published records of Lighter-Than-Air (LTA) craft in ASW are, to be kind, incomplete.

Visitors to the Naval War College Museum seeing a streamlined 1919 artifact are surprised to learn it is an underwater microphone towed by a hydrogen-filled B-type airship. Classified until forgotten, twenty years after the towed microphone's perfection, "the prototype K-2 patrol blimp of 1939 had not been designed for any specific tactical uses, carried no detection devices originally except the human eye, and no armament."² Therefore, one can appreciate an accurate history could have done (and would continue to do) more than just award credit where due. It's worth a second look.

For many, Rear Admiral Samuel Eliot Morison's 15-volume *History of USN Ops WWII* is the basic ASW reference. In his *Volume One: The Battle Of The Atlantic, September 1939 – May 1943*, he sets his tone for LTA by writing, "An important if relatively ineffective component of the naval air arm was the lighter-than-air dirigible, the so-called blimp. Most naval officers, in view of the rapid development of planes, were very skeptical of these handsome sausage-shaped airships."

Elsewhere, Morison calls out three supposed blimp "failures," evidently not realizing all were from the same un-named squadron (Glynco's ZP-15) within weeks of each other. As had airplanes, blimp K-74 did lose a gun battle with the surfaced U-134, but Morison muddles those details³ – even to the Command Pilot's name – obviously unaware they damaged the sub. Morison separately laments, "The writer has spent a good deal of time talking with lighter-than-air advocates in the Navy, and even went on one patrol out of South Weymouth to find out how they operated; his somewhat gloomy conclusions as to their usefulness were reluctantly reached after much cogitation."

Yet in a flip-flop, elsewhere Morison praises what was actually ZP-51: "The Navy blimps at Edinburgh Field, Trinidad, were useful escorts for the bauxite route, and for covering other convoys while forming up the Gulf of Paria."

Yet again elsewhere, Morison states even more emphatically, "But most naval officers regarded them as inferior to planes for area patrol and worse than useless in convoy coverage because they could be sighted by a U-boat even further away than the most smoke-careless freighter." (Emphasis added.) This is the same historian who in another volume wrote, "It is certain however that the blimps contributed to seagoing morale. Merchant seamen standing out of New York in slow transatlantic convoy with every prospect of nasty crossing, felt somewhat assured to see a stately blimp flying overhead. The crews of the bauxite shuttle ships between Trinidad and the Guyanas, a route for which no surface escorts could at first be spared, are said to have threatened mutiny unless they were given protection; they were afforded blimp cover all the way and the men were satisfied... There is nothing like a blimp to make a convoy feel easy at that critical moment."

¹ Coast Guard aviation was credited with a single U-boat kill; its Wigeon crew was decorated, their airplane enshrined in NMNA; but the remains of U-166 were stumbled upon decades later - hundreds of miles away. More famously incorrect was the inspiring "Sighted sub, sank same!" In spite of a battlefield commission, etc. it had not actually happened that way.

² VADM C. E. Rosendahl, SNAFU: *The Strange Case of the American Airship*, ISBN 0-9725423-5-3. He credits one brilliant young officer with many electronic innovations brought to the

K-ship during 1942-43, but refuses to identify the man for fear of tainting his professional career with the LTA stigma. This officer is simply "Lieutenant X" in the book.

³ Morison's footnotes for the K-74 vs. U-134 action show sources; one is "A/S [antisubmarine] Action by Aircraft 21 July 1943" which indicated Morison had a copy of that standardized report form normally only found in the classified Tenth Fleet Records. How that particular form was copied without a "Secret" stamp - even this writer had seen one - is not known.

Morison's self-disagreeing "gloomy conclusions" also include naming but one squadron ("ZP-30," which never existed), and describing that, once onto a sub, the airship would be "following it under water with some sort of magnetic device..." (in fact the MAD chart needle would swing only if passing directly over a ferrous object in its depth range). Morison's tone suggests airships were employed in utter desperation "... at a time when the U-boats looked like winners the Navy dared reject nothing that might contribute to eventual victory." Unlike most authors who fail to mention airships while simultaneously utilizing photos taken from their stable vantage point, in the final American U-boat action, Morison states the blimps launched "some rockets," avoiding the uncomfortable admission those contact bombs were the last hits inflicted on a sub in American waters. Morison's most absurd suggestion is "the company that manufactured them was influential..." when in fact it remained at the lowest material priority,⁴ the assembly line starved for materials after only 134 K-type airships were completed.

Postwar, LTA advocate VADM Charles E. Rosendahl retired but was not idle as Morison composed. His young colleague LT J. Gordon Vaeth dutifully typed up airship squadron histories from logs, taking care to prepare a 'contacts and attacks' list separately, assuming it would need a higher level of classification. Rosendahl then dispatched Vaeth to Europe.⁵ Unable to access still-classified 10th Fleet records or even mention Enigma decoding, Vaeth found British intercepts free for the asking. Before his visit was cut short by illness, Vaeth was able to locate eighteen U-Boat records mentioning "Luftschiff, Zeppelins, Parsevals," including five in which the submarine reported airship attacks.⁶

Rosendahl likely felt the Navy could not be trusted to investigate, let alone produce, an LTA-intensive history. As time went on, he took on this job himself; he titled his work in progress *Lest We Forget: A History Of US Navy Airships In WWII*. Various surviving drafts of his manuscript show building on Vaeth's finds, accessing twenty-four U-Boat records showing forty-five dates with airship entries. His oldest combat discovery was K-6's

attack on the U-99 of 12 MAR 42, locating a German report of the damage sustained⁷ and corresponding with the blimp crew. Rosendahl shared his K-6/U-99 discovery at a Lighter-Than-Air Society banquet, subsequently written up in their newsletter *Buoyant Flight*. This revelation went unnoticed by later authors - even though it is actually WWII's first attack on a U-boat in American waters by aircraft of any kind.



Morison published first in 1947, which sent Rosendahl into specific research on each of the three blimp escort "failures" cited therein. Detailing K-74/U-134 and proving Morison incorrect in the K-45/U-66 and K-34/U-66 cases, Rosendahl possibly lost steam in pursuing K-34/U-107's case, and offers nothing to suggest something was not right about the "accident" of ZP-11's K-14. Later Rosendahl admits the larger body of work was never completed, noting it has "...not been included herein many of the reported but unverified airship contacts and attacks on submarines..." and publishers passed on it.

There may never have been further public discourse had it not been for a USNI reader submitting two "K-74 wreck" photos for *Proceedings*' January 1958 issue. Finally, more than a decade and a half after the combat, the crew of the K-74 received commendations for having damaged and driven off the U-134. Commander Nelson Grills was awarded the DFC. Back-page news, a notice appeared in *Navy Times*. No one even noticed the single airshipman generally cited lost as a result of enemy action had not even received his purple heart.⁸

⁴ Goodyear President Paul Litchfield had lamented in 1943 that "...we have no official knowledge as to the preference rating group in which our airships are carried, yet it is quite obvious that this group rating must be very low."

⁵ NAS Lakehurst newsletter for 3 APR 46 reports, "With his destination London, England, Lt. Gordon Vaeth will board an American Airlines plane tomorrow... will return after several months of research and study of LTA material in Europe."

⁶ Long thought lost, this list was divided between two *The Noon Balloons*: #33 of JAN 94 and #34 of APR 94

⁷ "U 94 went to the bottom where damage report showed its port electric motor stopped, blocked stern planes and echo depth gauge out of order." (Rosendahl, *History of USN LTA WWII*) Its damage was roughly similar to an embarrassing "friendly fire" incident that same month in which TC-13 bombed the USS *Gato* (SS-212) which then had to be drydocked for repairs

⁸ Doctoral candidate CWO Anthony Atwood not only delivered the award to Isadore Stessel's family, but his dissertation remains the absolute definitive word on the only LTA ASW attack the US Navy acknowledges to this day

The Naval Airship Association was incorporated in 1984 but stories told by veterans at their reunions weren't researched. Finally in 1986 the Navy Historian's office published *Kite Balloons to Airships: The Navy's Lighter-Than-Air Experience*, introducing its astonishing admission blimps had damaged two other U-boats.⁹ Of course, no details of those two previously undocumented damaging attacks were included.

J. G. Vaeth, with his books, numerous articles and Congressional testimony about LTA, had become its beloved elder statesman. In 1992 the USNI published his *Blimps and U-Boats*. Vaeth drew from the squadron histories he himself had written, detailing some examples of encounters ignored by general histories, particularly Morison. Inexplicably, there is no mention of the contacts or combats Vaeth himself had found in 1946. Furthermore, Vaeth reached the new conclusion that "no losses under blimp escort" was actually violated once, in the severe damage to the *Persephone*, 25 MAY 42.¹⁰



LTA wasn't just a career killer in the Navy. It became journalistic poor taste to defy Morison to even suggest blimps' record on offense should be re-examined. William Althoff would summarize in his *Sky Ships*: "The raw fact was that no enemy submarines had been sunk by a nonrigid... Following the Second World War the different constituencies of the American military establishment began to promote their respective wartime achievements. Within the Navy, carrier aviation would dominate postwar naval policy and, thus, navy politics. The airship's

⁹ Following a later discussion with its editor, Roy Grossnick, this writer has concluded the well-illustrated official history, which freely admits it could not be a complete account of WWII LTA, drew upon the formerly secret 1951 10th Fleet data dump, the updated K-74 account, and History Center records.

¹⁰ Rosendahl had already addressed this case decades earlier, mistakenly assuming the freighter had been sunk; his research showed the K-4 was actually 20 miles away when the U-593's torpedoes hit *Persephone*.

contributions were practically ignored. Essentially a defensive weapon, the nonrigid lacked the glamour of the more established naval hardware – surface ships and aircraft made famous by four years of global conflict. Published accounts of the Battle of the Atlantic seldom mention the airship. Even 'official' histories of the war at sea tend to neglect its contributions. Moreover, poorly prepared for war and comparatively low among budgetary and material priorities after Pearl Harbor, the program was deprived early on of the highly specialized equipment and development attention which might have produced more dramatic combat successes."

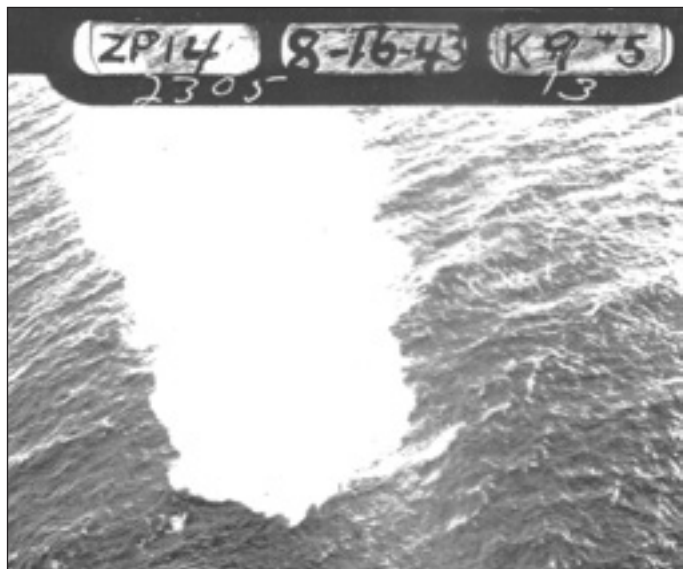
Unsurprisingly, some veterans were not satisfied with publishing to that date. One former pilot, Walter Swistak, released his memoir, *Blimps, Balloons and Bombs*, in which he described his crew briefly spotting a conning tower and attacking with depth bombs, only to have two additional blimps fail to sink it with their full salvos. Another, Walt Ashe, typed up his recollections which included the wartime R & D ship, K-91 out of NAS Lakehurst, testing a developmental homing torpedo before it was perfected for use by ASW airplanes.¹¹ K-72 pilot James Hughes showed us his log entry for 18 APR 45, encircled "sub attack," in which he related they had launched a homing torpedo against a sub contact whose sound they localized with their sono-bouys. Too many others went on to their reward before even giving our volunteer team an interview, or, as discovered later, left a memoir without mentioning their combat involvement.

About that time it dawned on this amateur historian that it might be possible to find the other side of the combat story - if the U-boat survived. With the luxury of knowing *Persephone's* attacker, we purchased copies of U-593 log pages, which reported the sub lying about the Barnegat buoy that late May morning. Skipper Kelbling noted ship traffic and air patrols, and pickled off four torpedoes at tempting targets. All missed. Several hours later, he logged sighting a "single 6,000 ton tanker." He'd spotted the SS *Persephone*, and obviously not displaying his periscope any longer than necessary, he did not appreciate the tanker was actually part of a loose convoy of ships – nor did he note any escort. U-593 fired two torpedoes then turned tail to make off at highest speed. Only afterwards, when he chanced a look back to check for pursuit, does he note an airship. Correspondence with the K-4 command pilot verified Rosendahl's assessment: the K-ship crew had not been assigned to protect the merchantman, but while on

¹¹ Ashe's account of a Marine guard posted on the K-91 with the then-secret torpedo aboard was independently verified by the K-91's crew captain, rigger Hepburn Walker, Jr. 'Hep' recalled one test in which an old sub cruising as test target was actually struck by the unarmed developmental torpedo.

patrol they'd spotted the torpedo's explosion plume and rushed to the area.

Vaeth sent us his congratulations, but the experience convinced us there were grounds to suspect the published histories were incomplete, that the veterans were not just embellishing war stories. The USNI kindly published this writer's call for action.¹² While that article failed to attract an empowered person, several veterans then came forward, including noted pilot "Ace" Culbertson, a DFC winner, with stories of their own.



Sifting through published histories to find K-14's possible opponent - Clay Blair's two-volume U-boat opus came out in paperback about then, in which Morison was referenced - we wrote Cuxhaven's U-Boat Archive concerning subs near Maine in July of 1944. They lead us to a U-233 survivor living in South Carolina, who lead us to the Captain of the only other U-boat (107) in the area - but not, as he explained, off Bar Harbor the night the K-14 was downed. The U-107 captain did, however, remember being attacked by "luftshiff" (he did not know the word "blimp") off Georgia in 1943. Wholesale writing to anyone or organization who might have information, a tip from U-boat expert Jeurgen Rower reinforced the validity of the combat. (It had even been on Vaeth's 1946 list and was a Morison "failure.") Though the details did not seem make sense, we ran all we knew in the NAA newsletter. Bingo - a blimp pilot recognized the Georgia story as his own. We were very proud to initiate a brief correspondence between former rivals K-34 command pilot Ensign Jack Hely IV and U-107 skipper Kapitänleutnant Volker Von Shimmermaker.¹³ We correctly suspected such improbable planets would never be so aligned again.

¹² "An Effective Umbrella," R G Van Treuren, *Naval History*, June 1998. Its cover-story case remains the deepest mystery.

¹³ "Georgia Draw," R.G. Van Treuren, *Naval Aviation Museum Foundation*, Vol. 21 #2, Fall 2000.

Another Naval Historical Center visit got us a few issues of the 10th Fleet's house organ, *U.S. Fleet Anti-Submarine Bulletin*, the so-nicknamed "Yellow Sheet" which rarely mentioned LTA. Its April 1945 issue verified Walt Swistak's otherwise unaccredited three-blimp action against one of those "last-ditch" U-boats sent to America. It also listed the 10th Fleet's rating system, ranging from 'A' (sunk) through 'F' (insufficient evidence of damage) through 'H' (insufficient evidence of a sub present), etc.

Such small puzzle-piece fittings had been our only hope until an economy move by the Clinton administration declassified older materials, including the 10th Fleet records. Retrieved from the damp Navy Yard basement where their gummed envelopes had gradually sealed themselves, their new custodians at the National Archives sought to build a finder's aid¹⁴ for the debriefing reports, transcriptions, MAD charts, follow-up correspondence, photographs¹⁵ and other given materials from individual cases, each in a 11 X 17 manila envelope bearing nothing more than a number stamp on its upper right corner. (There are some 9,000 packets.)

Our first slugfests blundering into that featureless morass armed only with some target dates revealed most packets contained a large (roughly 8 x 10) card, stamped with the same number as its materials envelope, and then "punched" - notches cut in its sides - corresponding to various key 'field' codes. Each card, about 80 pound thickness-weight, could also be inserted directly into a typewriter to add an easily read summary. One morning's pull of mostly late July 1943's packets yielded #3795, K-74 vs. U-134, the only combat officially recognized, unashamedly rated 'G' (miss).¹⁶ Likewise, we located Rosendahl's discovery, K-6 vs. U-94, #255, also rated 'G,' neither case updated that those subs were damaged. Since both sides had matched in K-3/ U-432 we expected another 'G' rating there, and in the K-34/U-107 case¹⁷ as well, but have never found either packet.

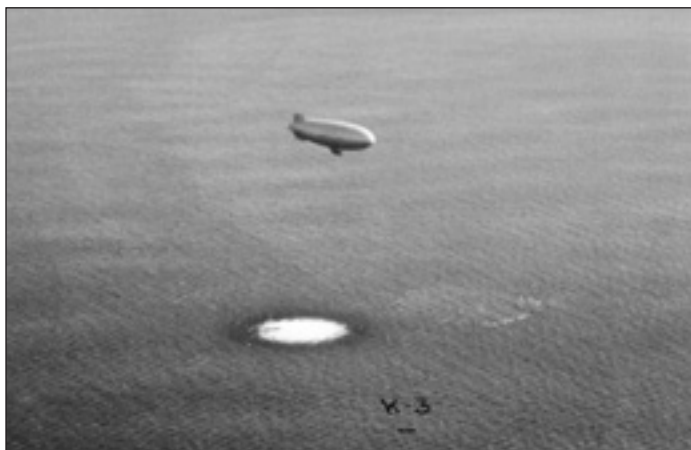
¹⁴ Its first page reproduces a 1945 memo detailing a requested data dump yielding 90 (!) line items for LTA, most rated 'H' (not sure).

¹⁵ K-ships commonly carried a large format still camera [see photo print with number plate visible] Photographs from a few 10th Fleet cases carried their number and appear to have been filed in the NARA Still Photo Branch; however, these numbers listed in their photo card file cannot be found by NARA custodians to date.

¹⁶ The radio intercept from U-134 was located, showing the decoding/interpreting yeomen mistranslated the German word *Luftschiff* to read "flying boat" twice. Eventually lined through and "blimp" penciled at an undetermined time later for that famous action, one wonders how many times that same mistranslation was made - or if any such others were even discovered, let alone corrected.

¹⁷ Jack Hely even remembered his de-briefer as being the son of the SAG commander, LT John Ames.

We discovered why the official history's referenced 1951 data dump had listed two possible damaging attacks: #844 and #884 had been rated with the coveted 'E' (probable slight damage), the highest rating awarded a 'code 36' (airship) notched card. Setting the criteria to exclude 'F' and below, they had missed the only combat the Navy acknowledged. They had even missed K-17's double attack,¹⁸ originally rated 'F' but penciled in as 'E' when U-156 was sunk nearby days later.¹⁹



Eventually our effort benefited by an absolutely genius conversion of the 10th Fleet data into a spreadsheet program, instantly allowing isolation of cases coded '36' in numerical order, by CAPT Jerry Mason, USN (Ret).²⁰ There we learned of the translated *Kriegstagebücher* (KTb) - War Diary, and easily found entries concerning airships. Finally, CAPT Mason kindly lined up and translated available U-boat logbooks until most every known sub reaching waters under blimp patrol could be scanned.²¹

When attacker and defender sides of the stories match, we think it's time to revise the official history, period. But, then what? As with K-6 and George Lee, authorities have not commended Jack Hely and his K-34 crew for fighting off the U-107 to save the merchantman *Albert Gallatin*, or Bill Peeler and crew bombing U-432 to allow salvage of the *Kronprinsen*. The K-14's Board of Inquiry conclusions are still incompatible with witness testimony²² and aerostatic law, and its minority report remains classified to

this day. Even the most well-heeled undersea adventurers have shown no interest in relocating the U-boat found off Norfolk during the 1968 search for USS *Scorpion* to see if Jim Hughes and his K-72 crew torpedoed it there where they claimed, supported by 10th Fleet #8343. And on the flip side, we've not been able to figure out which airship bombed the U-185 off Cuba.²³

Due credit aside, there is a larger lesson here than the old argument of a troopship saved is worth more than two sunken U-boats. We've not discussed the inexpensive blimp's **defensive** bang for the buck. At peak strength there were never more than 120 operational airships, covering tens of thousands of square miles on two coasts - yet one sub skipper complained, "Every time I raise my periscope, an airship is there!" Three different U-boats off Cape Hatteras noted an airship on different days... thankfully not realizing they were the same blimp, the K-5, the only one we had there at the time. We have no idea how many times subs crash dove when their radar detectors went off as blimps were just out there radiating on night patrol. You can easily detect a certain pride when Grand Admiral Karl Dönitz radioed: "U134 after being attacked by bombs and gunfire, shot down an attacking airship on the night of 19 July in DM 5216. It attained by that the first success of this kind in the war." Dönitz's Current Order No. 41 of Oct. 1943²⁴ actually **overstated** airship capabilities, naively assuming the Americans could not have been so bureaucratized as **not** to employ equipment and techniques demonstrated back in WWI.



obtained from interrogating the survivors. It would not even accept in evidence the written statement of the technicians that they found many bullet holes in the fabric... When the bag was spread out on the field they were able to determine that the bullets entered the bag aft of the car and exited at the top amidships."

²³ The airship attack was logged, radioed in, reported by its survivors when later sunk; even Morison had noted it.

²⁴ It translates: "Air patrolling of American waters is for the most part carried out by semi-rigid airships called "Blimps." Length 74 m., 2 engines, maximum speed 120 km., maximum range 3200 km., armament: 2.5 or 3.7 cm guns, bombs and depth charges. They can carry on a cable, underwater detection gear. In calm weather they can alight on the water."

¹⁸ 10th Fleet #2625 and #2656; attack also mentioned in ZP-51 history.

¹⁹ Apparently the only case of a 'code 36' card upgrade, new cards were not cut, so the 1951 dump missed them.

²⁰ <http://www.uboaarchive.net>

²¹ Obvious exceptions were post-JAN 45, including late boats sent to the US maintaining radio silence and then lost, such as the boat targeted in Walter Swistak's three-blimp attack, 10th Fleet #7789. Dead men tell no tales.

²² Alex W. Moffat, CDR USN (Ret.), *A Navy Maverick Comes Of Age*, Bantam Books, 1977, relating fishermen feeling concussions in their boats at sea and witnesses ashore seeing tracer fire: "It was obvious that the court wanted no record of any sub attack in those waters. At the hearing they admitted no evidence except that

Even if one cannot accept airships damaging or sinking subs, the take-home lesson is this: In two World Wars, an airship in periscope view certainly shut down the plan to attack, changing the focus of the hunter to that of his own survival. While Americans treated LTA as “poor relatives,” in August 1942 Grand Admiral Dönitz admitted to a German audience, “It cannot be denied that even the small ‘Luftschiff’ have a certain effectiveness, in defense...” and wrote to J. G. Vaeth postwar, “the American ‘blimps’ were very disturbing to German U-boat activity.”²⁵

You can sense the concern of U-571’s Helmut Mohlmann, “While scanning the horizon, I discovered an airship on the port beam (south) flying a zigzag course. It was apparently looking for U-boats between the 20 and 200 meter line. Because of the clear blue water, I did not like the air-ship which would soon be over me. I turned tail and went to deeper water.” You can sense the frustration of U-69’s Ulrich Gräf after being dogged by “a Parseval bearing inscription ‘U.S. Navy’” most of a day and past midnight, finally recording, “Surfaced. Airship out of sight. No point in pursuing convoy as it had a 50 mile lead. Batteries nearly exhausted.” Likewise U-66’s Friedrich Markworth, with several merchantmen to his credit that cruise, logged, “Active airship protection, secure from General Quarters.”



²⁵ Rosendahl’s research accessed Nuremberg trial timeframe materials showing *Reichsmarschall* “Goering also stated his impression that our lighter-than-air development and production during the early days of the war ‘were hampered by high Navy circles.’ He was sure this lack of interest also precluded any too widespread use of blimps against their submarines and, he added, they were relieved that we failed to do more along airship lines than we did.” Weeks before V-E day K-ships were finally on their way to England to counter new Nazi sub threats appearing in the closing months of the war.

So ultimately unpunished were our Government’s blunders of ignoring aeronautic experts’ recommendations and previously proven technology,²⁶ slow-walking an inexpensive 1936 simplistic design for production, then waiting until the final weeks of the war to equip a precious few airships on the “robot bomb patrol” with sono-buoys and the homing torpedo. Such errors have gone unnoticed in part because the *Unterseeboot* was basically a plunging boat, with limited time and speed underwater. Their “anti-escort” homing torpedo and battery advances were blessedly too little & late developments. Also underappreciated is that, after a few battleship and aircraft carrier early successes, the U-boats instead concentrated on cargo and petroleum-filled hulls defended by Armed Guardsmen naively placed aboard to die with the other torpedo victims, the goofy Q-ships being no exception. Most important, the eventual defeat of the U-boats was heavily dependent on being able to read every word of, and home in on, transmissions to and from their micro-managing radio-chatty Commander.²⁷

Consider that we built an ASW “destroyer” vessel christened USS *Jacob Jones* (DD-61) which was torpedoed and sunk by the U-53 on 6 DEC 1917, with loss of sixty-four men. We christened another destroyer USS *Jacob Jones* (DD-130) which was torpedoed by U-578 on 28 FEB 1942,²⁸ both without homing technology. We might be called naive to assume a newer “destroyer” would be anything more than another target hull in the water²⁹ for a modern low-ferrous hull, ultraquiet hydrogen-powered submarine armed with long range 100+ knot smart torpedoes.

²⁶ Recommendations of the Durand Committee in 1936 have been ignored to this day. Innovations called for in the 1935 BuAer memo proposing a ‘K-2’ to fix the problems of the cobbled-together K-1 were set aside along with any and all rigids’ technology, such as robust monocoque aluminum hulls fire-safe with hydrogen, a small prototype flying with helium 1929-1940. Nothing much came of Congress authorizing “200 airships of any type, to be built immediately” in June, 1942.

²⁷ Allies also got a break when the Japanese largely failed to exploit their submarine force with its advanced torpedoes. While the US could decipher “Purple,” and despite some claims and 10th Fleet case files, we’ve found no record of an I-boat surviving an airship encounter (if there were any). Leadership refused to have airships further West than the Farallons, even to help with deadly mines in the Sea of Japan (K-ships had demonstrated welcome MCM in the Med) or to counter the expected onslaught of kamikaze mini-subs preparing to complicate the invasion of Japan.

²⁸ In the later case the DD’s own anti-submarine depth charges exploded as she went down, killing many previous survivors. Only eleven of that *Jones’* crew of some 200 were rescued.

²⁹ USS *Kearny* (DD-432) and USS *Reuben James* (DD-245), destroyers specifically designed for the purpose of fighting submarines, were torpedoed (losing 111 lives) without homing technologies, before the US was even in the war .



One wonders if submariners will hesitate launching an attack if they perceive contrails from our converted airliners working ASW from 30,000 feet.³⁰

If unwilling to update the record or give due credit, we can nonetheless overcome our unhealthy prejudice against an entire technology by learning the airship is not some sort of big clumsy airplane, but rather a displacement vessel more closely akin to its underwater adversary in both design and operation.³¹

The airship has always been the submarine's only natural enemy. We would be unwise to ignore this lesson of history.



³⁰ The ZPG-2's 16-hour tracking of the USS Nautilus and demonstrated 95.5 hour on-station ASW patrol time and 264.2-hour, 9,448 mile un-replenished endurance compare favorably with ASW Patrol airplane models 1 through 8

³¹ The Albacore hull was studied hung under the "Flying Wind Tunnel" airship, and controls of a ZP4K were adapted to "fly" the revolutionary blimp-like submarine underwater. Just as stern propulsion was wind-tunnel proven for the larger blimps, the Navy moved to eliminate any air asset that did not fit on a carrier

World War II Air Medal Recognition: A Million to One

by John A. Fahey, Commander USN (Ret.)

During World War II, Navy airships in over 55,000 flights escorted over 89,000 merchant ships in U-boat infested western Atlantic waters without loss or damage to a single merchant ship. Daily, Navy airships conducted antisubmarine patrols driving U-boats out of the shipping lanes. This success came after 1942 when the U-boats were sinking 48 merchant ships a month in the western Atlantic off the shores of America. The turning point came about when on June 15, 1942, a German U-boat with delayed armed mines, sunk two merchant ships off Virginia Beach, Virginia at the entrance to Chesapeake Bay. The next day, U.S. Congress authorized the construction of 200 Navy airships. The Bay was closed on the 16th and 17th, but when it was opened, another vessel was sunk by a mine. In 1943, the U-boat sinking of merchants reduced proportionally and drastically due to the increases in Navy airships coming online. The Airship Training Command met the challenge to have trained crewmen ready to man the airships as soon as they came on line.

Out of the thousands who served in airship squadrons, Robert Slaff of Maryland submitted to the Navy Department a request to be awarded for his World War II service flying Navy airships as a rigger. Bob had flown 55 flights on patrol before he was selected for supply school. He was commissioned and served as a supply officer for the rest of the war. On June 8, 2008, Naval Academy Superintendent Vice Admiral Jeffery L. Fowler presented the Navy Air Medal with gold and silver stars and a Distinguished Flying Cross to Robert Slaff, a Maryland resident, for Navy antisubmarine patrols as a crewman during World War II, as did many other thousands of airship pilots and crewmen. In his presentation, Admiral Fowler highlighted the significant contribution of the Navy airships that led to defeat of U-boats and to the award of medals to this crew member. It led me to praise this event and encourage others to seek recognition for their wartime antisubmarine patrols.

Six years later, it was suggested that as now I was a resident of Maryland and a constituent of Senator Benjamin Cardin who filed the necessary inquiries until the conclusion of the 2008 successful process that I should set the example for this airship antisubmarine success. I had been an airship combat senior pilot, command pilot, and former President of the Naval Airship Association. I was not recognized for any heroic feat during the war, but did without interruption fly significant airship escort and patrol flights over the German U-boat infested waters of

the western Atlantic during World War II from Naval Air Station Glynco in Glynn County, Georgia.

During December 2015, I gathered my flight logs which contained every flight flown in World War II and the Korean War and my periodic fitness reports which contained evaluations of my performance for every day in World War II and the Korean War. I had every page notarized by a Catonsville, MD law firm, and sent these pages with other required documents to Senator Cardin for delivery to the Navy.

In December 2015, Senator Cardin began to receive a barrage of letters from Admiral John Richardson's Office of the Chief of Naval Operations, all signed by direction. The writer of each letter was T. L. Biddiex. Copies of these letters sent to me by Senator Cardin contained utterly false information on wartime antisubmarine patrol and merchant ship escort flights, incorrect accounting of a number of WWII and Korean War flights... The following is a collection of excerpts which contain disinformation and false statements in responses to Senator Benjamin Cardin and my responses to correct the false information:

9 DEC 15: Ms. Biddiex, "According to the flight log book, the majority of Mr. Fahey's flights occurred post-World War II and pre-Korean War."

My Response, "During World War II in a combat areas infested with German submarines, I flew 140 flights, 1,371.1 hours and during the Korean War I flew 101 flights, 560.2 hours. Wartime total flights were 298, 2,129.4 hours"

Ms. Biddiex, "The majority of Mr. Fahey's flight occurred post-World War II, which ended September 2, 1945 and Korean War, which started June 25, 1950... Only the final flight on June 26, 1950 occurred during wartime."

My Response, "The June 26 flight on the second day of the Korean War was related directly to Commander Fahey's combat airship command flights during World War II at Glynco, Georgia, when he contributed to the success of Navy airships in patrols over U-boat infested Western Atlantic waters and airship escort of over 89,000 merchant ships without damage or sinking of a single ship.

27 May 16 Ms. Biddiex, "The majority of Mr. Fahey's flights as annotated on his flight log were for training, patrol/scouting, or transportation of personnel. Flights of this type cannot be used for credit towards an Air Medal. Other flights that can be considered are: antisubmarine, and similar essential wartime operations. There is no record that Mr. Fahey flew any qualifying combat missions or missions listed under conditions listed above. In lieu of this, we regret that Mr. Fahey is not qualified neither for the Air Medal nor the Distinguish Flying Cross.

My Response, "Ms. Biddies's count of the majority

of antisubmarine patrol flights is again false as was her insistence in earlier letters that that majority of my airship flights occurred between World War II and the Korean War. My annotated 90 'J' flights in my two flight logs were the majority flights compared with all other flights combined in World War II. The letter J was the only letter available to identify antisubmarine patrol flights."

Senator Cardin's Response, "I regret that the reply could not have been more favorable. However, I hope that the information provided is helpful to you in understanding the agency's position."

My Response, "Ms. Biddiex statements raise many questions.... Senator Cardin was successful in submission of his constituent airship Rigger Robert Slaff's case, which I supported publicly in 2009, for flying 55 missions in World War II. Rigger Slaff was awarded two Distinguished Flying Crosses and eleven Air Medals for 55 airship flights. Didn't all my fellow pilots, crewmen, and I, flying 37,554 submarine patrol and escort flights over the most infested U-boat waters in the Battle of the Atlantic, rate one of the estimated million Air Medals awarded in World War II?"

The lack of public knowledge of Navy airship's stellar contributions in winning the Battle of the Atlantic in antisubmarine warfare during World War II led to a shameful attitude toward Navy pilots and crewmen in the home fronts with rare exception. I encountered this in my own home town in Massachusetts where the father of my best friend who was killed on D-Day refused to speak to me because he felt that flying Navy airships, I didn't serve in wartime. Now despite my evidence of Navy flight logs, fitness reports, published articles, oral historic interviews, and books, the current Office of the Chief of Naval Operations expresses the same view to a United States Senator that I didn't fly any wartime flights. The flight history of every World War airship pilot and crew member during World War II antisubmarine warfare is similar to mine with flight logs and evaluations, so the misinformation and false statements apply to thousands of World War II combat veterans. I am writing published articles with the help of the National Archives which correct the Office of the Chief of Naval Operations statements and other Naval history misinformation, but the best of all sources for accurate and truthful presentation of World War II history will open on December 8, 2018 at the new World War II Home Front Museum on St. Simons Island, Georgia.

When I was a teenage Naval airship cadet, I encountered a song titled, "Mother, don't put that star in your window, your son's in LTA," I am confident that after seeing and hearing the cultural and educational presentations in this unique and extraordinary home front museum, a visitor will wish for a new song, "Mother, put that star back!" Ω

Airship Company Plans To Call Air Center Home

(Adapted from internet reports)

A new venture seeking to develop and test “lighter-than-air” airships that would monitor troublesome human activity from space is seeking to lease a building and land at the Roswell [NM] International Air Center. Charlie Lambert of Sky Sentry of Colorado and Dr. David Kim from Durham, North Carolina, with Vestergaard, a family-owned global health-care company based in Switzerland, talked about their new venture and the airship concept at the Thursday afternoon meeting of the city of Roswell Legal Committee. The new venture is known as Sceye SARL, the acronym being the French equivalent of limited liability corporation. Lambert serves as the Roswell coordinator for the effort, while Kim is project lead.

Sceye Inc. is the name of the airship development program headed by Dr. David Kim, a research and development specialist with a doctorate in environmental sciences and engineering. Kim has worked in the past with companies developing technologies to purify water, prevent diseases and address other public health concerns. He won't give a lot of details about the project at this point. The field is competitive and the ideas proprietary. But he will say that Sceye plans to launch the test vehicle before the end of the year.

“This is purely a development project right now,” said Kim. “So there are questions of what we will be able to achieve.” Lambert and Kim told the committee that they want to develop unmanned helium-filled airships measuring from 75 feet to 225 feet long that can be flown 65,000 feet or more above ground and stay in the air for a year. They said they intend to use the airships to fly over the Sub-Saharan desert in Africa to monitor activities of concern to public health and safe environmental conditions such as human trafficking and poaching. The airships also could be used for remote communication purposes.

Lambert told the group that Sky Sentry is known primarily for tethered aerostats, similar to small blimps, that monitor ground activity. Lambert said that Sky Sentry worked for several years to improve its “lighter-than-air” technology and will now partner with Vestergaard in Sceye.



Dr. David Kim of Sceye Inc. stands in front of the hangar being erected on the west end of the Roswell air field. When finished, Sceye team members will build a helium-filled airship up to 250 feet long designed to rise to the stratosphere and stay up there for extended periods of time. (Lisa Dunlap Photo)

“We think this will bring the city visibility,” said Kim, who explained that the project began because the chief executive officer for Vestergaard serves on a council for the National Aeronautics and Space Administration.

No new jobs are expected to be created at the current time, but would be at the end of 2018 or in 2019 if their airship concept proves viable. Then Sceye would hire up to 50 people to build airships for use in Africa. Lambert added that the city will benefit economically from the start of the project.

In response to questions, Lambert said that they did intend to hire local contractors to pour the concrete slab and were looking at New Mexico suppliers for helium. Scott Stark, manager of the air center, said that the Federal Aviation Administration has been consulted about the project and has cleared the project in terms of its environmental impact and has given an indication that it will approve it regarding use of air space.

“Once we have tested our systems and demonstrated capability to get up there, we want to share what we have learned,” he said. Ω

MEDIA WATCH

Graf Zeppelin – the first flight to America

By Rolf Brandt
and Dr. Hugo
Eckener

Translated by
Alastair Reid

Reviewed by
C. P. Hall II



The small, paperback volume is quite subject specific covering what was believed to be a turning point in aviation history when it was written. It is 6" X 8" containing 161 numbered pages and is not so much a joint project as it is two versions of the same event: one by the ship's captain and the other by a passenger included on this 'maiden' voyage.

Rolf Brandt sets the stage in the opening chapter titled "The Drama." Dr. Eckener picks up the tale divided into three major divisions and two sub-divisions labeled: "The Problem", "The Ship", and "The Flight Report." "Outbound leg" and the "Return leg."

Rolf Brandt repeats the story of the flight from the passenger's perspective in chapters labeled "Diary of a passenger", "The Reception in America" and "Back to Germany". Dr. Eckener offers concluding comments under the heading "Reflections and a look ahead".

The original German language version, "*Die Amerikafahrt des 'Graf Zeppelin'*" contained a number of contemporary photographs and a chart of both legs of the journey. This new translation includes those photos & chart and adds drawings by noted artist Dr. Ludwig Dettmann who was one of two artists who made this trip. Elsewhere, Ernst Lehmann describes Dettmann's work as "...a picture map of strong, colorful impressions of the trip. His artistic eye and skillful hand reveled in the eternally changing play of color, light, air and water." Regrettably, as this is a Lulu publication, the drawings are B & W, however, author Rolf Brandt was Dettmann's room-mate for the journey and his comments regarding having an artist for a room-mate offer a bit of amusing compensation. Drawings by the other artist, Theo Matejko, are an added bonus.

The focuses of interest in this volume are the chapters written by Dr. Hugo Eckener. The reader new to the

topic will find much of interest while the knowledgeable reader will find many tid-bits of interest. There are some interesting contradictions with then current British practices. For instance the structural design "... *in general followed the well-proven basic arrangement of its predecessors ...*"

"You can see how the duralumin framework is made up of primary and intermediate rings, joined by longitudinal girders ... primary rings are wire braced as usual ... the girders are deeper and therefore have greater strength ... even the duralumin used in them is significantly stronger than for example on the LZ 126." (USS *Los Angeles*) If you find this interesting then perhaps you should read page 160 and Dr. Eckener's thoughts regarding carrying an "*expert in meteorology*" on board to advise the commander.

An after action report, written immediately after the event by the senior participant, is always the primary source for knowledge of the event and the standard by which to measure subsequent efforts. A copy may be obtained at http://www.lulu.com/spotlight/alastair_reid my cost was \$8.56 (USD) plus S & H \$3.99 to the Midwestern United States. I recommend this small volume as an historic, interesting read and value for the price.

Sometime ago I noticed a curious declining emphasis in literature about the *Graf Zeppelin* in that, the earlier the work, the greater the perceived significance of the weather encountered on 29 OCT 28 on the first return flight from the United States. Lehmann emphasized it in 1936 *, Eckener does so in 1952 **, it is still of considerable interest to Gordon Vaeth and it is generally downhill from there. One recent volume notes that Dr. Eckener returned to Germany with no commitments from American investors and goes straight to the Round-the-World flight. I was curious enough to want to review "*Die Amerikafahrt des Graf Zeppelin*," however, my college German is inadequate to the task.

I asked Alastair Reid if this title was on his list to translate and offered the loan of my German language copy. He replied that it was on his list, he had his own copy, however, Dr. Eckener was a very educated author and his German text was a challenge to translate into English. I explained my reasons and he accepted the challenge. This is why page 2 reads, "For CPH". There will be more forthcoming from me based upon my observations and, for that, I thank Alastair Reid. Ω

*ZEPPELIN by Ernst Lehmann published in Germany 1936, English translation in the USA, 1938

** MY ZEPPELINS by Dr. Hugo Eckener, translated by Douglas Robinson in 1952.

Leonardo Torres Quevedo

by Francisco A. González Redondo

Published in Spanish by AENA (Spanish Airports and Air Navigation Agency), as part of their Aeronautical Leaders series.

Reviewed by Alvaro Bellon

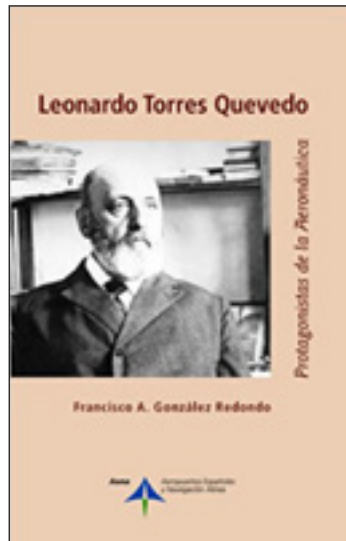
The book is a biography of Leonardo Torres Quevedo, born in Santa Cruz de Iguña in the Cantabria Region in 1852. He died in 1936, 10 days before what would have been his 84th birthday. He was a Civil Engineer and Mathematician, as well as a prolific inventor.

The book (160 pages) consists of 5 chapters. Chapter 1 gives an in depth background of Torres Quevedo's family, his upbringing and education, as well as some of the friendships and acquaintances he made during that time, which would be invaluable once he started to develop his ideas and put his inventions to practical use, as several of these were by then occupying high-ranking positions in the Spanish government and scientific circles.

This chapter also describes his first invention, the cable car with a multi-cable suspension system, which maintained its tension by means of counterweights attached to the two ends of the cables. The first passenger carrying cable car system was inaugurated in 1907 was installed near the city of San Sebastián in northwestern Spain. In 1916 he built another cable car system, this time in Canada, just downstream from Niagara Falls, crossing the Niagara Whirlpool. This cable car service is still in service today.

Other inventions included in the first chapter are the *telekino*, a system to relay commands to unmanned airships from the ground using electro-magnetic waves, thereby not having to risk human lives during the early development stages of airships. Another invention was the *algebraic machine*, a device capable of solving algebraic equations.

Chapters 2, 3 and 4 are dedicated to Torres Quevedo's work in designing and building airships, including a series of unique features, such as the tri-lobe envelope and a semi-rigid airship with a catenaries system for suspending the gondola. In the early stages of development the government grants mandated that the work be done at the Madrid Ballooning facilities of the Spanish Army. This



resulted in a clash of egos as the commander in charge of the army's facility gave low priority to Torres Quevedo's projects, and later took credit for their development. Much of the three chapters is dedicated to chronicling the politics that took place during this period, while technical details of the inventor's ideas and developments are not in depth.

The three chapters follow the Spaniards airships from the early Torres-Quevedo Nos. 1 and 2, to the Astra-Torres airships built by Astra, the French dirigible manufacturer, using Torres Quevedo's patents. Three of these airships found their way to the United States – AT-1 and AT-13 were transferred from the French Navy while the AT-18 was purchased directly by the U.S. Navy.

The fifth and final chapter mentions other Torres Quevedo inventions and patents, including further development of the *algebraic machines*, automated chess players (early artificial intelligence application) and the electro-mechanical *arithmometer*. It also makes emphasis on his aeronautical inventions, many of which are still being used today.

The book is full of illustrations and photos. Unfortunately, the illustrations from patents are only accompanied by a brief sentence referencing the patent, but do not explain what actually is shown. Another drawback is the small format of the book (5" x 8"), which makes all photos and illustrations relatively small.

In summary, the author makes a strong defense of Leonardo Torres Quevedo's contributions to science, especially airship technology, to ensure he is given credit for all his contributions. Ω

USNI PROCEEDINGS ran a proposal to militarize high-altitude balloons and Ed. responded, his personal viewpoint and not speaking for NAA:

"Bravo Zulu to LCDR Fox for targeting off-the-shelf ballooning technology needing only integration for at-sea warfare applications. Lifting gas is key: as noted, obtaining and transporting sufficiently pure compressed helium would be complex aboard ship, perishable cryogenic liquid is expensive, and that's not to mention in 2020 America will become a net helium importer. By contrast, limitless high purity hydrogen can be harvested from sea water. The most efficient balloon contains no air, so gas fire is impossible. Taking a lesson from our Allies' hydrogen-powered submarines, a ship's hydride-based storage would need no compressor. Even longer balloon mission duration was demonstrated by Pioneer Astronautics via methanol reformation aloft in place of ballast, to soften the balloons' day-night heat-cool cycle. We would be wise to overcome long held prejudice and misconceptions to follow LCDR Fox's lead." Ω

Dirigible Dreams

By C. Michael Hiam

Reviewed by

C. P. Hall II



DIRIGIBLE DREAMS

is a compact little volume. The pages are 6" X 8", there are 237 pages of text, a total of 263 when end notes and bibliography are added.

The title page is set against the most stunning photo of R.100 at the Canadian mooring tower that you are likely to find. Although there are multiple tiny people in the distance, only two visible people are interesting. One is a man in the foreground, looking up at R.100; the other is near the top of the tower standing as though about to enter across the drawbridge only there is a gap between tower and bridge and he seems to hesitate. One notices that the elevator surfaces are slightly raised, the ship's tail slightly depressed as though someone was attempting to close the gap for the fellow trying to enter.

In being asked to evaluate this book, I feel like that man at the top of the tower. I really want to enter and behold but is this a little too much of a jump? C. Michael Hiam composes a readable paragraph. This is not his first literary endeavor and I missed his previous title *A MOMENT OF DECEIT: SAM ADAMS AND THE VIETNAM INTELLIGENCE WARS* which seems about another of my interests and is an intriguing title. *DIRIGIBLE DREAMS* is oddly structured. Its time parameter is late 19th Century to almost mid-20th Century but chronology has little to do with it? The Introduction begins with the Hindenburg; you may guess what year and which flight! Chapter 1 begins with Alberto Santos-Dumont, transitions to Salomon Andree, pilot of a free balloon with a sail making it more steerable in theory than practice, followed by Wellman and Verman, all of whom are articulately dealt with in excruciating detail. Chapter 3 deals with Zeppelin from 1286 to the end of World War I. Chapter 4 is dedicated to R.34 with a final paragraph which covers Dixmude. Chapter 5 covers all American rigidids beginning with L.72 (not LZ-125?) which Gen. Billy Mitchell tried to buy. Chapter 6 covers Italian semi-rigidids Norge and Italia. Chapter 7 covers the British 1924 Labour Airship Program. Chapter 8 returns to the German airship efforts

post-World War I with an ending briefly touching post-World War II efforts by Goodyear which went nowhere. There are a few photos sprinkled throughout the book most but not all have been published elsewhere. There is a photo of an Italian semi-rigid at the top of the first page of each chapter??? Dr. Dale Topping's Law states that no book about LTA with photos and captions is ever published without at least one caption error. I thought that *DIRIGIBLE DREAMS* might break that law, however, page 84 the caption reads, "The pride of Germany, LZ 5 hovers near the floating hangar on the Bodensee" The ship is floating on the water's surface and I am convinced that it is not LZ 5.

Many years ago my grandfather became aware that, when I visited his home and found need to entertain myself, I would retire to "the library" and frequently pulled down his copy of *THE STORY OF THE AIRSHIP*(1943) by Hugh Allen. For Christmas 1957, he bought me a copy of a newly published book, *SHIPS IN THE SKY* by John Toland; a book so well received that it has since been reprinted more than once. Like Toland, Hiam spends time on Santos-Dumont and Nobile out of proportion to their actual achievements and contributions. Both Toland and Hiam offer errors of fact, however, both compose a book interesting enough to keep the reader turning the pages and, more often than not, touching upon one story after another with just enough detail that the reader wants to find another book, concentrating upon a specific topic, to learn the rest of the story.

Sometime ago, an editor admonished me regarding a criticism. He felt that a book, about which I lacked enthusiasm, was written by a well-known author, covered a great deal of the lighter-than-air story, was likely to sell a lot of books to a wider audience who might then become interested in LTA and that broader-based interest is really an important consideration in the 21st century. This editor's heart was in the right place, his observation was not without merit, and *DIRIGIBLE DREAMS* may well be the book to which this admonition should be applied. DD is available from Amazon; Prime price is \$18.94. Ω

Gasworld's November issue is to cover all things helium, including the Gasworld's Helium Summit in October in Houston. TNB & BF will cover same in the winter issue, #120.

BLACK BLIMP

George Allen, 89, passed 28 JUN 18. George was the last surviving member of the ZPG-3W test & acceptance team and commanded ZPG-2Ws and -3Ws serving in ZW-1. George was longtime LTA activist and President of the NAA. He is survived by his wife Dottie, a son and a daughter. Ω



NAA members in the lobby of the Military Aviation Preservation Society museum (MAPS) as they await their expertly guided tour from MAPS volunteers and docents.



At the downtown Akron LTAS Workshop, curator Wayne Buchanan explains the history of the motorized Goodyear – Zeppelin Air Dock and airship model as NAA guest toured that facility.



The actual car from the one and only, Goodyear GZ-22, *Spirit of Akron* airship. This airship was built in 1988 as a demonstrator of new technologies for airships and was the first blimp to be powered by two turbine engines. Goodyear donated the car to the MAPS Museum in 2008.



Within the last few year the fence sign for NAS Akron was recovered and donated to the MAPS museum in Canton, Ohio, just south of Akron. NAA members Cheryl Ganz, Dan Grossman, Jim Maguire, David Smith and Cindy Slater couldn't wait to have their photo taken with this historic item.

The Noon Balloon would like to thank the following individuals for providing the many photos, included in this issue, which tell the story of our Akron reunion so well. Eric Bothers, Jim Maguire, Cindy Slater, Alvaro Bellon and Ross Wood.



Overall view of the MAPS museum, looking down on the top of the *Spirit of Akron* airship car.



NAA reunion attendees take a break from the MAPS museum tour and relax in the somewhat spacious *Spirit of Akron* car. Front row, NAA Secretary-Treasurer Debbie Van Treuren and Jim Maguire, second row, Sherri Kumke and John Kumke third row, CP Hall and Dan Grossman, fourth row, Cheryl Johnson and Lorrain Madden.



Reunion attendees pose for a group photo after enjoying a tour and samples from the Fanny May factory located at the Canton/Akron airport near the MAPS Museum.



Over 70 people attended the combined NAA and LTAS dinner and program on Saturday evening October 6th in Akron



LTAS curator Wayne Buchanan and member Jim Maguire discuss a Navy enlisted man's jumper that feature airship designators and ratings, which was part of the society's collection that was on display at the banquet.



Cathy Spencer explains to Julia Hunt and Wick Elderkin, both Grand Children of USS *Shenandoah* officers, her photographic tribute to the rigid airship. Cathy's husband Mark, looks on.



Many airship items were on display and for sale at the joint banquet on Saturday. Here Jim Maguire, Dan Grossman, Wick Elderkin and Bill Wissell enjoy some of the collection.



With *Wingfoot Three* on the mast truck in the background, Ross Wood tries to line up attendees for our cover photo at Wingfoot Lake.



NAA Historian Mark Lutz visits with Margret Mayer, wife of the late Norm Mayer, a former NAA President. Margret was escorted to our reunion by Peg Hildreth, Norm and Margret's daughter. Margret worked at Wingfoot Lake as Goodyear's Wingfoot Lake Manager, Karl Fikes's secretary during WWII.



We were given a great tour and opportunity to see and enjoy *Wingfoot Two* and various ground handling equipment in the Goodyear Wingfoot Lake hangar.



Thanks to LTAS board member Jim Maguire we were given a rare access to the historic rigid airship era mooring circle on the north end of the former Goodyear Air Dock.



NAA reunion attendees had many airship photos and scrapbooks to review in the hotel's "ready room."



Mark Lutz and Anthony Atwood lead the ceremony remembering our NAA membership who departed on Eternal Patrol since our last reunion.