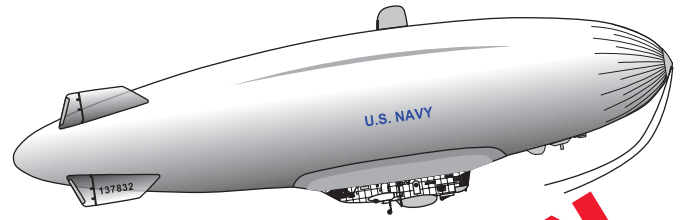
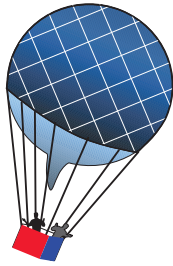
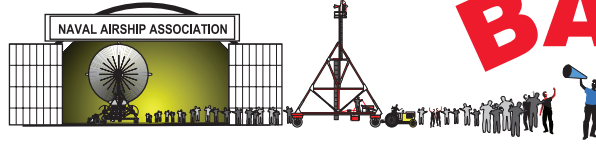


THE

NOON



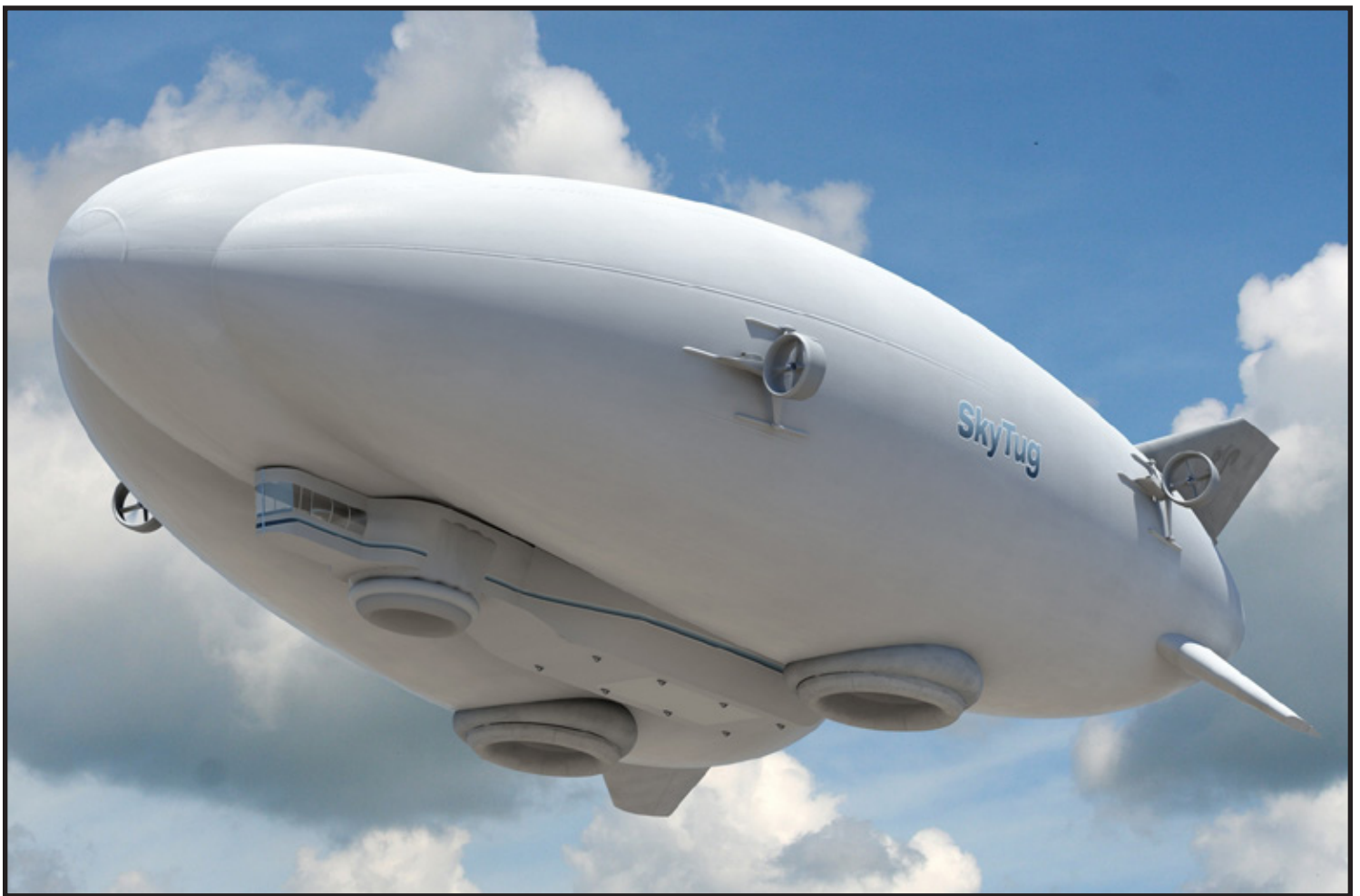
BALLOON



The Official Newsletter of THE NAVAL AIRSHIP ASSOCIATION, INC.

No. 99

Fall 2013



Sky Tug Goes For Certification



Worldwide AEROS floated out its variable-buoyancy demonstrator in July. First flight was hoped for about press time. This timber hangar of the former LTA NAS Santa Ana was later home to Marine helicopters of MCAS Tustin. One hangar is today a popular TV motion picture set and with location to nearby Los Angeles.

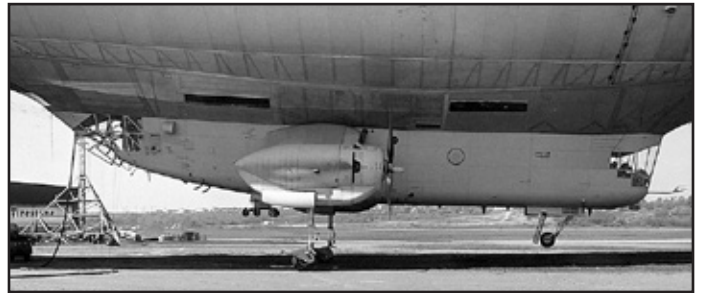


ALTAVE, a lighter-than-air solutions provider in Brazil, started to do a comprehensive study on the use of H₂ for LTA purposes. The study has been done with support of Fundação de Amparo à Pesquisa do Estado de São Paulo - FAPESP and Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq agencies and in partnership with Departamento de Ciência e Tecnologia Aeroespacial – DCTA. The aim of study was to show that hydrogen is not so unstable and inclined to burn inside an aerostat as one could imagine. After preliminary tests with proof bodies inside a shooting test tunnel, the configuration of the full test was chosen. It consisted of a 26 m³ hydrogen-filled nylon/polyaerostat attached to the ground in four points being shot by 7.62mm rounds. Amongst the different conditions the team aimed to verify the importance of hitting the same place in consecutive shots and to check the influence of the time space between two shots. In the total, separated into different batteries to represent different critical case conditions, 39 shots hit the balloon. Of those, 18 were tracing shots. None of them were able to ignite fire into the envelope or the gas, indicating that the hydrogen is not matching the reputation of its supposed danger. - Bruno Avena de Azevedo, AIAA LTA TC member

THE NOON BALLOON

Official Publication of the Naval Airship Association, Inc.

<u>ISSUE #99</u>	<u>FALL 2013</u>
Editorial	2
President's Message	3
Treasurer's Strongbox	4
Pigeon Cote	4
Shore Establishments	7
Cover Story	10
Short Lines	17
Ready Room – REUNION	18-19
Media Watch	30
Black Blimp	35
Lighter Side	36



The Naval Airship Association

www.naval-airships.org

President –

Fred Morin

PO Box 136

Norwell, MA 02061

Tel: 508-746-7679

Email: frmorin@verizon.net

Vice President / Membership Chair –

Anthony Atwood

9337 SW 37th St.

Miami, FL 33165-4123

Tel: 305-225-9165

Email: aatwo001@fiu.edu

Secretary-Treasurer –

Peter F. Brouwer

1950 S.W. Cycle St.

Port St. Lucie, FL 34953-1778

Tel: 772-871-9379

Email: peterfbrouwer@bellsouth.net

Executive Committee Members-at-Large –

East Coast: George Allen

E-mail: faxco77@att.net

West Coast: William Wissel

E-mail: willyum54@comcast.net

Immediate Past President –

Ross F. Wood

Email: rfwood@cox.net

Technical Committee Chair –

Norman Mayer

Email: normanmayer@verizon.net

History Committee Chair –

Al Robbins

Email: simplicate@comcast.net

Historical Liaison Webmaster –

Don Kaiser

E-mail: don.kaiser@gmail.com

NNAM Liaison –

Joe Hajcak

Email: jghajcak@juno.com

It's better to be over the hill than under it. ☺



THE NOON BALLOON

Newsletter of the NAA

Volunteer Staff

Contributing Editors: **NAA Members**

Masthead Artwork: **Bo Watwood**

www.navyblimps.tripod.com

Editor: **Richard G. Van Treuren**

www.airshiphistory.com

Publisher: **David R. Smith**

www.gyzep.com

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

Correction: The link to the ZSG-4 handbook intro on page 19 of Summer 2013 NB should read:

http://www.warwingsart.com/LTA/ZSG-4_Flight_Handbook/ZSG-4_Flight_Handbook_Section_1.pdf

There are four sections, all pdf. To get section 2, just change the "1" in the link above to "2". Same for 3 and 4.

EDITORIAL

R.G. Van Treuren, Box 700, Edgewater, FL 32132-0700, rgvant@juno.com

From the development of the first powered, directed flight in 1852, airships have mostly been one-of-a-kind experimental craft, lasting no longer than their constructors' resources. These pioneers were held responsible for their creations. Horace Wild recalled flying his airship in Tampa in 1908. His airship's gasoline motor backfired, setting the lacquered cotton envelope afire. It quickly lost its hydrogen-rich Citigas lift, and the plummeting contraption landed Horace in the town's fountain. Shaken but alive, he watched pieces of flaming fabric float into a horse barn, igniting it, causing its horses to stampede. When Horace was finished settling all damages, he recalled, he was wiped out.

Fast forward to our litigious society 105 years later, we find the very existence of entire industries wholly dependant on legislation limiting their liability in case of an accident. Well connected aerospace industries won two major concessions (see "Short Lines") just this quarter that, as usual, left LTA out in the cold.

Meanwhile on the seamy side of our industry are those connivers who do know how to manipulate the system to their advantage. They have little care about limiting their liability, however, since they have no possibility of producing a flyable airship. Slick presentations made to Gov't grant reviewers, who have likely never touched an airship, make it likely even the most long-disproven or shaky new concepts garner palletloads of taxpayer dollars right up front. These cons might not even have to prepare a speech for disgruntled shareholders when their wondership fails to fly.

What a refreshing change when Lockheed-Martin, who'd quietly entered LTA a quarter-century ago, flew their prototype back in 2006 on their own nickel. Never asking for taxpayer funds, and not protesting when LEMV was awarded to an unproven co-venture, the L-M team continued to refine their airship as a private customer signed a letter of intent. Then came the FAA "announces the availability of and requests comments on the proposed design criteria for the Lockheed Martin Aeronautics model LMZ1M airship. (See "Cover Story.") On March 12, 2012 Lockheed Martin Aeronautics submitted an application for type certification for the model LMZ1M. The manned cargo lifting hybrid airship incorporating a number of advanced features. The Hybrid Certification Criteria (HCC) for Transport Category Hybrid Airships, Lockheed Martin Aeronautics Company Document Number 1008D0122 dated January 31, 2013 was specifically developed for the LMZ1M."

We should all be proud of the L-M team for this unprecedented achievement, the first ever cargo airship now going for certification, notably without taxpayer milking or unscrupulous special protections. To some, a request for a detailed review of a 200+ page document, in less than a month, for free, might throw into question the FAA's true intentions. Ed. put in his two cents worth anyway, mailing in a suggestion that the disagreeing and outdated FAA regs concerning lifting gasses be updated and corrected to read "the lifting gas must be kept free of oxygen," Don Quixote having nothing on me.

- Richard G. Van Treuren

This quarter we lost Joe Lundy, narrator of our WWII DVD, "The Blimp Goes To War...Again." (See page 35.) Joe and his fellow Brazilian-LTA vet, the late Hepburn Walker, Jr. (right) are seen the day in 1997 we managed to get them both a ride on one of the AMS Skyship 600s. The crew kindly let both K-ship vets have some yoke time that day. Ed. was happy Joe volunteered to record the narration, not only because of his wonderful speaking voice, but because Joe, having been there, could pronounce places like Igarape Assu! Like Hep and the other select men who gave freely of their time and fortune to make the history possible, Joe Lundy will be sorely missed.



View From The Top: PRESIDENT'S MESSAGE

It seems like just yesterday that I was writing Message #5 for The Noon Balloon. We are making good progress on the plans for our Reunion/Conference in Newport, RI, next May. You will see some photos and preliminary details of our plans in the center spread of this issue (Pgs 19-20). We have made a good arrangement with the Best Western Mainstay hotel to be our headquarters for all activities. They are located about a mile from the Naval War College, have a fine banquet hall, and a good size Ready Room with balcony for us. Weather permitting, conversations and discussions can be held on the balcony. There are also many restaurants located within walking distance or a short drive. The Newport Slots are located directly across the street from the hotel for anyone wishing to try their luck.

Tentatively we have established this schedule:

Wednesday - Arrival, register at the hotel, register for the Reunion/Conference and a Meet & Greet reception in the hotel banquet hall.

Thursday - Bus to the Naval War College. We will be split into two groups, one group touring the Museum and the other touring the War College facilities. Groups will switch after about an hour or so. Lunch will be at the Officers' Club located on the waterfront and then the balance of the afternoon will be open. Thursday evening is open and attendees can choose a restaurant of their liking in town or dine at the hotel.

Friday - We will have a general business meeting and presentation of the Nominating committee's recommendations. We will also have one or two LTA authors making presentations after the meeting if anyone wishes to remain. The rest of the day is open. Newport offers many tourists attractions and the hotel provides transportation to the town center with unlimited off and on privileges. The "quaint" city center offers a large selection of stores and specialty shops and the large visitor center offers friendly advice, brochures, and maps of a variety of Newport attractions. The famed Newport Mansion tours offer a series of different packages of varied length of these opulent summer houses. There is a very good winery tour and tasting just up the street from the hotel, and the former Quonset Point NAS has a small, but interesting aviation museum. We will be providing more info on the various attractions of Newport soon.



Depending on how many members are interested there is also the possibility of a bus trip to the New England Air Museum where the restored K-28 car is on display. Friday evening will conclude with our banquet and a special guest speaker and presentation.

Transportation – The nearest commercial airports to Newport are Providence Green Airport and Boston Logan Airport (about a 90 minute drive). We need to be transported as a group onto the Naval War College since it is part of an active duty Navy facility. No private vehicles will be allowed. We will be making arrangements for buses to transport us on and off the college campus. The same bus company offers transportation from Green Airport to Newport and as soon as we have more info on schedules and costs, we will notify everyone. Naturally, both airports offer rental car companies.

I think we have a very interesting Reunion planned and there should be enough varied activities to keep everyone occupied.

Finally, we are planning on holding an Executive Council Meeting in October to discuss details of the Reunion/Conference and some other administrative items. An update on the signage project at the USS *Shenandoah* crash sites will also be presented. Details of the meeting will be in a forthcoming Noon Balloon issue.

Thank you for your continued support and encouragement. Our Naval Airship Association is in fine shape and should be for many years to come.

- Fred Morin, President

TREASURER'S STRONGBOX



We all hope you had a “cool” summer. With fall in full swing, it will soon be time to renew your membership. Everyone did a great job last year! Quite a few members took advantage of PayPal, a safe and easy way to pay your dues. If you have a computer, try it this year. If you have any questions or problems doing any of this, please call me, I will walk you through it! If you are uncertain of your status on the renewal dues, feel free to call.

Also, if you are a “snowbird” and are returning “south for the winter”, please change your mailing address so that you will not miss the next issue of *The Noon Balloon*. If you need help, we’re here! This can be accomplished by using your profile on the website or contact me.

WELCOME ABOARD NEW MEMBERS!

We have noticed that our website has been one of the great tools for acquiring new members. Folks interested in aviation check our site and decide to become members.

April 30, 2013

David G. Moller, Virginia Beach, VA 23452

May 21, 2012

Mark Tennyson, Alexandria, VA 22310

May 24, 2013

Robert Hough, Coatesville, PA 19320-1550

June 2, 2013

Robert Kibbie, Slough Berkshire

United Kingdom, SL16LA

July 16, 2013

Archie Paul Wood, Plantersville, MS 38862

- Peter F. Brouwer Secretary/Treasurer

PIGEON COTE

Warren Savant wrote, “I read with interest the article ‘LTA’s Glamour Boy -- Lieut. Cmdr. Greg Bautzer, USNR’ by James Gladstone. It brings back memories as I was stationed at Bahia when Greg arrived. I was a command pilot having served at Elizabeth city, Glynco, Houma, Fortaleza and Maceio prior to Bahia. Incidentally, I was in the first LTA cadet class at Lakehurst in 1941, graduating in March, 1942. Our class of 40 came from Corpus Christi and Atlanta, all whom had completed HTA preliminary flight training. Several of us looked upon Greg as a Hollywood attorney. In fact until I read the article I didn’t recall he was a pilot. I remember at table stakes poker games he was always the winner. He would gloss because apparently he had money to lose while the other participants were not so fortunate. I recall a USO group appearance where Greg made contact with the beautiful lady performer. In 1944 I received orders to report to Caravellas as officer-in-charge and didn’t hear any more about Greg until I read about his death some years later. Thank you for your continued interest in and service to NAA.” Ω (*See Media Watch*)



Above: Then-Lt. Greg Bautzer with Carol Landis (on his right) and other admirers at the Stork Club.

John Sciambra wrote, “I went through flight school as an aviation cadet from December 1942, until receiving my commission and wings on May 3, 1943. Among my classmates in class 1-43 were Dick Widdicombe (an enlisted A.P. at the time) and Frank Hudner. At various times I was stationed at Richmond, Florida, Guantánamo Bay (twice), Isle of Pines and San Julien, Cuba, Houma, Louisiana, Weeksville, North Carolina, Banana River, Florida, and lastly at Solomons, Maryland, where Frank Hudner and I protected Chesapeake Bay with one G-ship.

While training at Lakehurst, I had the duty one night

in the cadet barracks when Lieut. (JG) Greg Bautzer came in while I was sitting at the desk and told me that he wanted to use the phone. Naturally I complied. Lieut. Bautzer had been a protégé of Jerry Geisler and began his career as a young attorney in Geisler's office in Hollywood, California. Geisler was a big time and highly known attorney for many of the famous Hollywood movie stars and handled many of their frequent divorces. As I was sitting right next to Lieut. Bautzer while he was talking, I was able to eavesdrop on his conversation. (Against my will, of course.) He was talking to someone in Hollywood and telling him (or her) to buy a motor scooter and have it delivered to Dorothy l'Amour for her birthday. I was impressed. Incidentally, Dorothy l'Amour and I are both from New Orleans. I also distinctly remember seeing Lieut. Bautzer out on the mat with the cadets and enlisted men in the ground crew handling the lines when an airship was taking off or landing, all in the freezing January and February weather. I don't believe that the commissioned officers were required to do that, but it just shows what kind of guy he was. Of course, the man in charge of the ground handling crew was always a commissioned officer but not the Hoi Polloi actually handling the lines.

Sorry to hear of the passing of my friend Jim Flenner. He and I fell off a few barstools at the Five O'clock Club in Miami Beach when we were both in ZP 21 in Richmond. I really enjoy the noon balloon. You guys keep up the good work. We old timers appreciate it." Ω *Ed. Note: Jerry Geisler is covered in member B. James Gladstone's book; see "Media Watch."*

Member **Roy Schickedanz**, (right, in those days) who is sharing some letters from his collection on pages 26-27, explains: "I kept the original letters, making photocopies and placing them in a three hole notebook for easy access. However, years after my interest in lighter-than-air waned did I rarely look at them. Only of late a renewed interest, I have decided to elaborate on that past giving some perspective. Here then, as memory can afford, are the Robinson's letters and my interest in LTA." Ω



situations, at times even under fire behind the Iron Curtain resulting in injury and hospitalization, the only flashbacks that I experience at night involve certain airship flights. Performing difficult and dangerous assignments, seniors always commended my actions taken under pressure, as can be read in their comments in the appendixes; I credit any successes in this trait to days flying airships which demanded many quick and accurate decisions. Airship training and operations were a wonderful education for decisions and actions in the hostile Soviet environment. I am most grateful for my younger days flying airships with such wonderful Navy colleagues. Of the sixty-three American, British, and French assigned to the twenty-two Soviet divisions in East Germany I was the only Navy member. Thanks to all!" The publisher's description of the book follows:

Commander John Fahey's firsthand account of his intelligence activities behind the Iron Curtain in the Soviet Zone Germany during the Cold War contains dangerous penetrations of Russian restricted areas, East German secret police Stasi reports on his intelligence activities, and a new "Russian Character Study." Fahey's previous "A Soviet Character Study," published by the Naval Institute Proceedings, was republished by the Conservative Digest, ODU Insight, and the Congressional Record. The study was shared with members of the House of Representatives on May 18, 1978, by Congressman G. William Whitehurst who urged his colleagues to read it carefully and heed Fahey's evaluations. Now, in this book, Fahey's new Russian Character Study centers on Russian characteristics in more depth without the earlier Soviet overtones. The author includes intelligence failures during the Cuban missile crisis and the circumstances surrounding East Germany's and the Soviet Union's failure to observe American immunity in an incident with a United States military train.

Readers have an unique opportunity to ride with Commander Fahey inside some military restricted areas behind Passage Prohibited signs, to witness intelligence collection, and to experience the author's challenges and tactics when faced with espionage accusations during detention in forbidden areas. Evaluations by senior officers of Commander Fahey's performance behind the Iron Curtain, at sea, and after his retirement by his university Russian language students are contained in the book's appendixes. **PASSAGE PROHIBITED** is a must read for everyone who enjoys true-life spy stories. It takes the reader into Russian military psyche and mindset during and after the Cold War with an astonishing tale of overt reconnaissance, espionage charges, and detentions. Ω

Past NAA President **John Fahey** e-mailed, "My latest book, **PASSAGE PROHIBITED**, will be available on Amazon.com and other sources in August. It has always puzzled me that despite being faced with stressful

“**Torp**” **Toleno** reported his former shipmate Curt (Bill) McAdoo passed on June 21, 2013. “Bill was a member of my Airship flight training class and CIC school class and served with many of you in ZW-1.” Ω

Non-member Kerry Pinte wrote **Donna Forand**, “trying to find info on my Grandfather Billy Homan’s Blimp Squadron and what class airship he was on. I was able to get his discharge papers from Billy’s son my uncle in California. It appears he was with squadron 41. Just thought I would pass this along. Attached is a Copy of his discharge papers. Thanks again for all your help.” Donna contacted History Chair **Al Robbins**, who researched and reported, “His discharge papers ...

Block 12 Ratings held AS (Apprentice Seaman), F3c (? possibly Fireman 3rd), AMM3c and 2c (AMM - Aviation Machinist Mate, known today as AD). Block 13 shows that he had Foreign Service, e.g. Brazil. Bill’s probable chronological assignments: NTTC Norman OK (8 weeks, either Boot Camp, or Airman Prep school) AMM School, Chicago IL (21 weeks), trained to become an Aviation Machinists Mate (Aircraft engine mechanic) BLIMPRON 15, GLYNCO GA, Introduction to LTA, probably flight crew training, ZP-41, Brazil. ZP-41 was originally commissioned as BLIMPRON 52 in June 1943, renamed in July. I’d like to know more about Bill’s service, perhaps the family could help. Ω

An AHT member wrote DIRIGIBLE editor Dr. Giles Camplin, “I received an e-mail offering me a Connelly manometer which looks complete. It is the first I am aware of but now I see that you have one on your website. The only information that I have is that this type was used during WWII primarily with U.S. barrage balloons. I would think that they are not that common and was wondering if you have any more information and any idea of what sort of price range to expect?” Ω



Member **Alvaro Mendoza** e-mailed VP **Anthony Atwood**, “As I told you in the past, I am deeply interested in obtaining information about the Soledad Air Base during WWII. I found a photo in Facebook with the following caption: ‘The K-135 Airship Squadron 23 to 2 / Blimpron 23-2, based in Soledad NAF base Barranquilla. K series were built a total of 135 Airships (with capacity to carry bombs, on either side of the control booth) before and during World War II, with a dimension of 250 feet long, 57 feet wide and could reach cruising speed of 55 km/h with a range of 2200 kilometers. Each had a crew of 10 men. Although this crew on this picture, along with the cockpit and controls as indicated by the magazine The Noon Balloon is in Brazil, the K-135 was allocated from the May 27, 1944 (for the first time an airship came to Colombia) and moved there in March 1945 to the base Mandinga (Panama). Could you help in obtaining the names of the personnel that was assigned to Soledad NAF Base in Barranquilla? Maybe we can reach their heirs and they could have interesting stories and photos from their relatives. Perhaps also you can get their addresses in your records or suggest where to obtain them? I will appreciate very much your help in this matter.” Ω *Ed encourages anyone with info to help.*

Shirley Eastham (Narragansett Historical Society) helped clear up the French dirigible mystery **Fred Morin** researched: “There was a Narragansett Times newspaper article dated 8-26-1910: “Everything is ready for the first flight of the French dirigible balloon “Zodiac #4” owned by Stewart Davis at Scarborough Beach. It is understood that the balloon is ready for ascension on the first favorable night, the period after sunset being selected for the reason that the wind dies down about that time.” Narragansett Times dated 9/2/1910 - (pretty blurred) - It is announced that E. Stewart Davis...Zodiac 4... has abandoned the idea owing to difficulties that have been encountered. It has been found to be exceedingly difficult to ...rise high enough... and also the weather conditions have not been at all favorable at the Pier. Mr. Davis is returning to New York and plans to go to France. He is going to organize a company to be known as the “Zodiac Sky Advertising Co.” The company is promoting a new scheme of air advertising from airships lighted at night by electric lights. Ω

SHORE ESTABLISHMENTS

AKRON



The envelope is pulled over the aluminum and carbon fiber framework of the new airship.

Construction project for the faster, larger airship moves ahead with installation of envelope over rigid internal framework. Goodyear is hard at work on the construction of its newest airship. An important milestone in the company's plans to replace its current fleet of blimps was achieved as workers installed an envelope over the aluminum and carbon fiber framework of the first of its new-design airships. The airships are supplied by German zeppelin manufacturer ZLT Zeppelin Luftschifftechnik and being built with Zeppelin and Goodyear teams at Goodyear's hangar in Suffield (near Akron, Ohio).

Compared to the current fleet of Goodyear blimps, the new airship models will be longer, faster and more maneuverable. The envelope being applied to the new airship is made of polyester with a DuPont™ Tedlar® film. As it is stretched over each metal truss, the envelope is attached. When complete, the helium-filled envelope will have a volume of 297,527 cubic feet. "This is a major project that requires the dedication and skilled handiwork of these combined teams of airship experts. The result will be the only Zeppelin model airship in North America. It represents a strong investment in Goodyear's airship program, helping to ensure that Goodyear will remain at the forefront of aerial broadcast coverage and support," said Nancy Ray, Goodyear's director of Global Airship Operations. Upcoming construction milestones include the attachment of the airship's tail fins and passenger gondola – scheduled to happen before the end of the year. In early 2014, key steps will be the crew training, airship certification, installation of the electronic video boards and eventual christening.

Below: The three fins for the new airship are inside the hangar. In the background, the covered hull of the new airship. Photos: Goodyear Tire & Rubber Company



During its long operational history, Goodyear has built and operated more than 300 lighter-than-air vehicles since 1917, including two large rigid airships – the U.S.S. *Macon* and U.S.S. *Akron*. This is the first semi-rigid airship to be built in the 95-year history of the Wingfoot Lake Hangar. More photos can be seen on the Lighter-Than-Air Society's website: www.blimpinfo.com



Akron skies were graced by the presence of three blimps between July 28 and August 4. In addition to Akron's *Spirit of Goodyear*, the area was visited by MetLife's "Snoopy 2" and the Budweiser "Designate a Driver" blimps. The MetLife blimp (N615LG) provided the aerial TV coverage of the World Golf Championship's Bridgestone Invitational. The Budweiser blimp also flew over the Firestone Country Club as well as over the NFL Hall of Fame events in Canton as part of its national promotional tour. The *Spirit of Goodyear* (N3A) provided aerial TV coverage of the NFL Hall of Fame induction ceremony events and the Hall of Fame football game between the Dallas Cowboys and the Miami Dolphins in Canton, Ohio. The *Snoopy 2* and *Designate a Driver* blimps were both moored next to Akron's historical Airdock at the Akron Fulton airport (above) during their visit. The *Spirit of Goodyear* was moored at its home base, the Goodyear Wingfoot Lake hangar. The Metlife and Budweiser blimps are American Blimp Corporation A60+'s. Goodyear's blimp is a GZ20A.

- Alvaro Bellon, Eric Brothers

HOUMA

The Regional Military Museum in Houma, LA, is proud to announce that it is working closely with local Convention and Visitors Bureaus to be a part of the Wetlands Cultural Byway. In this project, we are stressing the historical and culturally significant aspects of our region's history. It will afford visitors of our area the opportunity to learn about what is important in our past. While our area has a great deal of military history, one of the most fascinating aspects of that history is the Naval Air Station that was located here in Houma during World War II. While the main hangar was demolished following WWII, the site and its memories have left a lasting legacy. The hangar was not completely demolished, however, and we hope to use the remains and the site as an interpretative site with Panels describing the history of NAS Houma to the public and visitors. Hopefully, GPS will be used to pinpoint the location and allow visitors to easily find the site as well as use electronic devices to gather information on the history of the station.

In other news, the Regional Military Museum is working diligently to restore the Captain's Gig of the USS *John S. McCain* (DDG 36). We are very early in the project and currently looking to obtain an engine for the craft with hopes of full restoration. We already have an LCVP "Higgins boat" in working order and many Jeeps in our collection, so this vessel would be a great addition to our "living museum."

Finally, the museum would like to thank all who had any part in assisting with our mini-reunion of the NAS Houma LTA air station back in May of this year. Your assistance was greatly appreciated. Mr. Richard Van Treuren provided the lecture at our Military Roundtable Discussion Group and we had several other programs during the event. This reunion was an expanded version of our Military Roundtable which we host on the third Tuesday of every month. This summer we celebrated our 10th anniversary of this series. We have been very fortunate to continue this great event and look forward to many more years of great lectures and discussions. If you, or someone you know, might be interested in providing a lecture on a military subject please contact us by phone at 985.873.8200 or by email at rmmuseum@triparish.net.

- **C.J. Christ**, President, Regional Military Museum

LAKEHURST



MZ-3A returned to NASL and was back in Hangar #1 the first week of August for some routine maintenance, including a scheduled engine change. Then she was back on the road for more testing. We hope to have a complete report in the next issue.

RICHMOND

On Saturday, July 20, the former LTA NAS Richmond headquarters building in Miami hosted a community Food Distribution by Farm Share, in cooperation with the 118th District of Florida and the Florida Department of Families and Children.

The free distribution of food to local needing families brought out 2,000 recipients, and was held on the original tarmac launch pad of the base in front of the building. The restoration of the interior of the historic building continues, with work underway on the 2nd floor. When restored the building itself will be the centerpiece of the future Military Museum and Memorial of South Florida.

- **Anthony Atwood**



MOFFETT FIELD



The removal of the siding on Hangar One at former NAS Moffett (above) is complete, and the scaffolding has been removed. The fencing that acted as a visual barrier during the removal process has been taken down, but the public is still not allowed to access the hangar. It is not likely that public access will be possible in the near future.

Since the hangars and much of the airfield, including Shenandoah Plaza, are listed on the National Register of Historic Places (Listed 2/24/1994; NRIS No. 94000045), most of Moffett will still be under the protection of the National Preservation Act.

NASA and the Government Services Administration (GSA) have issued a Request For Proposal (RFP) to the private sector for any companies or businesses who wish to lease Hangar 1. All three hangars at Moffett Federal Airfield are available for lease. It is hoped that this will provide an opportunity for the private sector to collaborate with the Government to rehabilitate and reuse federally owned property. Anyone leasing the facility will be expected to fully fund restoration of the structures, including the residing of Hangar 1. While it is possible to include the runway and airfield in the lease, flight operations will be tightly regulated.

The options for Hangar 1 is the central topic at the upcoming meeting of the Restoration Advisory Board (RAB).

NASA has the rail cranes and elevator cages stashed somewhere, but nobody seems to know where. I don't know if all this stuff is "clean," or still violated, though I think they had to clean everything before it was removed from the site.

Sadly, the very unique structure of the "cork room," which was used to store gas cells for the airships, was not saved. I pushed hard to have it preserved. **Eric Brothers** told me that there was never a cork room at Akron, as they never intended to store any envelopes. Rick Zitarosa told me that there had been a cork room at Lakehurst, but it had been removed decades ago. So I told the RAB that this cork room was the last one surviving, representing a very unique technology. RAB supported preserving it, but USN said it's outta here. I think they did preserve a piece of the cork.



This image was from a tour of the cork room that the RAB did years back.

A close-up of Hangar 1 shows the surviving metal framework of the cork room on the far side of the hangar. All that is left is the support framing that surrounded the walls of the cork room. (Highlight).



- Bill Wissel

COVER STORY



Lockheed To Certify Giant Airship Next Year

By Mary Grady, AVWEB

Lockheed Martin has been at work on a giant high-lift hybrid airship since at least 2005 (<http://www.avweb.com/avwebflash/briefs/191188-1.html>), and the company now is moving toward certification and first delivery as soon as next year. The FAA this week published a notice about the company's application to certify the LMZ1M airship, and noted that because it's a hybrid and incorporates a number of advanced features, traditional airship design criteria have proved inadequate. A new category for "hybrid transport category airships" will be created specifically for the airship. Advanced features of the vehicle include a tri-lobed envelope with displacement of 1.3 million cubic feet, four thrusters to allow thrust vectoring, and electronic fly-by-wire controls for both the aerodynamic control surfaces and the thrusters.

Proposed Rules Provide Peek at Lockheed's Cargo Airship by Graham Warwick

It has been quiet since Canada's Aviation Capital Enterprises (ACE) announced in March 2011 that it had entered an exclusive agreement with Lockheed Martin to develop a hybrid airship. But on June 25, the FAA posted for public comment the proposed airworthiness design criteria for the Lockheed "model LMZ1M airship".

The proposed criteria have been developed by Lockheed's Skunk Works because the only existing requirements for airship certification, the FAA's Airship Design Criteria (ADC) dating back to 1987, are "inadequate for an aircraft with the size and advanced

features of the LMZ1M", the FAA says. The proposed "Hybrid Certification Criteria (HCC) for Transport Category Hybrid Airships" developed by Lockheed is dated January 2013.

ACE announced in 2011 it planned three variants of the hybrid aircraft, called the SkyTug, "ranging in size from 20 tons to several hundred tons." At that time the first aircraft was planned for delivery in 2012. According to the FAA's notice, Lockheed submitted an application for type certification of the LMZ1M "manned cargo-lifting hybrid airship" in March 2012. The notice says: "The tri-lobed airship envelope has 1,285,000 cubic foot displacement incorporating four thrusters to allow thrust vectoring. Thrust vectoring and control surface motions are controlled through a vehicle management system using electronic fly-by-wire controls. Rather than conventional landing gear, the LMZ1M uses an air cushion landing system (ACLS) for landing and ground operations. The LMZ1M is a manned cargo-lifting hybrid airship with a gondola accommodating eight passengers and two crewmembers and a large cargo bay, and external load capabilities."

Given the size and weight of the LMZ1M, the FAA says, "The level of safety should be commensurate with other transport category aircraft." As a result, the certification criteria proposed by is based the existing ADC, Transport Airship Requirements (TAR) developed the Germany and the Netherlands (for the defunct Cargolifter airship) and dated March 2000, and Part 29 airworthiness standards for transport-category rotorcraft. The LMZ1M would be based on, but far larger than, the experimental P-791 flown by Lockheed in 2006. Ω

Blimps Morph Into Cargo Haulers as Maker Sees Revolution By Nick Taborek (excerpt)

Financing, rather than engineering, is the bigger challenge. Arranging airship financing has so far eluded even the likes of Lockheed Martin Corp., which has its own concept for a cargo transporter that doesn't involve variable buoyancy. "It's been tough to get through to the cargo world that something like this might actually really solve some of their problems," says Robert Boyd, Lockheed's airship program manager. To secure investors, builders will have to overcome what **Paul Adams**, editor of the Airship Journal and a pilot who's flown the Budweiser (BUD) blimp, calls the "giggle factor." Says Adams: "People just don't take them seriously." Ω

World Surveillance Group Wins Contract for “Blimp In A Box” (exclusive to TNB)



The NOON BALLOON conducted an e-mail interview with Mr. Dan Erdberg from World Surveillance Group. (We appreciate the assistance of Enrique Briz of Dian Griesel Inc., NY.)

TNB: Since there are plenty of aerostat designs in production and use, please tell us what makes “Blimp in a Box” a standout from others, up to and including JLENS.

WSGI: The “Blimp In A Box” (“BiB,” above) is designed to provide real-time day/night high-definition footage for intelligence, surveillance, and reconnaissance (ISR), detection of improvised explosive devices (IEDs), border security and other governmental and civilian uses. The BiB turnkey aerostat system is packaged in a box that is mounted to or towed from the back of a MAT-V, HUMVEE, pickup truck or other comparable vehicle. It can be rapidly deployed within 15 minutes by a two-person crew and is controlled by the push of a button. Once activated, the prepackaged envelope, which carries a day/night electro-optical/infrared camera with laser-capable payload, inflates to the applicable pressure and is secured to the vehicle by a data-capable tether. The BiB system is released from the vehicle by remote-controlled launch and recovery system to an operational low altitude appropriate for the application and can provide critical detection capabilities for several miles. Once deployed to the operational altitude, the vehicle can proceed on its mission over any terrain with the BiB system fully functional at altitude. Following completion of a mission, the BiB system is designed to quickly be recovered and be redeployed at the next mission destination.

TNB: Without revealing any trade secrets, please tell us what you’d like to be known about your team’s proposal and presentation that won the DoD contract.

WSGI: The company conducted several meetings and a demonstration of the system in order to demonstrate that the BiB is capable of meeting the mission requirements for the DoD customer.

TNB: What led to the selection of the Kennedy Space Center as an office location, and what role will it play for the company in the coming months?

WSGI: WSGI was invited by Space Florida to headquarter their office at Kennedy Space Center based on the focus and line of business of WSGI. WSGI expects to maintain its office in the coming months and can utilize the resources of KSC when the time is necessary to expand operations.



TNB: Can we have an update on the Argus One (above) program, how is the testing went or is going, what is the next step for it, etc.?

WSGI: Please refer to our Company updates as available in the future.

TNB: Since you’d also completed a test model of the SkySat, our readers would like to know how its testing has been going, and what is foreseen for the model and design.

WSGI: Due to market conditions and the need for smaller, tactical LTA platforms, our focus is currently on the BiB system and advancing the development of the Argus platform.

TNB: Thank you, Mr. Erdberg, and NAA wishes best of luck with the WSGI programs. **Ω**

(Ed. note: at press time we learned of a maritime test of the BiB, no details available.)



Blimp new superhero in war on drugs: Navy looks toward sky to curb fast boats headed here.

By Adam Linhardt, Keys Citizen Staff (excerpt)

The blimp attached to the strange looking ship at the Outer Mole Pier this week could breathe new life into the drug war that's been battered by recent budget cuts. And no, the giant tethered aerostat known locally as "Fat Albert" didn't drift down to Key West from its Cudjoe Key home.

The Navy-rented high-speed, 321-foot Swift is in Key West with a crew of military contractors and sailors preparing for Friday's test of a 76-foot tethered aerostat system developed by Raven Aerostar, the same company whose blimps keep watch over American bases in Iraq and Afghanistan, said Navy 4th Fleet spokesman Lt. Cmdr. Corey Barker. While Fat Albert floats at 15,000 feet, this smaller aerostat will float closer to 2,000 feet attached to the Swift and possibly other Navy vessels, where it will help locate go-fast or other suspected drug boats, Barker said.

Also being tested this week from the flight deck of the Swift is the small unmanned aerial vehicle (UAV) Puma AE. Navy commanders hope the 4.6-foot drone will work closely beside the aerostat to help deter drug smuggling, said AeroVironment developer Matt Vogt, a former Marine pilot who works for the company developing systems for the Navy. "The idea is to fuse the two systems together," Vogt said. Overseeing the whole project is Capt. Ian Pollitt, who would love nothing more than to report back to 4th Fleet commanding officer Rear Adm. Sinclair M. Harris that the systems work well and are ready for work in Operation Martillo, the multinational effort aimed at curbing major drug cartel smuggling of mainly cocaine and marijuana into the United States.

"None of this technology is new," Pollitt said. "What's new is bringing these capabilities together to achieve our mission in lieu of multibillion-dollar frigates. That is the new reality and there's no free lunch, so we're here to get these platforms downrange and make it happen." The aerostat and UAV trials were scheduled regardless of the recent across-the-board budget cuts known as sequestration, but the timing does add a bit of pressure to the system testing, Barker said. He added that JIATF has tactical control of the hardware, and the private company that owns and operates the Swift -- Sealift Inc. of New York -- will have operational control over the odd-looking ship that uses personal watercraft-style water jets to propel it at speeds north of 50 mph. **Ω**

Don't Be Alarmed by the Drone Blimps Hovering Over D.C. - They're Here to Stop Cruise Missiles

By Brian Resnick (excerpt)

According to Raytheon, the units will protect a city at 500-700 percent less than the cost to operate the reconnaissance planes necessary to maintain the same amount of coverage. They will provide a comforting amount of "minutes," rather than the current "seconds" of time for U.S. forces to decide what to do with the threat of an antiship cruise missile. "The JLENS radars successfully tracked fighter aircraft, towed targets, and cruise-missile targets, meeting accuracy requirements within margin," the report states. A test on the Great Salt Lake, reports Popular Mechanics, revealed that the JLENS can detect a swarm of boats from 100 miles away. The aircraft could potentially carry weapons, and have fire-control radar, which means they can send info that a ballistic system can interpret to aim a shot. **Ω**

In the "FedBiz Daily" blog for the Washington Business Journal Jill R. Aitoro writes about the Army's JLENS, reporting that the blimps will hover 10,000 feet above Washington, D.C. within the year, in order to detect missiles. This comes after six weeks of testing where "all went well." Aitoro calls the JLENS blimps "sophisticated" and describes them as "consisting of an integrated surveillance and fire-control radar on two tethered, 74-meter aerostats," capable of detecting threats "up to 340 miles away." Aitoro speculates that the "familiar sight" of a blimp should "quell protests" regarding unmanned aerial vehicles patrolling the skies. **Ω**

We Almost Had a Giant Robot Spy Blimp: Fancy Army airship doomed by the usual incompetence, infighting by David Axe “War is Boring” (excerpt)

Badly managed and repeatedly oversold by its advocates, the LEMV’s prospects gradually deflated even as rising expectations across the military added pressure to the airship’s development. Originally meant to cost as little as \$150 million and go from blueprint to working prototype in just a year and a half, the giant airship drifted out of control. Between 2010 when the program began and its termination in early 2013, the cost of just one LEMV ballooned to \$270 million. And the schedule for completing the airship stretched from 18 months to 36. The first LEMV managed just one brief flight over New Jersey last August before an embarrassed Army pulled the plug. While program mismanagement and budgetary overspends are nothing new to the Army, rarely have they had such devastating effect on an entire promising class of technology. That’s because LEMV was the military’s last, best chance to revolutionize its aerial fleet with high-tech airships able to fly far longer, far cheaper, than existing warplanes. It’s no exaggeration to say that as the LEMV program sank to the ground, it dragged with it the Pentagon’s whole ambitious scheme to acquire futuristic war blimps.

LEMV and Blue Devil had similar technology and aims and began at around the same time; they couldn’t help but compete for funding. Moreover both new airships were supposed to be ready for combat trials in Afghanistan in 2011. The frontline testing would be expensive: \$190 million for a year’s flying for just a single airship, according to one estimate. It wasn’t at all clear that Congress and the Pentagon would be willing to fund both. To keep the unusual development scheme afloat, the intel staff sought money directly from Congress instead of asking ASA-ALT to arrange for funding, which was standard procedure. After all, the staff had undercut ASA-ALT and could not expect favorable treatment for its giant spy blimp. To convince a skeptical Congress, the intel staff promised LEMV would be ready fast — just 18 months from the signing of the development contract. The year-and-a-half deadline proved to be a fatal flaw. Allocating just 18 months for such a complex technology development was ambitious, to say the least and forced LEMV’s builders to cut a lot of corners. “A development timeline of twice as long would still be counted as aggressive,” Mav6’s Jay Harrison commented.



At first there was competition. Aerospace giants Lockheed Martin and Northrop Grumman both wanted the LEMV contract, worth up to \$517 million for several years of work designing and building as many as three huge airships plus all their on-board gear. Lockheed was the clear frontrunner. The Maryland-based company already had a suitable airship in the air, the P-791. All the firm would have needed to do was add cameras, radios and other internal gear — admittedly a complex task. Everyone in Army intel assumed Lockheed would win. The intel staff even put the Lockheed airship on all the program’s flyers, posters and other promotional material. But when it became clear how quickly the Army expected LEMV to be ready, Lockheed got cold feet. The Maryland company insisted it would take three years, not a year and a half, to complete the airship — even with the basic airframe already flying. Northrop insisted it could meet the 18-month deadline and won the contract by default in June 2010. Problems piled on. Lacking direct airship experience, Northrop subcontracted with British blimp-maker Hybrid Air Vehicles for the basic LEMV airframe. Parts began arriving at a massive, World War II-era government airship hangar in Lakehurst, New Jersey, for final assembly. The components were “massively overweight,” the insider says — and as a result the airship would be capable of staying aloft for just four days instead of three weeks, as the Army had promised. In November 2011, panicked managers from the Army, Northrop and HAV met in the U.K. It was clear that the original 18-month schedule would have to be revised, as would LEMV’s ambitious performance specs. The Army and Northrop cheerily reported only steady progress on LEMV despite repeated delays. “We’re about to fly the thing!” Northrop spokesman K.C. Brown, Jr., crowed in May

2012. Six tons overweight, tens of millions over-budget and months late, the first LEMV took off for its debut flight that August. For 90 minutes the football-field-length airship motored at low altitude over the forests and fields of central New Jersey, returning as the sun was setting. “LEMV was designed, built and flown in a short 24 months, a considerable accomplishment for a vehicle of this scale and complexity,” Northrop boasted in a statement — as though a mere six-month delay (it was actually nine months) weren’t a total disaster for a program sold on the promise of an 18-month development. Word within the Army was that it would take another year and an extra \$60 million to shave off weight, install more equipment and prep the LEMV for a second test flight in New Jersey — never mind operational missions over Afghanistan. “Some of you may have heard we are going to cancel this project,” Legere, the intel chief said, according to the insider. “You would be correct. Let me tell you all something. I’d rather pay you all of your money than allocate funds for this ridiculous, stupid project again.” Since then Army has been trying to distance itself from the program’s failure, portraying LEMV mostly as a victim of circumstance. “With the reduced U.S. presence in Afghanistan coupled with the technical challenges and limitations of constrained resources, the Army made the determination to discontinue the LEMV development,” service spokesman John Cummings tells War is Boring. But the insider has a different view. “Army management at the highest levels failed LEMV.” And failed the entire concept of a future war blimp. Ω



Weather, Mishaps Take Heavy Toll on Blimplike Surveillance Dirigibles By William Matthews (exrpt)

Aerostats emerged among the few winners of a five-year foray by the DoD in LTA craft. Lighter-than-air flight once seemed an antiquated concept, evoking zeppelins and hot-air balloons. But the technology has indeed advanced. With two wars underway and defense budgets at all-time highs, the military launched 15 aerostat and airship programs that cost nearly \$7 billion between 2007 and 2012, according to the GAO. Many of the programs, including giant unmanned spy blimps and ultra-high altitude airships, have since been abandoned as impractical. But the PGSS and the larger PTDS — Persistent Threat Detection System — have largely succeeded. Begun as rapid equipping programs to meet urgent surveillance needs in Iraq and Afghanistan, PTDS and PGSS are now among the most expensive of the lighter-than-air endeavors. PTDS is budgeted at \$3.1 billion through 2016, and PGSS is set to spend \$2.1 billion by the end of 2013, the GAO reports. PTDS aerostats, the larger of the two, are 117 feet long, 52 feet in diameter and can lift a payload of 1,000 pounds. They carry a mix of sensors and communications gear, including high-definition video cameras, high-magnification thermal imagers, communications antennas that enable Secret Internet Protocol Router Network (SIPRNet) transmissions to troops below and laser illuminators for marking targets. While aerostats performed well in Iraq and have gained in popularity in recent years, they are having issues operating in Afghanistan because of the weather and accidents. Critics say the losses are a serious problem, more than just the cost of doing business. “They strafe the thing,” which “tears it to shreds,” said Arthur Gallegos, an assistant director at the Government Accountability Office in Denver. “At what point does it constitute government waste?” Gallegos asked. Furthermore, “strong winds, powerful downdrafts, lightning, rain and even snow are damaging or destroying so many of the spy balloons that, in 2011, the Central Command, which runs the war in Afghanistan, established a ‘Red Team’ to analyze aerostat mishaps and try to come up with ways to prevent them.” Better training was one factor the team found needed improvement. Yet, despite the costs, “one senior Pentagon official predicted ‘the United States will never go to war again without aerostats.’” Ω



Improved Designs And Technologies Welcome A 'New Era Of Airships' by Ben Popken, NBC

At a conference this week in Alaska, sponsored by NASA and the state's Department of Transportation, politicians, entrepreneurs, aviation enthusiasts, mining companies, Native American members and cargo industry representatives mingled in a series of speed networking sessions and PowerPoint presentations. Whether you call them blimps, zeppelins, dirigibles or airships, new breakthrough designs offer tantalizing possibilities for achieving the long-held dream of viable lighter-than-air travel and transport.

One of the main topics at the conference involved transporting goods to remote Alaskan towns and villages where weather conditions and poor infrastructure are a constant concern. "Airships have the ability to go from one place to any other place," said Ron Hochstetler, technical chairman of the Cargo Airships for Northern Operations workshop. "It makes the world into an archipelago of islands where every community is now connected to every other community,"

Aeros CEO Igor Pasternak says the next phase is commercial development for transport. "You can fly anywhere you want and you can connect any point together," he said. In contrast to traditional hub and spoke systems like airplane cargo transport or trucking,

you "create a vertical logistical system independent from in structure," said Pasternak. The costs associated with building and maintaining runways that can handle cargo deliveries can be significant, costing up to \$400 per square yard. But all an airship needs is a clearing. Local inhabitants who often have to decide whether to heat their home or pay their mortgage are keenly interested in any way to bring down transport costs. So are mining, logging and energy companies. Alaska is full of "stranded resources," such as precious ores, timber and salmon, but the permafrost, treacherous ice roads and waterways that only penetrate so far make extraction costly. Proponents hope air ships could spur an economic boom for the region and greatly improve locals' quality of life. Another win for airships is that at large enough scale, airships could carry cargo loads larger and heavier than any other means. For instance, the largest blade of a wind turbine you can get through the transportation system is about 100 feet long. Airships under development could potentially carry one 150 feet or more, which could double the amount of power the turbine could produce.

Each presenter at the conference in Alaska offered their own solution to the airship problems. Besides the Aeroscraft, another contender in the compressed gas approach is the VariaLift, notable for its patented welding techniques and having developed not just a concept craft, but an entire production line process. Then there's the other big group of the new breed of airships, the "hybrids," which combine various aspects of existing aircraft technology, such as fins, a widened body to create lift as it engines through the sky. They can boast multiple lobes, and include Hybrid Air Vehicles' AIRLANDER 50 and AeroVehicles' AeroCat, as well as the Lockheed Martin LMZ1M design recently submitted to the FAA for certification under a new category created specifically to handle the groundbreaking craft.

Though serious technical, regulatory, and logistical challenges, remain, "there's a market demand, there's impetus, the planets are aligning for this industry to make a huge impact," said Dr. **Barry Prentice**. "People's eyes will pop out when they see the first airship, it's like seeing ocean liner in the sky," said Dr. Barry Prentice, a transportation economics professor at the University of Manitoba in Canada. "We will not recognize the world after airships." Ω

Helium Roundup

Congress Considers How To Deflate Nation's Helium Reserve by Ailsa Chang, NPR (excerpt)

The Senate is considering legislation to prevent a global helium shortage from worsening in October. That's when one huge supply of helium in the U.S. is set to terminate. The House overwhelmingly passed its own bill last month to keep the Federal Helium Program going. That was a relief to industries that can't get along without helium. The gas is used in MRI machines, semiconductors, aerospace equipment, lasers and of course balloons. Perhaps the easiest way to understand the helium shortage is to talk to people like Stacie Lee Banks, who owns a flower shop in Washington, D.C. Banks says. "So it's like, I don't know where we're gonna get helium." There's a global shortage of refined helium, and it could get worse if the federal government doesn't stay in the business of selling helium. Sam Burton of the Bureau of Land Management says there are now 10 billion cubic feet of the gas stored in this federal reservoir, enough to fill about 50,000 Goodyear blimps. And it's all kept under a wide open prairie dotted with coyotes and jack rabbits. Private companies learned how to extract helium too. But they weren't extracting that much of it, partly because the government was selling helium so cheaply. Then in 1996, Congress decided it was time to get the federal government out of the helium business so it wouldn't compete with private industry. Congress passed a law that would effectively end the helium program this October. Private companies haven't caught up with demand, and a big hole would be left in the market if Washington suddenly cut off supply as scheduled. Salo Zelermyer is lobbying to keep the government operating the reserve: "Certainly if you take half the domestic supply and a third of the global supply off the market just like that, you're gonna get a lot volatility in the system. You're going to have a lot of end users that aren't going to be able to meet the needs of both taxpayers and regular folks..." Carolyn Durand of Intel Corporation says they're already learning to limit their use of the gas. "Where we've been able to replace helium with another inert gas like argon or nitrogen, we have," Durand says. If legislation to head off the shortage passes, it would buy private companies time to find reliable domestic sources of helium. **Ω**

Up, Up and Away By Catherine Rampell, New York Times (excerpt)

The price of one commodity has been rising as if it were lighter than air — and in this case, well, it is. The market value of refined helium gas has nearly doubled over the past five years, even as the Standard & Poor's benchmark commodities index, the GSCI, has fallen by some 20 percent. It's not a bubble. That's because the price has been driven up less by speculation than by old-fashioned fundamentals: there's more demand for the gas than ever and supply has not been able to keep up. The world, it seems, is running short of the second most abundant element in the universe — and that's creating a major problem in a wide array of businesses. For many of those uses, moreover, there are no known substitutes. Helium's low boiling and melting points, the lowest of any element, make it ideal for cryogenic applications. Much of the helium on earth leaks into space, and helium that is sold originates in natural gas fields underground and is salvaged as a byproduct of natural gas. Even then, only a handful of fields have a high enough concentration of helium to make extracting it financially worthwhile. What makes this market saga particularly quirky is the role played by the United States government. Typically, when the government wants to sell a public resource or asset to the private sector — as with the wireless spectrum — economists advise holding an auction so taxpayers get the highest price that the market will bear. At the time, though, Congress determined that the market price was too low to cover its debt. So instead lawmakers just set a minimum price for the government's helium — one that was about twice what buyers were paying on the open market at the time. The government's price inevitably became the market one. Today, the price — still set by a government formula — is, if anything, lower than what the market would otherwise bear. There is also talk of introducing regular auctions to allow the helium price to float up or down to wherever the "true" market price is. But the bottom line, says David C. Mowery, a professor at the Haas School of Business at the University of California, Berkeley, is that "you've had lawyers doing natural resource economics. That's almost never what you want." No doubt, plenty of TV manufacturers, aerospace technicians and sad clowns would agree. **Ω**

SHORT LINES

House Passes Small Aircraft Revitalization Act

The Wichita (KS) *Eagle* (7/17, McMillin) reports that the House passed the Small Aircraft Revitalization Act on Tuesday, paving the way for the bill to go to the Senate's Commerce committee. Rep. Mike Pompeo (R-KS), who sponsored that bill, said that general aviation manufacturers' "ability to get their products to market faster ... is incredibly important. Their capacity to make that happen and do it in a way to keep airplanes safe and sell products quickly aids in their ability to compete." The *Eagle* also notes that the FAA's Part 23 Reorganization Aviation Rulemaking Committee has also recommended "replacing current, prescriptive certification requirements with performance-based, consensus standards." Ω

(and this...)

New Mexico Governor Signs Spaceport Liability Legislation Into Law

The AP (4/3, Clausen) reports, "Gov. Susana Martinez on Tuesday signed into law liability-waiving legislation aimed at saving the state's nearly quarter-billion-dollar investment in a futuristic spaceport and retaining its anchor tenant, British billionaire Richard Branson's Virgin Galactic." Martinez said the new law shows the state is "not only reaffirming the major commitment New Mexicans have made to Spaceport America but we now have an even stronger opportunity to grow the number of commercial space jobs at the spaceport and across our state. This legislation will prevent lawsuit abuse and make it easier for businesses related to the space travel industry to thrive and succeed right here in New Mexico." The article notes that previously Virgin Galactic had protested its rent payments and had threatened to leave if the law was not passed. In a statement yesterday, Virgin Galactic said it was always committed to the project but now more needs to be done to bring other customers to the spaceport. Ω

(Ed.'s comments, page 2)

Google Could Beam Down Internet From Balloons

The AP (6/15, Perry, Mendoza) reported Google's "secretive X lab" has unveiled Project Loon, an experimental program which will use "flimsy helium-filled inflatables" to beam down Internet to people on the ground in hopes of bridging "the gaping digital divide

between the world's 4.8 billion unwired people and their 2.2 billion plugged-in counterparts." Despite the prospects, the article noted "there are plenty of catches, including a requirement that anyone using Google Balloon Internet would need a receiver plugged into their computer in order to receive the signal." According to the article, some believe that if successful, the project could have a greater impact than Google Glass or the company's self-driving car. Ω

(and this...)

Balloon System Could Allow For Faster Trades Using Microwave Transmission

Kelsey D. Atherton at *Popular Science* (6/13) wrote, "Perseus Telecom, a network provider that specializes in rapid trading, is seriously looking into an ultra-high-speed transatlantic trading line, made possible by balloons and microwave transmission." Atherton noted microwave transmissions are becoming more important for finance because transactions can take place at a faster speed than other methods. However, because the transitions require line of sight, Perseus Telecom believes a system of balloons would help when sending signals across the ocean. Ω

Balloon-Launched CanSat Called A Sign Of Ghana's Space Program

The AP (5/16) reports on Ghana's developing space program, citing the recent launch of "a tiny model of a satellite the size of a soda can on a big yellow balloon" as a "sign of bigger things to come." Kofi Ashilev, director of the Ghana Space Science and Technology Center, said he hopes the launch will encourage more "enthusiasm" in students and ambitions to launch bigger satellites. The article notes that "experts say Ghana is probably a good five years or more from developing its own operational satellites." Ω

Solar Ship Inc. Receives Funding

Solar Ship Inc. has secured \$2.2 million in funding from Sustainable Development Technology Canada (SDTC) to develop a hybrid aircraft technology that can move cargo to and from remote communities more cheaply than existing alternatives. Ω



COME TO THE NAA

READY ROOM

**Naval Airship Association Reunion
14-16 May 2014 Newport, Rhode Island**

Tentative Schedule (subject to revision):

Wednesday, Arrival, register at the Best Western Mainstay Hotel, register for the Reunion-Conference, and a Meet & Greet reception in the hotel banquet hall. (Hotel below)



(Above) The Naval War College Museum

Thursday - Bus to the Naval War College. We will be split into two groups, one group touring the Museum and the other touring the War College facilities. Groups will switch. Lunch will be at the Officers' Club located on the waterfront and then the balance of Thursday is open and attendees can choose a restaurant of their liking in town or dine at the hotel.

Depending upon interest, a visit to the New England Aviation Museum (where the airship K-28 is being restored) is being considered. It requires a two-hour bus ride.



REUNION – MAY 2014



(Above) The NWC President's house, which is next door to the Museum.

Friday – We will have a general business meeting and presentation of the Nominating Committee's recommendations. Depending on interest, there will be author's presentations. Friday evening will conclude with our banquet and a special guest speaker and presentation.



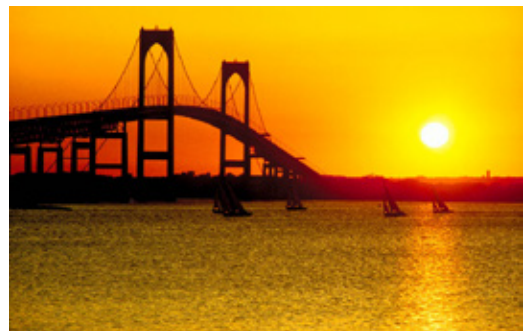
NWC CO's house is seen above; it was an Eisenhower summer White House.

Details as to cost and how to sign up will be forthcoming. For now, block out the dates **14-16 May 2014** on your appointment calendar, check the NAA website, and watch for a special mailing.

Reunion Ready Room – Hours for the Ready Room will be very flexible and coffee, water, and snacks will be available. Anyone bringing artifacts, photos, etc. will be provided space and tables. Small Stores will have tables set up for sales of NAA merchandise. It would be very nice to see NAA caps and shirts being worn all over Newport.



So, get set to drop your mooring lines in beautiful Narragansett Bay, like the USS *Shenandoah* did. We'll have a terrific time!!



Member Alan Gross has posted a news clip from the first (1980) Reunion at:

<https://www.facebook.com/photo.php?v=10201161125003931&set=o.352937701148&type=2&theater>

Balloons Have Role In Telecom, Military

National Geographic (6/19, Handwerk) reports Google's Project Loon is bringing high-altitude platforms (HAP) back into the limelight as it is using a ring of floating balloons "to deliver 3G service to off-the-grid areas." Project participant Tim Tozer, an expert on wireless, satellite, and HAP communications, explains balloons can overcome satellites' disadvantages of limited spectrum, high cost, needing launch vehicles, and increasingly limited orbital slots. HAP technology could have "quickly provided all the backup telecommunications needed to replace the whole lot that was destroyed" in Hurricane Katrina, according to Tozer. He also points to military uses of balloon technology, such as the tethered balloon systems that have aided warfighters in Afghanistan.

Ion Tiger UAV Completes 48-Hour Flight

Popular Science (5/11, Atherton) reported on the Navy's Ion Tiger UAV that is powered by liquid hydrogen inside a fuel cell that when combined with air generates the electricity the vehicle needs. It "just completed a continuous 48 hour 1 minute flight" so may be a possible "breakthrough" for long term flight with a power source that is very quiet. The article also noted that "rather than needing to ship gasoline in bulk, soldiers can generate new fuel from just water, a solar power generator, and a few other pieces of equipment necessary to compress hydrogen. With such a set-up, which could be quite small, troops could operate a drone like this indefinitely." Ω

ACAL Energy hydrogen fuel cell system breaks the 10,000-hour endurance barrier

Officials from ACAL Energy Ltd. announced that its FlowCath chemistry and engineering has enabled a PEM hydrogen fuel cell to reach 10,000 hours runtime on a third party automotive industry durability test without any significant signs of degradation. Unlike a conventional PEM hydrogen fuel cell design, ACAL's technology is cheaper because it does not rely on platinum as the catalyst for the reaction between oxygen and hydrogen. The platinum and gas have been replaced with a patented liquid catalyst, which ACAL calls FlowCath. Ten-thousand hours, is the equivalent of driving 300,000 miles, and makes hydrogen fuel cell endurance comparable to the best lightweight diesel

engines under similar test conditions. This endurance far exceeds the current 2017 US DoE industry target for fuel cell powered vehicles to last 5,000 hours, equivalent to 150,000 road miles (250,000km), with an expected degradation threshold of approximately 10%. The test cycle, which was repeated 24 hours a day, seven days a week, mimics a vehicle journey with frequent stops, starts and a highway cruise. This particular test is employed to accelerate aging and known failure mechanisms with fuel cell systems over time. Hyundai, Honda, Toyota, Daimler, Ford, and Nissan have all announced plans to launch production fuel cell vehicles. Ω

Aviat Aircraft's New CNG Plane Could Reduce Fuel Costs

The *Wired* (8/1, Paur) "Autopia" blog reports Aviat Aircraft has introduced the "Husky," a small aircraft that can run on compressed natural gas, in addition to standard fuel. Aviat CEO Greg Herrick says the CNG plane can "dramatically reduce the cost of learning to fly," potentially by thousands of dollars by use of a CNG refueling station. The article makes note of CNG's reduction of pollutants compared to low-lead fuel. The primary barrier to widespread CNG use is currently lack of refilling stations, which *Wired* predicts will start occurring with flight schools and smaller airports. Ω

Airbus A380 Program May Not Break Even By 2015

Aviation Week (5/15, Flottau) reported, "Airbus, which is under increasing pressure to prove the viability of its A380 production rates, yesterday conceded that it still needs to fill a 'single-digit number' of production slots for the type in 2015." Officials said the issue could result in the program not breaking even in 2015 as intended. Ω

Series Of Hot-Air Balloon Flights Overseas Experience Deadly Crashes

The Los Angeles *Times* (8/8, Wells) reported there have been a "series of deadly overseas crashes" involving hot-air balloons, the latest involving Grant Adamson, a member of Malibu's founding family. The article noted fatal crashes in the US are "relatively rare" in comparison. FAA spokesperson Ian Gregor said it regulates these flights as it does planes. According to the LATimes, this then covers "pilot and air-worthiness certifications, as well as regular inspections." Ω

New Postwar USN LTA History Effort Announced

Member and author William “Bill” Althoff, known for his books on USN LTA and the Arctic (most recently *F O R G O T T E N WEAPON* and



ARCTIC MISSION) was awarded Navy Department grant for his study “USN LTA, 1945-1962: The Cold War Years.” Bill’s objective, explained here, is a book-length third of a three-volume trilogy, and your input is needed and welcomed. – Ed.

The LTA program was a component of U.S. naval aviation for nearly a half-century, from 1915 to disestablishment in 1961. In a postwar nuclear Navy, LTA would remain a stepchild to HTA. Still, the years 1948-1953 saw upgrades for the K-type platform and, as well, contracts for the first prototype non-rigid airship since the Second World War. Procurements accelerated. The ZPG-2 (1953-62) combined the latest search-systems adaptable to aircraft: the best ASW radar extant, Loran, sonobuoys, MAD and (unique to airships) the variable-depth towed sonar. In addition, LTA advanced research and development (R&D) for airborne radar and search-systems for HTA. The threat of surprise air-attack realized the airborne early-warning (AEW) mission. Airship Early Warning Squadron One (ZW-1) served the North American Air Defense Command, contributing to seaward extensions of continental defense. Platforms: the ZPG-2W and ZPG-3W (1955-61). Each deployed internal antennas of unusual size to search for, detect and report air-targets from assigned at-sea stations. In the late nineteen-fifties, the all-weather, on-station loiter capability of the naval non-rigid was verified by two record endurance flights and, in 1960, by Operation Whole Gale--an evaluation of LTA as a backup for SOSUS. Platform endurance, reliability and habitability stood confirmed—a singular aeronautical record. In the postwar era of U.S. naval aviation, it is doubtful if as much was achieved by so very few against so many formidable obstacles. In June 1961, CNO ordered decommissioning of all fleet airships. The termination order disestablishing LTA commands had excluded two airships for R&D: the Navy’s own CLINKER infrared project and the so-called “flying wind tunnel”—an airborne aerodynamic study conducted in cooperation

with Princeton University. All flight operations ended at Lakehurst on 31 August 1962, when ZPG-2 BUNO 141559 logged final touchdown.

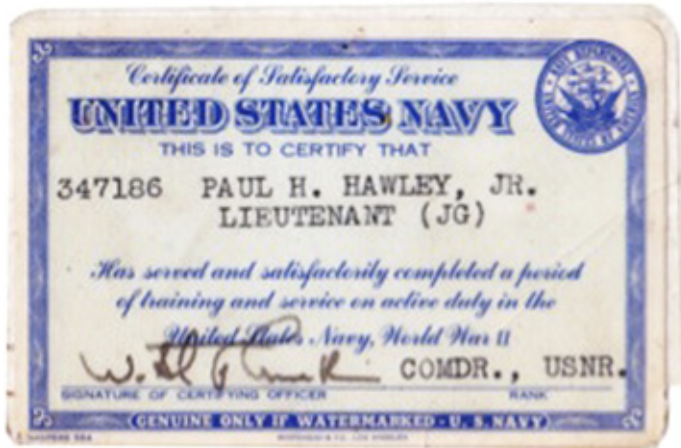
The airship’s *raison d’être* is lift, range and endurance. But LTA is a hard-luck technology. Moreover, in the ‘battle of the budget,’ airships inspire intense skepticism. And fanciful claims exacerbate a record of *apparent* failure. In addition to his own oral-history library (begun in 1975), Bill will examine archives held by the Naval History and Heritage Command and by the National Archives for the span 1945-1962—that is, from the end of the Second World War to program termination, storage and salvage. Intent: to chronicle the promise which inspired research and development through the 1950s; the problems of airship operations; the pressures/politics/prejudices confronting LTA commands, and the performance its naval aviators achieved. Examinations of failures should be as instructive as those of successes—and certainly less delusive. Airships are superb for visual and sensor search. Periodically, governments and corporations reassess the platform. Today, technology-rich options are available to engineering design teams. Since 1962, LTA has been kept alive by modest commercial operations—and by countless proposals, workshops, reports, symposia, programs and publications promoting revival for various military and civil applications. Among these: anti-ship-missile defense; an anti-submarine platform; an airborne command and control center; long-range, high-speed lift; border and port security; as an aid to search-and-rescue. In the 1980s (for example), generous defense budgets brought the “battle surveillance airship” to the brink of revival—and there it stalled.

The Pentagon needs on-station sensor platforms and heavy-lift capability—conveying assets across oceans. LTA vehicles can move huge payloads (or very large antennas) yet offer economy of operation—attractive in a time of high fuel costs and global-climate concerns. The Naval Air Systems Command operated (under contract) an advanced flying laboratory. Designated MZ-3A, this ship demonstrated reliable, persistent surveillance as well as low-cost airborne testing of sensors and communications gear. The Army, for its part, has discontinued the LEMV development program. Credible proposals concerning lighter-than-air in helping to meet emerging/evolving challenges into a new century will be assessed. Ω

HISTORY

Service To My Country

By Paul H. Hawley, Jr.



When I was in high school during my senior year I discussed with my father going into the U.S. Navy. He thought that was a good idea and was able to obtain for me a principle appointment from the Sen. of our state for me to go to the U. S. Naval Academy. We both agreed that it might be well to spend one year at Adm. Billard Academy in New London Connecticut to prepare for exams required by the Academy. I studied there primarily mathematics and English. At the Academy I became acquainted with Gordon Vaeth. We talked many times about lighter than air. It was there that Commander Niles announced that the Japanese had attacked Pearl Harbor and we were at war with Japan. After graduation I took the Naval exam score 3.8 and mathematics and 4.0 and athletics and 2.8 M English. I had studied all year on English literature and apparently every six years or so the exam was half on English literature and half on American. 3.0 is passing, so I was unable to go to the Academy. I also took an exam for the Coast Guard Academy and I was 262 out of 1200 that took the exam. At this time they took 250, so I enlisted in the V-5 program. This program was for those interested in becoming Naval aviators.

At this time of my life, I went to the University of Connecticut and started in a civil engineering program. I father told me that the course would be difficult and that I should not participate in any sports. I neglected to go out for football, but very quietly I went out for swimming in the wintertime. Everything was fine, until I won one of the races at Springfield College and my name was put in the paper and my father called me and said "who is this Hawley who won a race at this swimming event'. The sport did not take up too much of my time

and I felt that it would not interfere with my studies. I joined the Sigma-Nu fraternity, but did not spend much time there. I went to a dance with one of the sweethearts (Betsy Dew) of the fraternity and did I get paddled. There were about 30 students who were enlisted in the V-5 program anxiously waiting to be called. I decided to speak with the president of the University and suggested to him that we form a Husky Squadron. He authorized me to get down to the Naval headquarters at 90th St. in Brooklyn. The Navy thought it was a good idea and added 20 more members to make a squadron of 50. We were soon on our way to Arkansas State teachers College which was a wartime training service location. There were about 200 students left at the college and the Army moved in 700 WACS. As we marched to chow they whistled at us out the windows. At this location we learned to fly Piper Cubs and Wacko Biplanes. We were there about four weeks and received our license to fly solo. We were then sent to Athens Georgia preflight school for six weeks of strenuous athletic training. While there a notice came up on the bulletin board asking for volunteers to enlist in the Lighter Than Aircraft program. Because of my conversations with Gordon Vaeth, and my interests, I placed my name on an application as a volunteer. I was put in command of five other volunteers because of alphabetically my name was first. On the way out we played cards with some Army enlistees and I accidentally picked up their orders and he picked up mine. Needless to say when we arrived at Moffett Field and I walked into the commanding officer and saluted and I said Cadet Hawley Sir, without orders. Needless to say I marched for a few hours. At this base, we received training in L Ships. Besides that training we also received some training in free balloons, which were filled with hydrogen, as that was much cheaper than helium. One of the interesting features of this experience is that one was to be able to listen to a conversation down on the earth about 500 feet down of several people talking and you could hear them just as clearly as if they were 10 feet away. This training was for showing us how and what to do if our blimp lost their engines and we were considered free balloons. From there we were transferred to Lakehurst, New Jersey where we learned to fly the K ships. Maybe at this time I should explain a little bit about the blimps we were flying. The K ships were about 300 feet long and powered by two Pratt & Whitney engines. The bag was filled with helium and had valves in them which could be used to release helium if necessary. The crew usually

consisted of three officers and six enlisted men. All of the officers were qualified to fly as well as navigate. The six enlisted men included two Riggers, who also could fly, two Machinists and two Radio men. It took two to pilot the craft, one at the elevator which controlled the up-and-down and one at the wheel which control going right or left. We usually carried 4) 475 pound depth charges, and had a 50 caliber machine gun upfront for what it was worth a BAR automatic rifle in the rear of the gondola. With the gas load needed to fly approximately 30 hours we were 3000 pounds heavy when we took off and had to take off as a plane would. We all carried sharp knives in case we were ever shot down and the canvas fell down over us. Sometimes when we returned from an operation the blimp was lighter than air and we had to use our engines to force it down and in doing so we developed airspeed and it made it difficult for the ground handling crew to handle the landing. At the remote bases there were no hangers and we used a mast with a tractor that the nose of the blimp would be fastened to when moored on the ground.

After several months of training, I received my wings and was able to get sent to the best squadron in the country. That was at South Weymouth, Massachusetts and was very close to home. Before reaching our destination, we stopped off at my uncle's house in Elkins Park Philadelphia. He arranged for us to go out to dinner and dance with two of his secretaries, and was delighted when I suggested he come along with us. Unbeknownst to me he had an alcohol problem and really got drunk. I was embarrassed to take him home to Helen but she said don't worry about it this is happened before. Our first encounter with an officer at South Weymouth was the executive officer of the squadron and he said to us clearly that any mistake that we made we would be on our way to another squadron. I was put in a squadron was commander, who was married and one night he said for us not to sleep in the hanger, which was normal orders, but to go sleep at the BOQ as he was going home to sleep with my wife. We had an early flight that day and were supposed to sleep down in the hangar for early takeoff. The EO made a check that night and needless to say within two weeks we were on our way to Hitchcock Texas, and a squadron in the Gulf of Mexico. While at this squadron, we flew to Key West, Florida for some anti-submarine training, using a system of dropping buoys in a pattern and with them were able to track with the

flares the direction of the submerged submarine. One of our requirements there, was go board a sub, which was a WWI submarine and we went down under the surface for six hours. That venture made me sure that I'd much rather be shot down from up in the air than to be shot up from a submarine. From there we were transferred to the Weeksville, North Carolina squadron and then the squadron at Richmond Naval air station. Richmond was near Miami Beach, so we did have some fun there when we had time off. I believe my command pilot was Lieut. Charles McDougall. Our crew was then transferred Fortaleza and then to San Salvador de Bahia, a small town off the coast of Brazil several hundred miles north of Rio de Janeiro.



On the way down I can remember at one time flying very close to the surface of the water. As we went around an island there was a terrific downdraft; the blimp was pushed down and bounced off the water. When we landed at a great base in British Columbia, the landing crew went to put the drop lines in their side pockets, water gushed out and they were surprised. Long lines hang from the bottom of the blimp two up at the nose and two halfway back. They are used when landing. While at that place, we went to town and were surprised to see that 25% of the town was warehouse district. I spent over a year of my service here at Bahia. Our typical duty included one day of flying covering convoys. We were in the air approximately 24 to 30 hours, having one day off and one day duty at the base. The blimps, during the war, covered convoys all the way from Montevideo, Uruguay to Nova Scotia. During the war we never lost a convoy ship due to enemy action and

only one K-Ship was lost in enemy action. As part of our duty we were often transferred to Caravals, Brazil, which was a small sub-base of Bahia. When required, we flew to Rio de Janeiro Brazil for minor overhauls. There was a beautiful beach there and all the people usually didn't show up there until afternoon they took siestas in the morning. One day while swimming early, around 10 o'clock, I met this very pretty woman and invited her to go to dinner with me. She did and I have eventually found out that she was the mistress of one of the Naval Commanders at the Rio. Once every six months we had to fly back to Richmond Florida for a full overhaul of the blimp. I believe that picture here (below) was taken at a Miami bar somewhere. On the right was Commander McDougall, at the center was an Ensign Strickler, and I was on the left.



This trip was uneventful and I was soon back at the base at Bahia, however, there was one good thing. While in Bahia I purchased some amethyst gems and had them made into a bracelet and earrings. There were no custom costs, because the custom officer was an officer at Richmond. This cost me approximately \$300 and eventually became worth over \$3000. Shortly after this trip, a blimp was required to go back to Richmond and they did not have a navigator for the trip. I was luckily selected to be that navigator. There was a command pilot, a civilian and one other officer and we rented a room at the McFadden Deauville Hotel on Miami Beach. Our commanding pilot knew the manager there and arranged for the room. As there was a hurricane approaching and all the people at the hotel were nervous, I suggested to the manager that they give us a ballroom (which was closed down because it was off-season) so we could have a dance, to help the guests of the hotel. He agreed and he was going to give us a piano player and a bar waiter, for the event. I was plinking on the piano while everybody

else was working. This really good-looking lady came walking down the hallway high heels and gray slacks and a red top. I introduced myself and she did also. Her name was Anne Hopkinson. I invited her to sit at my table that night, but she said she had some of the things to do and I said okay. I thought to myself, I will find someone else. I was surprised to see her return back down the hall and come to me and say may I changed my mind. That was the beginning of the most wonderful thing that ever happened to me. Her father was a railroad engineer in Canada and had passes for all over the country. She and her mother and sister were down for a two-week vacation.



Kay and her sister got sunburned and had to spend quite a bit of time in her room letting the burn heal. When they were all packed and ready to go home, I said to her why don't you stay down another week. She said I can't, I don't have any money. I said that's no problem, I can take care of that. She then said I don't have any clothes they're all packed. I said I can take care of that. And she finally said my mother won't let me. So off she went. Subsequently I was ordered to Weeksville, North Carolina and stayed there until my final release from the service. During that time I had numerous phone conversations with Anne and wrote several love letters. In the last letter I wrote a PS is the bottom "By the way will you marry me". She said yes and in September 1945 she came down from

Hamilton Ontario to meet my parents. We were both supposed to meet at Grand Central Station. When I arrived and expected her to be on her train, there was no Anne, I spent the whole afternoon trying to find out where she was after making two phone calls to Canada I was about ready to give up and all of a sudden she showed up in a most beautiful purple dress. The first thing that I asked her was, where have you been, and the next thing I said, was do you have any money. She explained that she couldn't find me when the train arrived early and decided to spend the afternoon in New York City, including going to Radio City to see the Rockettes. We took the train to Bridgeport where we met my mother and father. In the car on the way back to Torrington, I noticed her nails were painted purple and I said to her, my mother doesn't like colored nails. She got all upset, until I said to her I was only kidding. Just after we arrived in Torrington, I told my folks that she had already been married to a Canadian pilot for three months. He was shot down over Germany and buried over there.



I said this didn't make any difference to me, because I loved her very much. That is when I gave her an engagement ring. We traveled together to Willimantic, Connecticut, to look over our future home when I would return to the University of Connecticut. I was released from the Navy and put on ten-year in active duty. This started late December 1945. We were married in Hamilton, Ontario, on January 19, 1946. From then on will be my next chapter! **Ω**

Hindenburg Hero Left Treasure Trove Behind (from The Morning Call, Lehigh Valley, PA.)

Dwight Rose's father, Paul, used to show his son newsreel footage of the *Hindenburg* disaster and point to one of the figures fleeing the flaming wreckage as it crashed to the ground. "That's me right there," he would say. The real story is that Paul Rose and the other sailors who served as the *Hindenburg's* ground crew stopped running away. Keep watching that footage, and you'll see them running back toward the flaming wreck, where their rescue efforts were heroic...

I found the real mother lode of *Hindenburg* memorabilia in the Lower Nazareth home of Dwight and Nancy Rose. Hanging in their hallway is a photograph of the *Hindenburg*, covered with the signatures of Germans who survived its destruction. Nancy found a crew list online and confirmed that 20 *Hindenburg* crew members signed the photo, clearly a token of their deep appreciation for the ground crew's rescue efforts. In a family scrapbook are glowing letters of commendation to Rose from Lakehurst commander C.E. Rosendahl as well as a memorandum recording all the messages and personal visits from German officials praising the crew's valiant efforts. One of those came from German Aviation Minister Hermann Goering.

Deeper in the scrapbook, there's a piece several inches long of the *Hindenburg's* skin and a scorched remnant of the swastika flag on its tail. There's also a Lakehurst Ground Crew button and an American Express Foreign Mail Service ticket — used to collect your mail when you're abroad — for Joseph Spah, perhaps the most famous surviving passenger. Dwight also has one large section of the *Hindenburg's* aluminum frame — maybe 2 1/2 feet — and a smaller metal piece that appeared to join sections. What did his father remember from the disaster? "I remembered him telling me it took him several months to return to normal from that gruesomeness," he said. "The smell of the burning flesh and the fire and everything around them lingered in his mind."

And yet, despite their shock and terror, these brave men rushed to help. No wonder the *Hindenburg's* crew members were so grateful. **Ω**

The Historians' Letters
By Roy D. Schickedanz

In the early sixties, after reading John Toland's **Ships in the Sky**, and Gordon Vaeth's **Graf Zeppelin**, I wanted to make a positive contribution to lighter-than-air research. In this regard, I contacted the Department of the Navy, who reply in a letter from the Office of the Chief Naval Operations dated, 29 Sept 1964, indicating that I should contact Mr. Richard K. Smith, living in Hyde Park, Illinois near the University of Chicago. Taking up the suggestion of Rear Admiral E. M. Eller, it led me to an Illinois Central commuter train ride to Hyde Park for a face to face meeting. It was one of the most exciting days of my youth, walking down the streets of an early morning in Hyde Park and finally Blackstone Street where Smith lived and not knowing where the airship story would lead me. The previous year, I had attended the First Aero Historian meeting at Wright Patterson Air Force Base in Fairbanks, Ohio. That meeting was dominated by lighter-than-air talks. Dr. Douglas H. Robinson, having numerous zeppelin articles in the **Cross & Cockade Journal** and having his **The Zeppelin Combat** just published, presented a paper. His book was a definite history of the German Naval Airship Division and Peter Strasser: all sensing it to be the Bible. Nonetheless, Robinson talk was on the last zeppelin raid, where Peter Strasser, Leader of Airships, was killed aboard the L-70. Dr. Robinson's electrified his audience. Never have I heard a finer talk. When he spoke: you knew that he knew everything about the German Naval Airship Division. The charisma that Dr. Robinson presented was all powerful and real. I cannot imagine that not one person felt otherwise. It certainly made one a believer that lighter-than-air was the field to be in and it was. The meeting gave me an opportunity to meet and talk to Dr. A. D. Topping, the Editor of **Buoyant Flight** of the Lighter-than-Air Society of Akron, Ohio. The morning that I met Smith, he was quite busy, having me go with him to Illinois Institute of Technology to pick up a drawing of the Akron/Macon that he was sending to **Air Progress Magazine** for an article to be published. With drawing in hand, we went back to his apartment, spending the time showing me things and talking. He presented me photographs of the M-1 over Lakehurst Naval Air Station carrying a Piper Cub underneath its control car, not knowing what it was all about.

Smith was interested in the parasite relations of airship with aircraft, leading to his doctoral dissertation on the subject and the *Akron-Macon* book published by the

United States Naval Institute. The day in Hyde Park was made up of youthful dreams and aspirations, deciding to forge ahead and seeing what I could do with the non-rigid airship. Despite my youthful appearance and lack of knowledge, Smith took me seriously and I have always appreciated this kind of genuine scholarship. In many ways Smith was very different from Dr. Robinson. Both had the same intensity for their subject. Smith was very easy going and very willing to show you the ropes, pointing out who to see and what to ask for. The Hyde Park trip showed me what Lighter-than-Air had to offer. On one side Smith's Hyde Park apartment living room was a very large black & white picture of the *Akron*, and on the other the *Macon*, the American rigids that Smith centered in his study. His living room was like a library, having regular bookshelves found in a library. I never people could have so many books, and having such a wide interest. Nonetheless, I took my interest to college. How many kids of my age had the opportunity to meet the top people in a chosen field? When we repainted our basement room in my freshman year, I painted, in black near the ceiling, a silhouette of a World War I: my own zeppelin in combat, imagining dropping bombs on London or Liverpool or bringing needed supplies to General Lettow-Vorbeck in Deutsch-Ost-Afrika. I don't know if my roommate like it or not, but I did!

When I got home, I would head for Owen Davies bookstore on north Clark, as Dick indicated as the best place in Chicago to buy airship books.

I received a letter from Smith dated April 19:
Enclosed is the stuff which, a long time ago, I said I'd be sending to you:

- 1) Some tentative blimp data
- 2) Some old carbon copies of chapter from the *Akron-Macon* book which I was about to throw out, but assumed you be interested by way of a "preview" of the book; and
- 3) Some Xerox reproductions re blimp squadrons during World War II.

The blimp data given on the enclosed mimeographed sheet should be taken as tentative only, and some of it as only "generalized" data. After all, one blimp varied from another according to variations in production, crew, who was compiling the data I found-etc., and much it will never be sorted out for sure. And some of it comes back to my judgment. For example, the initial contracts for B-type blimps was totally 16 airships. Later the Navy procured a 17th from Goodyear. Later yet, the Navy sent three cars back to Goodyear for overhaul (and probably

new bags). So, what've we got here? 16? 17? Or 20? On the mimeographed sheet I've got 17; later I decided not to split hairs over trivial details and said 20. See how this works? The 100-some page Xerox reproduction of the "Inventory" of Navy airships I put together for the Navy Dept last year should be in your hands by mid-May. University Microfilms will bill you for that. It should be taken as a guide, and NOT as The Gospel. The blimp data I threw together in two weeks, and about much of it I wonder myself. But it was the best I could do in the time available. So treat it gingerly.

It was great to receive this letter from Smith, especially having an opportunity to read part of his new book, which had yet to be published. It is still fun to this day compare the carbon copies with the published book. It was in June 1965, I wrote my first letter to Dr. Robinson, asking for photographs. In any case, Dr. Robinson reply was very formal:

Dear Mr. Schickedanz,

In answer to your letter of June 14, I have had copy files made of all subjects you requested, including both L-31 and L-70, also of Heinrich Mathy, since I am closely acquainted with his widow and have written a biography which I am trying to have published. I have a technically good photo of L-10 close up in the air over the revolving shed at Nordholz (the original negative was water-spotted) and a fair one of her at Friedrichshafen, but neither of these has been photo copied. Would cost you about \$2.50 for copying the negative, plus about \$1.00 for the 5 x 7 print, and would probably take a couple weeks to make the copy.

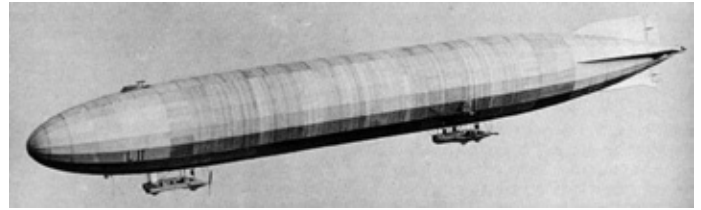
Let me know if you want to go ahead with this.

This first letter clearly showed how technically Dr. Robinson like correct to be even in his letters. His Zeppelin in Combat as well as his letters showed his fondness for Heinrich Mathy. His letters showed clarity of writing as a writer. I had written Dr. Robinson in August for the photographs with Dr. Robinson replying on August 22:

I'll bet you have thought I forgot about your wish for certain airships photos, but I had about a dozen prints made up and am sending them along immediately by parcel post. The L 10 copies are not yet in. I was charged \$10.50 for these, as you can see, but I think you should have a better print of L 70 on flight trials at Friedrichshafen, and will try to get one for you without the nose and tail cropped off. You have here a copy of the photo that surprised me most in all my work with the German Naval Division-one taken at Nordholz only a few hours before she was shot down over England, which some of my friends in the

Marine-Luftschiiffer-Kameradshft of Hamburg discovered for me within the last two years. There is a corresponding photo of L 65 taking off at the same time.

Will send along the rest when they are ready.



Sister ship L11, photo courtesy Andreas Johns.

Six days later on August 28, Dr. Robinson wrote another letter in reply to my photograph request:

Here are the two photos of the L-10 that you requested. You may be familiar with the Friedrichshafen shot, but I am sure you have not seen the Nordholz one. As I told you, the original film had been damaged but is still a most interesting shot, and one might published some day. Excellent view from the side of the revolving shed, in which she was berthed, and a typical take-off scene. She is the first German naval airship to be lost with all hands in the war, this taking place off Neuwerk Island, within sight of Nordholz on the afternoon Sept 3, 1915. I visited Nordholz during my last trip to Germany in October 1964, and was given the red carpet treatment, personnel there being extremely interested in the early history of the place as an air base, without having much information. I was shown the memorial to the dear of both World Wars, which embodies a transmission gear drive of one of the wing propellers of L-10. This was obtained by a farmer in the neighborhood when the wreck was salvage, he had a homemade four bladed metal prop attached to it and used it for a wind generator for many years. I was asked to pronounce on the authenticity of the relic and told then I considered the gear drive and casing authentic, but the propeller which they though came from the ship, was not.

Nordholz today is the North Sea headquarters of the Germany Navy air arm, and base of Marinefliegerabteilung 3, operating Sea Hawks and Gannetts. There is however nothing to be seen of the airship sheds, even the foundations. I did see Strasser's headquarters building, the main radio station building, and the officer's club, all scheduled to be torn down and replaced. A pity!

Dick Smith's article was indeed published in the October 1965 edition of Air Progress magazine entitled: "The Rise and Fall of the Aerial Aircraft Carrier," indicating the noted history professor and author had a forthcoming book on *Akron* and *Macon*. (To be continued) Ω

What's In A Name?



NAA Pres. **Fred Morin** (rt) poses with member **Wick Elderkin** (lf), grandson of A.R. Houghton. The road at the former NAS So. Weymouth was named for Lt. A.R. Houghton, who died in the *Shenandoah* crash. A non-member had asked Ed. for a listing of all those lost in USN airship accidents, bringing attention to the fact we never compiled such a list. Seeing as so few were immortalized with NAS streets named in their honor, its high time we did. Please look over this list and contact Ed. to fill in the blanks, or make needed corrections.

ZR-2, 24 AUG 21: Cmdr L H Maxfield; Lieutenant Commanders – V. N. Beig, E. W. Coll; Lieutenants – M. H. Esterley, H. H. Hoyt, C. G. Little; Chief Machinists Mates – R. M. Coons, L. E. Crowl, J. T. Hancock, W. Julius, A. L. Loftin, W. J. Steele, G. Welch; Chief Riggers – C. I. Aller, M. Lay, A. D. Pettit.



NAS Houma, LA

ZR-1: 3 SEP 25: LCDR Zackery Lansdowne; LCDR Lewis Hancock, Jr.; LT John B. Lawrence; LT A. Reginald Houghton; LTJG E. W. Sheppard; Riggers CPO Everett P. Allen; James W. Cullinan; Pilot 1/c Ralph T. Joffray; Machinists CPO Charles H. Broom; 1/c Celestine P.

Mazzuco; 1/c James A Moore; 1/c Bart B. O'Sullivan; 1/c William H. Spratley; and Chief Radioman George Schnitzer.

ZRS-4, 4 APR 33: OFFICER CREW: Comdr. Frank C. McCord, Commanding; Lieut-Comdr. Harold E. MacLellan; Lieutenant George C. Calnan (CC); Lieutenant Herbert M. Wescoat; Lieutenant Richard F. Cross, Jr.; LTJG Hammond J. Dugan; LTJG Charles F. Miller, Lieutenant (JG) Morgan Redfield; Lieutenant (JG) Wilfred Bushnell; Lieutenant (JG) Cyrus T. Clendenning; Chief Machinist George C. Walsh.

ZRS-4, 3 APR 33: OFFICERS, Rear Admiral William A. Moffett; Comdr. Fred T. Berry; Lieutenant Joseph H. Severyns, Comdr. Harry B. Cecil; Lieutenant (jg) Robert E. Sayre; Lieutenant (jg) Charles H. Calloway; Colonel A. F. Masury, U S Army Reserve.

CREW, Anderson, Victor C. L. AMM3c; Angeles, Maximo Matt 1c; Arthur, Wellington K. ACMM; Austin, Wilton G. BM2; Ballard, Henry A. BM2c; Barnhart, Bennie, Cox.; Baughman, Harold R. F3c; Boelsen, Peter AMM2c; Boswell, Henry L. CBM; Carlson, Arthur E. CBM; Carr, Stewart S. CEM; Cooper, Fred AMM2c; Copeland, Robert W. CRM; Cridlin, Stanley L. AMM3c; Dean, Carl C. CBM; Duncan, Lester G. F3c; Engler, Ralph F., Cox; AM2c; Eschette, Horace P. SC1; Fahey, Lawrence E. AMM2; Fennessy, Edward ACOM; Fink, Elmer E. CTM; Graves, Hilbert N. AMM3c; Hill, William T. PhM1c; Hoover, Paul S. SC3c; Hulting, Lewis O., Cox.; Jandick, Paul A. CBMM; Johnson, Rufus B. BM2c; Latham, W. R., CBM; Lamkin, H. R. Seaman 1/c; Liles, Leon D., CAerog; Lipke, Donald H. Amm2c; Magnuson, Fridolf R. AMM3c; McLellan, Benjamin C. AMM2c; Morlen, Herschel L. RMC; Oronez, M. Matt 1/c; Quernheim, A.C., ACMM; Rader, Leonard G., Cox; Russell, William A. ACCM; Rutan, Lucius W. ACMM; Rytell, John J. AMM1c; Shauger, Paul R. AMM3c; Shevlowitz, Joseph ACMM; Slayton, Douglas C. RM3c; Starr, Fred W. Sea1c; Stine, Ralph C. QM1c; Swidersky, Toney F., Cox; Thigpen, Benjamin J. Jr. AMM3c; Tomes, Gerald L. F3c; Ulrich, Oliver E. BM2c; Walck, Lewis T. AMM2c; Weeks, John L. Sea2c; Wind, Nobart AMM3c; Zanetti, Joseph Amm3c; Zimkus, Joseph J. BM1c.

STATION ENLISTED MEN: Hackett, Earl P., C Aerog.

J-3, 4 APR 33: LCDR David Cummins, Chief Pasquale Bettio.

G-1 and L-2 collision, 8 JUN 42: G-1 Crew, LT Frank A. Trotter, ENS Clarence C. Ross, ENS Kenneth G. Lee, Ole V. Roos, Aviation Chief Machinists Mate, William H. Herdon, Jr., Boatswains Mate First Class, Dr. Frank C. Gilbert, New London, CT, Dr. Charles R. Hoover, Middletown, CT, Dr. Lorenz S. Moyer, Minneapolis, MN.

L-2 Crew: LCDR Clinton S. Rounds, Raymond C. Poteet, Aviation Chief Machinists Mate, Dr. Arthur B. Wyse, San Diego, CA, Israel H. Tilles, San Diego, CA.



(Above: Houma, LA; Below, Moffett Field, CA.)



L-8 crewless return, 16 AUG 42: LTJG Ernest D. Cody and ENS Charles E. Adams.

K-74 vs. U-134, 19 JUL 43: AM2/c Isadore Stessel.

K-94 fire off P.R. 23 SEP 43: LTJG Wallace A. Wydeen, LTJG James W. Wagner, ENS Derl L. Schafstall, AMM3 Edward A. Weeden, F2 William C. Speigh, CBM George F. Nilla, ARM3 Ralph H. McCathern, and ARM3 Charles M. Bjork.

K-64 collision with K-7, 16 OCT 43: (7-9?) _____ dead on K-64; one survivor K-64; no injuries K-7.

K-14 "accident" 3 JUL 44: LT Charles W. Kluber, ARM2c John B. Powles, AMM2c John V. Oldar, AR2c Edward J. Drzewiecki, ARM3c William H. Munro and AEM3c Walter O. Ozeski.

K-34 icing 5 NOV 44: ENS _____ Voss, crewman _____ Spalding.

K-53 sinking off Jamacia, 7 JUL 44: (1) crewman _____.

K-111 Santa Catalina mountain impact 17 OCT 44: LTJG Wallis H. Marriage, LTJG Thomas R. Smith, ENS Edward T. Groskie and crewmen Preston L. Girard, Gordon F. Kaiser, Tactical Unit Instructor LT Thomas H. Ralston.

K-51 inflight fire 3 MAY 45: (8) crewmen _____ (2 surv.)

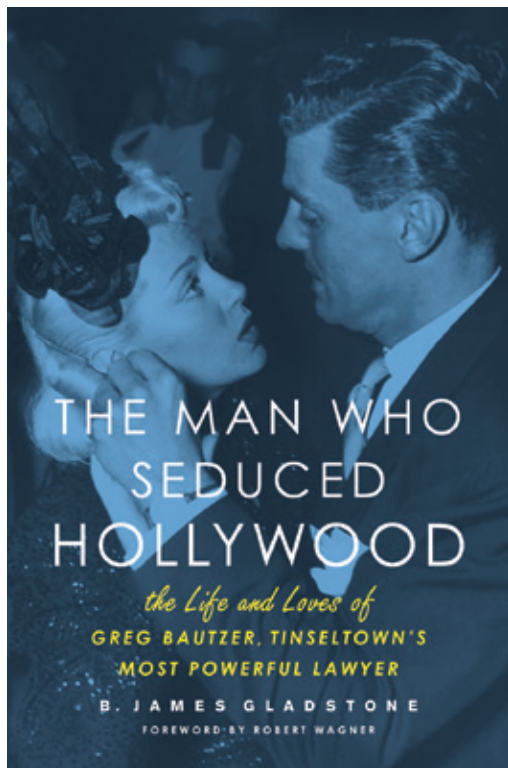
ZS2G-1: BuNo _____ grounding, _____ date, _____ (?) officers and _____ (?) crew (____?_ suvr.)

ZPG-2 BuNo 135448 hangar collision 14 MAY 59: LTJG D. M. Loyd.

ZPG-3W BuNo 144242 accident 6 JUL 60: LT J.J. Saniuk, command pilot, LT R.E. Leonard, LT O.V. Montgomery, ENS R.H. Pipes, co-pilot, R.H. Clopper, radio operator, LT R.V. Hall, R.C. Kuesel, L.J. Coutu, gunner's mate 1st class, F.M. Furney, aviation structural mechanic, S.B. Thompson, flight mechanic, F.J. Rosley, flight technician, E.B. Turner, Jr., air controller, H.V. Goldbold, air controller, _____ Garrison, _____ Blalock . _____?

PLEASE HELP FILL IN THE BLANKS. Contact any member of the History Committee. Ω

MEDIA WATCH



The Man Who Seduced Hollywood

By **B. James Gladstone**

Reviewed by **C.P. Hall**

You cannot tell a book by its cover; and you will often be surprised by what is a source of information, and what is not! A few years ago, I snapped up a copy of Major-General Sir Frederick Sykes autobiography. He was the second Chief of Air Staff of the Royal Air Force in WW1 and, post-war, Controller-General of Civil Aviation from 1919 to 1922. This had to be a gold mine of what happened when British military airships were transferred to Civil Aviation in late 1920 and operated as civil ships in 1921; only it wasn't. He noted that R34 was a trans-Atlantic success, R.38 a failure, and R101's crash decimated the pool of qualified airshipmen. As far as 1921 went, Sykes's concern was the failure of four British cross-channel airlines for lack of subsidies. There was nothing about LTA and Civil Aviation in 1921 except a cryptic comment - which possibly, likely applied to LTA - about the Treasury reclaiming funds allocated to "ground aviation" which Sykes apparently planned to spend elsewhere?

"The Man Who Seduced Hollywood" is the reverse image of my example. This is a biography of an attorney in Hollywood in the golden age of the movie industry, the 1930s through the 1980s. Greg Bautzer was a lawyer, agent, deal maker, and good looking date-of-choice to quite a few stars and clients. For those of us who grew up during some part of this era, the insights into Hollywood

goings-on are fascinating. That said the book is no kiss-and-tell. Those hoping for a hard "R" memoir will be disappointed to find many 'dates' listed but no lascivious detail. Greg was married so often that I lost count. The marriage that interested me was Dana Wynter. She starred in the original version of *Invasion of the Body Snatchers* and, if memory serves, was the only woman with speaking role in *Sink the Bismarck*. Now I know what happened to her. When World War II began, Bautzer was still a candidate for induction into the military. Frankly admitting that he wished to avoid the Army, he volunteered his services as a commissioned officer in the Navy. Interestingly enough, his offer was accepted. It was then almost withdrawn as he had no military training. Eventually confirmed, it was suggested that he be sent to sea. One assumes that discretion was still the better part of valor when he put in for a transfer to LTA and was accepted. He managed to generate a relationship with Admiral Rosendahl, and 'served' with LTA in the USA, Brazil, and Europe. As one contemporary observed, "Senior officers did little flying, and though Bautzer was not a senior officer, he did not do much flying either. Most of the time he was happy to spend his time sunning himself on the patio of the bachelor officers' quarters."

Speaking from experience, in every military organization, battalion-sized or larger, there is one officer with duties so minimal, or at least minimized, that he spends a great deal of time like LT Bautzer. The first time that I ever saw a man in a Speedo was a certain Major in Phan Thiet aka LZ Betty, in 1969.

Chapter 7 alone is devoted to, but not exclusively about, Bautzer's military career. There is some military data about LTA that is no worse than most. There is some detail about his technique of ingratiating himself with 'clients' which he applied with some diligence to Admiral Rosendahl. At one point, he receives a phone call from Errol Flynn who wants Bautzer to defend him in what will become the infamous statutory rape, "In like Flynn" case. Although Bautzer played no part in that episode, a full page equivalent, three paragraphs, are devoted to the case and its outcome. The interesting part from the military aspect of LTA is data regarding captured German Officer's comments regarding the deterring effects of blimps on U-boats that otherwise might have attacked convoys. This Bautzer passed on to Rosendahl whose response is a key this book being reviewed. *The Man who Seduced Hollywood* is an enjoyable read for those interested in the topics already described. There is not \$27.95 worth of LTA content; however, when the Hollywood by-play is added, the purchase maybe worthwhile to the discerning reader. **Ω**

Fundamentals Of Aircraft And Airship Design, Volume II – Airship Design And Case Studies, Carichner and Nicolai, AIAA Press, April 2013.

Review by
Al Robbins

I'd hoped to learn what had been demonstrated in LTA since the Navy scrapped its airships in the early sixties. Unfortunately the book includes several hundred pages of case studies unrelated to LTA.

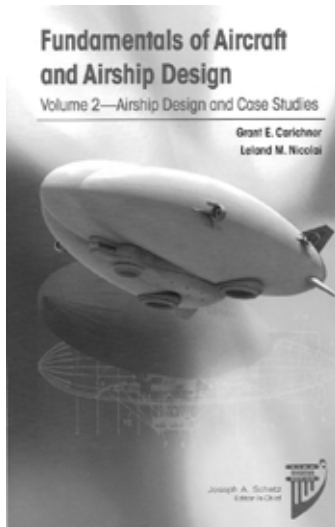
Unfortunately the authors failed to study authoritative sources regarding airship development, or the political and economic forces involved in its downfall. Most importantly, although the primary focus of the book is on a particular form of as yet unproven hybrid aircraft (between 20 and 40 % of the gross vehicle weight supported aerodynamically) they do not discuss how to adjust or regulate either of these incompatible forces:

Aerodynamic - force is a function of shape, speed, and orientation.

Aerostatic - a function of mass, pressure, temperature and volume, with buoyancy strongly affected by changes in ambient pressure, temperature and humidity. (As a first approximation, buoyancy is a function of the Perfect Gas Law. An airship's Center of Buoyancy is variable, depending on shape, location, pressure and temperatures of its several gas cells and ballonets.)

I'd also hoped that there would be something in the book regarding the ability to monitor and control airship movement, either on the surface or in flight, at very low relative speeds. (No separate section regarding sensor, display, or improvements in man-machine interfaces in the past half-century.)

Aerodynamic lift is a minor player; unfortunately both aerodynamic and aerostatic forces are capable of large, rapid, unrelated changes. (Angle of attack, shift in apparent wind vector) or (flying under a cloud or into cooler air, changing altitude). The book contains



no indication of methods of minimizing, monitoring or controlling drag, or of advances in vehicle dynamics.

Most airships were produced for military customers in three brief periods: 1913 to 1918, 1940 to 1944, and 1953 to 1957. Very few ever were in series production, and few of them accumulated more than a couple hundred flight hours. Most of the rigid airships were built by Zeppelin or Schutte-Lanz between 1912 and 1918, with a few copies by Britain. Every rigid airship that successfully completed at least one flight carried its buoyant gas in unpressurized flexible cells within an elongated metal (or wooden) structure. Zeppelin produced several series of increasingly larger metal framed airships for the German Army or Navy. Schutte-Lanz produced eighteen wooden framed airships for the German Army or Navy. None of the operational rigids ever included pressurized gas cells.

The only decent English language reference on Semi-rigids is the second half of PRESSURE AIRSHIPS, by Blakemore, Thomas L. and Pagon, W. Watters. Unfortunately Mr. Pagon doesn't give a complete account of the 70-odd non-rigids produced. Again, many were one-offs or prototypes. Some included multiple gas cells and multiple ballonets. Unlike the rigids they could be deflated. All could operate with a much lower envelope pressure than the non-rigids (which reduced gas leakage, increased envelope life, and permitted a greatly increased rate of climb or descent).

References:

1. PRESSURE AIRSHIPS, Blakemore, Thomas L. and Pagon, W. Watters
(Specifically excludes pressurized Metal-clad airships, e.g. the MC-2 or the CITY OF GLENDALE)
2. BATTLEBAGS British Airships of the First World War, Mowthorpe, Ces.
3. U.S. NAVY AIRSHIPS, Shock, James
4. U.S. ARMY AIRSHIPS, Shock, James
5. 25 YEARS OF ZEPPELIN AIRSHIP CONSTRUCTION, Durr, Ludwig
6. THE AIRSHIP EXPERIENCE, PART 1 A Million miles in a Zeppelin, von Schiller, Hans
7. SKYSHIPS, Althoff, William E.
8. AIRSHIPS TODAY AND TOMORROW, Nethercroft, O.J. Ω

The Weather That Changed The World: “The Hindenburg”



Reviewed by **C.P. Hall**

This is one of a series of half-hour programs about the influence of weather upon history. The featured participants are Dan Grossman – airship historian, Eric Fisher – meteorologist, and Dickon Mitchell – Explosives Engineer, MH special effects. Brief interviews with actual participants include Werner Franz – *Hindenburg* cabin boy and an ex Lakehurst ground crewman, Bob Buchanan.

A 30-minute program with commercial breaks has no time to consider alternatives. There is a theory and it is presented. The theory is that *Hindenburg* was delayed by headwinds and was running late. The schedule was to land at 6 AM. The ship was approaching Lakehurst at 6 PM. A cold front was pushing in from the ocean which collided with warm air over New Jersey resulting in disruptive weather conditions. Passing through the air as it approached Lakehurst the *Hindenburg* picked up a substantial static charge. As the *Hindenburg* arrived over the Naval Air Station, flying into the wind; the wind direction changed and Captain Pruss ordered two sharp turns to reorient the ship's nose into the prevailing wind. This caused a bracing wire to snap which slashed a gas cell resulting in a hydrogen leak. Rain began to fall as the landing ropes were dropped to the waiting ground crew. The wet hemp rope allowed the frame to discharge but, presumably momentarily, not the less conductive outer cover. The cover discharges to the grounded frame resulting in the spark that ignites the leaked hydrogen/oxygen mixture. There is an experiment the point of which is to support the theory?

My compliments to meteorologist Eric Fisher who describes rather well the process by which a large airship can become statically charged in the air. The question of a broken wire is unlikely theory. The *Hindenburg* was designed to fly and turn at 80 mph airspeed. It was likely flying at less than a quarter that velocity as it came

into land. The turns were sharp but stress increases with the square of the speed and decreases proportionately. A failure seems unlikely and no surviving crewman at landing stations reported any such mishap. The safety of the hydrogen-filled ship from both static electricity and lightning was based upon the entire ship being a “faraday cage” and electrically bonded together. The rain beginning to fall, if anything, should have improved the bond between cover and frame. Unlike modern blimps, landing lines are stored bundled inside the ship, not hanging in the breeze outside. The news film footage shows the lines being dropped shortly before ignition. The main mooring wire did not reach the ground before ignition. A several hundred foot long hemp rope getting wet enough to conduct a static charge, after hanging in the rain under the ship for a period of seconds, seems unlikely.

The experiment: Dickon Mitchell presents an experiment to demonstrate that a small static spark could result in the *Hindenburg* conflagration. He has created a steel frame bearing some resemblance to the aft section of the *Hindenburg* which he covers in a non-flammable aerospace skin. The frame is grounded by a wire attached to the frame at the stern. A 50,000 volt spark generator is placed next to the hull and burns a test hole through the aerospace skin. A single, clear plastic gas cell is filled with hydrogen, inserted into the hull, and slit to simulate a leak. Mitchell steps away; his assistant does a brief countdown and hits the button delivering 50,000 volts of spark to the outer cover which ignites the hydrogen/oxygen, burns the hydrogen, the gas cell, and the non-flammable outer cover.

Analysis of experiment: The experiment does not demonstrate that a hemp rope, wet or dry, could ground a static-charged airship. It does not demonstrate anything about the possibility of a static charge being retained, either by part, or all of the outer cover when the airship's frame grounds. It does not demonstrate the effect, if any, of rain falling on the outer cover in relation to any static discharge. It does not demonstrate that the lack of a hydrogen leak results in a failure to ignite. It does demonstrate that a 50,000 volt static generator can burn through “non-flammable aerospace skin” and ignite an oxygen/hydrogen mixture placed rather directly opposite the static discharge. The experiment is quite impressive as a cinematic special effect but has almost nothing to do with, either the *Hindenburg*, or the theory as presented by The Weather Channel.

Conclusion: I closed a recent review, of another program of similar intent, with the observation, “The

result is a disjointed collection of experiments in the lab and in the field which may have found something but actually prove nothing!” I cannot say as much for The Weather Channel’s experiment which does not address the issues raised by its own theory and proves only that hydrogen/oxygen in an electrically grounded ersatz airship can be ignited with 50,000 volts of static electricity. Ω

Our comrades-in-arms the Lighter-Than-Air Society recently issued a BOUYANT FLIGHT. This most welcome return to print was largely devoted to original compositions covering the 80th anniversary of the USS *Akron*’s loss and *Macon*’s rollout and first flight. A very useful guide was included to help members tell the difference between USS *Akron* and USS *Macon* in historical photos and motion pictures, even unto their separate construction shots. Ed. had to needle his fellow LTAS members that they had inadvertently labeled a tricky *Akron* photo as *Macon*. Why we Editors go bald.

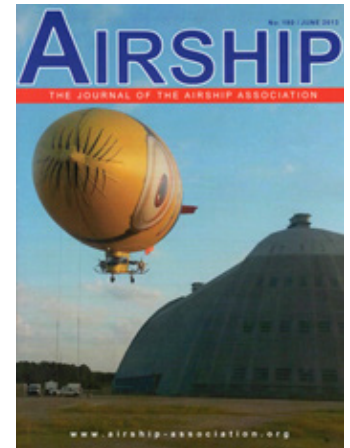


Friends of the Zeppelin Museum received an advertisement card in their newsletter mailing, allowing members to order a publication reviewed in

the magazine. The illustration sort of twists the knife that we Americans have never honored our LTA heroes with a postage stamp. Ironically, one rigid airship was featured on a US stamp- the LZ-127! Ω



Our sister publication from the UK reprinted an earlier article by member **John Geognegan**, his in-depth study of the Atomic airship concept. This idea was once the cover story of an edition of NAVAIR NEWS, reproduced below. Perhaps if an atom-smashing airship could have gotten the same immunity from possible lawsuit as given the earthbound plants by the Eisenhower administration (see “Short Lines”) our skies would now look like the alternate universe portrayed in the defunct TV show FRINGE! Ω



The professional magazine AIR & SPACE SMITHSONIAN has happily once again included a bit of LTA in their pages. The Jun-July issue featured a note about USS *Shenandoah* museum efforts (below). In the following issue, senior curator Dr. Tom Crouch recounted his recent experience in re-creating the hydrogen balloon English-Channel crossing flight of Dr. Jefferies. This historic flight was also covered in the Balloon Federation Of America (BFA) Gas Division Newsletter, edited by our own **Peter Cueno**. Ω

In addition to the NBC News report we summarized on the Alaska Airship Conference, CNN also made note of the gathering. Ω

There has been quite a bit of coverage of Goodyear's Zeppelin in the build. A photo spread in the Cleveland PLAIN DEALER featured the rather astonishing shot of the envelope's mounting on the airship's triangular framework (see page 7). Ω

BALLOONING magazine, our sister publication of the BFA, featured an excellent story about the Bayer hot-air airship's incredible world tour. Ω

"Jittery Wall Street traders are looking up in the sky and seeing Hindenburgs. That can be a bad thing for markets, which have suffered in the past when the tripwires associated with the "Hindenburg Omen" get activated. Market veteran Art Cashin said August 12th that the market phenomenon is looming again. "There have been multiple occurrences of the Hindenburg Omen in the last several weeks," Cashin, the director of floor operations at UBS, said in his morning note." Ω

Universal Picture's selection of an A-150 Lightship to publicize their film (below) resulted in the rather unusual scheme gracing our back cover(s). Oddly enough its sister in uniform, the US Navy MZ-3A, was also flying in Florida during the promotion. As you see in the ad reproduced below, social media is being used to widen the audience. Remembering when K-ships carried "Fly Navy" signs, there is a lesson to be learned here. Navy recruiters, take note! Ω

Soundings

NEW IDEAS, GO-AROUND EFFORTS, STORIES AND MISSTEPS

Big Airship, Little Museums



...encountered the airship's remains over Ohio. A violent updraft tore apart the silvery envelope's aluminum and fabric structure, killing 34 of the 61 crew and two passengers. Survivors made paratrooper landings in the airship's wake.

The next morning, and over the days to come, hundreds went after the *Shenandoah's* remains, trawling off bits of fabric and backing pieces of aluminum, items that would become family keepsakes for decades.

In nearby Caldwell, by Flood and Judy McMillan.

IF YOUR CAR BREAKS down in first Ohio, mechanic Bryan Kayser is your guy. Auto work is his calling. But his passion is the small camper packed next to his family-owned garage on the main drag. With his wife, Theresa, Kayser operates a museum dedicated to the USS *Shenandoah*, a Navy airship that crashed in a nearby cornfield in 1925. The camper, half the size of a small bedroom, houses crew uniforms, pieces of the airship's framework, and even fabric from the skin.

"My grandfather bought the fans where it crashed," Kayser says. "At first, we did a few window displays. Then people started bringing more stuff in so, then we got our first trailer showings." Wreckage was found in three



Theresa and Bryan Kayser display a *Shenandoah* model in their camper museum; a plaque outside details the history of the airship, which met its end in Ohio.

sites the Kayser's own the spot where the *Shenandoah's* control car came down, named the One.

Lieutenant Commander Zachary Garsdowicz had been taking the *Shenandoah* on a multi-stop Midwestern tour. Early on the morning of September 8, the airship

operates the Noble County Historic Jail Museum on the town square. In a cell that housed inmates until 1997, Flood exhibits wreckage and fabric, what looks to be a hydraulic cylinder, and a wooden box that might have cradled a navigator's sextant or other delicate instrument.



Tweet sightings of the blimp or post photos to Instagram or Flickr using #despicablimp

Photos credit: Universal Pictures LivingMIVidaLoca.com

VHS surprise, we have found “Tailspin Tommy and the Great Air Mystery,” another feature film which seems to be missing from “A Century of Airships” by Richard G. Van Treuren. It was released in 1935 and is a 12 chapter serial from Universal Studios. The first chapter is titled, “Wreck of the Dirigible.”

The title character, played by Clark Williams, and his side-kick “Skeeter,” played by Noah Berry Jr., open the film. Tommy’s girlfriend, portrayed by an almost unrecognizable Jean Rogers (The original Dale Arden opposite Buster Crabb’s ‘Flash Gordon’) gets him a contract to do an oilfield aerial survey only he must be onboard Dirigible 76. They bolt a trapeze assembly to their bi-plane and pursue the dirigible. Aboard, Dirigible 76 continues on its way, flies into a storm (much like *Shenandoah*) and breaks up (more like R38) at the exciting climax of Chapter 1.

Dirigible 76 is based upon the Goodyear ZRS model, a short, fat, pregnant guppy shape with long, slender fins. It does have the ZRS eight engine configuration with water recovery panels over each. The control car looks ZRS-like and there is a second, similar passenger gondola aft of the control car. Dirigible 76 is depicted in identifiable stock footage of *Los Angeles*, *Akron* and *Macon* for sure and, I think, one quick pre-Nazi film clip of LZ-127. Later #76 is a cheesy special effect. Possibly a cartoon, perhaps a miniature, most likely a combination of both(?) #76 interiors are limited and vague. The control car shots appear to be a combination of actual footage and movie set. The movie set has the radio operator sitting close behind the steersmen in the same open area. The passenger gondola is pretty much passenger chairs, windows and a few girders. The keel looks like the ZRS profile, Tommy’s aircraft was raised into a hangar (ZRS-4 model trapeze stock footage though the ZRS-5 trapeze is seen in other shots). That said, he breaks for his bi-plane when the ship is in extremis and enters it directly from this keel. Tommy is attempting to radio for help when the ship begins to break up and his bi-plane falls free of #76. The film is a typical Universal serial, Depression era with a sub “B” movie budget. That said, some of the airship footage is interesting and not all of it is degraded (blurred). There is different stock footage of the pole-launch technique here as well. And all this just in Chapters 1 & 2. Ω

– CP Hall

BLACK BLIMP

Joe M. Lundy, 89, passed July 15, 2013. Born in Albany, GA, his studies at the University of Georgia were halted by WWII. Entering the V-5 program, Joe wound up at Lakehurst, becoming one of the younger K-ship pilots. Deploying with ZP-41 to Brazil, Joe flew patrols from Sao Paulo and Igarape Assu. Joe transferred to HTA, training in Stearmans in Pensacola, then piloting F6Fs from the carrier *Yorktown*. Postwar Joe entered the insurance business (while flying in the Reserves) eventually rising to serve on the boards of several insurance companies. Joe restored and flew two PT-17s, performing aerobatics at air shows. In 1996 Joe read the narration for “The Blimp Goes To War... Again,” the WWII video chapter of the Historical Action Team. Joe is survived by his wife Marsha, son Joe Jr., step-sons and -daughters, 11 grand and 5 great-grandchildren. Ω



Robert F. Buche, 92, passed March 22, 2013. After attending Creighton and USD, Robert enlisted in the Navy and piloted airships during WWII where he was married in 1942. Postwar he became President of the GF Buche Co. He is survived by his wife, Millie; nine children, 35 grandchildren and 46 great-grandchildren. Ω

William D. Harkins passed Feb. 5, 2013. Ω

PRINCES AND KINGS

Isn't it funny that princes and kings
 And clowns that caper in sawdust rings
 And common people like you and me
 Are builders for eternity.
 To each is given a bag of tools
 A shapeless mass and a book of rules
 And each must make 'ere life is flown
 A stumbling block or a stepping stone. Ω

LIGHTER SIDE

The young Navy bride asks her husband, “All the girls at bridge were talking about their husband’s “per diem.” What’s per diem?” He reassured her, “Honey that’s one of those social diseases. I’ll never to bring that home to you.” ☺

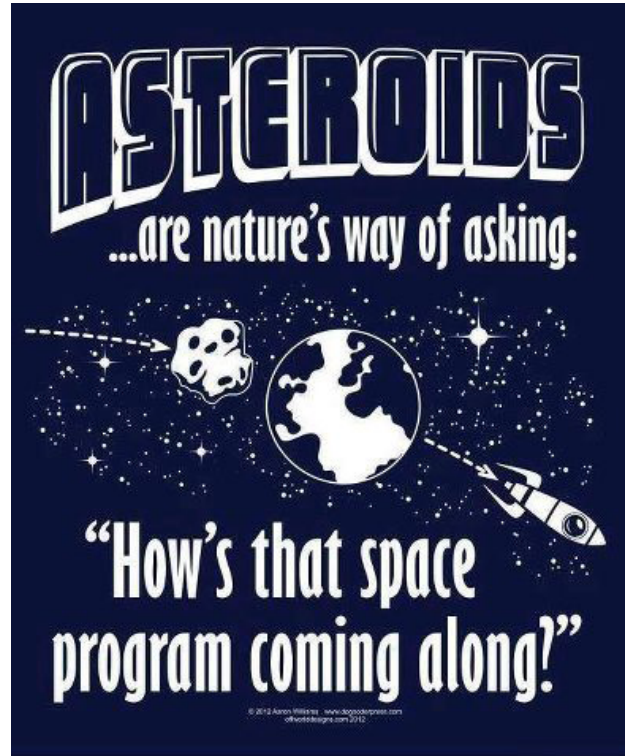


During a commercial airline flight an experienced Navy pilot was seated next to a young mother with a babe in arms. When the baby began crying during the descent for landing, the mother began nursing the infant as discreetly as possible.

The pilot pretended not to notice, and, upon disembarking, he gallantly offered his assistance to help with the various baby-related items. When the young mother expressed her gratitude, the pilot responded, “Gosh, that’s a good looking baby, and he sure was hungry!”

Somewhat embarrassed, the mother explained that her pediatrician said that the time spent on the breast would help alleviate the pressure in the baby’s ears. The Navy pilot sadly shook his head, and in true pilot fashion exclaimed, “And all these years, I’ve been chewing gum.” ☺

Two Eskimos sitting in a kayak were chilly, so they lit a fire in the craft. Unsurprisingly, it sank, proving that you can’t have your kayak and heat it too. ☺



No matter how much you push the envelope, it’ll still be stationary. ☺



Balloons have long made perfect vertically-oriented commemorative stamp art subjects, and of course airships grace many horizontally oriented commemoratives in many countries other than the US. (Only the NAA has created a Navy airship US stamp.) If you're looking here for a explanation of what in the world could be on the back cover, you must know that Universal Pictures launched its sequel "Despicable Me 2" with LTA, big time. Not only two Cameron balloons, but a Van Wagner Lightship dubbed "Despicablimp." This has to be the first time in LTA history an airship photo turned on end (sort of) makes sense! Our thanks to Terry Dillard, chief pilot, "Despicablimp."

