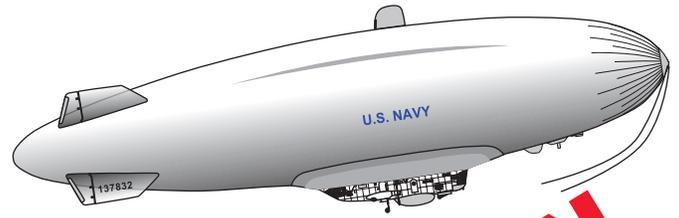
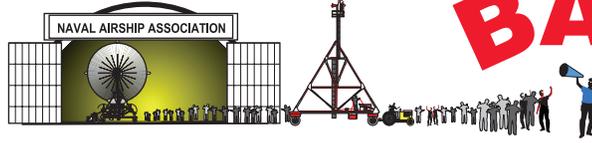


THE

NOON



BALLOON



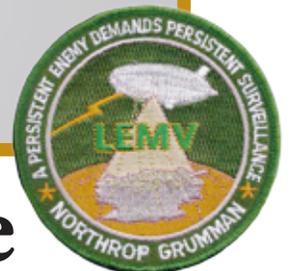
The Official Newsletter of THE NAVAL AIRSHIP ASSOCIATION, INC.

No. 98

Summer 2013



RZ-4A, We Hardly Knew Ye





MZ-3A approaches the field for landing after a short flight. Mayport Naval Station hosted the Navy MZ-3A airship in the Jacksonville area, operating out of Fernandina Beach airport. Rear Adm. Sinclair Harris (left), commander of U.S. Naval Forces Southern Command, U.S. 4th Fleet, and retired Rear Adm. Victor ‘Vic’ Guillory, Jacksonville’s military affairs department director, walk away from the blimp after they took a flight. (Both photos Bob Mack/The Times-Union). See “Technical Committee” inside for specifics about MZ-3A testing. Likely gone to press before the Florida testing, the May 2013 issue of PROCEEDINGS is the “NAVAL REVIEW” issue, and once again LTA rates a paragraph in the naval aviation section under the heading “Lighter-Than-Air Vehicles”. In closing, it states, “In 2012 the airship flew over the U.S. Army’s Aberdeen Proving Grounds in Maryland, testing sensors slated for installation in the Army’s Long Endurance Multi-Intelligence Vehicle, which was canceled early in 2013. Without a mission, MZ-3A will likely be deflated and put into storage sometime in 2013.” See page 16 inside.



U.S. Senator Bill Nelson, a senior member of the Senate’s Armed Services Committee, flew on the MZ-3A for an hour in April. Senator Nelson says smugglers use a variety of boats, some of them submersible. “They ride right below the water’s surface, but they’ve gotten a lot more sophisticated than that. They’re building submarines. This is a relatively inexpensive and fuel-efficient way for the Navy to get this high-tech equipment up in the air and working to track bad guys,” Nelson said. “Military jets burn more fuel just on the runway than this blimp does during an entire flight.” The U.S. Navy’s Fourth Fleet patrols the waters around Central and South America—shipping routes for traffickers of drugs, people and other contraband - as part of Operation Martillo. Navy spokesman Lieutenant Commander Corey Barker says, “The blimp would not be responsible for pursuing a ship or fast speedboat. It would simply be responsible for detecting that and passing that information to our patrol units, our aircraft with our partner nations and the coastguard to intercept that ship.” (Photos by Katie Ross, Transportation Nation) In another report, with a video-taped interview, a spokesman discussed “multi-spectral imaging equipment” suggesting to Ed. that part of the testing was to evaluate the airship’s ability to observe boats operated awash, if not actual submarines in the more conventional sense. Santos-Dumont’s 1904 prediction that the airship would be the rival of the submarine boat may yet be fulfilled (again) in time for the 100th anniversary of that prophecy. Ω

THE NOON BALLOON

Official Publication of the Naval Airship Association, Inc.

ISSUE #98

Summer 2013

Editorial	2
President's Message	3
Treasurer's Strongbox	4
Pigeon Cote	5
Shore Establishments	13
Cover Stories	15
Tech Committee	17
History	18
Special to TNB	20
Short Lines	24
AIAA LTA Conf. Report	27
Media Watch	29
Ready Room/Black Blimp	35
Lighter Side	36

Using the internet too much can lead to physiological problems. Help is available – online. ☺

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.



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

EDITORIAL

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

We “gotta roll with da’ punches, ya gotta roll wit’ ‘em,” the song reminds us, though this quarter challenges us with its lion’s share of bad news as we note the 80th anniversary of the USS *Akron*’s ocean impact and subsequent drowning of most of her crew. One can only wonder “what if” *Akron* had gotten the full weather map and/or had been allowed to stay at a safe altitude that terrible, stormy night. More happily we are here treated to an exclusive-to-TNB look at the life of famous Tinseltown lawyer Greg Baltzer, courtesy member Jim Gladstone.

I keep looking for the right word to classify those in our organization who have stepped forward to help the NAA and the LTA cause. “Activist member” doesn’t cut it when trying to describe the outstanding individuals we’ve lost this past quarter. First came the sad news from across the pond that longtime AA treasurer and AHT enthusiast Mike Rentell had succumbed to his illness. A key figure in both British organizations, and a supporter of our video effort, his loss was devastating.



Mike (middle left) gave the publisher (left) and I a personally guided tour of the incredible R-100 & R-101 exhibit on our last visit to Bedford. On the far right is Nigel Wells, who had worked to build a flying scale Skyship to test NAA member Roy Gibbens’ cyclodial propellers. Then came the unexpected news that Roy had also passed (see “Black Blimp”). Roy is seen at right with his c-prop demonstrator at the AIAA symposium in Denver; he was a longtime member of their LTA Tech Committee and was the one who invited me to apply to it. Roy devoted much of his later life and fortune to show, aptly demonstrated in the model, how his props would revolutionize airships



controllability, particularly at low speed. Roy was an early supporter of our airship video history series, supplying his dad’s home movies of USS *Macon* at Opa-Locka, her Sparrowhawks being started and bouncing down the strip to hook on to their mothership. (He recalls being handed up to sit in the cockpit of one of the hook-on planes, what a thrill for a little boy!)



Another punch in the groin came when Dan Brady passed (see “Black Blimp”). Like Roy, Dan supplied movies for the series, attended every reunion (seen here, at Denver) and video-taped the proceedings, housed me for a personal tour of Tillamook, followed up with the WWII Columbia River action mystery, etc. etc. And if that wasn’t bad enough, another early supporter of our series and my pen-pal of many years, Bob Koeberle, also passed that same week. I always complain we get scant information for Black Blimp listings, but likewise we haven’t the space to describe the many accomplishments of these we’ve lost, enthusiastic LTA supporters who will be sorely missed.

On a personal note, my effort to bring ZRS the novel to the movie screen proceeds glacially owing to my naiveté about kit airplane construction. Our Silence Twister recently passed its one and a half year anniversary with us. (Here is one completed in Europe, seen at Friedrichshafen’s airshow). In spite of our determined efforts, “Abba-Ca-Deborah” is



no more than 60 percent complete as of this writing. I sure hope we’re able to finish our little “airship’s fighter” before its second anniversary. Sometimes I wonder if there will be anyone left who cares about flying-carrier airships if I live so long as to finish the movie!

- Richard G. Van Treuren

View From The Top: PRESIDENT'S MESSAGE

I recently had the distinct pleasure to spend three and a half days in the Akron, Ohio, area visiting several LTA-related facilities. Our first day David Smith (The Noon Balloon publisher), Eric Brothers (Lighter Than Air Society advisory board member) and I toured the crash sites of the USS *Shenandoah* around Ava, Ohio. A couple of years ago David suggested that the NAA consider contributing toward repairing the signs at the (3) crash sites and memorial site, as they had weathered considerably over the years, and the current signage was in need of repair. Money was raised through private donations to cover the costs of the new signage which David has designed and will produce. (A photo of the proposed sign is on the inside back cover.) The LTAS agreed to provide the labor necessary to repair and repaint the sign frames and install the new signs. We met with Theresa and Bryan Rayner, whose family has maintained the sites over the years, kept the public aware of the sites, and also maintained an impressive museum in a camping trailer with photos and artifacts dedicated to the crash. We were joined by Ren Brown and Alvaro Bellon (both NAA members and LTAS advisory board members) for a tour of the LTAS Workshop. It is on the 4th floor in a repurposed B. F. Goodrich tire factory building where they maintain office space and their collection of LTA photos and artifacts. I was totally impressed by the scope and amount of the contents, and share their desire to one day see a facility open for the public to see and appreciate the collection.

Later, at the request of the LTAS advisory board, David and I joined them for their board lunch meeting for a discussion of the signage project, an overview of the NAA, and how we may cooperate on future endeavors related to LTA. I presented the overview of the NAA, how we should be thinking about cooperative efforts regarding LTA, and how we could also work with other bona fide LTA groups and museums to better present both historic aspects and future potential of LTA to new audiences. While the NAA is obviously centered on US Navy LTA history, and the LTAS is grounded in Goodyear's involvement in LTA, we both share common interests and goals. There is no reason why we cannot cooperate to achieve these goals. David explained the signage project and displayed a sample of the design to be done for the sites. Overall, I was quite pleased with the meeting. We received and answered some very pertinent questions, and think we may have opened a door to cooperation to greatly expand the LTA goals we

both share. At the end of the meeting there was a surprise going-away party for Ren Brown, NAA member and LTAS advisory board member. Ren and his wife are moving to southeastern Ohio to be near one of their daughters. Ren (below, center) is a long time Goodyear employee, Navy veteran and a genuinely good guy.



David (above right) and I got a tour of the Goodyear Wingfoot Lake facility by Ed Ogden, Public Relations Manager. They have recently converted part of the hangar into a corporate meeting center and the main corridor has a tremendous collection of framed blimp and Goodyear-Zeppelin photos. We were not allowed in the portion of the hangar where the new Goodyear Zeppelin is being constructed for security reasons, but the LTAS website has some publicity shots of the construction, www.blimpinfo.com.

Finally, we visited the MAPS Air Museum at the Canton-Akron Airport. It has a very nice collection of aircraft, both inside and out on the apron, and a very impressive restoration shop. A totally restored Goodyear blimp car is on display. The car can be entered and an ATC radio frequency is playing in the background lending a realistic feel. Again, the LTAS has several nice displays around the restored car. I was very impressed and pleased with the overall interest in LTA and in the tremendous collections of LTA related photos, documents, books, technical drawings and Goodyear motion picture films that are being preserved at the Akron-Summit County Public Library and the University of Akron Archival Center. I also thank the LTAS for inviting us to their meeting and giving us an opportunity to promote the NAA to their board members who possibly were not familiar with our organization.

In other business, it's that time again and I have to appoint a nominating committee in regard to a slate of officers to be presented at our 2014 Reunion/Conference in Newport, RI. I have asked Past President Ross Wood, TNB Publisher David Smith, Ed Miller, Ken Braun and Small Stores Manager Donna Forand to serve and all have accepted. A message will be sent via the website.

I also spent a day recently in Newport discussing details for our Reunion/Conference, at the hotel and the Naval War College. I think everyone will be pleased with our arrangements and the activities we are planning. [See "Ready Room"] More details will be in the next Noon Balloon.

Finally, I think we are in excellent shape as an organization. While we continue to lose members due to natural attrition, we are making great progress in attracting new members (particularly through the continuing stellar efforts of Richard Van Treuren and David Smith) to make people aware of our organization. Many thanks to them, and to all who never miss a chance to tell our story. I am also very pleased with the members who call me and ask what they can do to help, offer stories to print, and genuinely care about the NAA and our future. Thank you all.

- Fred Morin, President

TREASURER'S STRONGBOX

I want to take this opportunity to thank all of our members for their renewal memberships and for responding in a timely manner. As of this printing, our membership tally is as follows: United States Members – 518; and non-United States Members – 10. Unfortunately, we have lost 47 of our members for various reasons. If you know of anyone interested in aviation, give them a "pep" talk about the N.A.A.

Remember! - All of you snowbirds, please remember to change your address on the website so that you will continue to receive "The Noon Balloon" during the summer and early fall.

Welcome Aboard New Members!

Paul A. Adams, Mesquite, NV
Raymond Mulholland, Sumter, NC
Warren F. Doede, Wausau, WI
Michael Sarno, Towanda, PA
James B. Tardy, Huntington, WV
Paul R. Price, Edmond, OK
Erik A. Kassel, Columbus, NC
Walter Turner, Mission Viejo, CA
Abbey Manalli, Milwaukee, WI
John Fanelli, Howard Beach, NY

Jack Woehrie, Alachua, FL
Robert B. Johnson, Potsdam, NY
Todd Bohlman, San Diego, CA
Shelley Dziedzic, No. Stonington, CT

Thanks for Donations!

Alfred Zulueta
Roseanne Belsito-
In memory of her father Natale "Tony" Belsito, USN
Gerald "Jerry" Patrie
William C. O'Hea
Louis "Lou" Prost
Shirley Franzen
Ronald Hurley
Warren Doede
George Allen
Wick Elderkin

- Peter F. Brouwer Secretary/Treasurer

[Ed. Note: Our thoughts are with Pete and his wife Betty as Pete recovers from going under the surgeon's knife in April.]

State of Florida Department of State

I certify from the records of this office that NAVAL AIRSHIP ASSOCIATION, INC. is a corporation organized under the laws of the State of Florida, filed on November 7, 1985, effective November 7, 1985.

The document number of this corporation is N11957.

I further certify that said corporation has paid all fees due this office through December 31, 2013, that its most recent annual report/uniform business report was filed on January 10, 2013, and its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this is
the Tenth day of January, 2013*



Ken DeFina
Secretary of State

Authentication ID: CC1946863994

To authenticate this certificate, visit the following site, enter this ID, and then follow the instructions displayed.

<https://efile.sunbiz.org/certauthver.html>

PIGEON COTE

UNITED STATES ATLANTIC FLEET
AIR FORCE
AIRSHIP SQUADRON THREE

U. S. NAVAL AIR STATION
Lakehurst, New Jersey

FLIGHT SCHEDULE FOR MONDAY 2 APRIL 1956.

AIRSHIP: 447	PILOTS		CREW	
BRIEF: 0730	LT LUEDTKE	PERYSEN	AMC	
INSHIP: 0800	LT BROCK	McDOUGALL	AD1	
UNDOCK: OPTION CDD	LT FEMMER	STRAKA	AD2	
TAKBOFF: 0830	LTJG HILL	PHELPS	ADAN	
LAND: 0830 3 April	ENS ROBBINS	KELLY	AT2	
TYPE FLIGHT: 1A8		TAURIANEN	AT2	
MISSION: ASM TRNG.		GILLEN	AT3	
MIN FUEL: 1500 gal.		COOK	AE3	
ARMAMENT: BASIC		WILSON	ATAN	
STATIC COND: 500 DH		BARKER	AM2	
RATIONS: 2H 1C 1B 19 Men		PERCOSKIE	Z03	
PILOT: LTJG ECKHOUSE				
CREW: 303				
PLUS: SULLIVAN, AN				

HTA: SNB-ZC1D	SNB-ZC1D	SNB-ZC1D
TAKBOFF: 0830	1100	1330
LAND: 1030	1300	1530
PILOT: LT HARRINGTON	LT PROULX	LT ROWLAND
COPILOT: LT RIPSCHO	LT PFEFFERKORN	LTJG RITCHIE
DEST: LOCAL INST.	LOCAL INST.	LOCAL INST.
PASS: OGUS, ADC		

HTA: F6F-ZC11	F6F-ZC11	F6F-ZC11
TAKBOFF: 0830	1100	1330
LAND: 1030	1300	1530
PILOT: LT BOMB	LTJG RICHARD	LTJG HARVISON
DEST: LOCAL	LOCAL	LOCAL

All Officers muster at the training room at 0800 for legal lectures.

Pilots and crew of C/C 302 muster in the training room at 1250 for ECM and Recog. lectures.

CDO: LCDR MUEHLEN	SUBMITTED:
CNO: LTJG JOSEPH	<i>S.A. Harvison</i>
MDO: LTJG THOMAS	B.G. HARVISON LTJG USN
ODO: LCDR MUEHLEN	/SST. FLIGHT OFFICER
DUTY C/C: 301	APPROVED:
STBY CAC: 303	<i>R.F. Locke</i>
STBY A/S: 446	R.F. LOCKE CDR USN
SECURITY D.O: LTJG THOMAS	COMMANDING OFFICER

Mort Eckhouse e-mailed, "I was going through some really old stuff and ran across these. (Above, airship squadron schedule for April 2, 1956.)

The airship is a Nan ship (OK a ZPG-2 I'm an old guy these days) 135447 (mine was 135446, ZC-3, the only ship in the squadron with JG stripes on the prop spinners). I'm forwarding this to you as a piece of the past."

The attachments generated a lot of e-mail and Mort replied, "Well, I appreciate all the interest in my piece of "history." Just thought I'd add my two cents to the comments. In my crew "Newbies" got their time in the seat along with the rest of us. Naturally, when we were operating they did "ride sideways with a pencil." Reason? I was brought up in ZP-3 by my first PAC Bob Keene who believed that every pilot got his share of seat time. Great guy! The tick marks were made by me later and indicated my regular crew members. This was basically a 'make-up' instructional hop. Chief Perysen was my very LTA experienced crew chief and chief cook! Three hundred miles at sea on my 26th b'day he cooked me a chocolate b'day cake, frosting, candles and all. My Plane Captain was Mac McDougall. He later was commissioned and retired as a Lt or Lcdr. In my time ('53-'56) the squadron owned the planes we had in addition to the Beechcraft and F6F an SNJ and TBM. Got time in them all. No Natops to get in the way. We had our own HTA maintenance and good reliability. The HTA line was at the east end of the Dock, of course. Oh, yeah, Sullivan wasn't a passenger. We worked him for whatever rating he was striking for. Ah, memories . . ." Ω

Herm Spahr also provided a pile of Nan - er, that is, ZPG photos we're trying to find space for...





Ann Flenner wrote, "It is with a broken heart I send the following. Thought you would want to know Jim passed away [see *Black Blimp*]. Here are also some photos I came across. In the group Jim is second from left in back row; he is in the center in the other photos. The last reunion we were able to attend and the [*Zeppelin NT*] ride was wonderful and created great memories." Ω



With the news of the Aeros-craft making a test float in the Tustin hangar, the subject of gas compression generated some discussion between Ed. and controllable-buoyancy advocate friends. **Juergen Bock** e-mailed, "1. Gas compression: To provide a first impression of the effect of lifting gas compression, two sizes of cylindrical airships with a slenderness ratio of 1: 5 are assumed to demonstrate the principle of aerostatic lift control when discharging a payload of 50 tons.

In the first case the filled hull contains 150,000 m³ of helium; the dimensions are 168 m length, 34 m diameter. 50,000 m³ will carry the payload of 50 tons. When the payload discharged, the effective gas volume must be squeezed to 100,000 m³ to keep the ship at equilibrium. As a model one may assume a large piston to compress the gas, while the pressure is raised from 1 atmosphere to 1.5 atmospheres (for simplicity ignoring adiabatic heat generation). The required energy amounts to 1,082 megajoule equivalent to 300 kilowatthours. Assuming a compressor system with an effective power of one megawatt(!), it would still require 18 minutes to perform the entire procedure.

The stored mechanical energy of 1,082 megajoule corresponds to an equivalent of 235 kg TNT which would be set free in case of a catastrophic rupture of the hull, considering a raise of hoop tension by about a factor of 83(!), assuming a normal hull design pressure of about 60 mm WC (30 mm static + 30 mm barometric). Needless to say that one may expect a substantial increase of the deadweight at the expense of the payload. In the second case the hull will contain 200,000 m³ helium (37 m diameter, 185 m length), while the payload to be discharged is the same as beforehand, i.e. 50 tons. The gas volume in this case must be squeezed to 150,000 m³ and the pressure increase is only 1.333 atmospheres. The compression energy required amounts therefore to "only" 754 megajoule; the corresponding compression time would be 13 minutes. In the catastrophic case, the stored energy would be equivalent to 164 kg TNT.

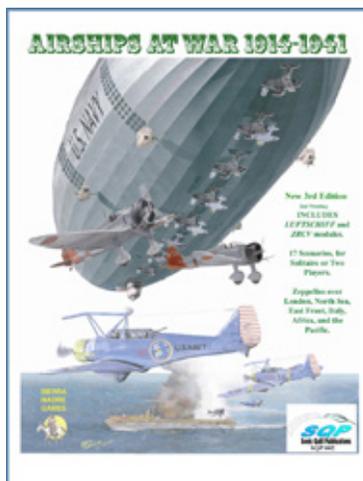
This case study indicates that lift control can be well achieved as long as it is kept within rather low boundaries. For substantial practical load changes, however, it is not realistic. In consideration of the fact that compression of the main volume seems to be too hazardous, the developers of this type of lift control have decided to use a pressure tube system to hide away the 50,000 m³ using "new materials" to withstand the high pressure necessary. I have not completed this study and I intend to add some graphs for a corresponding paper..."

Marc de Piolenc e-mailed, “In one of my rare idle moments, I was reading about R-34’s Atlantic crossing in the Mechanics volume of the Popular Science Library, published by Colliers and edited by two editors and one former editor of Scientific American magazine. “The total weight carried was over 24 tons and the dirigible fully loaded weighed altogether about 60 tons. When the dirigible started off it had to fly low, but as the fuel was consumed it grew lighter and rose higher. The surplus hydrogen had to be pumped into steel tanks where, owing to its compression, it was heavy and served as ballast which could at any time be fed back into the gas bags to increase the buoyancy of the airship.” [page 230]

And keep in mind that this drivel - two major technical errors (or rather one error and one outright fabrication) in three sentences - went through two editions and four printings without correction (my copy is of the first printing of the second edition, 1939). This tells me that Scientific American, which I used to revere as a quasi-unimpeachable source of information in scientific and technical matters, had gotten sloppy about fact-checking long before it became a propagandist for man-made global warming.” Ω

*New Member **Raymond Mulholland** let us use his impressive cover art and tells us about his project:*

“Airships at War is a solitaire board game where the player commands a German Zeppelin in World War I or an American Airship in a hypothetical early Pacific war with the Japanese. Each airship has a 11” x 17” ballast sheet to keep track of the airship’s status. As the commander, you decide when to drop ballast, release gasses, move crew members to different stations, set the speed of the airship and when to use on board weapons and equipment.



The game map functions in a matter similar to early arcade video games where the airship moves up and down in the center and other game pieces normally move from right to left until they leave game play. A deck of forty

cards is used to provide random events that may happen to the airship. Some will help and some may turn out to be of no significance, but most will pose a challenge. Included in the mix are enemy planes, clouds, weather, anti-aircraft batteries, barrage balloons, land and naval military targets, and much, much more.

Most games consist of three phases and each phase ends after the tenth card is drawn. Between phases, cards not in play are re-shuffled for a new draw deck, so many possible events will not happen and some may happen multiple times. In the last phase, the 10th card represents the zeppelin shed or airship tender. The game ends with either the airship crashing or docking at the shed or tender. The game includes several scenarios to choose from, with the German being historical and the American being hypothetical. Most are patrolling and strategic reconnaissance in nature, but there are attack scenarios and even a supply run to besieged German forces at Mt. Kilimanjaro in World War I Africa! The American scenarios assume that either the attempted Japanese coup in 1929 succeeded and brought conflict with the US several years earlier, or that the fatal airship accident in 1935 did not take place.

The first expansion module, Riesenflugzeugabteilungen, brings the massive airplanes of World War I, the precursors to modern bombers. Both historical and hypothetical bombing raids can be tried. Of particular interest for the American airship is an alternate history Doolittle Raid using an Akron class airship carrying 5 Sparrowhawks. To date, all American airship scenarios have been hypothetical. I am considering creating an expansion module that has historical missions for the US airship.

My inspiration came from reading a Noon Balloon and learning of airship anti-submarine patrols in the Atlantic during World War II. I hope to learn of the airship types that were used in these and other wartime patrols, typical equipment carried, and mission durations. I want to learn what typical mission conditions were and what challenges were faced. For the general feel of the game, I want to know what was expected of the crew, and what usually happened. For specific scenarios, I want the unusual events and notable near miss encounters. Anyone interested in discussing this project can reach me at ray@rjwargames.com. Ω

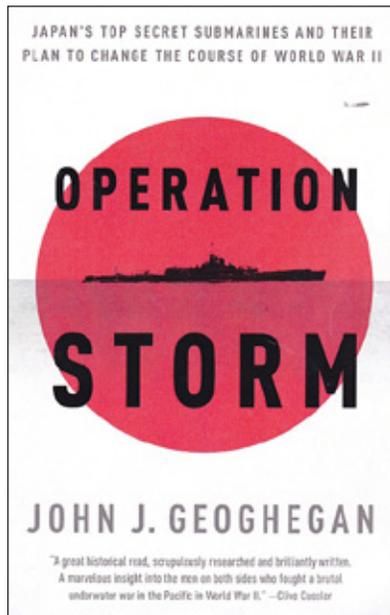
One Kenneth Popelas e-mailed **Ross Wood**, “I have the privilege of being a tour guide for AMARG. This past week I gave a tour to General Peck (ret) and he was really impressed with the subject [ZPG-3W] gondola. However he did have some questions I could not answer, and I was wondering if you could? 1. What was the average sortie duration for the missions? I have researched as much as I could on open source but come up with numbers from 50-200 hours. 2. Since the crew quarters were up in the “blimp,” how were they separated from the helium? 3. What was the average crew size for a mission? 4. Did you all carry any ASW weapons? I have driven by the ZPG-3 many times, someday when they let me, I would love to get out and “roam” around inside. Appreciate your assistance if possible. Ross replied, “I am delighted to hear from you and would be happy to supply answers to your questions. It might help if I could discuss the squadron that had the 4 ZPG-3W’s and 8 ZPG-2W’s. ZW-1, based at NAS Lakehurst, N.J. was the only Navy Airship Squadron to have an Airborne Early Warning mission. The time was in the late 1950’s. Our sister squadron, at Lakehurst, ZP-3 was flying the ZPG-2’s and their mission was strictly ASW. ZW-1 was actually working for the USAF as part of the New York Air Defense Command. We maintained a ship “on station” almost continually from the mid 50’s to early 60’s. We were part of a “picket line” that included a Texas Tower (tragically lost in a major storm, with loss of all hands), about 40 miles off the New Jersey coast, our ship, which operated about 200-250 miles off the coast, at an altitude of 1000 to 1500 ft. and USAF C-121WV’s operating 350-400 miles offshore at an altitude of 7-8000 ft. Our search radar distance was approx. 200 mi. Amazingly enough, when SAC would run practice low level strikes toward New York, from the Azores, we would typically pick them up before the 121’s would. It had to do with the altitude and atmospheric conditions. The ZPG-3W was 1.5 million cu. ft. in size and the 2W was 1.0 million cu. ft. The blimp you see over a football game or golf match is approx.. 180,000 cu ft. Now, back to your questions. The typical “barrier” flight was 36 hours. We were fueled and provisioned for 56 hours. My longest flight, as Aircraft Commander in a 3W, was 55 hours, on a special ops mission, providing radar cover for a carrier task force off Norfolk, VA. The 3W record was 96

hours without refueling. The crew quarters, included 13 bunks, and a galley seating 8, was a second deck, starting at the cockpit and extending back about 2/3’s of the length of the main car (gondola). The 2nd deck was totally sealed off from the helium “envelope” & was accessed by a ladder from the cockpit, and from a second ladder at the rear of the second deck. The 3W & 2W had a height finder radome on top of the ship that was accessed by a circular rung ladder in a vertical helium-tight tube, going from the center of the car to the radome. The 2nd deck at Davis-Monthan, is resting on the desert on the port side of the car. Not in the best shape, but you can still figure it out. The crew size for a “barrier” flight was 25. The Aircraft Commander and two sections of 12 each. We had 7 radar stations in the CIC – combat information center – section of the car, which was directly behind the cockpit area. A major part of the crew was devoted to the CIC operation. One of the most important members of the crew was the rigger, who could fix anything, (other than the engines) and also doubled as our cook. We had no ASW weapons or any other weapons on board, just “sitting ducks.” I should mention a little more about the CIC operation. All of our CIC personnel went to an USAF controller school – I believe, at that time, it was in Yuma, AZ. They were trained to run intercepts with USAF aircraft. They had F-101’s operating from a field on Long Island, and F-102’s from McGuire AFB in central N.J. The fact that the Navy was footing the bill for our operation, which was benefitting the USAF, was a sore subject in Wash. D.C., particularly with the Navy carrier Admirals, who could never understand LTA – lighter than air ops. Ken, in closing, I just have to say what a fantastic NAA Reunion we had in Tucson, and at Davis-Monthan AFB. A huge part was due to the folks at the 309th AMARG. I was just blown away at the cooperation we got. Key players were Terry Pittman, Mark Seitz & Gene Pearson – just outstanding people. Ω

Tech Comm Chair **Norm Mayer** noted, “In March, 1939, Goodyear-Zeppelin submitted 4 proposals to BuAer. Type 1 & 2 of 1,200,000 cuft met the required 325 ft. max length with 82 and 82.8 max diameters. Type 3 exceeded it at 650 ft length and 99.35 ft. max diam. For 3,416,000 cuft. No. 4 was a nonrigid.” Ω

Ed. wrote USNI author VADM Fitzgerald, “Greatly enjoyed your comprehensive article in PROCEEDINGS. I volunteer as editor for the NAA’s magazine TNB (attached). As you might imagine, most of our members’ Navy service was all about ASW, and to a lesser degree AEW and MCM. Your spot-on identification of the cultural problem was not platform specific, but nonetheless touched on part of the career-killing treatment of LTA in the “colorful and offensive” Navy. Since the airship remains the only natural enemy of the submarine, we are always hopeful leadership will again consider this important weapon and sensor platform. In my decade’s study, “Airships vs. Submarines,” I uncovered some previously classified or otherwise overlooked encounters that challenge the self-disagreeing Morison LTA assessment, whose tally was Blimps-0, U-boats-1, and no draws. I even managed to get the surviving captains of an airship and a U-boat that had “faced” each other into a short correspondence before both passed away. If LTA ever re-enters the discussion please don’t hesitate to call on any of our officers, Technical and History Committee Chairman, and/or myself, if we may be of service.” Ω
[No response at press time.]

Member **John Geoghegan**, working on a USS *MACON* history, announced the release of his published book “Operation Storm: Japan’s Top Secret Submarines and Its Plan to Change the Course of WWII.” It tells the true (but little known) story of a squadron of underwater aircraft carriers purpose-built by Japan to launch a surprise attack against New York City and Washington, DC, as a follow-up to Pearl Harbor. Japan’s I-400 class of subs were not only the largest submarines ever built at the time, each sub carried three Aichi M6A1 attack planes in a water-tight deck hangar that were launched by catapult off the subs’ foredeck. Conceived



by Admiral Yamamoto, the I-400 subs were on their way to complete their mission when the war ended. Even then the squadron’s flagship sub, the I-401, refused to surrender and went rogue forcing the USS *Segundo* (SS 398) to hunt the sub down in a confrontation which risked reigniting hostilities just four days before the instrument of surrender was to be signed in Tokyo Bay. Ω

New member Warren Doede had written Ed. a letter that was forwarded by AIR & SPACE following Ed.’s letter running in that magazine: “I was in the Navy 1951 to 1955. During the first half of my enlistment, 1952 to 1953, I was assigned to airship squadron ZP1 at Weeksville, N.C., during that time I had many [and] various duties. The most interesting time was after I had advanced to Plane Capt./flight engineer. I flew routinely on training flights off the East Coast for a week still in on a NATO exercise in the north Atlantic out of Boston. That flight lasted 48 hours, we refueled off a tanker in the North Atlantic. Please send any information you have on your organization.” Ω

Member Al Friedland e-mailed History Chair Al Robbins, “Thanks so much for going to the extra trouble in tracking down the squadron in So America in 1944. ZP 42 sounds very familiar and one pilot you had noted was remembered. I’m satisfied with ZP42 being my “old squadron” For historical purposes, The Navy had LTA mooring masts along the coasts and those who were stationed with me at the time spent time going from one to the other, i.e. Maceo, Forteleza, Niteroi and Santa Rosa (outside of Rio) We were not only busy with routine Anti Sub Patrols but also looking for merchant ships carrying war materials (rubber) from the Southeast to Germany. We were successful on several occasions and subsequently contacted surface ships... I left LTA shortly after the war in Europe ended and upon my request, I was transferred to HTA for continuous HTA flight training. I received my wings in Dec 1946 and was transferred to Jacksonville NAS flying Corsairs.

Al responded, “Apparently ZP-42 was maintained in the expectation that the planned Brazilian Air Force was going to establish an Airship arm, using the cadre of officers and men that had been trained at Lakehurst

during the war. (Didn't happen.) Based on Rosendahl's WWII history, the limited wartime airship program was divided (at different times) among several areas:

ESF - Eastern Sea Frontier

GSF - Gulf Sea Frontier

WSF - Western Sea Frontier

BZA - Brazil Area

CSF (W) - Caribbean Sea Frontier, Western Section

PSF - Panama Sea Frontier, and

GMA- Gibraltar-Mediterranean Area.

Chapter 10 "Blimps in BZA" (pp 109 -120) and two of the appendices cover much of the short life of LTA activities in South America. Unfortunately Adm Rosendahl generally identifies only the Commanding Officers. Organizational names, missions, and acronyms changed during, and after the war. The Navy's first Airship "squadron" wasn't created until 1942. (The last two were decommissioned in 1961.) ZP-41 was commissioned before it received its first airship. Appendix D lists the number of blimps assigned to the two squadrons (pp 187 and 188), and the number of flights and hours flown. Unfortunately it doesn't mention date of receipt by operating location or tail numbers of ships assigned to each squadron. Organizationally BZA came under the jurisdiction of Commander Fourth Fleet, VADM J.H. Ingram, USN. Fleet Airship Wing Four was commissioned on 2 August 1943, and reported to COMFOUR as Task Force 44.2. CAPT W.E. "Heinie" Zimmermann, USN established FA/SWING 4 headquarters at Recife. ZP-41 was the first of two squadrons created to support BZA.

First CO, LCDR Daniel M. Entler, Jr., USN, served from 15 Jun 1943 until 1 May 1944. LCDR John J. McLendon, USNR, then commanded until the squadron was decommissioned on 1 Dec 1945. ZP-42 was commissioned on 1 Sep 1943 CO CDR Charles J. Wertz, USN, until 10 Sep 1943. LT Robert F. Smith, USNR was commanding officer until relieved by LCDR Harold B. Van Gorder, USNR on 27 April 1944. Van Gorder was skipper until the squadron decommissioned on 9 June 1945.

The first Navy blimp to cross the equator, K-84 arrived at Fortaleza on September 1943, and went on its first BZA airship patrol the following day. The only hangar in South America was the old Zeppelin hangar in Santa Cruz; hangars were planned, but never constructed. In addition to the Wing and the two blimp squadrons,

Blimp Headquarters Squadron Four (BLIMPHEADRON 4) was commissioned at Recife on 15 July 1943, reporting to FA/SWING 4. Under the command of CDR Gerald D. Zurmeuhlen, USN, the HEDRON established detachments at each of eleven blimp bases as they were being built along the Brazilian coastline. Jim Shock provides a short history of each K-ship in Ref B. Unfortunately, except for K-88 (the first American airship to cross the equator), K-118, and K-132, he doesn't disclose the delivery date (or location) of any of the seventeen K-ships as they arrived in Brazil. ZP-41 received K-84, K-88, K-90, K-106, K-114, K-118, K-131, and probably K-125. ZP-42 received K-93, K-98, K-100, K-110, K-116, K-117, K-126, K-127, and K-132. He only names a few squadron pilots: LTs Hackensack & Dixon flew the first ship to Brazil (and ZP-41), ENS Pace in ZP-42 (K-98), LT Titus in ZP-41 (K-106), and LT Davis in ZP-41 (K-114). You may recognize some of the names or ship numbers. You might find Dan Cavalier's Personal History on our website. (I just checked it but didn't find any squadron insignias.) It's a lengthy article with a number of anecdotes regarding several Brazilian blimp sites and a J.O.'s life in wartime South America. Ω

The Sacramento Bee noted: "Vernon "Lou" Hlubek, a Navy veteran who hunted enemy submarines from blimps and served on a military operation in Antarctica, died (March 24)... He was 89.... a Midwestern farm boy who joined the Navy in 1942 and traveled around the world, he accrued more than 15,000 hours of flight time as a radio operator aboard aircraft ranging from giant dirigibles to seaboats to sleek Super Constellation planes. He served on K-ship blimps that supported convoys in the Atlantic Ocean near Libya, Morocco, Guyana and Cuba. Patrolling at an altitude of 500 feet, he used radar to scan below the water surface [*sic*] for German submarines. "He had at least 10,000 hours on K-ships," said his nephew, Ben McGrew. "He said, 'That was no great shakes. They moved so slow.'" In 1946, Mr. Hlubek was ... assigned to Operation Highjump, a mission led by explorer Richard E. Byrd to map Antarctica. He flew with rescuers who searched the icy landscape for 13 days to find survivors of a PBM Mariner plane that crashed in a blizzard, killing three crewmen. Ω



One Bernard Johns e-mailed NAA: “I am currently a graduate student at American Military University. I have decided to write my thesis on the historic battle between K-74 and U-134. In fact, I am looking at expounding off of your thesis that the airship did indeed drop its depth bombs. I intend to reinforce your findings and possibly offer more evidence in support of the idea that the lesser explosions the airship crew felt after they were in the water may have been the remaining depth bombs sinking. I am in the process of trying to locate historical records related to the battle. Can you offer any guidance as to where you located the official reports, such as the National Archives or the Washington Navy Yard?”

VP **Anthony Atwood** responded, “Mr. Johns, Thank you for your recent inquiry and your interest in my work. Assuming you mean the Navy Historical Center at the Washington Navy Yard, please know it is not a strong source for WWII materials. Law requires that when naval records they hold reach fifty years of age they are transferred to the public domain of NARA. They are archived at the Rockville, MD, facility. The fact that the K-74 damaged the U-134 with bombs comes from an unimpeachable source: the enemy. Those expert servants of a totalitarian regime were not about to fudge wartime damage reports. The only question is how many bombs hit them. Their report of five bomb strikes is not possible. There could only have been a maximum of four. Based on Grills testimony that when he swam back into the car he noted at least one bomb lever in the safe position, coupled with the crew testimony of later explosions, plus the slip tanks were already gone, and the mechanical fact that the bomb releases were two handles, each controlling two bombs, leads to the conjecture one set of two bombs was released, one was not. As this occurred during a minute of intense unexpected combat at midnight it is not surprising if the bombardier released one salvo and not the other, or that the enemy being bombed and strafed did not count precisely. Having served in both Desert Storm and the War on Terror, I assure you such errors are not uncommon. The fallacy that the K-74 dropped no bombs was initiated by Samuel Eliot Morison in one sentence out of eight volumes. Morison was a great historian, but great men are not always wise. After the war he insulated himself to create his opus. Efforts by Grills and Cope to reach him were

refused by his secretary Captain Lundeberg. Cope and Grills entrusted their correspondence on the issue to me before they passed away. (I wrote Grills’ elegy for his family.) Most sources simply repeated Morison’s fallacy, especially Gordon Vaeth’s authoritative “Blimps and U-boats.” Vaeth was also great, but on this one got it wrong. In so far as your inquiry to Fred Morin on the mechanics of depth bombs, here goes:

1. Bombs ordinarily do not go off unless armed. Extreme heat or agitation are the usual exceptions. The K-74 bomb levers were a bit like two croquet hoops, one inside the other. The Forward position was safe. Pulled back halfway was armed, pulled back all the way was released.
2. Yes, armed bombs do not automatically release from their platform. Battle damage or extreme agitation in flight may destroy/degrade the bomb holds, causing them to drop.
3. Yes, these were not smart bombs.
4. Yes and no. The bombs were not designed for lengthy submersion.

In those days, little time wasted on such testing. The modern American way of war (since 1945) we are familiar with is really a prosecution of more or less perpetual police actions and low-intensity conflict, with lavish testing of everything from ordnance to uniforms to ballpoint pens; nothing like the Total War experience of WWII. The official records, to be found at NARA are as listed in my bibliography: they are the Squadron Action Reports, preliminary and final, and the five endorsements by FLAIR Wing Two, Gulf Sea Frontier, FLAIR Atlantic, CAF Atlantic Fleet, and Atlantic Fleet. I’ll make you a copy of anything you like. There is no such Navy document as an “official report of findings,” except in cases of naval Boards of Inquiry and Courts Martial. **Ω**

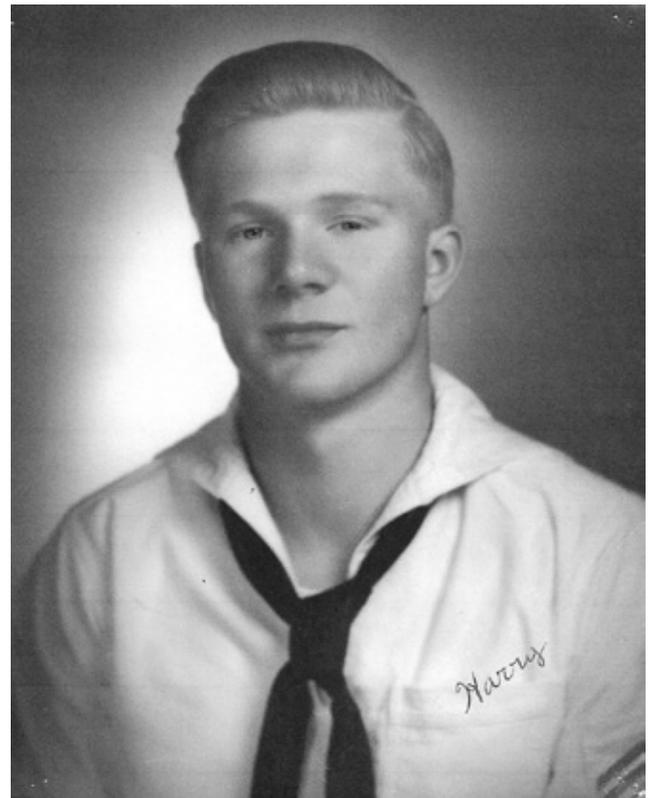
One Harper Poling, VF 724 ADJ 3 USNR, e-mailed NAA Pres Fred Morin, “Attached are pictures I took at NAS Glenview when K-33 arrived from Lakehurst in the 1950s. I took these pictures and help dock the Airship. Hope they are of interest.” **Ω**

Dan Brady passed (See “Black Blimp”) but his nephew Ken kindly sent additional information about his favorite uncle: “Dan was born April 13, 1922, in Elizabeth, New Jersey, to Violet Forster and Richard Francis Brady. As a child, his father took him to visit Lakehurst, NJ. From then on, he dreamed of lighter-

than-air. At 15, Dan left Union, NJ to drive trucks for the Civilian Conservation Corps in Hyde Point, NJ and Winnemucca, Nevada. In December, 1940, he began a 30 year career in the US Navy. During the attack on Pearl Harbor, he was aboard the USS *Indianapolis*. He served during World War II, Korea, and Vietnam, aboard cruisers, aircraft carriers, and - his childhood dream realized - aboard airships. He reached the rank of Senior Chief Petty Officer, and was crew chief of the last Naval Airship flight in Lakehurst on August 31, 1962. After retirement, he taught classes, from photography to gold mining, at Monterey Peninsula College and Chemeketa Community College, and lectured around the country about Naval Aviation. Dan was an inspiration and a hero to his friends, his family, and his country, and is greatly loved and missed by all who knew him. A ceremony with military honors was held at Willamette Nat. Cemetery, Portland.” Ω

C.P. Hall e-mailed, “For some reason, I had it in my head that the ZRCV proposal was a wartime project from Goodyear. Imagine my surprise to find that Rosendahl refers to the 10,000,000 cuft project carrying 9 bombers that was cited to testimony presented to Congress in 1937 or 38? He does not mention the origin. An airship good for undertaking a Doolittle-type raid, and little else, seems to be of limited utility but the concept was broached 3 years before that raid! (What About the Airship? By Rosendahl 1938) I also went through “Why America has no Rigid Airships?” by Allen & Litchfield. Having just read “What about the Airship?” I was surprised by the number of whole sentences, seemingly ‘borrowed’ but not footnoted, from the Rosendahl book. If I may offer a comment regarding “Why America has no Rigid Airships?” It is related to why F.A. Seiberling, President of Goodyear, could front \$100,000 to Vaniman in 1909 while P. W. Litchfield, Chairman of the Board of a Goodyear flush with cash following World War II, was limited to publishing this book in December 1945. The reason is that F.A. Seiberling was an owner of Goodyear while Litchfield had the title but was always the tool of the bankers that foreclosed on Seiberling in 1921. As to whether this is why it is Seiberling High School and Litchfield Junior High School which share the parking lot in Akron, Ohio; you will have to consult the minutes of the School Board from about 1959. There is an essay about having the bean counters-in-charge which I shall leave for another day. I do wonder what might have happened regarding LTA had an owner

been in charge at Goodyear in 1945? If you explore the gardens of the Seiberling home, Stan Hywet Hall, and walk to the lookout directly behind (west) of the main house; in the distance you can just make out Litchfield Junior High School and Firestone High School. Harvey Firestone was also over-extended to the banks in 1921. He ruthlessly accumulated cash (it was implied welched on an agreement with Seiberling) held off the bankers and retained control of Firestone Tire and Rubber Company. Seiberling and Firestone were estranged for decades finally burying the hatchet in the 1950s. Seiberling was quoted as saying, “What is a few million between friends?” Ω



Shirley Franzen sent along her late husband Bill Franzen’s photo (above), whose passing was sadly noted in the last issue. Most members will remember Bill as the organizer of the Denver NAA Reunion. Ω

Mountain View Voice reported, “Pamela Wright lost job, insurance shortly after being diagnosed with cancer... Wright died from a case of double pneumonia. She was 57. Wright worked at Airship Ventures for four years, organizing special events and parties aboard Zeppelin Eureka...” (*Reunion attendees will likely remember Pamela one of the troops arranging the Zeppelin flights.*) Ω

SHORE ESTABLISHMENTS: WEST COAST



The removal of its metal skin complete, Moffett's Hangar One now stands as a bare frame coated with a protective paint (above). Advocates, trying to save Hangar One, had hoped that the scaffolding would remain in place long enough to be used during any restoration and thereby significantly reducing the cost of re-skinning. But the Navy was not willing to pay the cost of keeping the scaffolding in place. A subsidiary of Google had made an offer to finance the restoration of the hangar on the condition that they be allowed to store their fleet of aircraft therein. NASA headquarters had declared Number One to be "surplus," but nonetheless determined that it is not appropriate for NASA to lease out Hangar One for what amounts to private storage. The hangar is still under NASA ownership, but is now being administrated by the General Services Administration (GSA), the agency responsible for disposing of government property that is deemed surplus. This move has been viewed by many preservationists as disastrous, because, in its current condition, it is unlikely to survive the estimated 10 years needed to complete the process of resolving surplus properties. Recently, Google announced that they propose to construct a 92 acre aviation facility at Mineta San Jose International Airport, estimated to cost \$82 million. Preservationists were initially concerned that Google might abandon Hangar One with all of its complications, in favor of their project at San Jose International. But Google has said they are still interested in Hangar One. And, in an offer that may circumvent any lengthy bureaucratic delays, the GSA has announced that a competitive bidding process will begin this spring to find a potential tenant for Hangar One. The next meeting of the Restoration Advisory Board (RAB) on May 9th, includes an update on the "Property Leasing."

The staff at the Moffett Field Historical Society continue to collect & identify as many artifacts as possible during

the dismantling of Hangar One. One of the more unique items removed from the hangar are the "explosion proof" interior flood light canisters. These appear to have been part of the original construction. There were upwards of 25 of these canisters, mounted inside the upper frame to illuminate the main hangar bay. The actual flood lamp was contained in a completely sealed container featuring a large rubber gasket. Presumably, this contained any explosion of the lamp inside the canister, protecting the fabric of the airship and isolating the lamp failure from any fuel or solvent vapors. A close look at the canisters show large wings cast in to the design, which appear to act as heat sinks. The beam of the lamp was focused through a Fresnel type lens.



Both Hangar 1 and 2 at former Navy LTA Station Santa Ana (above) are still standing. Tract housing and shopping centers have encroached into the footprint of the original LTA base, and continue to do so. Currently, an approach to a freeway overpass is under construction along the south east side of the base. The Navy intends to convey approximately 84.5 acres of the base to Orange County for the purpose of a regional park. In February of 2012, the Orange County Board of Supervisors voted to approve the concept of the regional park. The park will include the North Hangar, which will be used for community events, commercial filming, and blimp maintenance and repair.

- William Wissel

SHORE ESTABLISHMENTS – AKRON

Reported by Alvaro Bellon

On 6 April 2013, The Lighter-Than-Air Society commemorated the 80th anniversary of the christening and first flight of the USS *Macon* and the tragic loss of the USS *Akron* and the J-3 training blimp with a special program at the Akron-Summit County Main Library. The program consisted of a slideshow of the construction, christening (11 March 1933) and first flight (21 April 1933) of the USS *Macon* (ZRS-5). Included were images of the aftermath of the crash of the USS *Akron* (ZRS-4) shortly after midnight on 4 April 1933 and the crash of the J-3 training blimp, dispatched to rescue possible *Akron* survivors, later that day. The slideshow was followed by a series of film clips of these events from period newsreels and U.S. Navy films, along with a radio broadcast made from the USS *Macon*.

In addition to the audiovisual presentation there were displays of historic artifacts, photographs and some art relating to the airships. Several books from the Akron-Summit County Library's Lighter-Than-Air Special Collection relating to the events were available for the attendees to review.

The highlight of the displays was a girder piece salvaged from the USS *Akron*. This item, just recently donated to



the LTAS by Richard Plummer, was shown to the public for the first time and drew a lot of attention. The donation also included photographs taken by Lt. James A. Wallace, USN, who was on the deep-sea diving team that recovered USS *Akron* wreckage from the floor of the Atlantic Ocean.

Navy LTA history became a focal point in Ohio and elsewhere in March during *USA Today's* High-School Sports online contest to name America's top high school mascot or nickname. Among the contestants vying for

cash prizes to buy athletic equipment was Noble County, Ohio's *Shenandoah* High School, named in 1963 for the ill-fated U.S. Navy rigid airship that crashed in the county in 1925. The school sports teams' nickname is the "Zeps."

Organized by state, 255 teams were represented, with finalists determined by three rounds of online voting. The Zeps made it to the second, regional round with more than 147,000 votes cast in their favor, surpassing a cross-state competitor in the final hours with votes coming from airship supporters around the nation. A computer server problem marred vote-casting in the regional round, in which the Zeps were outvoted by supporters of the contest's eventual overall winner, the Centralia, Illinois, "Orphans," so named because a 1930s Chicago sports reporter said their shabby uniforms made the basketball team look like orphans.

David Wertz, chairman of The L-T-A Society, writes, "One of the highlights of the April LTAS board meeting was the attendance of NAA representatives Fred Morin, president, and David Smith, *The Noon Balloon* publisher and life member of the LTAS." The two NAA board members were visiting the area for several days and were given VIP tours of LTAS archival collections maintained at the Akron Summit County Public Library and University of Akron plus LTAS exhibits in downtown Akron and at the MAPS Air Museum at Akron-Canton Airport. Discussions at the board meeting centered on the *Shenandoah* wreck site sign project already under development as well as possible future cooperative projects. The board unanimously passed a motion to support the NAA on installation of new signage at the USS *Shenandoah* crash locations near Ava, Ohio, and to explore other joint endeavors with the NAA.

Noted: The former Pal-Waukee blimp hangar at Akron-Fulton Airport was demolished in early March. Originally built in northern Illinois to house Goodyear blimps operating at the Century of Progress Expo in Chicago, it was re-erected just northeast of the massive Airdock in 1942. Most recently used for storage, its owner, Meggitt Aircraft Braking Systems, removed it to improve loading-dock access to the former airplane hangar nearby that is now a warehouse.

More News from Akron: On Friday, 22 March 2013, Goodyear Airship Operations invited members of the media to visit the Wingfoot Lake Airship Hangar to see the beginning of the assembly of Goodyear's new airships. The new 246 foot long airships are Zeppelin LZ N07-101 models.

COVER STORY: LEMV ROUNDUP



LEMV Do or Die for Military's Last Remaining Giant Spy Blimp By Spencer Ackerman (expt)

“Due to technical and performance challenges, and the limitations imposed by constrained resources, the Army has determined to discontinue the LEMV development effort,” Army spokesman Don Schwartz emails. That came as news to the branch of the Army actually testing the blimp. The Department of the Army has not notified the Army Space and Missile Defense Command of any programmatic changes to the LEMV program, spokesman John Cummings told Danger Room earlier...

As the budget for spy blimps ticked upward and the Army and Air Force fought over who controlled the mega-airships, the Senate Armed Services Committee in 2011 questioned why two competing airframes were necessary. By the time the two top Senate appropriators, “the most important legislators in the chamber,” threw their weight behind the Blue Devil, the Air Force had all but decided blimps were a non-starter.

The LEMV cancellation means an entire model of aerial surveillance is stillborn. The future of military blimps will be miniaturized: U.S. bases in Afghanistan often use tethered aerostats strapped with cameras above their fortifications to enhance their ability to spot insurgent threats beyond what the eye can see. But with the U.S. packing up from Afghanistan, the smaller blimps have also lost their rationale. The sound you hear is a lot of military hot air escaping. **Ω**

Technical Woes Scuttle Army Spy-Blimp Project

By Dion Nissenbaum (excerpt)

Seen as a high-tech eye in the sky that would provide U.S. troops in Afghanistan with life-saving intelligence, the airship, known as the Long Endurance Multi-Intelligence Vehicle, ran into resistance from high-level Army officials as well as development problems that undermined the \$517 million program, according to congressional and military sources. The 300-foot airship was meant to carry up to 2,500 pounds of surveillance equipment far above the battlefields of Afghanistan for weeks at a time. The blimp was supposed to provide troops with everything from live video of militants to recordings of clandestine telephone conversations. The program was developed in intense secrecy. The military and contractors didn't release any photographs of the craft until last August when they conducted the airship's first test flight in Lakehurst, N.J. But that 90-minute flight, captured by amateur videographers, proved to be the one-and-only test flight for the craft.

Despite the problems, some in the military said the Army shouldn't end the program. “I personally think it's a bad decision,” said one official. “Let's not be too quick to walk away.” As of late last year, the military had spent more than \$275 million on the project... **Ω**

Builder to Ask Army for Canceled Blimp

After spending nearly \$300 million on a high-tech surveillance blimp before canceling it, the U.S. military is being asked to consider an unusual way to off-load the project: Give it back to the company that designed it. Hardy Giesler, the British company's business-development director. “We want to make sure the vehicle survives.” Mr. Giesler said Hybrid Air is willing to offer some financial compensation, but didn't spell out what terms it might offer. The airship is a signature product for Hybrid Air, which worked as the subcontractor for Northrop Grumman Corp. Hybrid Air has been talking with Canadian oil, gas and mining companies that it hopes will be interested in using the blimp to test whether they could rely on the company's developing fleet of airships to transport equipment to remote areas. But first, Hybrid Air has to persuade the Army to give up the blimp. Army officials said Monday that they hadn't received an official request from the company... **Ω**

INSIDE FRONT COVER STORY



Navy blimp tests capabilities at Mayport

By William Browning Jacksonville.com

When compared to planes, blimps may be slower, but they are cheaper to operate and can stay in the air longer. In this current atmosphere of saving costs and federal budget cuts, that is attractive. The U.S. 4th Fleet, which is based at Mayport Naval Station, is exploring the possibility of using an airship in its intelligence-gathering efforts in the Caribbean Sea and eastern Pacific. In other words, the Navy is thinking of using a blimp to help find drug smugglers. Since last week, the MZ-3A airship has been operating out of Fernandina Beach Municipal Airport. The purpose of the two-week visit is to allow Rear Adm. Sinclair Harris, commander U.S. Naval Forces Southern Command, U.S. 4th Fleet, to see just how effective it could be in finding smugglers.

“One way to enhance detection efforts against illicit trafficking within our area of operations is to utilize long-endurance platforms with the ability to use a multitude of sensors,” Harris said.



Adm. Sinclair Harris (left) and retired Rear Adm. Victor Guillory, Military Affairs Department director for Jacksonville, get ready for a trip aboard the blimp. Bob Mack photos

Harris and others took the airship — which can carry a pilot and up to nine passengers and travel 45 mph —

on a test run Monday afternoon. After launching slowly from the airport grounds, it floated out toward the sea to test its sensors’ capabilities. It was not carrying weapons. “We have some targets off of Naval Station Mayport and they’ll be doing a little bit of cat and mouse to see if the airship is able to detect them,” said **Ciro Lopez**, an analyst with the U.S. 4th Fleet. “We’re just exercising some of those capabilities.” The crew also was going to see if they could spot whales. This would be an indication, Harris said, of how effective the airship would be in tracking underwater illegal vessels.

Lopez also talked about the cost saving that the airship offers when compared to the P-3 Orions and P-8 Poseidons, planes that are routinely used during reconnaissance missions. The airship can operate on 5 to 10 gallons of fuel a day, according to USA Today. Lopez also noted that another benefit the airship brings to the table is its ability to stay in the air for 24-hours-plus. “The only limitation is crew rest,” he said. The MZ-3A, which is 178 feet long, white and emblazoned with the words “US Navy” on its side, will leave the Fernandina Beach airport Friday. Until then, it will continue its tests around an eight-mile sea area off Mayport, said **Corey Barker**, public affairs officer with the U.S. 4th Fleet. The airship is based at Patuxent River Naval Air Station in Maryland. Ω



MZ-3A, the U.S. Navy’s only airship currently in operation, moored at Fernandina Beach Municipal Airport. U.S. Navy photo by Mass Communication Specialist 2nd Class Adam Henderson

The Navy airship visited U.S. 4th Fleet in March for a capabilities demonstration as a potential search and detect platform for Counter Transnational Organized Crimes operations in South and Central America and the Caribbean Sea. Media reported the MZ-3A in Jacksonville for various demonstrations & testing. Ω

TECHNICAL COMMITTEE

Work by Northrop Grumman on the LEMV (Long Endurance Multi-Intelligence Vehicle) airship ceased on notification by the U.S. Army that the contract would be cancelled in February, 2013. The 302 ft. long hybrid made its first and only flight on August 7, 2012. Since then it was hangar bound. LEMV was required to carry 20 tons at 20,000 ft. altitude, for 21 days. The decision to cancel was made by failure to meet these goals and a shortage of funding; at press time the ship was being dismantled. (Similar reasons applied when the Blue Devil 2 work was cancelled by its sponsor, the Air Force, in May 2012.)

The MZ-3A, configured with four C4ISR sensors, launched out of Fernandina Beach Municipal Airport and deployed off the coast of the Mayport NAS/Jacksonville, Florida area in March/April. The ship demonstrated its accommodating, affordable, and persistent surveillance platform. Her ISSI crew was heavily involved in installation, integration, and operations of the equipment. There were 15 events totaling 38 flight hours; fuel cost for the 346 gals. was about \$2100, averaging 9.1 gal./hr. (*See inside cover.*)

In late April the Navy tested the Australian-built Swift Ship (HSV-2) with a 76-foot long onboard tethered aerostat from Raven Aerostar, evaluating their use in the anti-smuggling Operation Martillo.

Airship Ventures Inc. based on the historic Moffett Field in California has ceased operations. Their Zeppelin NT-07 airship *Eureka* was dismantled and returned to the owner, ZLT Zeppelin Luftschifftechnik GmbH (ZLT) in Germany. The *Eureka* began flights in 2008 and carried over 20,000 site-seeing passengers mainly along the California coast during its existence with Airship Ventures. Some flights were made for scientific purposes sponsored by NASA and other organizations. These activities were insufficient to produce enough income without long time advertising on the airship.

A different situation exists for the Van Wagner Group, a New York outdoor advertising company which acquired the American Blimp Corp. (ABC) and its operations affiliate The Lightship Group in 2012. This provides 19 ABC manufactured nonrigid airships of various sizes. One of these, an A150, is displaying an advertisement for one of Universal Pictures recent

movie production. It will include a 6 month tour of the U.S. Another, an A170 airship, has been fitted for a 50 x 70 ft. LED lighted screen on its side. It will flash night and day messages regarding its sponsor, Direct TV. One or more A60+ airships will also be included with advertising on their envelopes such as MET Life and Horizon insurance companies.

Worldwide Aeros continues to develop its Pelican hybrid rigid airship using a hangar which once served as part of a Navy base in World War II in Tustin, Southern Cal. The Pelican is a reduced scale version of a planned larger cargo airship. Its hull incorporates an elliptical cross section built with aluminum and carbon fiber composite members. The hull shape is designed to develop dynamic lift more effectively than a conventional airship. Thin aluminum or composite sheets will cover the outer surface. A system to compress or expand the lifting gas will be incorporated. Three engines will propel the airship. These will be vectored to assist in vertical take-off and landing. The program is under government funding.

Lockheed Martin is developing a 290 ft. SkyTug. This will be a larger version of the earlier P-791 hybrid nonrigid built in 2006. It will be delivered to Aviation Capital Enterprises in Canada. Sky Tug will be capable of carrying 20 tons of cargo.

Skyship Services Inc. plans to assemble Skyship 600 nonrigids using the TCOM hangar in Weeksville, NC. The Skyship 600 design was developed in 1984 and a number were built. Skyship plans to fly the first one in May, 2013 and tour to Florida and later the east and west coasts.

Goodyear Tire continues the process of building its new fleet of Zeppelins. While final assembly will take place at their Wingfoot Lake facility in Ohio, most of the manufacture of components and parts will take place at ZLT in Germany such as tail fins and longerons. The envelope is built by ILC Dover in Delaware and shipped to Zeppelin for inspection before returning it to U.S. for inflation.

A Russian aeronautical company named Auger Aeronautical Centre plans to develop a new hybrid airship Named ATLANT aimed at carrying payloads of 250 tons.

- **Norman Mayer, Chair**

HISTORY



Member **David Fossett** (above right) sent along several photos from his ZSG-4 days. The “4K” was an entirely new design and few photos have been published anywhere. Danny Kaye in the right seat w/ David (above left).

Thanks, Dave!





(above) David mans the winch operator's chair – note the soda bottles by the seawater ballast bag. (right) Joe Nix from Chamblee, Georgia, tweaks an engine. Richard McComb's "4K" pilots manual is viewable on http://www.warwingsart.com/LTA?ZSG-4_Flight_Handbook?ZSG-4Flight_Handbook_Intro.pdf



LTA's Hollywood Glamour Boy – Lt. Commander Greg Bautzer, USNR By **B. James Gladstone**

When WWII broke out, many Hollywood celebrities enlisted setting a patriotic example for the general population. Jimmy Stewart, Tyrone Power, Clark Gable, John Ford, and many other big names went to war along with their fellow citizens. So it should come as no surprise that LTA had its own Hollywood celebrity among its ranks. His name was Greg Bautzer, and in his civilian life he was a lawyer to the stars. He became nationally famous in the late 1930s because of his long engagements to Lana Turner and Dorothy Lamour. Although he had only been a lawyer for five years at the time he received his 1942 commission as Lieutenant (jg) in the Navy reserves, his clients already included celebrities such as Carole Landis (photo, right) Paulette Goddard, Hal Roach, and Errol Flynn. After the war, Bautzer became even more famous dating such other leading ladies as Joan Crawford, Ginger Rogers, Jane Wyman, Rita Hayworth, Ava Gardner, Peggy Lee, and scores of others. Yet Bautzer was much more than a Hollywood Don Juan. During his fifty-year career, had one of the most distinguished law practices in the United States representing none other than the richest man in the world — Howard Hughes, whom he represented for over 25 years until the billionaire's death in 1976. Bautzer also represented such mega stars as Ingrid Bergman, Robert Mitchum, Kirk Douglas, Katherine Hepburn, Rock Hudson, Natalie Wood, Robert Wagner and many others. In fact, for much of his career he was one of the most powerful men in the movie business, representing industry leaders like Kirk Kerkorian in his hostile take-over of MGM, and Robert Evans in his ascent to the top of Paramount. While no longer a household name, in his day, he was almost as famous as the men and women he represented.

During the course of my research, the NAA's Richard Van Treuren, Herm Spahr, and Don Kaiser helped me locate veterans who knew Bautzer. I was fortunate to interview and obtain some wonderful stories about him from NAA members Dan Cavalier, Charles McDougal, John Fahey, and Fred Kroll, each of whom served with him at different LTA bases. Richard and Don also helped analyze Bautzer's military file and provided valuable insight into his record and the things he would have experienced in the locations he served.

Bautzer received his pilot's wings at Lakehurst in early 1943. In addition to several stints at Lakehurst,



Bautzer served in ZP-15 at Glynco, Georgia, ZP-41 in Bahia, Brazil, and ZP-14 in Port Lyautey, Morocco, and Pisa, Italy. He was made base commander at Pisa, Italy, shortly after VE day, and promoted to Lieutenant Commander. Although Bautzer was only 31 years old at the time he entered LTA service, he was already a celebrity. In fact, it is likely that his celebrity status helped him make the move in late 1942 from a desk job in the personnel department in Washington, D.C., to LTA. For it was in Washington that he met and befriended (later VADM) Charles E. Rosendahl and the Admiral's wife, Jean. It was a friendship that would last the entire war. Admiral Rosendahl's papers, which are housed at the University of Texas at Dallas, contain over 80 pages of correspondence between him and Bautzer. In these letters are significant insights into their relationship, and the progress of the LTA program during the war.

It is possible that Bautzer and Rosendahl struck up a friendship in connection with MGM's upcoming production of the motion picture "This Man's Navy," starring Wallace Beery. Rosendahl was the Navy's chief liaison with MGM, and in mid-1943, he was having difficulty ascertaining MGM's true intentions for the planned picture. Bautzer interceded on Rosendahl's behalf, writing MGM's general manager, Eddie Mannix, who promptly replied informing that the script was being written by experienced screenwriter Borden Chase who had written a number of Navy-themed pictures including "Fighting SeaBees," "Destroyer" and "Navy Comes Through." He also asked Bautzer whether he knew if anyone had written a song specifically for LTA

service as they didn't want to use the typical "Anchor's Aweigh." Bautzer saw this as an opportunity and asked Rosendahl for permission to go to New York to seek the service of his friend Irving Berlin, perhaps the most popular composer in America at the time, and if Berlin turned him down, other Broadway songwriters that Bautzer said were his clients. Bautzer derided the current theme song of the LTA "Oh, Lighter Than Air Are We," which he called "inane" and something that caused amusement to all hands. Rosendahl quickly wrote back agreeing with Bautzer about the song, and concurring that Bautzer should go to New York to try to engage composers (at MGM's expense) to write a new one. Whether the trip to New York took place is not known, but Bautzer indicated he communicated with Berlin about it. Bautzer hoped that the song would then be used as a new official song for the LTA.

In July, 1943, Bautzer wrote Rosendahl from Lakehurst to inform him that he was sending the Admiral a Norwegian Elk Hound in appreciation of Rosendahl's help in getting him into LTA. Bautzer had heard Rosendahl express a desire for such a dog, and he took it upon himself to locate the best breeder in the United States, and send Rosendahl the pick of the litter. No doubt Bautzer was very grateful for Rosendahl's assistance in getting into LTA. Before Bautzer entered LTA he had almost been sent to sea following a discharge hearing in which he had to prove why he should be allowed to remain in the Navy (reserves) as an officer without ever having had any training. Although Bautzer was successful in convincing the hearing judge to let him remain, the Navy apparently decided "if you want the Navy, you got the Navy" and ordered him into active duty on a ship. It seems Rosendahl interceded and rescued Bautzer from that fate.

Bautzer wrote Rosendahl in December, 1943 informing him that he had confidence the MGM blimp movie would, in fact, be produced, and stating that he had suggested to Mannix that Spencer Tracey be cast in the leading role. Bautzer told Rosendahl that he had written Spencer Tracey's agent about the project in the hopes that Tracey would be interested in it. (Apparently Tracey was not available or was not interested). During the early part of 1944, Bautzer communicated regularly with MGM production executives and relayed information to Rosendahl about the progress of the screenplay and production start date. Rosendahl would later write Bautzer indicating that a

song had been written with good lyrics and "great swing to it," but he worried that it was too complicated for military bands and orchestras to perform. Rosendahl told Bautzer that Fred Waring had debuted the song on his radio program, but he concluded that Waring didn't care for it or he would have played it more than once on the show. The song did not make it into the picture, so Rosendahl may have been correct about Waring's opinion of it.

Bautzer's duties at Glynco in 1943 included reorganizing the training program of Squadron 15, and he proudly informed Rosendahl in December that the squadron had completed combat crew training and that the program was past the "on paper" stage and now actively in effect. In his letter Bautzer asked Rosendahl to send him his left wrist measurements. (Bautzer thereafter sent Rosendahl a Tourneau watch as further token of appreciation).

In February 1944, Bautzer married 16 year old Buff Cobb, granddaughter of the famous Saturday Evening Post writer Irvin S. Cobb, who was known for Kentucky humor. Her mother was Elizabeth "Buffy" Cobb and who was best friends with Claire Booth Luce, a Congresswoman and playwright of *The Women*. Claire Booth Luce was also the wife of Time and Life magazine publisher Henry Luce. On his wedding day, Bautzer received orders to ship out to Brazil, and it is from there in March that he wrote a long letter to Rosendahl's wife, Jean, explaining the difficulty he had convincing his "child bride" on their wedding night that he had no idea he was going to be sent overseas. The letter is intimate and clearly indicates that Bautzer had spent a lot of social time with Jean Rosendahl at the Admiral's home. Buff saw Bautzer as a ticket to Hollywood where she wanted to pursue an acting career. (She would eventually fail at such a career, but would attain brief fame as the co-host of one of TV's first talk shows with her second husband Mike Wallace, who would go on to host 60 Minutes). While 16 is young for any period, people did tend to marry at a much younger age during the early to mid-twentieth century, and especially during the war years when many did not want to put things off for a tomorrow that may never come. In the same March 1944 letter addressed to Jean Rosendahl, Bautzer conveys a message to the Vice Admiral that is of military significance:

Sir, I know you'll be delighted to know (if you haven't already heard it) of the following: I was talking to an officer while passing through Recife [Brazil] and he told me that several of the German survivors who had served on U-boats reported that blimp coverage on a particular convoy – observed through the periscope – had precluded the U-boats from attacking the convoy. From what he reported – apparently the sub saw the blimp several times while at periscope depth and the submarine commander would not attack – permitting the convoy to escape. This happened some time ago, but it was the first that I'd heard it and I was more than pleased to hear the Germans themselves giving our outfit the credit.

Rosendahl immediately wrote a long typed letter in return. In it, Rosendahl said that he appreciated Bautzer's report and that "it checks with something else I had heard and I do hope their statements go into the official files in Washington." It is odd that such important tactical information did not seem to get much attention. Perhaps that was because the blimp program was not of primary importance to the Navy brass.

In April 1944, Bautzer wrote Rosendahl that he had heard "scuttlebutt" that LTA was about to begin activity in the Pacific. Bautzer asked Rosendahl to help him get such an assignment if the opportunity arose. He thought that the use of blimps in the Pacific theater, particularly the Hawaiian Islands where he had spent much time, would offer an excellent opportunity to show what the blimps could do.

In June 1944, Rosendahl penned an article for Colliers magazine in which he made the case for the re-implementation of rigid-frame airships in military and commercial aviation. Bautzer wrote to Rosendahl complimenting the article and conveying his desire to gain a Hedron assignment (meaning an executive officer post) in order to study rigid-frame airships. Rosendahl replied to Bautzer informing him that he would soon be going on a "comprehensive survey trip" of the entire LTA operation. Rosendahl would start with the West Coast bases and head east where he would meet up with Bautzer. He expected the tour to take several weeks. He also enthused about advances being made in LTA equipment and recommended Bautzer connect with Commander Werts to get more information about it.

Rosendahl reciprocated the Tourneau watch gift by sending Bautzer a large supply of Bacardi Rum, which Bautzer said made him the most popular guy in Blimp Hedron Four. (Bautzer was still in Brazil at this time). Bautzer also wrote Rosendahl mentioning he had put in a request to be transferred to the Mediterranean area of operations saying "I have a premonition that our airships are going to get a few subs over there and I'd like to be around when it happens." Bautzer's request for overseas service was granted and he was put in command of a blimp in Squadron 14 in Morocco.

In February 1945, Bautzer responded with approval to a letter Rosendahl wrote him regarding LTA "going ahead with air/sea rescue work." More important, Bautzer conveyed his pleasure regarding a rumor that Squadron 12 had "brought home the sauerbraten," meaning they had sunk a sub. "The whole Squadron here is pretty excited about it and if there's anything you can tell me, I'll appreciate it." Bautzer also said that he liked his assignment to Squadron 14 and thought that it was an excellent outfit. "The boys know their business and go about it in a manner that could well serve as an example for any other Squadron that I've observed... There are (and this is one of the nicer things about the outfit) no politics, nor cliques involved; the boys work together in a fine spirit of cooperation and the general attitude is one of being damn proud of belonging to 14."

In May 1945, following the German surrender on the 8th, Bautzer wrote Rosendahl regarding a recent proposal that French personnel be trained to pilot blimps. Bautzer expressed his opinion that such training would best be conducted at Lakehurst as the facilities there were superior to what was available in Morocco. He also mentioned "other" factors which he did not want to put in writing until a definite decision had been made regarding training the French pilots. Bautzer regretfully informed Rosendahl that Buff was concluding a divorce action against him. The marriage had lasted less than a year, and the couple had spent absolutely no time together other than a few days following their wedding. Bautzer also indicated that Blimp operations would soon be concluded in his area, and asked whether he might get his old job back in "Command," presumably meaning Lakehurst. Following a short stay in Cairo, and a brief stint of less than two months commanding the base in Pisa, Italy,

(and a promotion to Lieutenant Commander), Bautzer was sent to a desk job in Washington.

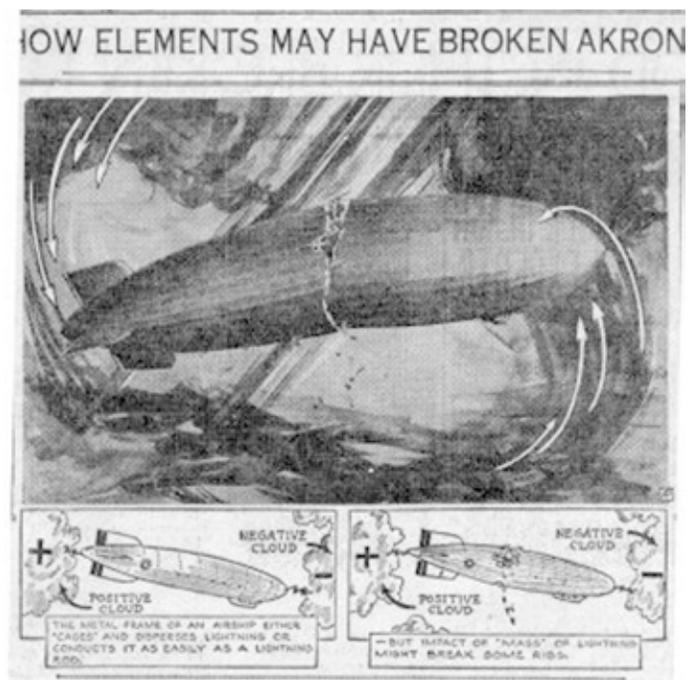


Photo by Nat Dallinger, (c) Dallinger Photo Collection

In late 1945, he was sent home to Los Angeles to await his discharge, which would be concluded on January 22, 1946. While in Los Angeles, he immediately returned to dating Lana Turner (photo above) then moved on to Joan Crawford.

It does not appear that Bautzer kept up an active correspondence with Vice Admiral Rosendahl following the war, although it is likely they remained in touch. Bautzer tended to keep friends for life from all walks of life, and no doubt Rosendahl would have been welcome in the famous attorney's offices at the intersection of Hollywood & Vine. Ω

Ed. note: Several years ago, B. James Gladstone joined the NAA seeking help in researching his biography of legendary Hollywood attorney, Greg Bautzer, titled "The Man Who Seduced Hollywood." At the time, Jim knew that Bautzer had served in LTA during World War II, but he did not have much other information. As a thanks for the help he received from NAA members, Jim has prepared this special article about Bautzer's relationship with Vice Admiral Charles Rosendahl. You can learn more about Jim's book at "<http://www.BautzerBio.com>". It is available wherever fine books are sold, and at all internet book sites.



Forgotten U.S. airship crash recalled 80 years later

By Rema Rahman, AP (excpt.) (Ill.: Ed.'s collection)

The USS *Akron*, a 785-foot dirigible, was in its third year of flight when a violent storm sent it plunging tail-first into the Atlantic Ocean shortly after midnight on April 4, 1933. "No broadcasters, no photographers, no big balls of fire, so who knew?" said Nick Rakoncza, a member of the Navy Lakehurst Historical Society. "Everybody thinks that the *Hindenburg* was the world's greatest (airship) disaster. It was not." "It's almost a forgotten accident," said Rick Zitarosa, historian for the Navy Lakehurst Historical Society. "The *Akron* deserves to be remembered." The *Akron* crashed off the community of Barnegat Light just a few hours after taking off from Lakehurst, killing 73 of the 76 men aboard, largely because the ship had no life vests and only one rubber raft... In a newsreel interview, [LCDR] Wiley... said crew members could not see the ocean until they were about 300 feet above the water. "The order was given to stand by for a crash," Wiley said. "The ship hit the water within 30 seconds of that order and most of us, I believe, we catapulted into the water." Among the casualties was Rear Adm. William Moffett, the first chief of the Bureau of Navy Aeronautics. When the wreckage was found, Zitarosa said, the airship had collapsed to about 25 feet in height. "It was a catastrophic disintegration of the ship once it hit the water," Zitarosa said. Part of the wreckage was lifted from the sea a few weeks after the accident. Ω *Ed. notes a sabotage theory and an "electrical" cause (illustration) were also published in 1933. See first item in "Short Lines" next page.*

SHORT LINES

B-52 Crash 50 Years Ago Helped Make The Plane A “Workhorse.” The AP (1/14, Sharp) profiles the “legendary” B-52 Stratofortress aircraft, that “would not have become the workhorse it is without one disastrous flight 50 years ago next week, and a similar one six days later in New Mexico, that helped to underscore a deadly structural weakness.” The article focuses on the flight over Maine that it claims was so influential. *(LTA advocates wonder “what if” similar resources had been applied following USS Macon’s – some say also Akron’s - structural failure.)* Ω

Transportation Command Chief Eyes Airships

Air Force Gen. William Fraser III, Commander of U.S. Transportation Command, told a hearing of the House Armed Services Committee [7 MAR] that hybrid airships have the potential to tote a lot more cargo than a ship, faster than the command’s conventional cargo aircraft, such as the C-17. Hybrid airships, which get lift both from helium and their airfoil shapes -- have the potential to make “factory to foxhole” cargo delivery possible, Fraser said. This makes Fraser much more of an optimist about the potential of airships than the Army, which last month canceled its Long-Endurance Multi-intelligence Vehicle airship project due to cost and technical issues. Ω

Network of Surveillance Blimps Closing

(UPI) -- The 10 military blimps that have been tracking low-flying aircraft along the southern U.S. border are being taken out of service, military officials say. The Tethered Aerostat Radar System, the program’s official name, is funded by the Defense Department. But at least in the Florida Keys, the information gathered by the system is used mostly by the Coast Guard and other agencies trying to keep drugs out of the country, KeysNet.com reported. Ω

Keys Icon Deflated In Name Of Progress

By Adam Linhardt Citizen Staff

After more than 30 years of keeping an eagle eye on air and sea traffic from the Caribbean Sea to Tampa Bay, a Lower Keys fixture appears to be going the way of the Dodo. The tethered Air Force blimp colloquially known as “Fat Albert” that hovers over Cudjoe Key will end its 33-year flight on March 15, according to an internal email by the defense contractor that operates the blimps nationally -- Virginia-based Exelis Systems Corp. Coast Guard Keys commander



Capt. Al Young confirmed Monday that Fat Albert will be coming down permanently. There are actually two TARS blimps at Cudjoe Key, according to the Air Force. Both are low-level surveillance systems. One was formerly used by the State Department to transmit TV Marti, an American television signal, into Cuba. The other blimp is used in counter-drug operations and by the North American Aerospace Defense Command (NORAD), according to the Air Force. The blimps reportedly can withstand up to 65-knot winds. TARS was part of the largest such blimp system in the world; and the first aerostat in the program went up over Cudjoe Key, according to the Air Force. There are also TARS sites in Arizona, Louisiana, New Mexico, Puerto Rico and Texas. Young and Coast Guard Sector Key West Cmdr. Gary Tomasulo were in meetings Monday and Tuesday and could not be reached for comment. Young told US-1 Radio’s “Morning Magazine” show Monday that he would prefer the Air Force kept Fat Albert flying, as it assists the Coast Guard in its anti-smuggling mission. “It appears to be a funding issue, and I believe what the Air Force is doing is saying, ‘If it has value to the Department of Homeland Security, then find a way to pay for it’ -- I think that’s what’s going on right now,” Young said. “Its presence has deterrent value to illicit trafficking here in the area -- both human and drug trafficking. Ω ... and evidently they did...

USAF Will **Not** Ground Border Security Blimps Because of Sequester. The Phoenix Business Journal (3/6, Sunnucks,) reports, “The US Air Force will not ground high-tech security blimps used along the US-Mexico border to detect drug smugglers trying to the enter the U.S. via the ground or light aircraft.” It had been planning on grounding the blimps because of the sequester until House members from border states “lobbied the Pentagon and U.S. Homeland Security Department to keep the surveillance blimps aloft.” Ω

Upcoming Test May Be “Last Chance” For JLENS.

Bloomberg News (3/1, Berfield) reports while most modern military projects involving blimps have “floated away, victims of missed budgets and deadlines,” one of the few remaining is the Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS). Their “last chance to prove their worth” comes when they are tethered at the Aberdeen Proving Ground to determine if they will be effective to protect the Washington, DC airspace. However, “it will be at least 18 months before the blimps go up.” Ω

White blimps, not black helicopters

Raytheon Missile-Seeking Blimp to Get Test Run Guarding Capital By Susan Berfield

Defense contractors have spent the last decade designing football-field-long, helium-filled balloons with radar that can track planes, trains, automobiles -- and especially missiles. Yet one by one, the projects have floated away, victims of missed budgets and deadlines. One of the few left goes by the catchy title Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System, which its manufacturer, Raytheon Co. (RTN), calls JLENS for short. In 2007 the plan was to develop the surveillance technology and produce 32 of the blimps for about \$6 billion. Five years and \$1.9 billion later, the U.S. Army had four it could test. A January report by the Pentagon’s director of equipment testing cited early problems with the blimps’ “friendly aircraft identification capabilities” and “noncooperative target recognition.” Translation: They had trouble reliably spotting certain friends and foes. Production of new JLENS blimps has been halted; budget cutting is the stated reason. But the military is going to give two sets -- they usually operate in pairs -- a last chance to prove their worth. The plan is to leash them for three years at the Aberdeen Proving Ground in Maryland, practically under the nose of Congress. “Being close to D.C. wasn’t the intent, but it’s icing on the cake,” says Dean Barten, the Army’s product manager for JLENS. Adds Mark Rose, Raytheon’s program director: “JLENS is an extremely reliable system, and Raytheon looks forward to proving this” at Aberdeen. “They couldn’t have found a more difficult environment,” he says. “It’s the mid-Atlantic, there’s a huge number of aircraft, commercial

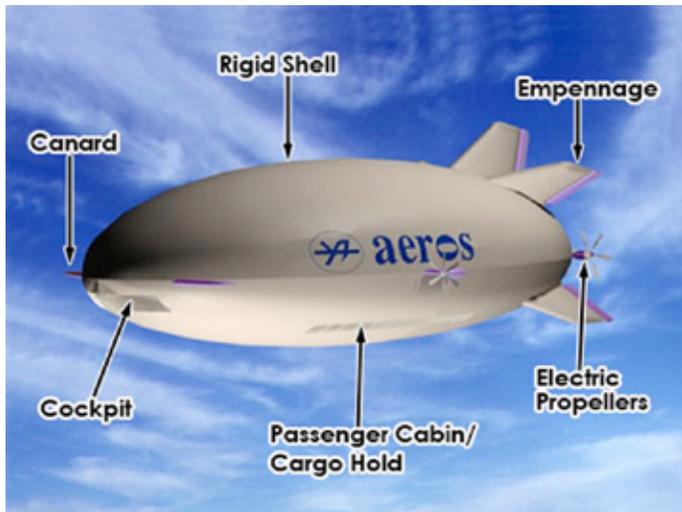
and private, to test the system.” In the past tests, Rose says, the blimps have “performed flawlessly.” Chet Nagle, a former CIA officer and a JLENS booster, says the Persian Gulf or North Korea would have been better spots to demonstrate the system’s capabilities. “But if you want to look good, you put it next to Washington, D.C. You make Congress feel safe,” he says. U.S. defense contractors have pitched blimps as a low-budget threat detector. They can remain in the air longer than planes, and there’s no need for expensive fuel or pilots. One is meant for wide, 360-degree surveillance that can reach 340 miles, and the other for precision tracking. Each is 243 feet long. That may sound like an easy target, but Raytheon isn’t concerned about an enemy trying to take one down. “We’ve shot missiles through it, and they make holes,” says Rose. Although helium escapes, it does so gradually, he adds. “It’s not like a party balloon that goes ‘pop.’” It will be at least 18 months before the blimps go up. The Army is requesting \$60 million from Congress to set up the test site and operate the craft for the first year. The fate of the second pair is still up in the air. “There’s discussion about continued testing in the U.S.,” says Rose. “Or they could be deployed to a location that might be more confrontational.” Ω

Super-TIGER Breaks Balloon-Borne Experiment Record SPACE (1/24, Moskowitz) reports the Super-TIGER cosmic ray detector “officially shattered the record for longest-running balloon-borne experiment in Antarctica on Saturday (Jan. 19), scientists said,” after staying in the air over Antarctica for over 42 days. The mission is still ongoing. The article notes that along with the Super-TIGER, “the Balloon-borne Large-Aperture Submillimeter Telescope (BLAST) experiment launched Dec. 25 to study star formation in the Milky Way, while the EBEX telescope took flight on Dec. 19 to survey the cosmic microwave radiation from the Big Bang.” Ω

Baumgartner Was Falling Faster Than Estimated During Record-Breaking Jump The AP (2/5, Dunn) reports, “Supersonic skydiver Felix Baumgartner was faster than he or anyone else thought... The official numbers just released show he was going at a speed of Mach 1.25 instead of 1.24 as initially estimated.” Ω

Airship Makers Float New Craft to Erase Hindenburg Blot
By Robert Wall (excerpt)

Airship builders say the development of lighter, stronger materials will allow them to deliver on a century-old ambition of making craft capable of winning business from freight operators such as FedEx Corp. within three years. A drop in the price of carbon fiber and advances in systems that can control the buoyancy of the even largest airships have also encouraged development of models that aim to move goods faster than surface ships and at half the cost of a Boeing Co. 747. “When it matures, the lighter-than-air industry will be



as big as the fixed-wing sector, with a huge impact on freight movements,” said **Barry Prentice**, professor of supply-chain management at the University of Manitoba in Winnipeg. “But I can’t be sure that it’s finally going to happen in my lifetime.” Commodities companies may be among early customers, Gary Elliott, chief executive officer at Britain’s Hybrid Air Vehicles Ltd., said in an interview, adding that a study for a miner listed on the U.K.’s benchmark FTSE-100 index showed transport costs to a site in Africa could be cut by 40 percent. Airships might also be used to supply oil rigs to remote locations, Elliott said. “These companies have tremendous needs for lift, and pressure on cost, so they would be likely customers,” Prentice said. An airship has the advantage of being able to cut out transfer consignments on trucks and trains, aided by the ability to take off and land vertically. The Hybrid Airlander 50, which features a multi-hulled, non-rigid design, is a cousin of the Long-Endurance Multi-Intelligence Vehicle. Still, development of a viable airship industry remains hobbled by outdated thinking among regulators that has its origins in the Hindenburg disaster, Prentice said, among them a ban on the use of hydrogen that makes the craft more expensive. “There is a lot of legacy regulation that was passed 75 years ago that hasn’t been updated,” he said. Ω CBS News also filed a similar report with a more local focus. SMITHSONIAN magazine also ran a photo of the Aeros prototype in its Tustin hangar.

Airship Scheduled to Tour Alaska This Summer
By Mike Dunham (excerpt)

Eighty-six years have passed since an airship cruised over Alaska. But a Florida company, Skyship Services Inc., has announced plans to fly a 200-foot-long blimp to Anchorage and demonstrate its capabilities around Alaska this summer [see “Ready Room”]. According to an announcement from state Sen. Lesil McGuire, the Skyship 600 craft will be in Anchorage around July 4 and return to the lower 48 in September. Jesse Logan, a member of McGuire’s staff working on the project, said the Senate issued the press release at the request of the Department of Transportation. The department had been approached by the company, which was hoping to spread the word and attract sponsorship for the trip. “Since (airships) are something we’re interested in, we put out the release,” Logan said. “We’ve been interested in this for more than a decade, working with NASA, trying to encourage them to come up with alternate forms of air transportation. The BBC is paying for some of the costs. “They’re doing a documentary,” Logan said. “They’ll be filming the entire journey.” Francis Govers, Business Development Manager for Skyship, would not divulge details on how the trip will be financed. But he confirmed that the airship would fly to San Francisco this spring and be in that area “for a bit” before following the



Inside Passage to Alaska. “We plan for three weeks to make the passage,” he said. That’s because the airship may need to wait at one location for several days while ground crews and two “mast trucks” leapfrog ahead to the next stop on an Alaska State ferry. Govers said the flight plan called for a Seattle departure with stops in Vancouver, Port Hardy on the northern tip of Vancouver Is., Ketchikan, Juneau and Yakutat before arriving in Anchorage.

The only powered lighter-than-air craft to have previously flown in Alaska appears to have been the dirigible *Norge*, which made the first trans-polar flight between Europe and America (and some say the first confirmed crossing of the North Pole), landing in Teller, 70 miles from Nome, on May 14, 1926. Parts of the *Norge* are currently on display in the “Arctic Flight” exhibit at the Anchorage Museum. Ω

20th AIAA Lighter-Than-Air Systems Technology Conference (Co-located with the 22nd Aerodynamic Decelerator Sys Tech and Balloon Systems Conferences) 25–28 March 2013, Hilton Daytona Beach, Florida.

This event provided an unrivaled opportunity to gather the world's leading parachute, flexible structure, airship, balloon, and aerostat scientists, engineers, researchers, and managers from all over the globe for technical interchange and technology advancement. Across the street at the Ocean Center the Parachute Industry Association (PIA) meeting and Symposium complemented the AIAA event by providing a broader perspective of the field of aerodynamic decelerators.

In the opening Plenary, Col Joe Kittinger, USAF (Ret) and Art Thompson (VP, Sage Cheshire Aerospace, Inc., Lancaster, CA) discussed their experiences with the Red Bull Stratos Project. (Joe made history on August 16, 1960, as he ascended to 102,800 feet in a high-altitude balloon and jumped setting four world records.) In Felix Baumgarner's record breaking jump from the stratosphere, he became the first man to break the speed of sound with his own body. The Hilton's largest room was standing room only as the Parachute Industry Association crowds packed in to hear the exciting story and watch the thrilling videos.

The first LTA session, "Airship and Aerostat Design I" chaired by Ed., featured "Characterizing the Shape of LTA Vehicles Using Photogrammetry and Stretch Functions" presented by John Hunt, TCOM, LP, Columbia, MD. "The Scalability of Heaviness Fraction for Large Arships" was next, presented by Dr. Brandon Buerge, Microflight LLC, Newton, KS. Last came "A Methodology for Conceptual Sizing of a Tethered Aerostat" presented by Darshit Mehta.

The 2nd "Airship and Aerostat Design" session, chaired by Dr. Brandon Buerge, featured "Surrogate Based Design Optimization of Aerostat Envelope," "Design Fabrication and Flight testing of a Non-rigid Indoor Airship" "Design, Fabrication & Testing of Outdoor Autonomous Airship." All three were presented by Dr. Pant, Indian Institute of Technology Bombay, Mumbai, India, on behalf of his student authors.



Grant E. Carichner (left) and Leland M. Nicolai appeared for an AIAA Meet the Authors event during the joint Balloons/LTA plenary session on Wednesday, 27 March 2013. The authors signed their newly released book "Fundamentals of Aircraft and Airship Design, Volume 2 – Airship Design and Case Studies" which examines modern conceptual design of both airships and hybrids. (See "Media Watch.") It features numerous examples, including designs for airships, hybrid airships, and a high-altitude balloon, as well as nine case studies, from SR-71 to the Hybrid Airship.

Wednesday began with a Joint Balloons and Lighter-Than-Air Systems Plenary which brought NAA members **Dr. Addison Bain** and **Peter Cuneo** to a panel discussion along with Michael Fortenberry, entitled "Hydrogen: Affordable, Available, Alternative Lift." Ed. moderated the panel and began by relating the experience of former NAA President **Lou Probst**, who'd overseen the ex-L-19's conversion to hydrogen and its 10 years of operations in Germany. (Lou had agreed to stand by his telephone to answer the odd question, but Lou had briefed Ed. so thoroughly on the experience, no phone call was necessary.) Fortenberry told of his company's study of making local hydrogen for Afghanistan aerostats to overcome the expensive process of delivering Texas compressed helium to these rugged anti-terrorist sites. He said they'd studied many ideas, including the way the Army used to make hydrogen for barrage balloons on the spot in-theatre. Cuneo related his experience with flying all types of gas balloons, and Dr. Bain shared proficiency from the hydrogen fuel world. There had never been such a knowledge and experience base on the subject under one roof since the beginning of time,

and a lively Q & A ensued. In spite of some grumbling that airships had no future beyond affordable helium, one man in the audience said his company had tested with hydrogen and it was high time an aerostat was filled that way. Another attendee commented that this conference would be long remembered as the “crack in the dam” that opened the discussion on this long taboo subject, and the joint session attendees gave a healthy round of applause not only to the panelists but also to the LTA TC chairman who made it happen, Dr. Brandon Burge. A last-minute change found Michael Schieschke, COO ZLT Zeppelin Luftschifftechnik GmbH & Co KG, Friedrichshafen,, (coming in for Thomas Brand) presenting “Airships as Multi Functional Platforms” covering the latest configuration of the Zep NT-101, including the details of the coming Goodyear-Zeps. Some dramatic videos were presented in the last section on NASA’s Super Pressure Balloon Development by Henry M. Cathey, Jr.

“Stability and Control” was the theme of the next session, chaired by Donald Horkheimer. “Controller Design for an Outdoor Autonomous Airship” by T. Potdaar, A. Sinha, R. Pant, of the Indian Institute of Technology Bombay, was first, followed by “Validation of a Dynamics Model and Controller for an Unmanned, Finless Airship” by M. Nahon, H. Mazhar, T. Liesk, McGill University, Montreal, Canada. “Stability and Active Control of Low Altitude Aerostats” was presented by Bruno de Azevedo, Technological Institute of Aeronautics (ITA), Silo Jose dos Campos, Brazil.

Dr. Pant also chaired the next session, which began with Shawn Petersen of TCOM LP presenting “The 28M Tactical Aerostat System: Enhanced Surveillance Capabilities for a Small Tethered Aerostat.” Leland Nicolai of Lockheed “Skunk Works” presented “Hybrids...the Airship Messiah?” followed by Ed. who presented “Explosion - or Fire? Understanding H2 Phobias.”

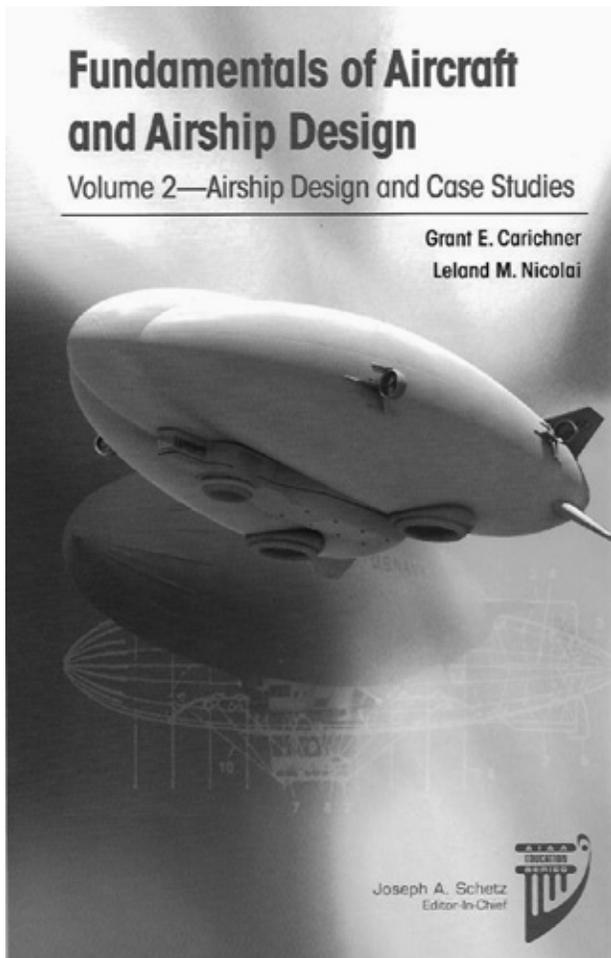
George Baird of ILC Dover opened the next session, which began with Dr. Brandon Buerge’s “The Influence of Surface Roughness on the Drag of Very Large Airships.” Dr. Pant followed with one of his student’s papers, “Dynamic Simulation of Breakaway

tethered Aerostat including Thermal Effects.” Grant Carichner was next with “Square-Cube Law Revisited for Airships,” and John Hunt of TCOM wrapped up with “Wind Tunnel Study of a Large Aerostat, CFD Validation.”

John Krausman of TCOM chaired an oral presentation by several men associated with LTA Technologies at the United States Army Space and Missile Defense Command, Space and Missile Defense Technical Center, High Altitude Technology Division. Stavros Androulakis, Lockheed Martin Corporation-Akron, gave a detailed history analysis on L-M Akron’s High Altitude Airship program and presented some thrilling associated video. The team’s achievements were notable in spite of the meager funding, but the scale demonstrator’s inability to exceed about half its target altitude was ultimately traced to Akron’s humid atmosphere(!) The wet air, being exhausted through a ballonet valve protected by a screen, became icebound and blocked further air exhaustion. The ship, while otherwise fully functional, was floating in a high air traffic area and was ordered to descend. The team targeted an unpopulated area, settled into trees with little damage, and continued to function through the day and night owing to its still functional solar cells and batteries. Disassembly began, batteries were removed and tree trimming proceeded when suddenly the envelope fabric burst into flames. Evidently the unloaded solar cells arced through the fabric, igniting it. (Ed. note: Ralph Upson would have been rolling in his grave!) Dr. Pant presented two more of his student’s papers, “Design and Fabrication of Mooring Masts for Remotely Controlled Indoor and Outdoor Airships,” and “A Methodology for Conceptual Design and Optimization of a High Altitude Airship.”

First time for such an AIAA gathering, “Fundamentals of Airship and Aerostat Design” Seminars ran the afternoon of 28 March. Courses originating with Lockheed-Martin “Skunk Works” were presented by Grant Carichner and Leland Nicolai. Other courses were presented by Bruno Avera from Brazil’s ALTAVE, Shawn Petersen from TCOM, and Curt Westergard (immediate past chair of the LTA TC). It was unquestionably the most complete LTA familiarization course ever offered in a single day. Ω

MEDIA WATCH



Fundamentals of Aircraft and Airship Design, Volume 2
By **Grant E. Carichner** and Leland M. Nicolai
(AIAA, 2013)

Comments by **Norman Mayer**, Tech Committee Chair

General: This thorough effort combines science and engineering covering the steps required to achieve a successful airship design. It recognizes the common features and differences that apply to various types. Comments that follow are meant to be suggestions rather than corrections to an outstanding document.

Preface: A similar effort to educate the technical public about aeronautics was made by the Ronald Press in the late 1920s. They published a 12-volume set titled Ronald Aeronautic Library. Five of these were devoted to airships and balloons. One in particular by Charles P. Burgess addressed the steps in the design of airships. All were written by experts. I feel that they could be listed as a valuable and historical reference. Para 5 refers to Chapter 11 and 12. Chapter 1: History – There

are many books on aircraft history. Many could be listed without detailed contents. Also Hybrid airships have yet to be proven as a success. All in existence are experimental. This distinction should be mentioned.

Airship types- The word septum is used to describe the fabric curtains in nonrigid airships. I suggest “catenary curtain” be used as more familiar and descriptive. In the U.S. and Germany components are called “cars,” in England they are “gondolas.” Navy airships changed their designations during their existence as follows:

-K types became ZP2K, ZP3K, and ZP4K, then, ZSG-2, ZSG-3, ZSG-4. ZP5K became ZS2G-1.
-N types became ZPG-1, ZPG--2. ZPG-2W, ZPG-3W.
Burgess – Improved envelope materials did not arrive until about the late 1950s, after Burgess’s death and rigids’ demise. See my further comment under Materials, Buoyancy Ratio and Hybrids. Later Navy nonrigids (ZPG-3W) were designed for an 11 percent dynamic lift. Suggest hybrids be described to include their shape as well. Terminology - It is a common mistake to spell the types of pressure airships with hyphens. NACA report No. 474 “Nomenclature for Aeronautics” spells them as one word - NONRIGID, SEMIRIGID.

Chapter 2: A little unnecessarily long but otherwise well done. A good list of symbols and their meaning at the beginning of the chapter(s) would be useful. Para 2 – “Blimp” is still commonly used. Also “Dirigible” is a handy all inclusive term.

Chapter 3: The material in this chapter is too large. It should be reduced by removing general discussions (figure 3.11 and mathematics for example) and perhaps only keeping information on final design application. I was surprised to see no discussion of stern propulsion.

Chapter 4: It seems that using two types of hypothetical airships as examples requires equal missions. Also, mixing airplanes with airships on some of the charts is confusing. Note that Hybrids are credited with many unproven features. Comment on Buoyancy Control List-4.31 - Compression of helium or ballonets air. These methods would seem to involve high pressure containers and rapid transport of the gases. A firm in California is building a rigid which incorporates this unproven method. Hydrogen burned as fuel – High risk. Water Recovery – A proven method incorporated in U.S. Navy rigid airships. Most feasible while burning gasoline fuel. Diesels will work but has problems. Water Pickup – Feasible over oceans (not listed).

Chapter 5: Generally a well written chapter. There are some aspects of propulsion not discussed such as location of engines, stern propulsion, etc.

Chapter 6: Note that Zeppelin building of military type ceased at the end of World War 1.

Chapter 8: 8.1 New technology may allow reconsideration of some form of rigid airship (8.1) with more efficient aerodynamic form. 8.2 – Filaments. Cotton-Neoprene fabrics were used until the late 1950s. Slightly earlier Fortisan, a Rayon based material, seemed to offer higher strength and was used on a few Navy airships. Later testing and inspections revealed inherent weaknesses too basic to be practical, so cotton-Neoprene remained as the production envelope material. Nylon was tried (not on Navy airships) but dismissed because of its excess elasticity. This left Polyester (Dacron) with Neoprene as the best combination to be introduced in late 1950. Not all of the Navy airships were so equipped before the program was cancelled. Envelope Factor of Safety- The value of 4.0 was based on the creep-rupture character of cotton which demonstrated loss of strength down to about 25% of quick break tensile test values when subjected to long time loading. Laboratory tests are used to establish actual values. Modern synthetic fibers are better but other effects such as service exposure and manufacturing must be considered.

Final Comments – The book represents a noble effort to consider every aspect of aircraft design. My comments are limited to airship design. Also I do not attempt to examine the mathematics of each subject. A considerable amount of shorter treatment of each subject would improve the quality especially where history and analysis tend to wander. Case studies on airships are pretty well spread throughout the chapters, but not in chapters 14 – 21. **Ω**

As everyone knows, A CENTURY OF AIRSHIPS – BUOYANT FLIGHT IN 20TH CENTURY MOTION MEDIA, edited by Richard Van Treuren, is the most complete compendium of LTA footage ever published. That said, I believe that I have found a motion picture, produced by a major studio, which should be included in Richard's volume and is not. The film is "Fly-Away Baby" released by Warner Bros. in 1937. It stars Barton MacLane and Glenda Farrell. It is the story of a jewel

robbery/murder that becomes a round-the-world air race, starting in New York and going west. The last leg will be flown on a Zeppelin (un-named) from Germany to New York. In the final reel, the principals get on the Zeppelin, one suspect is murdered. Another is revealed as the criminal. The murderer pops out of his passenger compartment wearing a parachute, holding a gun. He exits the passenger accommodation through a door at the end of the hallway. He finds himself in the keel, runs for a while, then jumps through the outer cover and "pulls his ripcord too soon" (?) which appears to be a fatal error and seems to wrap up the case. The Zeppelin footage is only in the last reel. There are stock shots of what I take to be *Hindenburg* on the ground at *Frankfurt am Main*. There is footage in the air. I believe that I spotted two shots of a ZRS spliced in to fill space: note the engines when looking down on the 'Zeppelin' and another looking up at the 'Zeppelin's' belly from a distance; apparently we are not supposed to notice? The interior sets are actually pretty good but not *perfect*. The staterooms are over-sized to facilitate the examination of a dead body. The keel structure is more accurate than most. The outer cover tears like paper. There is also quite a bit of footage of an American Airlines DC-3 and the just introduced China Clipper flying boat. Note how passengers go aboard the flying boat in 1937. Barton MacLane is now a name that few recognize but you might know the face. He worked regularly in Hollywood between the 30s and the 50s, mostly as villains, often in Westerns. Glenda Farrell is a name that even I do not know. This is a Warner's "Torchy Blane" film and she plays "Torchy Blane". This was the second a series of nine films and she played the title role in seven of them. The film was "released" in 1937. I have no record as to when, either shooting was completed, or the film hit the theatres. Obviously *Hindenburg* crashed in that year. The crash plays no role in the film. I do not know if that was why "the Zeppelin" was not identified by name. Unlike "Charlie Chan at the Olympics" (1937) the swastika on the Zeppelin's tail was visible. The Zeppelin interiors were imperfect but credible. No one explains how the killer, the police officer, Zeppelin officers and crewmen exit through a door at the end of the hallway between the passenger staterooms and arrive in the airship's keel? This film was aired Saturday, January 05, 2013 on Turner Classic Movies.

– C. P. Hall

Dorothy Rabinowitz reviewed “Ring of Fire” on Encore and “Hindenburg: The Last Flight” on Reelz under the apt heading “Man-Made Disasters:”



A scene from ‘Hindenburg: The Last Flight.’
(excerpt)

Call it destiny, or perhaps something in the air, that two cable networks offer competing dramas focused on the bottomless evil of Big Oil. Both “Hindenburg: The Last Flight” (Encore) and “Ring of Fire” (Reelz) are, in short, disaster films with a message dear to many a politically progressive heart. It requires heart of some kind, admittedly, to sit through the drama aboard the Hindenburg, whose main action involves interminable dark pursuits through grim passageways, with characters slamming in and out of cabins looking for secret plans, bomb components and, on occasion, love... Even without such flaws there could be no overcoming the creaking absurdity at the heart of “Hindenburg” the greedy American tycoon who hopes to ensure a thriving airship industry in Germany by blowing up its proudest and most famous symbol, along with its passengers. A line of small print in the production notes describes the film as a fictional account. No kidding. ... “Ring of Fire” runs a close second to “Hindenburg” in the message department. It’s a far superior piece of filmmaking, impressive in its special effects, its dramatic displays of technical know-how in the face of unthinkable catastrophe caused, you will not be surprised to learn, by an avaricious driller. The cookie-cutter quality of the sermonizing in these films is hard to miss... here, too, the family members dearest to a profiteer who is ready to do anything to destroy the environment for oil, or the Hindenburg for helium end up among the victims of his amorality... Possibly because the producers had somehow grasped that in a miniseries bursting at the seams with oratory, with screaming ideological messaging, a little silence can be golden. Ω

“What Destroyed the Hindenburg?” Blink Films
Reviewed by Addison Bain, Ph.D.

I wish to complement Mr. Hall and Mr. Brothers (*LTAS Newsletter*) in their excellent reviews of the subject matter. As such I wish to add my two cents worth starting with the “34-second” myth. When I attended the 75th anniversary at Lakehurst the same announcement was made that the airship was destroyed in 34 seconds. Present at the final attempted landing were four news cameras on site. They were Pathe, Universal, Paramount and Movietone. They were positioned to capture the disembarkment of the rich and famous passengers. Due to off and on light rains the cameras were covered and the reporters took shelter near by. At the first indication of the fire they ran to their cameras, uncovered them, adjusted the focus and started to crank out footage. Claude Collins of Pathe News indicated that his camera shot 90 feet of film per minute and the footage he got was 51 feet. Simple math says that is 34 seconds. What he and others missed were the important initial 18 seconds.

There have been many attempts to distort the testimony of Mr. Lau to favor a particular theory. The most notable are Michael Mooney and A. A. Hoehling to support their sabotage theories. Hoehling “adjusts” the testimony between interrogator, Major Schroeder and Lau about the “pop” rather than the true statement “more like a frwump.” The 337-page FBI report File no. 70-396, declassified September 16, 1988 concluded: “Files of the Investigative Board of the Department of Commerce relative to the Hindenburg disaster failed to reflect any information of value upon which an investigation by the Bureau might be reasonably warranted in connection with any possible sabotage or other Federal violations within the investigative jurisdiction of the Bureau, June 17, 1937.” No evidence of sabotage could be found as reported by the German Commission and the U.S. Department of Commerce. (Report No. 11 by R.W. Knight, August 1938). Considered were; incendiary bullet, time-fuses, attack from aircraft, “or other releases from within the ship.” BOI report (Helmut Lau):

In substance he saw a bright reflection on front of bulkhead of cell No. 4. “He did not see the absolute center of origin of fire.” Exhibit 35, from the BOI files; show Lau’s hand drawing depicting the fire (in red ink) over the rear stern on the starboard side.

Pg. 886 BOI: Dr. Eckener testified regarding Lau’s statements, “I think that, that was the second stage of

the process of burning. Lau could, from his position at the time, not look vertically to the top of the ship through the gas shaft. He could only look forward (toward cell 4) and up at an angle, and he could have only noticed something of the fire as the flames beat down into the gas cell, and if I remember correctly as to what Mr. Lau said, that practically simultaneously with noticing the reflection of fire through the lower part of the gas cell, the total gas cell was consumed. That therefore must have been the moment when the fire burning on top destroyed the top part of the cell and caused the escape of gas." Dr. Eckener in an interview with the *New York Times* (May 22, 1937) indicated that he felt the fire originated somewhere above cell 1 and 2 (contrary to his testimony before the Board of Inquiry). Photographic evidence (from two images) show cell 1 missing at the beginning stages of the event. The models used in the documentary show cell 1 intact, contrary to fact.

The claim that hydrogen could "accumulate" between the hull and top of the gas cells (in the stern area) is flawed for several reasons. The hull area above cell 2, 3 and partially 4 is open at the interface of the hull and vertical tail fin (per the Zeppelin H 1720 series of drawings). This is an area about 100 square meters, a sizeable opening. There are two vents at the very top rear area of the fin. And of course there are the two hull cowled vents at ring 62 (cell 4/5). The cross sectional area of each opening is two square meters. There are no "pocket" areas to consider. All surface areas (above the median) slope upward. There is the "chimney effect" to consider. This was noticeable even when LZ-129 was stationary in Hangar One. Harold Dick (who I interviewed) said that at a very low speed or no speed the gas vented very well. Because of the small leakage due to the permeability of the cell material this was necessary. Then last but not least is the extreme buoyancy of hydrogen. The vertical velocity ranges from 1.2 to 9 meters per second depending on conditions.

I don't have much to say about the "gas shaft experiment" other than it looks like someone messing around with something they don't understand. I have built a scale model of a gas shaft vent. Hydrogen was introduced. A gas detector was used to verify a gas flow. A momentary electrical spark was applied above the

vent. I placed my hand several feet above the invisible flame to verify ignition and continuous burning. Then I introduced a piece of paper into the flame to show the carbon-based (paper) fire and in order to photograph the event. Just a nice little Bunsen burner!

The "Incendiary Paint Theory" tag will follow me to my grave. During my first *Hindenburg* research presentation before an audience of several hundred people at the National Hydrogen Association conference I made a comment (tongue-in-cheek). At the end I said, "The moral to the story is don't paint your airship with rocket fuel." Actually this is not a theory at all but confirmation of what Germany already knew. Many examples have been published, here are two more:

- Dr. Wolfgang Meighorner, Director Zeppelin Museum, July 1996. "When we built the full-scale mock-up section of the *Hindenburg* for the museum we wanted everything to be exactly the same as the original right down to the blue coated aluminum framing. However our local fire inspector would not permit the fabric parts to be coated with the same dopant."

- Jurgen Henk, Zeppelin NT, June 2004. "The *Hindenburg* safely crossed the Atlantic dozens of times to New York and Rio de Janeiro during its inaugural season in 1936, and it is now believed that an experimental weatherproof coating on the canvas skin of the ship spontaneously combusted during an electrical storm."

- Change in hull fabric coating. A 3% aluminum powder in the coating formulation was used on LZ-129. This was changed to a 2% aluminum bronze (LZ-130 drawing H 1720). It is reasoned that this would improve the conductivity of the outer cover, reduce the flammability and mitigate any ballotechnic reaction of the dopant formulation.

I'm concerned the responsible parties ignored historical facts, or did not fully do their research, or simply just choose those circumstances convenient to their sensationalism and personification. For the last ten years I have been a member of the DOE Hydrogen Safety Panel (HSP), initially as chairman, and prior to that selected by the Secretary of the DOE to serve on the DOE Hydrogen Technical Advisory Board. The role of the HSP is to review all safety plans and conduct site visits to any institution having a DOE contract to research and develop hydrogen technologies. Southwest

Research Institute (SWRI) was hired by Blink Films to perform the testing as was illustrated. I have visited SWRI, toured their facilities, and reviewed their safety plans associated with their DOE hydrogen programs. In my brief discussion with Dr. M. Blais at the institute (who oversaw the “Blink” testing) I sense that they may have been hoodwinked to some degree. I consider SWRI to be an outstanding institution with an excellent reputation. My concern is that in my opinion the subject episode could mar that reputation.

There is continuing interest in the use of hydrogen in whole or in part for airship service, in view of the issues relating to helium. The subject “documentary” will only serve to prolong the illusion that hydrogen is too dangerous.

Much progress has been made since the oil embargo of the early 1970’s and recent climate change concerns in the adoption of hydrogen as a clean replaceable fuel and as an energy carrier throughout the world. However the subject broadcast will have a very significant influence on our most vulnerable populace; the general public. Erasing the image of the *Hindenburg* disaster as a hydrogen example of devastation becomes more difficult.

The film makes reference to an “ex-NASA scientist.” There is only one of those on the planet that has been researching the *Hindenburg* since 1990. As a side note I participated in the Discovery Channel “Myth Busters” show. I suggested they build two models, one for hydrogen and one for helium. Also they were provided with the LZ-129 coating formulation and instructions on how to apply it. It was also important to simulate the cell configuration. Well we know how that turned out. Since they used my name and personal photo I made two approaches to the Discovery Channel, citing that what was done was tantamount to slander. That potential litigation is on hold. Now it appears I have another case with the same outfit (Discovery Channel) except this is a clear case of mockery of my long and very expensive work. I conclude the Blink Films episode was an irresponsible hoax. The damage to the future implementation of the hydrogen economy is immeasurable. I suggest the motivation for the production be investigated.) My last but not least concern is that the reviews by Mr. Hall and Mr. Brothers, and perhaps my review, will be limited to only the airship community via the newsletters. Ω



The March/April AIR & SPACE featured a surprisingly detailed article by one Paul Glenshaw about early aeronautics, featuring the likes of Baldwin, Kanbenschue, and Curtiss. The overall theme naturally supports the NASM “company line” of LTA being (per senior leadership) a “transitory” technology. The only relatively unpublished photos are HTA (Baldwin in one of his aeroplanes, for example) and the horrendously deadly record of planes vs. the safe accomplishments of “rubber-cow” airships is barely touched on. None the less the many LTA photos and details offer an encouraging and welcome balance in the magazine’s issue. Ω

“*Hindenburg* – The Final Voyage” mini-series

Reviewed by **C.P. Hall**

This “*Hindenburg*” is a production with credits running into the first half hour. It is basically a German production and the majority of the cast have names German in origin. None-the-less the program was photographed with the cast speaking English, very good English, mostly with no hint of German being a first language, accents occasionally tending toward University-educated British English but mostly Mid-Western, College-educated American English. The “big name” exceptions to my casting generalities are American Stacey Keach who plays Edward Van Zant, the President of American Oil Company and Gretta Scacchi who plays Keach’s wife, Helen Van Zant. These are supporting but significant roles. Stacy Keach’s role may have been shot in one day; I would be amazed to hear that he was present for a week or more. Those of us who remember Gretta Scacchi in such films as “White Mischief” and “Presumed Innocent” may be surprised by Gretta’s appearance but her ability to portray, at first subtlety, then later blatantly, a despicable woman is undiminished. Her performance is one of the high points of the production.

The story is a “who’s gonna do it?” Of course there is a bomb plot. The story is advanced by a series of revelations regarding who is “in” on the bomb plot and why there is a plot, leading up to revealing who is the bomber and where is the bomb? The story is anti-Nazi in general tone which is hardly unexpected. There are some specifics which are shocking and surprising. Shortly after the two lead characters are introduced and the credits end, there is a formal dinner at the American Consulate in Frankfurt am Main. Ernst Lehmann makes an utterly insulting introductory speech closing with a line about how, with helium, we shall all make lots of money and that is the point. Helen Van Zant responds, ignoring his comments, while getting in a few digs of her own. Even Hugo Eckener offers a sarcastic success of capitalism comment. The politics of the writers thus established, the story continues. I shall not delve into the story’s details any further. I do not wish to spoil the ending for you.

The question of interest is what about the historical accuracy of the sets and appearance of the *Hindenburg*. Passenger compartment sets: A good deal of the action takes place on the last voyage of the *Hindenburg*. There are a substantial number of passengers and crew, some of whom are meant to represent historical figures, others are cliché cyphers. They spend most of their time in the passenger accommodation. Generally speaking the public rooms have the ‘feel’ of the *Hindenburg*. Furniture, architectural details such as walls, railings and windows are often very good. There are shortcomings. The film was not photographed in the *Hindenburg* reproduction at the Zeppelin Museum in Friedrichshafen. The lounges and dining room seem oddly shaped which probably aided camera angles but lack historical accuracy. Whether on board S.S. *Poseidon* or *Hindenburg* a Grand piano is impressive rolling, out of control, across the lounge; but it is not historically accurate on the 1937 *Hindenburg*. The smoking room/bar seemed poorly detailed with promenade style windows even though this room was on the lower level. Passenger sleeping quarters on the real *Hindenburg* never photograph well and were interior rooms the size of a Pullman sleeping car bedroom. These rooms are so wide that the bed is installed across the room’s width with space remaining to walk by. The rooms are longer than they are wide with walk-in closets and windows opposite the doorway. They vaguely resemble the largest

passenger rooms installed in Graf Zeppelin LZ-130. They are large enough for several forms of action, one of which will only be seen on cable, but not broadcast network, channels in the USA.

Airship structures and interiors: The interiors are pretty good. There seem to be numerous sliding doors dividing keel sections? There is a great deal of space between gas cells when climbing into what one suspects to represent the fin cruciform, however, after completing the climb, one pops out of the hull structure forward of the exterior fins. This may simply be a problem in continuity but one notices and wonders. I was unimpressed by the depiction of St. Elmo’s fire in the ship’s interior. I was unimpressed by the fire-related special effects within the interiors. On more than one occasion, it appears that burning hydrogen incinerates human beings faster and more completely than phaser fire on “Star Trek.” *Hindenburg* Exteriors: Probably the high point of the special effects effort. The rigid airship has always leant itself to depiction by special effects artisans and this production is no exception to that rule. My greatest criticism is that, once in a while, the streamline of the hull appears angled rather than smoothly curved. That said, the illusions of *Hindenburg*, both on the ground and in flight, seem very well done. The fire is depicted quite accurately and in remarkable detail. The vignette of the burning ship descending in the background while the ground crewmen run towards the camera in the foreground is a few seconds long and an exquisite piece of work. It is also used in the previews. My only criticism here is that the portside, forward engine car is knocked free and tumbles across the landing field; an event that I do not remember as historically accurate but, like the grand piano plunging across the lounge, a spectacular piece of footage. Both are examples of artistic license, no doubt! How should the show be graded?

Story: “D” Sophomoric, socialist, ‘evil big oil conspires with Nazis’ clap-trap of the left-coast, Hollywood variety. It is as though no one told the writers, either that Nazi is short for “National Socialist ...”, or that helium production was an American government monopoly. Named Zeppelin Company historical figures are slandered both politically and professionally. Perhaps this is ‘political correctness’ in 21st century Bundesrepublik Deutschland? (Con’t page 35)

Acting: “C” The actors were better than the lines which they read! Casting: “B” I enjoyed the fictional leading

characters. The actors representing historical figures seemed to be about the right age which is not the norm in most Hindenburg disaster productions.

Airship interior sets: “B” Not always historically perfect but they generally created the feel and ambience of 1937 airship travel. Airship exteriors (special effects): “A” The Hindenburg, on the ground, in the air, crashing in flames, together constitutes a technical achievement. It is as though you are watching news reels with superior camera placement, often photographed in color. Ω

READY ROOM

DGLR – LTA Workshop XIV June 7, 2013: “Hybrid Airships - Philosophy, Concepts and Applications;” “Reintroduction of Hydrogen as a Lifting Gas.” University of Applied Sciences, Bremen Institute for Aerospace Technology. Ω



3rd Cargo Airships for Northern Operations Workshop

Alaska Department of Transportation
The 3rd workshop will follow up the achievements of the 2nd workshop by focusing on what needs to be done to create strong business incentives for cargo airship companies to develop and deploy airships that meet the needs of airship service customers in Alaska and other Northern areas. Ω

Naval Airship Association Reunion

14-16 May 2014 - Newport, Rhode Island

Tentative Schedule: Wednesday, Check-in to Best Western Mainstay, Meet & Greet reception in hotel ballroom. Thursday, Tour of Naval War College and Museum, lunch in Officer’s Club. Friday NAA Business Meeting, NAA banquet in hotel ballroom. Depending upon interest, a visit to the N.E. Aviation Museum (where the airship K-28 is being restored) is being considered with its required two-hour bus ride. Ω

BLACK BLIMP

James A. Flenner, 91, passed on February 18, 2013. Born in Ohio, he left college to enter the Navy in World War II, becoming a pilot, retiring as a LCDR. Most of his time was spent as a blimp pilot on patrol for subs in South America and off the coast of Florida. He stayed in the Naval Reserves and was recalled for the Korean War. Upon his return to Key West he opened his real estate office in January 1954, and remained a Broker until his passing. He is survived by his wife Ann, son Christopher, daughter Jackie Hampson, and grandchildren. Ω



Roy Powell Gibbens, 85, passed February 20, 2013. Roy’s lifelong fascination with airships began with a visit to the USS *Akron* in Florida and continued in the USAF and through his career as an engineer for Lockheed Aircraft. Mr. Gibbens started the Air Force Association in Meridian, MS, and was a longtime member of the AIAA LTA TC. Survivors include his wife Joyce Brown Gibbens, daughter Sue Henderson and son Roy Gibbens Jr., and four grandchildren. Ω



Robert Joseph “Bob” Koeberle, 91, passed 27 January, 2013. Bob proudly served as an Airship Rigger second class, USNR from 1943 to 1946. He served in Great Lakes, IL, USNAS Richmond, FL and USNARS Moffett Field, CA. In 1995 Koeberle donated his extensive collection of LTA memorabilia which was used by the Historical Action Team to further document the blimps use in war. Being a part of this project brought a renewed sense of pride in his part of LTA history. He leaves his four children and their spouses; his seven grandchildren and their families; and his five great-grandchildren, who all enjoyed learning about blimps from their “Pop.” Ω



Daniel Edward Brady, 90, passed January 21, 2013. As a child, his father took Dan to Lakehurst, where he boarded rigid airships. In December 1940, he began a 30-year career in the US Navy, serving during World War II, Korea, and Vietnam, aboard cruisers, aircraft carriers, and - his childhood dream realized - aboard airships. He reached the rank of Senior Chief Petty Officer, and was crew chief of the last Naval Airship flight in Lakehurst on August 31, 1962. He is survived by his wife of 65 years, Helen Clara Brady, four children, eight grandchildren and three great-grandchildren. Ω



Frederick J. Kroll, 94, passed 23 January 2013. Frederick joined the Navy and received his Naval Aviator wings as a LTA pilot in Lakehurst, New Jersey. Frederick was deployed with ZP-14 from North Carolina to French Morocco in May of 1944. Later, he would earn a Master's Degree in Aeronautical Engineering from University of Colorado. Frederick is survived by his wife of 69 years, Ella Mae, and three children, five grandchildren, and five great-grandchildren. Ω



Robert Paul Slaff, 89, passed March 8, 2013. Bob joined the Navy in 1942 out of ROTC at University of Michigan. Flying airship patrols from Lakehurst, he deployed overseas with ZP-51 to Trinidad and the Guyanas, receiving commendations. Following the war Bob settled in Annapolis and established a marine business. He is survived by his wife Ester of 65 years, four children and several grandchildren. Ω



John H. Cobb passed Oct. 31, 2012. Ω

John H. Spangler passed March 13, 2013. Ω

Correction: **David Venn** was born on 30 MAR 40, meaning he passed at age 72. David played softball in the All-Navy Finals in 1959 and 1960 and left ZP-3 to attend the University of Mississippi on a scholarship awarded by NESEP (Navy Enlisted Scientific Education Program) in 1961.

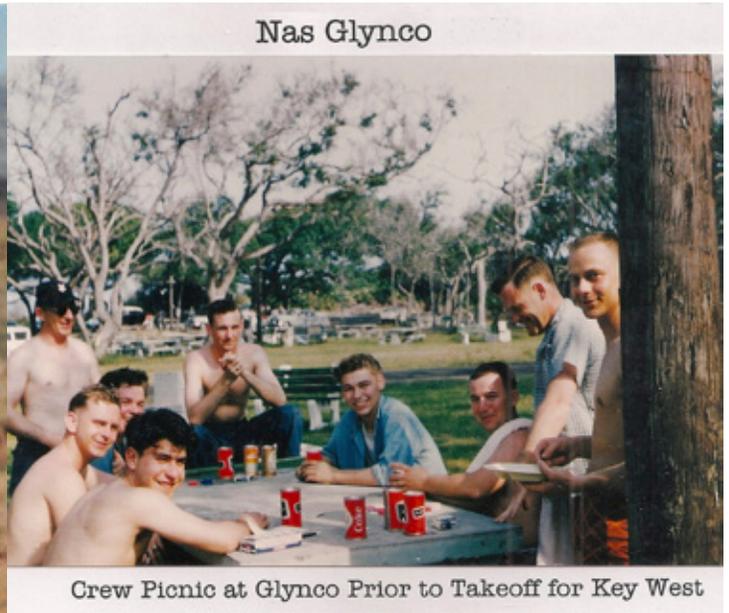
LIGHTER SIDE



This two-letter word in English has more meanings than any other two-letter word, and that word is 'UP.' It is listed in the dictionary as an [adv], [prep], [adj], [n] or [v]. It's easy to understand UP, meaning toward the sky or at the top of the list, but when we awaken in the morning, why do we wake UP? At a meeting, why does a topic come UP? Why do we speak UP, and why are the officers UP for election and why is it UP to the secretary to write UP a report? We call UP our friends, brighten UP a room, polish UP the silver, warm UP the leftovers and clean UP the kitchen. We lock UP the house and fix UP the old car. At other times, this little word has real special meaning. People stir UP trouble, line UP for tickets, work UP an appetite, and think UP excuses. To be dressed is one thing but to be dressed UP is special. And this UP is confusing: A drain must be opened UP because it is stopped UP. We open UP a store in the morning but we close it UP at night. We seem to be pretty mixed UP about UP! To be knowledgeable about the proper uses of UP, look UP the word UP in the dictionary. In a desk-sized dictionary, it takes UP almost 1/4 of the page and can add UP to about 30 definitions. If you are UP to it, you might try building UP a list of the many ways UP is used. It will take UP a lot of your time, but if you don't give UP, you may wind UP with a hundred or more. When it threatens to rain, we say it is clouding UP. When the sun comes out, we say it is clearing UP. When it rains, it soaks UP the earth. When it does not rain for awhile, things dry UP. One could go on and on, but I'll wrap it UP, for now . . . my time is UP! Oh . . . one more thing: What is the first thing you do in the morning and the last thing you do at night?

U

P Did that one crack you UP? ☺



Nas Glynco

Crew Picnic at Glynco Prior to Takeoff for Key West

Member and ZP-14 vet Fred Kroll passed this quarter (see “Black Blimp”) but he is seen above left in his “Africa Squadron” days testing out a captured German weapon. Above right is obviously happy blimp crew enjoying a cookout at Georgia’s master blimp training base, provided by former NAA Secretary. Margaret Hinrichsen via NAA Past President Herm Spahr.

Joint NAA – LTAS effort will replace the aging signs at the USS *Shenandoah* wreck sites in Ohio.



Our new signs will replace the brochures currently occupying the 3 sign frames.



Eric Brothers of the LTAS, Akron, Ohio, and Naval Airship Association, photographs and measures the well weathered large marker sign at Shenandoah Wreckage Site Number 3 where the nose section of the Navy rigid airship came to rest. The LTAS and Naval Airship Association will jointly work to freshen up the appearance of the large signs at Wreckage Site 2 and 3.



Eric Brothers checks the proof/prototype of an improved version for the outdoor sign frames at Shenandoah Wreckage Site Number 1 in Nobel County, Ohio.



At the Ava, Ohio, Shenandoah Memorial Site, built as a WPA project in the 1930s, Eric Brothers and NAA President Fred Morin, display one of the three different Wreckage Site signs that will be installed this summer in Noble County, Ohio.



What if... the attempted Japanese coup in 1929 had succeeded and America had found itself at war with Japan before the USS *Akron* was lost? Would we have built the ZRCV carrying BT-1s (above)? See page 7 inside!