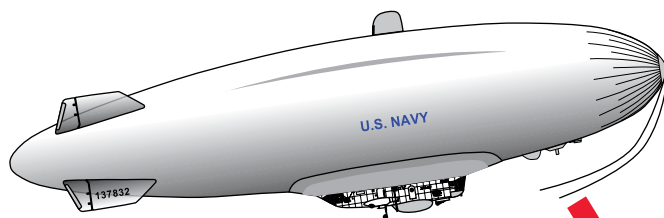
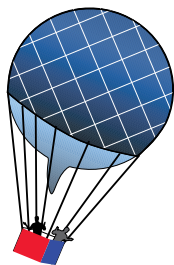
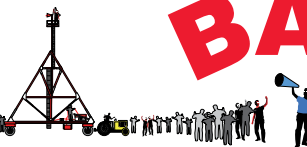


THE

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BALLOON



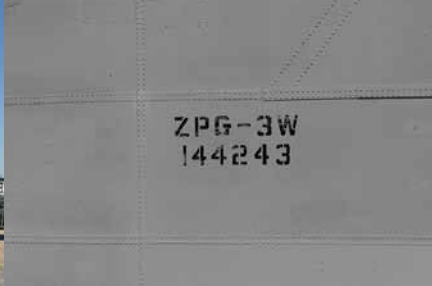
The Official Newsletter of THE NAVAL AIRSHIP ASSOCIATION, INC.

No. 94

Summer 2012



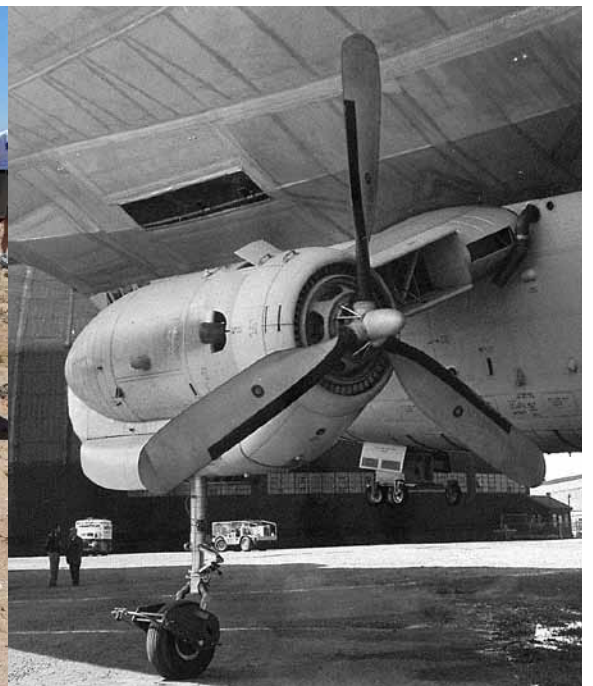
**M1400 - Largest Airship in
50 Years**



The little toy dog is covered with dust,
 But sturdy and stanch he stands;
 And the little toy soldier is red with rust,
 And his musket moulds in his hands.
 Time was when the little toy dog was new,
 And the soldier was passing fair;
 And that was the time when our Little Boy Blue
 Kissed them and put them there.
 "Now, don't you go till I come," he said,
 "And don't you make any noise!"
 So, toddling off to his trundle-bed,
 He dreamt of the pretty toys;
 And, as he was dreaming, an angel song
 Awakened our Little Boy Blue---

Oh! the years are many, the years are long,
 But the little toy friends are true!
 Ay, faithful to Little Boy Blue they stand,
 Each in the same old place---
 Awaiting the touch of a little hand,
 The smile of a little face;
 And they wonder, as waiting the long years through
 In the dust of that little chair,
 What has become of our Little Boy Blue,
 Since he kissed them and put them there.

Little Boy Blue
 by Eugene Field (1850-1895)



THE NOON BALLOON

Official Publication of the Naval Airship Association, Inc.

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*"Strive not to be a success,
but rather to be of value."
Albert Einstein*



On the cover: Blue Devil II, the largest airship in more than 50 years, is scheduled to roll out during this issue's reporting period.

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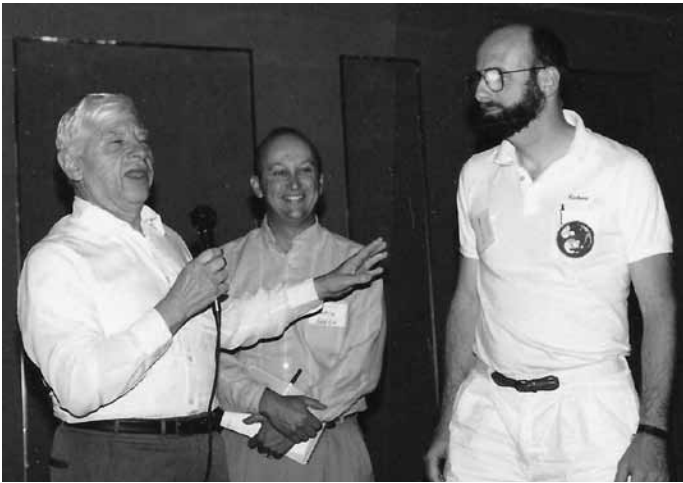
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All material contained in this newsletter represents the views of its authors and does not necessarily represent the official position of the Naval Airship Association, Inc., nor its officers or members.

EDITORIAL

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



J. Gordon Vaeth (above, left) addresses the NAA Reunion '91 at Pensacola on the occasion of showing Chris (center) Grech's video of his USS *Macon* site exploration as well as (rt) Ed.'s early effort, "The Flying A/C Carriers." Twenty years after this photo was taken, Gordon has left us.

Gordon's chronicling of LTA history is without equal in both width and depth, never missing an opportunity to observe and report about LTA people and their times. Further, concerning WWII, as the dust jacket of his 1991 book *BLIMPS & U-BOATS* reads, "Vaeth created many of the documents – the operational summaries, intelligence bulletins, and regular newsletters – that serve as the key primary sources for WWII blimp operations." Sent to Europe by VADM Rosendahl after the war, Gordon accessed British decrypts of U-boat messages and found many blimp sightings therein – including several attacks. Presumably turned over to the Admiral upon his return, Rosendahl's WWII history went unpublished and Gordon's list did not see print until Mill's passing, in TNB 33. Those lists and Members' testimonials let me to challenge what had, by the 90s, come to be ridicule at the very suggestion blimps might have damaged or sunk U-boats. Gordon reacted to my *NAVAL HISTORY* cover story in TNB #51, and I responded in #52. From that point forward Gordon not only became more open to the idea that long-classified records would reveal interesting new information, we became close friends and allies. He lived it, recorded it, chronicled the LTA slice of aerospace history – and Gordon Vaeth's like will never be seen again.

When our team was scouring the wilds of Texas for small parts of the lost shuttle *Columbia*, I suggested to

NASA leadership they use an airship. AMS offered *Santos-Dumont* at cost and shortly the local papers announced a blimp was coming. (FUJI then volunteered their 600 for free, even supplying fancy gyro-stabilized binoculars.) Days later someone in NASA canceled in favor of helicopters, one of which later crashed with fatalities. Glad am I that NASA Ames has a different attitude with their local Zeppelin and employed *Eureka* for a detailed overland search (see page 20).

For me it also seems quite obvious that submarines and airships are paternal twins, each adapted to operate in their respective mediums. One unique aspect of the Navy experience missed by most historians – and certainly unutilized by the Navy itself – are those few who served



in both submarines and airships. SS and rigid-qualified was CAPT Don Mackey, once CO of NAS Moffett Field as well. We knew member CAPT Al Cope (seen above as CO ZP-21) wearing both the wings of a non-rigid pilot and the dolphins of a sub-mariner. Luckily, this issue we are blessed with the memoir of CDR **William Burlin**, who went into subs after the Academy and then brought that experience to the LTA world. How our Navy – indeed, the art of Naval war – would have been different if, back when both submarines and airships were in their teething early years, it had been decided to devote equal measures of resources to their mutual development.

This past Reunion at Tucson was an unusual treat we certainly can't do justice to in our covers and center-spread photo layouts. Reunion '10 with its Zeppelin flight was memorable, but there really never has been anything quite like being able to visit the last Navy airship along with former crew members. Add to that the outstanding attention to detail by Ross and Ileana Wood in setting up the hotel, museum and boneyard visits, our world-famous keynote speaker, and you have a gathering not soon forgotten. Hope you can make the next one!

-R. G. Van Treuren

View From The Top: PRESIDENT'S MESSAGE

I would like to thank the nominating committee and voting membership for your confidence in my abilities to lead this fine group. The NAA has come a long way from its earliest meetings and I am proud, and humbled, to join such a distinguished list of presidents. I will do my best to continue their legacy.

The recent reunion in Tucson was fantastic and the member turnout solid. It was nice to meet so many members and the tours at Davis-Monthan and the Pima Air Museum were exciting. The work done to prepare the ZPG-3W for our visit was greatly appreciated. Allowing us to have access to walk through it, for some 50 years since they were last inside, was a dream come true. Coming from the Northeast part of the country the sights and sounds of military aircraft are few and far between. In a conversation with Mark Seitz of AMARG, we decided the "Boneyard" and active duty Air Force base were like Disneyland to aviation enthusiasts and historians. Thanks to past president Ross Wood for his planning and execution of the details of the reunion. Thanks to Donna Forand for manning Small Stores and contributing to the record setting sales of our NAA merchandise. She does a tremendous job in collecting the money and filling and shipping orders all year long.

I will miss writing the Membership Committee Update articles for The Noon Balloon. I hope my successor as chair of the Membership Committee enjoys it as much as I did. Writing the President's Message will be more of a challenge and a greater responsibility. Yet attracting new members will still be the major goal, as it should be for every NAA member. Our future and continued growth depends on our ability to enroll new members, and to collect, preserve and share our knowledge and experiences of Naval LTA.

The NAA is entering a new and exciting phase. As our membership ages and we try to attract new members more effort will be spent on capturing those histories our members have and making them available to people whose only knowledge of airships is the Goodyear blimp or the Airship Ventures zeppelin. The Naval airship heritage dates back to 1915 and those personal histories are mostly lost, some captured in grainy photos, but many were never recorded. The WWII and Cold War years must be recorded and preserved for history. A major effort will be undertaken to collect those stories and make them available to airship and aviation enthusiasts, researchers and potential members

through our website. Yet, we must not ignore the future. There has been a tremendous, renewed interest in LTA from a number of different commercial ventures as well as several branches of the military. The NAA can provide a valuable service to these ventures; where else is so much airship knowledge and experience to be found? While our members probably can't fly one of the new airships, their knowledge and experiences can be a valuable benefit to those who will fly them. Our goal should be to make the Naval Airship Association the source for Navy LTA.

There are a number of museums and groups dedicated to local Navy LTA presence such as Richmond, Moffett, Tillamook, and Lakehurst to name a few. We need to encourage and support these groups as they help us in promoting US Navy airship history. We should share our collected relevant histories and experiences, we should loan photos and archival materials. They, in turn, can provide us with valuable information, photos and potential new members as well. There are also some international LTA organizations that could provide constructive partnerships. We do share a common bond and the results can be beneficial to all.

The bottom line is we must think out of the box to be able to grow and prosper. There is a huge market of individuals out there that are, or can be, interested in LTA. It's our job and goal to provide them a source of history and technological innovation in LTA. We have much to do and I will present my vision for the future at an upcoming executive council meeting. Items to be discussed will include planning for the next reunion, website improvements, committee assignments and recruiting, a collections policy for donated items, a review of the current by-laws, and the aforementioned vision for the next 5 years and beyond. Details will be published in a future The Noon Balloon. A few people at the Tucson Reunion mentioned to me that they had some ideas on membership recruiting and the overall operation of the NAA. Please do not hesitate to contact me by phone or email with any ideas and suggestions. I welcome any and all suggestions.

I look forward to a very active and productive term in office.

- Fred Morin, President

TREASURER'S STRONGBOX

After having a wonderful time at the Tucson Reunion, where the desert is in bloom, we need to settle down to our Florida weather. The "boneyard" is a fantastic place to visit with almost 4,000 planes from all different eras, including the bumblebee and guppy. Financially, we are doing great, thanks to all our members. We appreciate all you do with your donations, stories, etc. Have a happy and safe summer. Stay COOL!

WELCOME ABOARD – NEW MEMBERS

Joanna Norris - Spring Lake, MI
Tony White – Arlington, TX
Robert F. Buche – Sun City, AZ
Cynthia George – Jacksonville, FL
Carl Schweizer – Port Orange, FL

DONATIONS

Helen M. Horan
W.B. "Ruth" Barnes
Mary Wood
Robert W. Keene

Correction to be noted:
The final lines of last issue's DONATIONS
should have read:

Carolyn Cawley-Rodewald, in memory of
Dee Dee Cawley and Glenda Burke Hoke

Major Daniel C. "Boone" Gibson

- **Peter F. Brouwer** Secretary/Treasurer



New and returning NAA Officers (From left) VP **Anthony Atwood**, Pres. **Fred Morin** and Sec-Tres. **Peter Brouwer**.

PIGEON COTE

Rick Zitarosa noted Gordon Vaeth's passing, (See "Black Blimp") "Gordon was a friend and mentor to many of us who "came of age" as LTA enthusiasts in the "baby boomer" years. His book **GRAF ZEPPELIN: THE STORY OF AN AERIAL GLOBETROTTER** (Harper & Brothers, 1958) was one of the trailblazing LTA histories of the "modern" era. Gordon was a wonderful storyteller; his intimate portrayals of Dr. Hugo Eckener, Admirals T.G.W. "Tex" Settle, C.E. Rosendahl and George Henry Mills (who himself mentored Gordon and loved him like a son) gave excellent background into many of the HOW and WHY questions of the classic (and "modern") LTA era. It is ironically significant that just a week ago Chris Fenger and I met to tour the Museum at Lakehurst and when we sat over lunch that afternoon we spent a good half-hour discussing Gordon and his contributions to both LTA and our own lives as enthusiasts – historians - participants in our own right. Ever patient, kind and generous.... J. Gordon Vaeth transcended the 1930s-1940s "historical" period and became a significant force in the "re-birth" of LTA into the 21st Century. (I think I have saved just about every letter he sent me since 1973.... the latter ones pretty much like the early ones in that they are full of wisdom, insight, kindness and encouragement.) The world of LTA, past, present and future, has lost a strong and devoted voice. On a more personal note, many of us have lost a dear friend. Without Gordon, a great many of us who have been lucky to enjoy affiliation, enjoyment (and even an occasional "second career") with airships, might not have been quite so lucky. Ω

Past President **Herm Spahr** sent along clippings and information received from members. **Margaret Hinrichsen** had saved two 1950 reports from North Carolina papers covering CDR John Shannon's assuming command of ZP-1 and FAW-1 at Weeksville. Past President **John Fahey** had embarked on a new lecture tour on which he discusses his encounters with political leaders and celebrities. John offered some discussion on Anthony Atwood's dissertation on the K-74 vs. U-134 combat, saying it was difficult to recall exactly but "I remember two levers - one of [which] armed the depth charges and the other to release depth charges.... Jan Jan told me

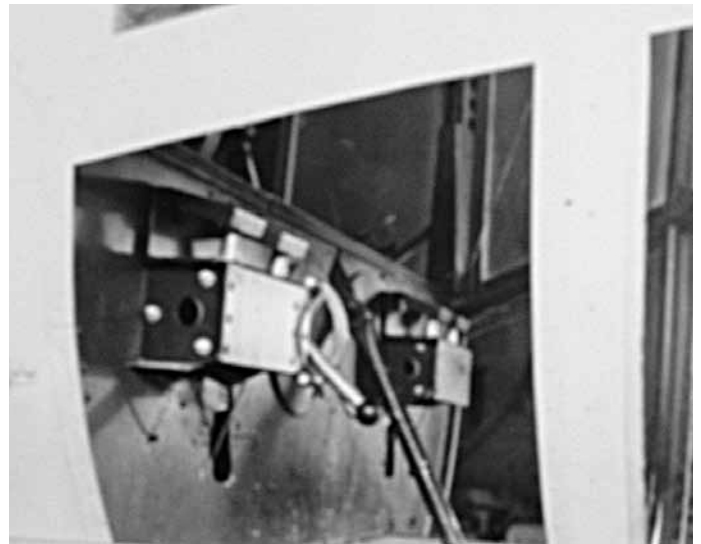
that Stessel failed to arm the two depth charges that were dropped... I have serious doubts that the U-134 was damaged by depth charges." (Since the damage report radioed by U-134 noted FIVE bombs, a slip tank may have also been pulled in the heat of battle.)

Several messages between John and other members discussed the K-74 vs. U-134 combat with emphasis on the bomb release mechanism. (Another ZP-21 crewman had suggested Stessel, a last-minute duty-exchange crewman added to K-74 that night, may have neglected to pull what he remembered as wooden safing plugs during preflight. As a result even if the levers were set to "arm" the bombs would not have gone off at their 25-ft settings.) In the illustration below, from Bill Aldrin's emergency instructions handout (below, preserved by his daughter **Joanna Norris**), one lever is shown to remind crewmen that disarming the charges might save their lives if the K-ship had to ditch. During the Scottsdale Reunion with Ed., Nelson Grills himself could not be sure that the bombardier (the only crewman lost after the airship settled into the water) had failed to drop the bombs, or dropped them without arming them. Aldrin's emergency bill illustrates the difficulty in the near head-stand necessary to verify the arming status, particularly difficult in the dark. The K-2 design, dating to 1935, first had only two depth bombs and, according to James Shock's book, the GFE given Goodyear to work them was an older Army airplane bomb mechanism dating to the 1920s. Two more stations were hastily added to K-4 and then all K's when America entered the war. Following the K-74 combat the outdated mechanism was updated, but it is not clear when the upgrade reached all the outlying squadrons.

J. ASS'T. RIGGER

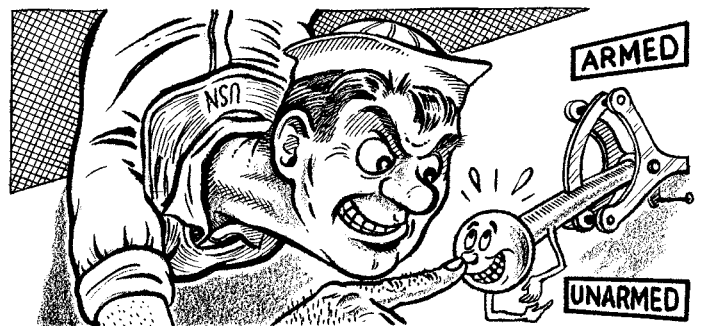
MAKE SURE BOMB RELEASE BARRELS ARE SET ON "UNARMED." STANDBY FOR ORDERS FROM THE COMMAND PILOT. TO RELEASE BOMBS.

Ed., Pub. and **Eric Brothers** located some tiny photos in the National Archives that show at least one version of that 1944 vintage improved bomb arm and drop mechanism. Regardless of what vintage handle was on K-14 when she went into the



water, the Navy's explanation as to what happened to her depth charges does not sit well with some members. **Ω**

Al Robbins discussed the navy's freshly decorated airship, "The MZ-3A is justifiably designated as a research asset and facility. We still have much to learn about improving low speed control and developing effective ground handling procedures. The MZ-3 has the unique advantage of being able to be compared against several virtually identical commercial A-170s. Because of the time and expense involved with fulfilling FAA requirements (submitting and obtaining approval for changes to aircraft and Flight Manuals, Maintenance Manuals, etc.) there is no incentive for an operator, or the American Blimp Company, to prosecute any sort



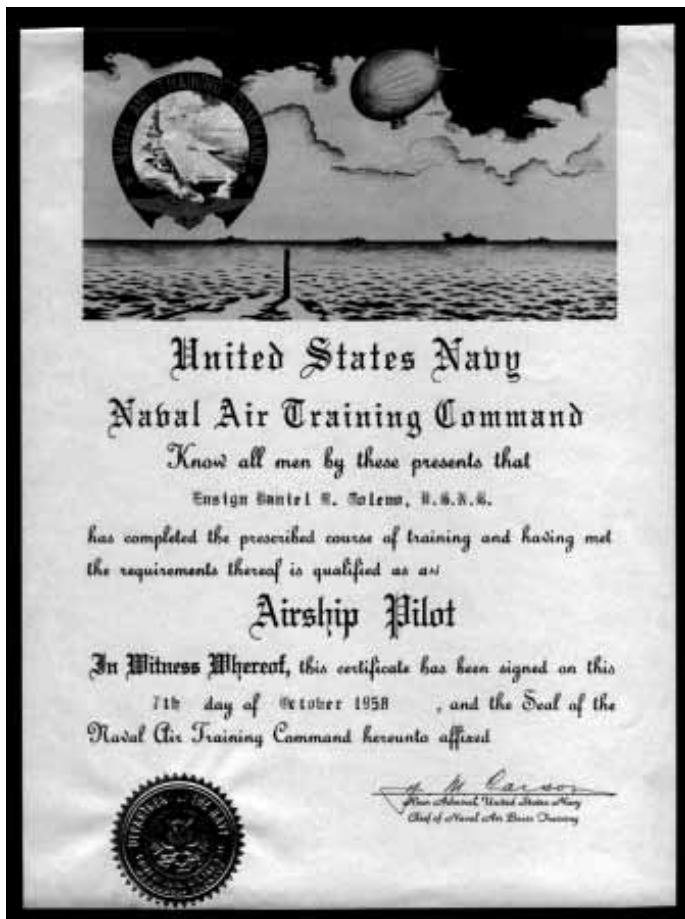
of product improvement program for the existing airships. In the meantime, the MZ-3 is the only low risk, low-noise-level platform that can provide our politicians a personal low-level view of a disaster zone, of a military exercise or a satellite launch.



...They've managed to sneak a COTS (Commercial Off The Shelf) airship into the inventory, and properly assigned it to the R&D community. It's a shame that it can't be relocated to Pax River, where the Test Pilots, NAVAIR, NRL and the Pentagon crowd could become familiar with it. It's wonderful to see an Airship in Navy markings again. The A-170 is larger than the old Navy's training ships, the L-ships; and smaller than the G-class utility ships. Despite the A-170s many shortcomings, it's an avionics dream machine. A most benign airborne platform with plenty of walk-around room, and the world's best heat exchanger located immediately above the passenger compartment. We need to remember that the world's only airship manufacturer, a fairly small part of a major defense contractor, was marketing to its last remaining, and extremely reluctant client. AIRPAC managed to divorce itself from LTA soon after World War II, it took AIRLANT 15 more years to put it in its grave. The wonder is that the small LTA community managed to survive so long, against the determined opposition of the rest of naval aviation. My experience, I used most of a caddy-box full of vacuum tubes supporting the APS-20E radar on each flight in a P2V-5 or our WV-2. Rarely lost a tube on our much longer blimp flights. Also, "In 1961, the East Coast ADIZ Commander, an Air Force General, formally offered to pay all Operational and Maintenance

costs to keep our AEW blimps flying for one more fiscal year. By that time, he hoped to have enough new RC-121s and trained flight crews to perform his assigned mission. OPNAV rejected the offer, "critical needs of the service". Many of our pilots were sent to Pensacola to become flight instructors, our NAO's to sea or to the WV-2 squadrons. If they'd kept the airships, we could have maintained the barrier patrols during the Cuban Missile Crisis from NAS Key West, rather than wearing out our Sixth Naval District's photo-reconnaissance squadrons the following year. It might have prevented or delayed some very expensive major programs (the SH-3 comes to mind) if they'd kept them, but we could have fielded an effective directional sonobuoy for fleet defense... LTA started its slippery slide into oblivion when BuPers eliminated enlisted pilots and LTA-only training. (The Navy still assigns Chiefs and Warrants to command Tug Boats). A squadron, with up to a hundred officers assigned, is an abomination in the eyes of a Selection board; it became extremely difficult to get a career oriented junior officer to choose LTA. CNAVRES has taken over most of the dull and dangerous war-time only programs. Port and range security both are underserved areas. Maybe CNAVRES can help keep the Navy involved with this unique technology. **Ω**

"Torp" Toleno remembered, "Ben Fish was my best friend and college roommate at Rutgers. He joined the Navy in 1955 and was commissioned through the AOC Program in Pensacola. He served in a support squadron in Jacksonville until 1959, then left active duty to work for Upjohn. He returned to active duty in 1960, went through CIC school at NAS Glynco, then joined ZW1 at Lakehurst, where we again were roommates. When ZW-1 decommissioned he was transferred to an Airborne Early Warning Squadron at North Island. After that tour he did three years of shore duty at NAS Fallon, Nevada. He was then sent to the ATDS school at Glynco and was assigned to an AEW Squadron at NAS Norfolk. After serving as XO and CO (one of the very first NFO's to be a squadron CO) he had a three-year tour of duty in Turkey. His final duty was as CO of Naval Station Philadelphia, from which he retired in 1983." **Ω**



Toleno kindly shared his pilot certificate from those days.

History chair **Al Robbins** answered a request for info from one Rudy Harris, "The wartime rating ARM, Aviation Radioman became an AL; the badge was the Radioman's three sparks with wings. I don't know how much later the AT (Aviation Electronics Technician) rating was established. I started AL/AT School at NATTC Memphis in 1954 striking for AL because they were the ones that flew. The AL rate was disestablished when we were about halfway through, and everyone became an ATAN. Three of us got orders to VP-16, a recently formed P2-V5 squadron; the other two were sent to the AirWing's code school and were flying as radiomen the next month. I was assigned to operate and maintain the new APS-20B radar. The item shown appears to be a handmade and poorly attached emblem. It would never have passed inspection, even if it had been official."



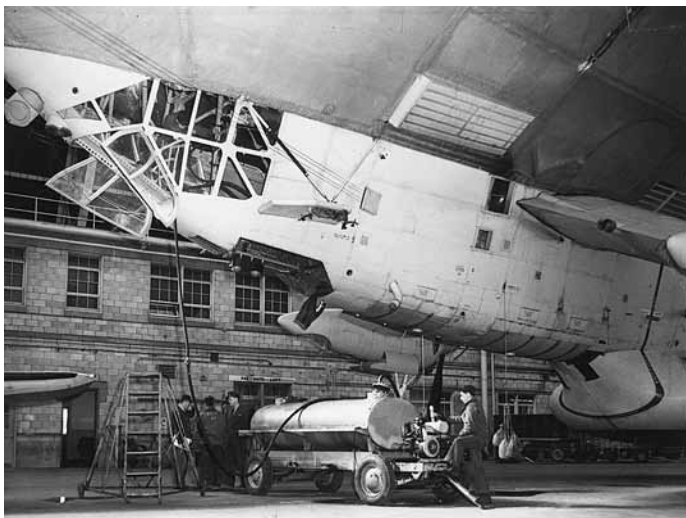
Ω

Daniel Sullivan (USNA '56) e-mailed **Ross Wood**, "The family Of Captain John Kane USN Retired (now deceased) has been recently notified that John's unique collection of information has been collated and organized for presentation at the Naval War College Library. Some of his friends here in St. Louis saw to it that his records were preserved. I had seen a lot of it. Just a Heads-Up to be sure your group knows about the John Kane Collection. Obviously they thought it was worth saving. My very good friend and Classmate Walter Jennings was lost aboard that fateful last flight." Ross answered, "...As I write this, I am looking at a photo, on the cover, of our Jan. 2004 Noon Balloon. It is a photo of the new NAA officers. **George Allen**, VP, **Norman Mayer**, Pres., **Margaret Hinrichsen**, Sec., Herb Biedebach, Immediate Past Pres. & John Kane, towering above everyone, Treasurer. George Allen & Norm Mayer are on my Exec. Council. And Margaret is still with us, in Arizona. While I did not know John well, everyone knew of John, if only because he collected our dues, each year. Regarding Walt Jennings, the last flight I made, at ZW-1, as aircraft commander, in the ZPG-3W, was with Lt. Joe Saniuk's crew, which included Walt Jennings. I was scheduled to leave the Squadron on June 30, 1960. I had been taken off the normal "barrier flight" rotation, but because Joe had taken two weeks leave, our C.O., Clem Williams, asked me to take Joe's crew on one last flight. I left the Squadron, and was at my parents place in Seal Beach, California when the terrible news came, on July 6, that a ZPG-3W had gone down with 18 dead and 3 survivors. Gone, were some of my best friends and squadron mates. Something I will never forget. " Ω

Don Morris sent along this reprint from ALL HANDS.



Blimp hovering over planes clustered about the flight deck.



NAA Pres. **Fred Morin** asked **Al Robbins** about this photo from the John Fanelli collection showing odd double dome in the ZPG-2's sonar "fish" area in the above photo. "I'd guess that this is probably one of the latest breadboard equipments. Under ideal conditions, even these primitive IR equipments could detect a wake. (No wind or waves, cool stable surface temperature, sub operating on a steady course, roughly at periscope depth.) Worked just often enough to keep the R&D dollars flowing for decades. Also detected whales swimming near the surface. When I was in VP-16 I honed our aircraft in on a "perfect" periscope return. Plotted course and speed and projected point of intercept from nearly 30 miles away. The APS-20 couldn't detect anything within two miles of the aircraft, so the dead-reckoning intercept had to be pretty accurate. My pilot called me up to the cockpit to see the periscope I'd been tracking... porpoises trekking on down the coast. **Ω**

Referencing James Shock's book, Al wrote, "Between the first flight of the ZPN-1 on 18 June 1951 and the final flight on 31 August 1962, Goodyear built and Navy lighter-than-air personnel flew 22 large pressure airships. Last week attendees at the Naval Airship Association Reunion got to see and clamber around what the remains of the only (nearly complete) large airship car in existence. Jim Shock's book provides the most complete information on these under appreciated ships, including a few anecdotes regarding some of them. Some errors slipped in (It was Lundi Moore and Claude Makin, for example.) A great deal is missing; no information regarding assignment or use on many of the ships after initial delivery to NAS Lakehurst; date of first and last flight; squadron assignment, envelope replacement, etc.

ZPG-2 126718 5/19/53 11/3/53 Deflated at SoWey 4/11/58
 ZPG-2 126719 1/4/54 "Snow Goose"
 ZPG-2 135445 4/1/54 Deflated at Key West 2/16/56
 ZPG-2 135446 7/6/54 Blown from Mast 2/21/61
 ZPG-2 135447 11/22/54 Trng film "Flight Ops LTA - Ground Support Equipment for Launching and Recovery"
 ZPG-2 135448 8/25/55 Flew into Hangar 1 on 5/14/59
 ZPG-2 141559 3/15/56 Flying Wind Tunnel - Final flight 8/31/62
 ZPG-2 141560 6/7/56
 ZPG-2 141561 10/1/56 SNOWBIRD, became Operation CLINKER"
 ZPG-2 141562 12/3/56 Deflated spray tower snow removal 2/16/58
 ZPG-2W 137832 Jan-55 5/26/55 Kited, tipped over mast, deflated envelope 12/21/55
 ZPG-2W 139918 12/21/55 Struck mast, destroyed envelope 11/14/57
 ZPG-2W 141334 4/30/56
 ZPG-2W 141335 8/8/56 Deflated while undocking 12/04/59
 ZPG-2W 141563 5/21/57 10/25/57 2W (M) APS-70
 ZPG-3W 144242 7/21/58 9/24/59 Deflated while undocking 2/13/60m repaired. Lost off Barnegat, at 1430, on 7/06/60.
 ZPG-3W 144243 9/6/58 6/19/59 Deflated while docking at SoWey, Mule overturned.
 ZPG-3W 146296 10/21/59 12/17/59
 ZPG-3W 146297 3/1/60 4/4/60 Only 3W returned to Flight Status after loss of 242. Last flight May 61.

Only a few of the reunion attendees had worked or flown on any of these airships. I was the radar technician on the *Snowbird*. TDY to Lakehurst for two months to work with the Honeywell engineers in installing the AN/APS-70 (XN-1) radar prior to delivery to the Naval Air Development Unit at NAS South Weymouth. We removed the entire radar, and all of the cameras and classified Project Lincoln systems when we were preparing the ship for the endurance flight in February 1957. The ship landed at NAS Key West on 15 March, and I was transferred from NADU to the NEASP program, and didn't return to LTA until Feb 1961, as the junior Ensign in lighter-than-air. The Honeywell (XN-1) radar lost the competition to GE; I assume the ZPG- 2W (M) had the GE prototype. Does anyone remember if the ship had radar installed when Goodyear delivered it to the Navy? What radar, if any, was installed when the *Snowbird* was outfitted for PROJECT CLINKER? According to Shock's book it made the last West Coast deployment; a five-day ferry flight in January 1961, via Laughlin AFB to Santa Ana, returning to NAS Lakehurst in March. Shock doesn't describe the return route, or identify the crew, or the operational program while at Santa Ana. Practically nothing in the book regarding the 2W operations, or many of the Nan-ships. Any info would be greatly appreciated. (We know more about the WWI Zeppelin program than we do of our last Hurrah). **Ω**

Rick Zitrosa replied to Al, “I have access to the envelope logs for most of these ships. The “242” never had a deflation accident to my knowledge (if she had, then they might have taken that crummy old stretched envelope off of her.) The “243” did have the deflation accident at South Weymouth; they sent a crew up there to put her back together with a spare cotton envelope and she was flown back to Lakehurst, where she became “hangar queen” for some months until deflated late 1960/early 1961. In total there were two spare cotton bags and one spare Dacron bag for the ZPG-3Ws. One COTTON envelope was retained in connection with the investigation into the loss of the “242” when they pulled it out of storage for air inflation test in Spring 1976 it was in such bad shape that they didn’t even bother to do a full inflation, they just cut it up on the spot.

(Below, NADU Officers, photo from John Yaney via Fred Morin.)

When “559” was retained for “Flying Wind Tunnel” service after the shutdown of the Fleet LTA program they swapped a Dacron envelope to her car from another ZPG-2 that was being retired. “561” ended her career with envelope “GD-5” (Elgin Shaw/General Development Corp, later absorbed into ILC Dover) Am pretty sure she retained her APS-20 radar right through “Project Clinker” as well as her towed sonar gear. (Her envelope survived into the 1980s when it was sacrificed in the Piasecki Heli-Stat fiasco.)

Interesting from the envelope logs is that O&R was still doing repair work on several ships even after flying ceased and the ships were waiting to be deflated into the summer of 1961. They made great paint tarps and many area chicken coops and outbuilds had their roofs covered with “Ocean County Tarpaper” (discarded envelope material). **Ω**



Top row, left to right: Dunton, Irons, Mills, Moore, Monroe, Hosmer, Hibbert, Stephenson, Bowser, Cabral, Chandler, Hugo and Hart.

Bottom row, left to right: Laque, Gustafson, Harbour, Champlin, Wood (CO), Hoel (XO), Coonan, Curry, Martin, Freeman and Fitzpatrick.

Others not shown: Groenert, Babb, Acton, Robinson, Lohman, Wyman, Chrupcala, Rutledge, Eadie, Hollingshead, Horner, Curley and Newell.

MAY WE NEVER FORGET



On the morning of 6 July 1960 the racing yacht VAT69 and its six-man crew participating in the Newport, Rhode Island to Bermuda, sailing race was reported overdue and missing. Combat Aircrew 104 of Airship Airborne Early Warning Squadron One (ZW-1) based at Lakehurst, New Jersey, were given orders to participate in the search to locate the missing yacht and rescue the crew. ZW-1 flew the airship designated ZPG-3W built by the Goodyear Aircraft Corporation. It was massive in size, measuring over 403 feet in length with a height of 118 feet and carrying 1,500,000 cubic feet of helium. The gondola was designed to accommodate not only state-of-the-art electronics, radar, and communications systems these airborne leviathans were manned by 21 Naval Aviators and highly skilled aviation technicians. 1960 was the height of the Cold War years ZW-1 and its ZPGs played a vital role in defending the nation. The men of ZW-1 were specifically trained to accomplish an essential mission. Their orders were to detect enemy aircraft and submarines by electronic measures and provide the Atlantic Fleet and shore facilities with all-weather early warning services. To engage in a search mission of this type was a testament to the skill and adaptability of the aircrew and personnel of ZW-1. The weather on this particular morning was typical for early July. The temperature was a balmy 68 degrees, the winds were west at 5 mph and the barometer was at 30.08, a perfect day for flying. Aircrew 104 received their orders and boarded U.S. Navy Airship *Reliance* BuNo. 144242. *Reliance* under the command of Lt. J.J. Saniuk lifted effortlessly off the runway at approximately 07:30 6 July 1960. This was to be the

last flight of *Reliance* and her crew. Nineteen year old Frank Mikuletzky, first mate on the fishing boat Doris May III was cutting bait for bluefish in the sea area known as Barnegat Ridge around 2 pm when the fishing boat's skipper suddenly opened throttle and proceeded further out to sea. "An airship is down!" proclaimed captain Charlie Eble. As the Doris May III and other fishing boats arrived at the crash site the *Reliance* could be seen in the water nose down with the aft portion of the gondola above water. Mikuletzky heard survivors in the water yelling for help for a man trapped by the envelope fabric. Frank Mikuletzky grabbed a bait knife and heroically dove into the water. "I dove down to see what was going on. There was a little bit of bag on the trapped crewman's feet, but I don't know that was what it was, if he was actually being held by it. I went and cut away what I could. It happened so quick, whether I cut him or pulled him out, I don't know." That airman was ACW2 Edwin Turner Jr. who later died. The rescue efforts for the *Reliance* and crew were massive and intense. In the end there were three survivors, Antonio Contreras, Donald Saumier, and Joseph Culligan. All three would later testify in a 1968 federal case about the flight. This article is not written to discuss the still unanswered questions about that day. The article is offered as a way of never forgetting those men who lost their lives on a mission of mercy.

The Combat Air Crew 104 Roll of Honor:

THOMPSON, S.B.	AD2	USN
FURNEY, F.A.	AMS2	USN
COUTU, L.J.	GM1/A2	USN
ROSLEY, F.J.	AT1	USN
TURNER, E.B.	ACW2	USN
KUESEL, R.C.	ACW3	USN
BLALOCK, F.E.	AD1	USN
GARRISON, B.O.	AT2	USN
SHABEL, J.E.	ATN3	USN
GODBOLD, H.V.	ACWAN	USN
SANIUK, J.J.	LT	USN
CAREY, W.J.	LT	USNR
JENNINGS, W.E.	LT	USN
CLAPPER, R.H.	LT	USNR
HALL, R.V.	LTJG	USNR
LEONARD, R.E.	LTJG	USNR
MONTGOMERY, O.V.	LT	USNR
PIPES, R.H.	ENS	USNR

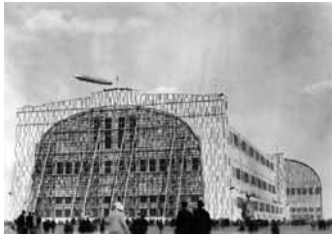
May these men never be forgotten.

Credits – Dan Sullivan, Ross Wood President Naval Airship Association, United States Court of Appeals 2nd Circuit dockets 31770-31772, AP news article dated 7 July 1960.

SHORE ESTABLISHMENTS

Lakehurst

It only took 91 years, but the most-often-used door on Hangar #1 at Joint Base McGuire-Dix-Lakehurst has been converted from “Climb Up, Throw The Frankenstein Switches, Step On The Dead Man Pedal And Grab The Control Handle” to “Stand On The Ground, Click Remote Control.” They’re doing the one door only. While Purists (myself included) might carp at the Door Control House now sporting a Red/Amber/Green signal board instead of a human being inside, it is undoubtedly safer than sending a man up the ladder each time, especially in Slick/Slippery weather. In addition to having approximately 1/4 of its 807x263-foot interior space currently available for LTA use on an “as needed” basis, the Hangar retains its 400x40-foot aircraft carrier “training simulator” (built 1967) as well as one full side devoted to “high rack” storage space for Air Force inventory.



Rick Zitarosa

Richmond



March 13, 2012, the Miami historic preservation project restoring the LTA NAS Richmond Administration Building held an event unveiling a monument to the *USS Biscayne*, a Navy command and control ship that fought in World War II. The monument was built by veterans of the *USS Biscayne* and erected on the grounds in front of the historic LTA building that is being converted into a military museum. The *USS Biscayne* fought at Sicily, Anzio, Salerno, and the Invasion of Southern France. Then she steamed around the world and fought at Iwo Jima and Okinawa. She was named for Biscayne Bay, where the city of Miami grew up. Veterans of ZP-21 or AIRSHIPWING THREE might recognize the headquarters building in the background. It is

where they got their pre-flight briefings, and where Commodore Mills and CDR Cope had their offices. A hundred veterans and interested citizens attended the free event and a good time was had by all. **Ω**

Moffett Field

During construction, the siding of Hangar One had been coated with Robertsons Protected Metal (RPM). RPM was a popular coating used in the 1930s, but it is known to contain PCBs and asbestos. In 1997, a toxic substance, polychlorinated biphenyl (PCBs), was detected in the settling basins on Moffett Federal Airfield. NASA studies identified Hangar One as the source of the PCBs. In May of 2003, Hangar One was closed.



Initially, the Navy announced that they would completely demolish Hangar One. After aggressive public pressure and support from several elected officials, the Navy agreed to remove the siding and allow the internal structure frame to remain. The target date for completing the removal of all siding is estimated to be sometime in August, with the Navy completing the project no later than September 25, 2012. NASA has made several attempts to identify money for residing Hangar One, but at this time, has not been able to find funding in their budget.

In December of 2011, a proposal from private industry appeared to offer a solution. A subsidiary of Google, H211 LLC, has offered \$33 million to finance the residing of Hangar One on the condition that they are allowed to operate their aircraft from Hangar One. The Google aircraft currently operate out of Hangar 211 at NASA Ames.

At the May 10, 2012, RAB meeting, a letter from NASA Administrator Charles Bolden addressed to Congresswoman Anna Eshoo was presented to the RAB. Congresswoman Eshoo has been arguing very aggressively in support of preserving Hangar One. NASA Administrator Bolden’s letter describes that “NASA has determined that these properties (Hangar One and Moffett Federal Airfield) no longer have a mission need and are therefore excess to the Agency.” Administrator Bolden further suggests that a process

under the GSA (General Services Administration) for Hangar One and Moffett Federal Airfield, would best serve the community.

Several RAB members voiced concerns with getting the GSA involved. One major concern involves an extended review process that the GSA will initiate, lasting perhaps several years. This delay in action may jeopardize the Google offer to finance the residing of Hangar One.

A subcommittee of the RAB will be meeting within May 2012 to draft a response to the NASA/GSA proposal. **Ω**



(Above) Moffett-based Airship Ventures Zeppelin *Eureka* was in process of changing sponsors, and at press time, there had been no i.d. announcement.

Bill Wissell reported that originally believing the siding would have to be cut off with blowtorches, probable structural damage was averted when it was found the panels were simply hung on hooks and spring clips. Offers to fund re-skinning of the Hangar One from legitimate clients with a need for the space have failed to overcome bureaucratic inertia. The opportunity for the simultaneous use of the massive scaffolding – said to run some \$17,000 per day – was thereby missed. **Ω**

Weeksville

Lighter Than Air By Earl Swift (excerpt)
When German U-boats began to hound Allied forces, the Navy took to the sky and constructed an air station in Weeksville that built blimps — soft, quiet fighters that helped turn the Battle of the Atlantic and lift the nation to victory... On the Pasquotank River's edge rises a monument to a mostly forgotten chapter of World War II: a hangar for United States Navy blimps that helped defeat Nazi Germany's infamous U-boats... That it was American Bridge Co. of Ambridge, Pennsylvania, that manufactured the hangar's components makes sense, for

the building's webwork of steel trusses evokes nothing so much as the guts and muscle of a titanic span... Up close, its size defies superlatives. "I'd seen pictures of it before I came here," says *[former NAA VP]* **Steve Chalker**, who's worked in the building for 16 years as an executive for TCOM, L.P., the Maryland-based company that owns the hangar today. TCOM [had] moved into the vast wooden hangar, where it built and serviced blimps and aerostats, or blimp-shaped balloons tethered to the ground — until August 3, 1995. That night, a welder's torch started a fire in one of the huge box beams framing the doors of the wooden hangar. By the time someone detected the blaze, the building was doomed... The story, however, has a happy ending, for the steel hangar not only survived, it returned to its intended use: A year after the fire, [furniture maker] IXL moved out, and TCOM came in... Today, Weeksville's Hangar One encloses a squadron of new craft: aerostats designed to float over distant battlefields, cameras slung from their bellies, tethered to the ground by braids of fiber-optic cables and 10,000-foot extension cords.



Ron Hurley sent along pictures of NAF Weeksville taken on 14 JAN 2012 from USCG Aux. Aircraft.

Their polyester-laminate skins are lighter than the rubberized cotton of old and impervious to attacks. A bullet doesn't bother a balloon in which the internal pressure is only two ounces per square inch... Some of TCOM's aerostats are small; a model used for base security in Afghanistan is 72 feet long. Others compare to the old Navy ships. A 243-foot aerostat that can lift four tons of payload to 10,000 feet lies deflated on the hangar floor. Floating nearby, the biggest blimp TCOM has built to date, a 351-foot whale that's used as a manned vehicle, bound for duty in the Middle East as an eye in the sky. [Soon is] the day when it will slide out of the steel hangar and lift slowly into the clouds from the Pasquotank's edge. **Ω**

COVER STORIES



(Illustration from AEROSPACE AMERICA)

M1400 (Blue Devil 2) Airship Fact Sheet

(Provided by MAV 6)

1. The M1400 is the host aircraft for the Blue Devil 2 (BD2) sensor-to-sensor cueing and on-board processing payload. It is the most automated, complex U.S. airship ever built, and the largest U.S. airship (370' long and 1,400,000 cubic feet) built in over 50 years. The BD2 Program was initiated to provide a persistent intelligence, surveillance, and reconnaissance (ISR) capability to our Warfighters—over multiple days airborne vice hours currently flown by manned and unmanned ISR aircraft. It has the potential to be more than an order of magnitude more cost-effective than current ISR air and spacecraft. Its capabilities and potential as an ISR, comms relay, surrogate satellite, and/or other critical airborne functions are unmatched. The Blue Devil 2 Airship won the 2011 Popular Science “Best of What’s New” award. It is currently under contract by the U.S. Air Force.

2. From independent assessments, the prime contractor, Mav6 LLC, and its employees have performed exceptionally well, and in spite of the many challenges designing, developing, and building a new aircraft, they have accomplished an extraordinary feat—Mav6 will have gone from a clean sheet concept to first flight of the world’s largest UAV in less than two years.

3. The BD2 program is currently about 12 percent over budget, and projected to take approximately 8 months more than originally estimated to first flight.

For a developmental aircraft this is an impressive accomplishment considering nominal ISR and UAV aircraft development programs take four to five years to go from design to first flight; are often years late; and significantly over cost. The BD2 program is approximately 90-95 percent complete, and first flight is projected to be NLT 31 August 2012 with an additional \$3M cost. To “deflate and crate” the M1400—essentially destroying it—will cost \$2.6M. Even if it takes to September or October 2012, as some in the Air Force believe it may take to get to first flight, it would cost less than \$5M to get to that point. That would allow a demonstration of the capabilities and viability of today’s airship technology after having spent \$143M+ on the entire program, and \$65M on the M1400 airship development.

4. The initial BD2 contract was awarded to Mav6 in October 2010 for \$137M from the Army Engineering Research & Development Center for a specific set of requirements. The program transitioned to the Air Force over the period from November 2010 to March 2011. At that time most of the contract dollars shifted to the Air Force, and an undefinitized contract for \$86.2M was awarded from the Big Safari Systems Group (BSSG) program office. There was a 60-day delay in funding during this transition. That transition caused slips to the program schedule due to the associated delay in issuing key subcontracts to vendors and teammates. During this transition period and through July 2011 there were numerous changes and additions made by the Air Force to the BD2 requirements that included more stringent FAA airship certification than in the original contract or budgeted.

5. After the 60-day Army to Air Force transition funding delay, the Air Force did not definitize the BD2 contract with Mav6 for 11 months. That created many difficulties for Mav6, a small business, due to incremental funding over that period. This caused BD2 programmatic disruptions, and on many occasions put Mav6 and their subcontractors at risk of a \$3-4M loss. Additionally, as a result of Air Force delays in contract definitization, Mav6 was unable to collect profit for a period of 12 months, and often performed work at risk of losing profit to prevent having to stop work on the program. This was a major hardship for a small company, but indicates the degree of their commitment to provide this game-changing capability to the Department of Defense (DOD).

6. There were numerous attempts to terminate the program by the Air Force during the contract transition period from the Army to the Air Force. It is also important to note that the Air Force has openly stated they have no requirement for an airship and have exhibited actions to stop the program since early Fall of 2011. This is difficult to understand given that the M1400 airship is a lower cost, and much more effective, ISR solution relative to the more expensive Life Cycle Costs (LCC) and limited integration of sensors of existing fixed-wing ISR aircraft. In terms of “ISR payload times endurance” the BD2 can be more than 40 times more effective than the fixed-wing UAVs now being used to wide acclaim. The BD2 program managed to survive through support from the Congress who understood the capability and value proposition potential of BD2.

7. Some delays in the program can be attributed to the research and development nature of building the world’s most complex UAV. It has progressed from a concept in October 2010 to 90-95 percent complete by May 2012. Specifically, the M1400 has experienced the following technical challenges: 1) production and testing of the four 40 foot by 30 foot tailfins. The tailfin recently (9 May 2012) passed a FAA test for 50 mph flight and was scheduled for testing to 80 mph on 30 May 2012; 2) development and integration of the vehicle and flight control systems (including 6 engines of three different types and 26 airship flight control valves) that are 7-8 times the complexity of a large fixed-wing UAV (software delivery for the flight control system is 31 May 2012); and 3) integration of the numerous electrical boxes and wiring harnesses associated with the vehicle and flight control systems for a 370-foot-long aircraft (these boxes and harnesses are to be completed by 15-30 June 2012).

8. In Jan 2012, Mav6 was accomplishing final development testing of the most robust onboard multi-intelligence payload architecture built for a UAV when the mission payload portion of the program was arbitrarily terminated by the Air Force. This leading-edge architecture designed by Mav6 included processing of six sensors (SIGINT, EO and IR) and the raw data and meta-data storage for these sensors in an innovative modular structure enabling rapid exchange of sensors to achieve ISR tailoring for changing situations. This combination of numbers of multi-intelligence sensors,

open integration architecture, and modularity of capability to achieve sensor-to-sensor tipping and cueing is a first for airborne ISR and a set of capabilities long sought after by the Department of Defense. It also included a SatCom data link, two direct downlink common data links, laser communications and Vortex/Rover that allowed access to the data from individual teams on the ground.

9. An independent U.S. government team spent 14-17 May 2012 viewing and evaluating all aspects of the M1400 airship in its location in North Carolina. The feedback after their evaluation of the airship was extremely positive citing exceptional architecture, excellent quality of workmanship and nothing insurmountable in getting to first flight and beyond.

10. On 23 May 2012 the Air Force issued a letter of direction to “deflate and crate” the M1400 by 30 Jun 2012. This is an arbitrary stop work date as approximately \$55 million remains in the FY12 DOD budget specified for BD2/M1400 development, demonstration, and deployment.

Given the approximately \$3-5 million required to get BD2 to first flight (two to three percent of total cost already spent and approximately five to nine percent of remaining BD2 FY12 available funds in FY12 budget), and its potential to demonstrate over an order of magnitude increase in cost-effectiveness delivering ISR relative to conventional aircraft and space systems, OSD should work with Congress to move the program from the Air Force to another sponsor along with the \$55M in the FY12 budget specified for BD2. These dollars will complete development and integration of the airship and a mission payload package enabling a full CONUS operational capabilities demonstration for one year.

Acting AT&L Secretary Frank Kendall recently stated that DoD needs to overcome the inertia of “old think,” and look at prototyping and experimentation to explore new technologies and capabilities that they enable. The M1400 airship equipped with any variety of payloads has the potential to do just that. Without a demonstration of its potential, deflating and destroying it, would be a significant lost opportunity for the Department of Defense, the American taxpayers, and our Warfighters. Ω

(Internet report compilation)

In a story so convoluted only Washington could serve it up, a pair of influential U.S. senators are upset about Air Force plans to cut the 370-foot-long Blue Devil Block 2 airship program and have informed the Defense Department that they believe it would be “a significant failure to stop work and not deploy” the platform to Afghanistan, reports Noah Shachtman at Wired’s “Danger Room” blog. Sens. Thad Cochran (R-Miss.) and Daniel Itonye (D-Hawaii) stated their position on the matter in a Feb. 14 letter to Deputy Defense Secretary Ashton Carter. The Air Force, as part of its budget cutting agenda, is expected to cut the program soon given that the airship requires an estimated \$188 million annually to operate.



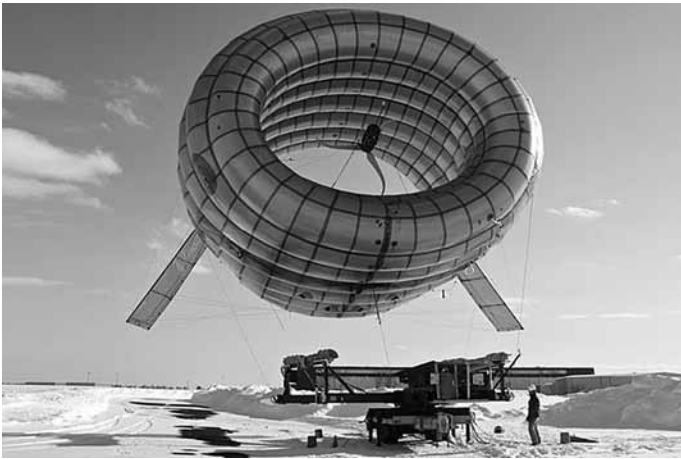
Northrop-Grumman LEMV concept

Meanwhile, the Army is set to flight test its own giant airship known as the Long Endurance Multi-Intelligence Vehicle, which it also plans to deploy to Afghanistan as a powerful eye in the sky for hunting down insurgents. LEMV has the vocal support of the Army, unlike the Air Force’s oh-so-reluctant approach to its massive airship. Both have experienced program delays. At this point, it’s anyone’s guess whether either will actually one day fly over Afghanistan, a story said. A \$211 million crash program was begun with the goal of sending the Blue Devil to Afghanistan before the end of 2011. The contract to lead the development was

given to Mav6. David Deptula, the general in charge of Air Force intelligence was so excited about the project, he became the company’s CEO right after his retirement from the military, noted “Danger Room.” But Deptula’s colleagues at the Air Force were never too hot on the program, preferring supersonic jets to slow-moving blimps. They asked for all sorts of changes: older cameras, different eavesdropping antennas. Most importantly, the Air Force insisted that the Federal Aviation Administration certify the blimp, since the thing had the option for a man in the cockpit, and since it was going to have to fly over the United States, at least in tests. That slowed the crash program. So did all kinds of other setbacks you’d expect from an ambitious, first-of-its-kind tool of war. The avionics arrived late. The tail fins came in extra heavy. Schedules started slipping. Costs grew. Fed up, the Air Force put a 90-day hold on the integration of its payload of spy gear. Things only got worse when the Air Force added up what it thought it would cost to operate the giant blimp in Afghanistan for a year: \$188 million, too rich for a Pentagon that’s supposed to be watching its pennies. The Air Force didn’t include a dime for such operations in its budgets for next year. That ticked off senators that are, for all intents and purposes, the Senate’s moneymen.... we have to admit that it’s hard to see why airships haven’t become a greater priority for as basic a tactic as back-tracking enemies to their hideouts -- even if lasers are more fun to ogle.

The U.S. Central Command continues to maintain a requirement for this capability, so maybe it would just be better to reject the Air Force’s change, and take the program back to its roots. “A number of decisions were made to deviate from the program’s execution plan and baseline capability which has resulted in program cost growth and schedule delays,” the senators wrote. “We strongly urge you to examine the program and if necessary, descope the program back to the original baseline requirements so that combat troops in Afghanistan benefit from this capability as soon as possible.” The word in defense circles is that the LEMV has had just as many technical setbacks as the Blue Devil. And wouldn’t that be a classic Washington end to the story: two football-sized war blimps, neither of them actually making it to war. Ω

SHORT LINES



Altaeros Demonstrates Aerostat Wind Turbine

Altaeros Energies, a wind energy company formed out of MIT, has been able to generate high-altitude power from a prototype of its floating wind turbine in a test in Maine. The 10 meter wide, helium-filled inflatable turbine, called the Airborne Wind Turbine (AWT), was sent up into the sky more than 100 meters above ground, where stronger winds can be found. The prototype was also used to lift the top-selling Southwest Skystream turbine, which was able to produce more than twice the power at high altitude than was generated at conventional tower height. Altaeros aims to harness the stronger winds found more than 300 meters in the air with the use of helium-filled inflatable devices that can be quickly installed or taken down. In the short term, Altaeros wants to provide an alternative to diesel generators, but in the long term it wants to scale up the technology to reduce costs in the offshore wind market. Ben Glass, the inventor of the AWT and Altaeros Chief Executive Officer, said: "For decades, wind turbines have required cranes and huge towers to lift a few hundred feet off the ground where winds can be slow and gusty. We are excited to demonstrate that modern inflatable materials can lift wind turbines into more powerful winds almost everywhere — with a platform that is cost competitive and easy to setup from a shipping container." Altaeros says that the AWT can ascend to altitudes where winds are more consistent and more than five times stronger than those reached by tower-mounted turbines. The lifting technology has been adapted from aerostats — blimp-like structures that lift heavy communications and radar equipment and can withstand hurricane-level winds.

Co-founder Adam Rein told Wired.co.uk that the biggest challenge for the company was to design a wind turbine that could meet the needs of all potential customers. He said: "A high altitude wind turbine could have many applications, including oil and gas sites, military bases, developing world villages, or disaster relief. Some users care most about low cost, while others care about easy transport and setup, quiet operations, or lower bird impact." Altaeros Energies is looking for partners to help commercialize the wind turbine. Ω

(For another concept see "Media Watch.")

BAE Systems Attempting To Lighten Power Storage Devices Flight International (3/1, Thisdell) reported, "BAE Systems is promising a revolution in battery-powered unmanned aircraft and other devices by building power storage directly into structural composite materials." BAE hopes the development will lighten the weight of batteries although the article is somewhat skeptical if it will be as "radical" as BAE claims. The article notes that "so far, BAE scientists have achieved energy densities of 25W/kg, just below a standard car battery."

Boeing Delivers First Production P-8A To The Navy

The Seattle Times (3/7, Gates) reports, "Boeing said Tuesday that it delivered the first production P-8A anti-submarine Poseidon aircraft to the US Navy in Seattle on Sunday." Now that it has been delivered, it will be used for training. Ω

China Releases Details About Submarine Hunting UAV Algorithms

Popular Science (3/1, Dillow) reports that China, in an uncharacteristic move, has said "Chinese navy researchers have plans for a new submarine hunting scheme that uses ship-launched UAVs running genetic algorithms." Such formulas "would take into account things like fuel economy, potential air and sea threats, and oceanographic geography to zero in on the most likely places for submarines to be moving at a given time." Ω

"Defcon Hill" blog reported, "The price of operating the Marine Corps' prized V-22 tiltrotor aircraft grew by \$46.1 billion since 2008, Bloomberg News reported." According to the report, "increased maintenance and support costs" are to blame." Ω



Southland blimp-maker opens facility in Montebello

Rep. Grace Napolitano (D-Norwalk), left, tours Worldwide Aeros Corp.'s new engineering facility in Montebello. (photo Irfan Khan / Los Angeles Times)

Report By W.J. Hennigan LA TIMES

Worldwide Aeros Corp., the Montebello-based developer and maker of blimps used for surveillance, advertising and transport, opened a 45,000-square-foot engineering facility to house work on a mammoth 66-ton airship.

The company is expanding in part to build the blimp-like aircraft, which would travel about 120 mph and could take off and land vertically. The idea is that the airship will ferry multi-ton cargo loads back and forth for the military. The new facility, dubbed Center of Innovation, was opened Tuesday in a ceremony attended by state politicians. It's located in Montebello, adjacent to Aeros' headquarters. Rep. Grace F. Napolitano (D-Norwalk), who helped secure \$15.5 million in federal funding for the massive airship, was in attendance and took a tour of the building. "Stronger U.S. manufacturing is a critical part of our economic recovery," Napolitano said in a statement. "I am encouraged to see this aerospace manufacturer expand and grow."

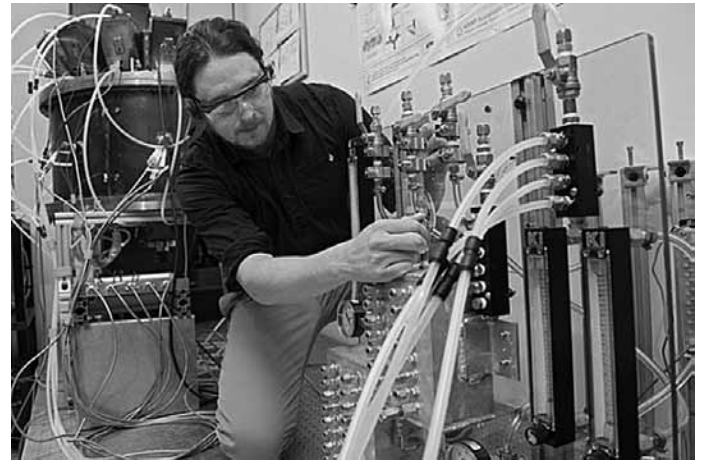
Aeros currently has 90 employees and said it is looking to hire more engineers and technicians with the new facility. "Our legacy is to create flying machines that no one else dreamed about," said Igor Pasternak, Aeros president and chief executive, in a statement. Pasternak, 47, started the company in 1987 in the Ukraine. He immigrated to U.S. in 1993 and continued to build the business in Southern California. Ω

Balloon explosions injure over 100 in Armenia

Hundreds of gas-filled balloons caught fire during a crowded political rally in Armenia's capital after, authorities believe, someone's cigarette touched just one of them. While 140 people were injured, many say it's a miracle no one was killed. The Arizona Daily Star elaborated, "The balloons were supposed to be filled with helium but may have instead been filled with methane, said Aghasi Yenokyan, director of the Center for Political and International Studies, a Yerevan-based think tank. The incident occurred in downtown Republic Square during events organized by the ruling Republican Party of Armenia as part of the parliamentary election campaign. Ω

BirdEye-650 UAV Doubles Endurance With Power Pack

Flight International (3/27, Egozi) reported, "Israel Aerospace Industries has doubled the endurance of its BirdEye-650 unmanned air system to 6h through the use of a fuel cell power pack." The BirdEye-650 recently was flown with the power pack "and the company predicts that longer missions will be possible using the new technology." Ω



Scientist Develops Self-Sustaining Solar Reactor That Produces Hydrogen Fuel by Mark Boyer

Hydrogen is a fuel that has seemingly limitless potential, but scientists have only been able to produce it from fossil fuels, like natural gas. [Sic] That is, until now. A doctoral student in mechanical engineering at the University of Delaware has designed a new type of reactor that produces hydrogen using nothing more than concentrated sunlight, zinc oxide, and water. And best of all, the zinc oxide used by the reactor can be reused, meaning that once the reactor is up and running, it would be self-sustaining. Ω

REUNION 2012



Check in with Secretary (&) Treasurer **Betty & Peter Brouwer**. Which were you, chicken or beef?



Business meeting was orderly as Nominating Committee Chairman **David Smith** (off camera rt) announced appointments and the assembly voted. Group then had to endure a presentation by Ed. on US Navy officers who flew aboard *Hindenburg*, the day before her accident's 75th anniversary (see "Media Watch" page 34).



Joanna & Fred Norris had made it possible for her Dad's (Bill Aldrin) artwork to add to the diversity of the Ready Room displays organized by **Ileana Wood**.



(Above, from left) Mark & Faith Seitz, Ross Wood, and Gene & Tina Pearson joined in for the banquet. Mark is Technical Manager of the 309th AMARG (Aerospace Maintenance & Regeneration Group) and Gene is a planner. The assembly thanked these good folks for making the 3W car inspection possible.

(Above) Tech Comm Chair **Norm Mayer** and wife **Margaret** celebrated their 66th wedding anniversary as the banquet assembly noted the happy occasion announced by **Herm Spahr**.

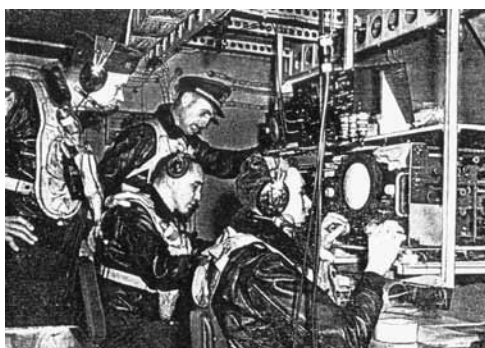
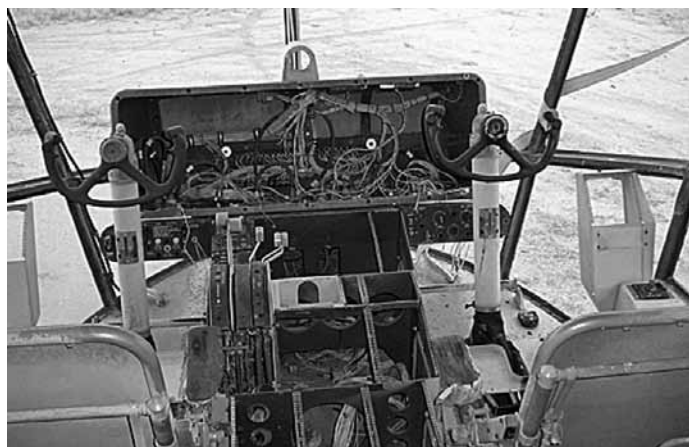


Keynote Speaker **Dr. Per Lindstrand** – here enjoying Pima Air Museum's colorful exhibits with wife Hong Sun – wowed the banquet with slides and talk of his adventures building a giant jet-stream "Rozier" helium-hot-air balloon and flying it nearly around the world with Sir Richard Branson.



New Exec-Comm member **Bill Wissel** follows wife **Jane** into the somewhat dropping-splattered interior while **Dr. Bob Hunter** and **Pete Brouwer** (foreground, hats) wait their turn. (Adjacent photos: now and then; additional photos by **Jeff Cook** and NARA photos from **Eric Brothers**, Ed. and Pub.)

It's been quite a while since the view out the clamshell window-doors went 1-2-3. Kind folks of the 309th provided steps to allow NAA members entry. Below: photos of the then-classified interior are rare but Ed. found a grainy image to compare with the radarmen's positions as seen today.



After all day in the desert some of the sailors thought they saw mermaids. But it was really Ileana Wood and Debbie Van Treuren (in Tillie hat) re-hydrating at the DoubleTree pool. (Reunion report continues on page 36.)





NASA researchers Alan Ehrgott, Mike Koop, and Derek Sears wait to board the zeppelin *Eureka* for a meteorite hunt on May 3, 2012. (NASA)

In what must be a meteorite-hunting first, a team of scientists took a zeppelin out Thursday (May 3) to search for fragments from a rare daytime fireball that exploded over California last month. The huge airship *Eureka* took off from McClellan Park airfield in Sacramento around 12:45 p.m. PDT (3:45 p.m. EDT; 1945 GMT) carrying six researchers from NASA and the Search for Extraterrestrial Intelligence (SETI) Institute. As the zeppelin cruised over the foothills of California's Sierra Nevada mountains at an altitude of about 1,000 feet (300 meters), the scientists scanned the ground for any signs of recent impact craters. Their aim: to find fragments of the minivan-size space rock that slammed into Earth's atmosphere on April 22.

Researchers are eager to get their hands on these meteorites, because they think the parent asteroid was a rare and primitive type called a carbonaceous chondrite. Such space rocks are typically packed full of organic molecules — carbon-based compounds that are the building blocks of life as we know it. **Ω**

Mascot Camilla Launched In Balloon To Study Space Storms BBC News (4/21) reported, "A group of students from Bishop, California, have sent a mascot rubber chicken to an altitude of 120,000 ft. as part of a project." In a balloon experiment to measure radiation from a solar storm, Camilla "flew twice - once on 3 March before the radiation storm and again on 10 March while the storm was in full swing - to give the students a basis for comparison." **Ω**

Helium stocks run low – and party balloons are to blame
By Robin McKie –The Observer (excerpts)

The world supply of helium, which is essential in research and medicine, is being squandered, say scientists. Oleg Kirichek, the leader of a research team at the Isis neutron beam facility at the UK's Rutherford Appleton Laboratory, had an unpleasant shock last week. One of his key experiments, designed to probe the structure of matter, had to be cancelled – because the facility had run out of helium. The gas, used to cool atoms to around -270C to reduce their vibrations and make them easier to study, is now becoming worryingly scarce, said Kirichek... we wasted £90,000 because we couldn't get any helium. Yet we put the stuff into party balloons and let them float off into the upper atmosphere, or we use it to make our voices go squeaky for a laugh. It is very, very stupid. It makes me really angry." Helium is important to science because, even at incredibly low temperatures, it does not solidify and so can be used, in liquid form, to run super-cool refrigerators, a vital resource for scientists working in many fields. Earth only has a limited supply of helium, which is released as a by-product of the petrochemical industry. Essentially, pockets of the gas are disturbed during gas and oil drilling and rise to the surface. "Helium was cheap and we learned to be wasteful with it," said Kirichek. "Now the stockpile is used up, prices are rising and we are realizing how stupid we have been." Professor Robert Richardson, of Cornell University, New York, who won the Nobel physics prize in 1996 for his research on helium, argues that a helium party balloon should cost £75, to reflect the true value of the gas used. "We are squandering an irreplaceable resource..." **Ω**

Peter Ward, Pres. of the UK's Airship Association, responds to the above article: "... a scientist who only understands half the facts and would never pay a premium for recycling and reliquefying the helium they use... The picture is not an MRI scanner but a GE CT scanner, no helium required here! The volume of helium used for toy balloons is approximately 4% of the total usage. All the Helium imported into the UK comes in 11,000 gallon liquid containers holding approximately 980,000 SCF (27700m³) of Helium. As I have stated in other communications, the world is not running out of Helium!" **Ω** (See related story "Media Watch")



Recollections of CDR
C. William Burlin, USN (Ret)

Graduating from the U.S. Naval Academy (USNA) in June 1943 with the wartime three-year class of 1944, I was lucky enough to be picked as one of the 100 volunteers in my class to be sent to Submarine School in New London, CT, for the September-December 1943 class. This followed a six-week June-July course for my class in Aircraft Familiarization Training at Naval Air Station, Jacksonville, FL, to give us a very good appreciation of the WWII capabilities of U.S. Navy and enemy aircraft in the war at sea that we were to enter shortly. Following graduation from Sub School I was sent to the Pacific Fleet and served in two diesel submarines, the USS S-23 (SS128) and the USS *Skate* (SS305). As one of a wolf pack of nine submarines, I was aboard *Skate* on the daring war patrol May-June 1945 into the Sea of Japan, entering northeastward submerged in daylight through the mine fields in Tsushima Strait, exiting eastward six weeks later at night on the surface through La Perouse Straits. This patrol demonstrated to the Japanese high command that the Sea of Japan, bordered on the west by China and Korea and on the east by the Japanese home islands, was no longer the Emperor's Private Lake. Importing rice and iron ore over it by freighter from Manchuria was no longer a sure bet. *Skate* accounted for an I-121-class Jap submarine (I-122), and five freighters/tankers out of

the total 50,000 tons sunk or damaged by the nine U.S. Navy submarines. One of the nine, USS *Bonefish*, was sunk in June by Jap ASW forces in Toyama Wan (Bay), adjacent to *Skate's* patrol area. The Jap's last lifeline had been cut. The two atomic weapons dropped in August 1945 on Hiroshima and Nagasaki convinced the Emperor that further war operations by Japanese forces were of no use, and he made the decision to surrender, overruling the die-hard Jap military leaders. In August 1945, *Skate* was enroute to another war patrol into the Sea of Japan when the war ended. With end of hostilities, *Skate* returned to the U.S. for peacetime operations, then subsequently sailed to Bikini to become one of a large collection of naval targets for the testing of two atomic weapons in July 1946, the first an air burst, the second an underwater burst. *Skate* survived both tests, even getting underway on her own power in Bikini Lagoon shortly after the second burst. (I am in the long term process of writing a book on *Skate's* fine career.) Federal funds for the "new" peacetime Navy became very scarce, with only enough fuel to operate the submarine one day a month, not sufficient to keep the crew of such a complicated vessel highly trained. It appeared that submarines would play a minor role in the Navy's future, eclipsed by the large fleet aircraft carriers which had proved so effective in the Pacific war. An ALNAV (All Navy message) in February 1946 asked for volunteers for lighter-than-air (LTA) pilot training, and I submitted my application. Not long after, my orders to Lakehurst Naval Air Station (NAS) came through. I left *Skate* at Pearl Harbor in March 1946 as it was being prepared for the Bikini tests, and reported to Lakehurst in April, to join the first post-war LTA class. Five of my USNA classmates had gone to LTA training soon after our June 1943 graduation to use their USNA-acquired navigation skills for the upcoming airship trans-Atlantic flights to north Africa. The airship's magnetic anomaly detection (MAD) equipment would be used to search for submerged German U-boats passing to and from the Mediterranean through the narrow Straits of Gibraltar. The quickest way to get the airships to North African bases from the U.S. was to fly them across the Atlantic Ocean. It was a hazardous undertaking not previously attempted, with limited means of navigation since the position of the airship car underneath the large envelope limited the

navigator's use of sextants/bubble octants for star sights overhead. Also, the only weather reports relied mainly on a few observations radioed from transiting surface ships. But, after the first K-ships made it across to the Azores, then to Morocco, those following had some experience to go on. As the airship numbers in Morocco increased, they became an effective force in that area. Two of those USNA classmates, LTA pilots, were instructors to the April 1946 LTA pilot training class, LT Ben Levitt and LT John Kane. Also in the class was another USNA classmate LT William Stanard, as well as another WWII submariner, LT Audley Holmes. There were some 30-plus in the class and they came from diverse sources, including one, LTJG DeLaur, a technical officer, who was sent by the Bureau of Aeronautics (BUAER) for the nine-month course, and, to my knowledge, immediately returned to BUAER after graduating, without going into a ZP squadron. My LTA class trained in G-Ships and free balloons for the most part. It was interesting to me as a submariner to find that airships had two air-containing ballonets, one forward, one aft of the airship car inside the envelope, used to keep the pressure of the helium lifting gas up and the bag inflated, but also to provide trim for flight by shifting air between them. Submarines used sea water to shift forward and aft between tanks for trim purposes also. The free-balloon syllabus included five flights, the last one of which was an overnighter. I recall lifting off from Lakehurst on a chilly November evening with an easterly wind, four students and an LTA pilot instructor. Daylight quickly disappeared, the cold set in, and we had only our sheepskin jackets, pants and fleece-lined boots to keep us warm. Fortunately, there was no wind---we were moving with the wind! As we passed westward through the commercial aircraft lanes near Philadelphia, we shined our 5-cell flashlight upward onto the bag to illuminate it so any nearby airplanes could see us (we might have looked like a UFO to an observer on the ground). For navigation, we tried to recognize lights, roads and traffic below to plot our track over the ground, but without much success. It was a long, very cold night, shivering and with little sleep. As dawn broke, we could see we were over rough, rolling terrain that was pockmarked with small "man-sized" holes. Next, we saw heads popping out of the holes, then men climbing out as they saw our balloon approaching. We were over western



Pennsylvania's individually-owned coal fields, and it was time to land. Our shouts to the men below got them to team up and catch our drag rope, then ease us down for a bumpy landing in the morning breeze as we ripped (deflated) the envelope. They were welcoming and friendly, having never before seen a free balloon. Our instructor organized us with some of the miners as helpers to stretch the bag out on the ground and fold it up for shipment with the basket by Railway Express from the nearby town back to Lakehurst. He had papers from the NEL Supply Officer authorizing costs of the shipment and our transportation by rail back through Philadelphia. We must have been a sight in our rumpled flight duds to other passengers on the train. Upon graduation in December 1946, I was ordered to Airship Squadron TWO (ZP-2), right there at Lakehurst, in Hangars 5 and 6. At that time, there were two squadrons, ZP-2 based in Lakehurst and ZP-1 based at NAS Weeksville, N.C., ZP-2 had a sizable detachment based at NAS Key West, (Boca Chica) FL, while ZP-1 had a detachment at NAS Glynco (Brunswick) GA. ZP-2's Key West detachment worked with the Navy submarine squadron based there on anti-submarine warfare (ASW) projects, and would later become

Airship Development Squadron 11 (ZX-11). CDR Bruce Bretland was C.O. of ZP-2 when I reported in, and LCDR Dick Hill was his X.O. LT R. H. "Ducky" Ward, one of the few LTA aircrew remaining who had served in rigid airships, was Maintenance Officer. Others included LCDR "Dinky" Hosmer, LT Harris F. "Gus" Gustafson, LT John Jan (who was co-pilot on K-74 when it chanced on the German sub U-134 in the Florida Straits during WW II), and LTJG C. "Cece" Manship who was in Maintenance. Bruce assigned me to be Ordnance Officer in the Squadron. Airship ordnance was limited to depth charges and machine guns, while the airship itself was quite vulnerable to gunfire from a surfaced submarine in an ASW encounter, as demonstrated by the K-74's clash with the U-boat. I put on my thinking cap to see what might give the airship a "stand-off" capability. In late 1944, CDR Gene Fluckey, the very inventive skipper of the submarine USS *Barb*, had come up with a rocket launcher designed to fire the readily available 5" High Velocity Aircraft Rockets (HVAR) from the submarine's foredeck while surfaced at night. Gene used it quite effectively during a war patrol off the east coast of Hokkaido to demolish a Jap shipyard and 50 large sampans in various stages of construction. Gene, incidentally, was awarded the Congressional Medal of Honor and four Navy Crosses for his daring exploits during five war patrols as C.O. of *Barb*. He landed a half dozen volunteer crewmen one night on Hokkaido to successfully blow up a passing train, which was the only U.S. "invasion" of Japanese home islands during the War. The HVAR seemed a good "stand-off" weapon for airships, so I designed a "trapeze" arrangement hinged at the midships of the airship car. Retractable to be accessible at the back end of the car for loading HVARs into a set of launcher tubes, it then dropped down vertically below the car to fire the rockets electrically, with their rocket flame safely removed from the car and the envelope. The design went up the chain of command to BuOrd (Bureau of Ordnance), where it seemed to meet with approval. However, funds were lacking for any early development of the device, and no action was taken. There was an established military practice area in the Atlantic Ocean off the New Jersey coast which could be used for various types of military training when adequate warning was provided to civilian authorities. So I

planned a test of dropping a live depth charge (DC) from a ZP-2 K-ship in that practice area, since I could find no LTA pilot who had experienced dropping the only weapon an airship could effectively use against a submarine. What effect would the DC's explosion have on the airship? Bruce Bretland approved the test plan, somewhat reluctantly I'm sure. A day, date, and time was selected and notice was given to civilian authorities for advising mariners and fishermen. As scheduled, I piloted a ZP-2 K-ship, complete with crew and live DC, out to the practice area. The wind was 15 knots from the northeast, so we dropped a fluorescein dye marker on the ocean surface, the green dye from which would give us a point of aim for the DC. Then we flew upwind a few miles, readied the DC for drop, and headed back for the dye marker at full speed (60 knots airspeed) giving us about 75 knots over the surface. The DC had a retainer wire through its depth setting mechanism to prevent it exploding if dropped inadvertently. This wire was controlled by a release handle at the bombardier's station in the front of the airship car, to hold the wire as the DC dropped away, thus activating the depth setter allowing it to explode at the set depth. [[John Jan had told me that the bombardier on the K-74, in the intensity of the action with the U-134 crew firing their deck gun and smaller weapons at K-74, failed to properly set the two release handles on the DCs K-74 was armed with. The wires went with the DCs preventing them from exploding when they perfectly straddled the U-Boat. K-74 went on past the U-Boat losing altitude from helium loss through many bullet holes in the envelope, finally coming down in the ocean with the crew getting out of the car into a life raft with "Mae West" type life vests. They were rescued by a Navy surface ship later]]. Arriving at the fluorescein dye slick at 500 foot altitude, we dropped the DC (set to explode at 100 foot depth) and continued on downwind at full speed. The DC sinks at 2 feet/second in water, so we had an additional 50 seconds after the DC splashed into the ocean allowing us to open the distance about another mile. Then came the subsurface explosion creating a low hump in the water's surface, the geyser-like eruption of water upward from the surface, followed by the pressure wave of the explosion overtaking us. The wave rolled through the envelope from back to front and shook

the car, giving us a tense few moments, but the K-ship came through the ordeal in good shape. We had tested the K-ship's offensive weapon under conditions such as might have been encountered in real ASW warfare, and found that the K-ship performed well. From time to time ZP-2 Lakehurst would send a crew with a K-ship south to ZP-2's Detachment 6, Key West, to replace one in need of scheduled maintenance, which was done at Lakehurst. DET 6 had no hangars, using mobile masts to moor the airships on "swing" circles set back from the airplane runways so the airships could swing 360 degrees as the wind moved them. The flight consisted of a day's trip from Lakehurst to Weeksville over ocean waters off the coast, to moor on a mast or enter the hangar, then a second day's flight off the coast to ZP-1's detachment at NAS Glynco, Georgia, for another overnight. The following day's flight would proceed offshore down the Florida coast to Key West. The same crew would then bring the other airship back to Lakehurst, reversing the flight path. CDR A. L. "Al" Cope took command of ZP-2 in 1948 and was instrumental in getting the airships involved in Fleet maneuvers. His XO was LCDR C. H. Grainger. With our East Coast four-base structure, we could fly some 200 miles to seaward from, say, NEL, join a southward-moving fleet unit, stay with them on ASW patrol for eight or more hours, then return to Weeksville at the end of a 24-hour flight. Al Cope had the two ZP squadrons and their detachments integrated into a Fleet Airship Wing ONE, with himself as the Wing Commander and headquarters at Lakehurst. I was then Operations Officer of both ZP-2 and the Wing. We engaged in several flights to work with Fleet units well offshore in the Atlantic. I remember one flight where I piloted a ZP-2 K-ship from a stick mast out of Charleston, South Carolina, in the early morning, with LTJG Ray Dehler as my co-pilot, to join a Task Force 200 miles east. Heavy with fuel, I seriously contemplated flying *under* the nearby automobile suspension bridge arching high over the harbor just east of the airport, but chose instead to climb out to the west to reach sufficient altitude to clear the bridge. Some miles offshore on this hazy clear Fall morning, we flew across the Gulf Stream, a distinct deep indigo blue "river" of warm tropical water flowing northeastward through the grayish-blue of the colder surrounding ocean, a spectacular sight from the airship. We found the Task Force after five hours flying and stayed with it on ASW patrol until late afternoon,

when we were detached and departed for a landing at Weeksville that evening. Al Cope pushed the fleet operations to planning an operation in the Caribbean, where our airships would operate off an aircraft carrier (CVE) for three days in anti-submarine warfare (ASW) support of a Task Force moving northeastward through the Caribbean opposed by "enemy" US submarines. I rode in a Navy PBM seaplane from Norfolk, Virginia, to Naval Base, Coco Solo, Panama Canal Zone, to attend a meeting setting up the operation and its details---first time I'd been to the CZ since living there as a teenager from 1932-35 in Corozal on the Pacific side, where my Army Engineer father was stationed. One airship from ZP-2 and two from ZP-1 would be involved, each with two crews. A crew for each airship would be on the CVE available to switch with the crew flying on ASW patrol at 12-hour intervals. The airships would fly from their bases, Lakehurst and Weeksville, to NAS Guantanamo Bay, Cuba (GTMO) to operate off three mobile mooring masts. The masts, surface-shipped to GTMO disassembled, were assembled by a team flown in from ZP-1. I was the on-site O-in-C of a temporary Airship Wing ONE detachment set up to do that task. The fleet operation was set for March 1949 and the three K-type airships proceeded to GTMO and readied for the first-ever extended operation of K-ships from carriers in ASW escort. As Operations Officer of the Wing, I had drawn up plans for ASW patrol around the Task Force, carefully considering the 60 knot top airspeed of the K-ship vis-a-vis the 25 knot water speed of the CVE.



My plan was a "rectangular box" pattern starting with a first leg going forward from the CVE at a 20 degree angle (port or starboard) to the CVE's course. Flight altitude was to be 100 feet above the waves to maximize the effectiveness of the airship's MAD gear

(magnetic anomaly detection) which could detect submerged submarines to about a 450-foot depth. My K-ship started patrol on the port side of the CVE's track, with a ZP-1 K-ship proceeding out on the starboard side. I got up to the 90-degree turn at the "corner" of the box, starting down the second leg when the MAD gear operator called over the intercom "MAD contact." I ordered a fluorescein dye marker dropped, advised the Commander Task Force (CTF) on the CVE, and brought the K-ship back to the spot, where another MAD contact was made. Given permission to launch a simulated weapon, I ordered a small-charge practice bomb dropped to advise the submarine it was being attacked. The CTF staff tossed a coin, heads or tails for "kill" or "miss." It came up heads, so I had "sunk" an "enemy" submarine on the first patrol pattern. Some minutes later, the submarine surfaced within 2000 yards of the CVE, radioing that a torpedo attack on the CVE had just been completed. The CTF came right back and told the submarine CO his sub had been sunk 20,000 yards away. The sub CO had not heard the practice bomb explosion signaling an attack against the sub, so was unaware his sub had been detected. Landing the K-ship on the CVE deck involved approaching the CVE from astern with a slow overtaking speed with very careful elevator and rudder work by pilot and co-pilot to get the K-ship over the stern of the CVE, then very carefully watching the rise and fall of the CVE stern caused by ocean waves. The next maneuver I likened to controlling an elevator (as found in a tall building) to bring the K-ship cautiously down to the deck preferably as the deck was dropping, and touching down on the deck before it started back up. With the CVE making 20 knots, the airship landing maneuver played out in slow motion. A ZP-1 landing officer on the CVE deck organized a party of sailors on port and starboard of the deck to catch and hold the nose lines. To make the maneuver of short duration and not tie up the CVE long to a fixed course, large-size fuel valves had been installed on the K-ships, and, as the flight crew was being relieved by the new crew, the CVE's fuel crew would quickly snap the CVE's fuel nozzle onto the large K-ship valve and rapidly fill the fuel tanks, all the while the K-ship engines were running and propellers turning at speed necessary to maintain position on the CVE deck. With new crew aboard and provisions loaded, the deck crew would drop the nose lines and the K-ship pilot would

simply gain 100 feet of altitude and be on his way. The operation went on for three days with the airships making carrier landings every twelve hours, switching crews, re-fueling, re-provisioning, then taking off on ASW patrol both to port and starboard of the CVE. Cots had been set up in corridors aboard the CVE for the off-duty airship crews, not very comfortable for sleeping but sufficient, and we ate in the crew's mess while aboard. I can't recall the full details of our three-day stint in ASW escort of the CVE but it was considered successful and demonstrated that airships could do that type of work. Our mission completed, we left the CVE not far from Haiti and headed back to the mobile masts at GTMO. After a day's rest at GTMO, we planned our flight back to the East coast. Two predominantly over-water routes had been suggested to us. One route involved flying east from GTMO to the eastern tip of Cuba, rounding that and heading northwest toward Miami, skirting the north coast of Cuba and through the Bahamas to Florida. A second entailed flying west along the south coast of Cuba past the Isle of Pines to the western tip, then north to Key West. A shorter itinerary our flight crew figured out took us northwestward over Cuba's mountainous interior, the 'Cordillera Sierra Maestra', to cross Cuba's north coast and proceed to Florida (this was in Spring 1949 prior to Castro's control of Cuba). A highway ran across the mountain chain from the GTMO area northwestward to the north coast and on to Havana. My plan was to follow the highway over the mountain pass to the north coast, thus saving time and distance, and considerable fuel. Our altitude over the mountains would be limited by the ballonet ceiling (the altitude at which the expansion of the helium lifting gas would completely deflate the two ballonets, and going to a higher altitude would unacceptably vent the helium gas). So we planned to takeoff in the cool of the night when the helium was at its lowest volume unaffected by expansion in the warm tropical daytime air at GTMO, and the ballonets were at their fullest. Just before midnight, with LTJG Ray Denler as my co-pilot, we took off and started following the road which we could easily see from the headlights of the automobiles traveling on it. As the road started to climb, we increased our altitude to stay about 100 feet above the road. The auto drivers must have gazed in wonder at this huge, silvery aircraft not far above their heads. As we climbed, the helium

expanded and the ballonets lost some of their volume. We reached the top of the pass at just about ballonnet ceiling, then started to decrease our altitude as the road descended. We could see the lights of the Cuban cities of Holguin a distance to the west and Baracoa to the east, then we sighted the north coast and the ocean beyond. We had made it! We left Cuba behind and continued northwestward over the picturesque Bahama Island chain---Exuma, Eleuthra, Nassau, Andros, Abacos, Grand Bahama and others, past the long, deep Tongue of the Ocean (TOTO) where the Navy later established testing facilities for submarine acoustic experimentation. We sighted Miami in the distance and altered course to make straight for NAS Glynco at Brunswick, Georgia, landing after a 15-hour flight, exhilarated at having crossed Cuba's mountains. We were able to fly to Lakehurst the following day, the weather being cooperative.

In early 1949, the Navy decided to require all LTA pilots to become qualified in fixed-wing aircraft (HTA, heavier-than-air). I was one of the earlier ones given orders to NAS Pensacola, (PNS) Florida, for HTA flight training, and detached from ZP-2 in August,

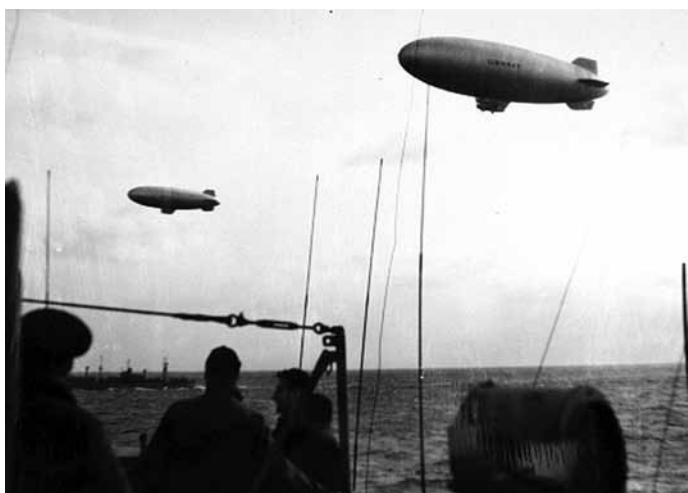
1949, after 3 1/3 years in LTA. I spent 12 months in primary training at PNS, then three months at NAS Corpus Christi, Texas for advanced training in multi-engine aircraft (the PB4Y-2 Privateer). By then a Lieutenant, I was sent to Naval Air Pacific for duty as were all of my ensign colleagues at Corpus Christi since the Korean War was raging and pilots were needed. I was fortunate enough to be assigned in 1951 as a pilot (and Plank Owner!) in the commissioning roster of Patrol Squadron NINE (VP-9), the first post-war VP squadron to be formed, at NAS Whidbey Island, Washington, a squadron still in existence. VP-9 was fitted out with 12 of the 4-engine PB4Y-2s and given an aerial mine-laying mission. We deployed to NAS Kodiak, Alaska, flying reconnaissance missions along the Aleutian island chain looking for Russian submarines in transit to the U.S. Later we deployed twice to Japan from our home base at NAS Alameda, California, for shipping reconnaissance missions along the China coast as well as night-flare-illumination missions over North Korea and the Main Line of Resistance (MLR) on the battle front. During our three-month formative and training period at Whidbey



and NAS Seattle prior to initial Kodiak deployment, we flew practice aerial mine-laying exercises in the Straits of Juan De Fuca off Oak Harbor, Washington. I soon realized the difficulties of bringing the aircraft to the QDM (heading) needed to lay the line of mines. I developed a hand-held calculator of three overlapping graduated-diameter concentric azimuth circles for the navigator's use to visualize aircraft heading, bearing of Initial Point (IP, start of mine drop) and QDM. This device was based on the early hand-held "Is-Was" calculator for submarine torpedo attacks before development of the (electro-mechanical) Torpedo Data Computer (TDC). Office of Naval Research (ONR) personnel took it under study, but subsequent advances in electronic computing overtook the need for my QDM calculator. In June 1953 I received orders to the Naval Postgraduate School at Monterey, California, for shore duty to join just the third class in Operations Research (OR) to be given. This was a two-year course in a new field, leading to a Master of Science degree with a major in OR. I did my Master's thesis on "Small Area Search Patterns by Aircraft." In June 1955 on graduation I had hoped to return to a VP squadron in the Pacific (which I knew so well by that time from WWII submarine duty in the Japan area and VP duty in the Korean War). However, the Navy Bureau of Personnel (BuPers) issued orders for me to go to Airship Development Squadron Eleven (ZX-11) at NAS Key West, Florida. I reported to ZX-11 in August 1955 for a three year tour of duty. CAPT Huse was CO and CDR Bert Hickman was Development Officer. I was assigned to be Assistant Development Officer. The task of ZX-11 was to test airship capabilities principally in ASW, also to test new designs of airships, such as the ZS2G. Airship-towed sonar was being evaluated and seemed to have merit, although the long (faired) cable, which held the sonar "fish" to the airship and conducted power and sensory information, could snag on floating debris or even a large sea animal and create heavy drag on the airship. Many flights went into testing this device. One such included the Chief of Naval Operations, ADM Arleigh ("31 knot") Burke of WWII destroyer (DD) fame, on which I explained the operation of the system to him. Sonar was widely used in the fleet for hunting submarines, so for airships to be able to employ it, in addition to their magnetic detector (MAD), was quite a boost to airship capabilities. Great

pilot skill and care was necessary to tow the sonar and LCDR Morry Packer was very capable at the task. The Development department was the principal one in the Squadron, and LTs Don Shorts and Bob Meissner were two of the many pilots who carried out and wrote lengthy technical reports on the results of the variety of tests assigned us by Commander Operational Test and Evaluation Force (COMOPTEVFOR) based in Norfolk, Virginia. At one point, ZX-11 was tasked to evaluate the airship's capabilities in carrying and using an atomic depth charge! When Bert Hickman left to join another ZP squadron, I became the Development Officer. In late 1957 or early '58, ZX-11 was merged into Air Development Squadron ONE (VX-1), the fixed-wing (HTA) squadron, also based at NAS Key West. An interesting event during my tour was the arrival and final landing of the ZPG-2 at NAS Key West, flown by CDR Jack Hunt and crew on the record-setting endurance flight of 11+ days without refueling. He followed the path of the North Atlantic Ocean Gyre current (which brings us our Gulf Stream), clockwise around the North Atlantic, from Lakehurst past Newfoundland, Iceland, Ireland, France, Portugal, the Azores, the Bahamas and to NAS Key West, where they were met and ground-handled by ZX-11 personnel. Hunt and his crew were highly elated to have accomplished what they set out to do, but very tired and grimy from their uncomfortable sleeping accommodations and the limited amount of water available for personal cleanliness. As far as I know, Hunt's record still stands. Another event (1957?) involved an airship from NAS Glynco, Georgia, which had been operating a distance offshore in an exercise and met strong headwinds trying to return to base. With fuel running low, the pilot was instructed to go to Bermuda, and a crew was flown out by airplane to ground-handle, but the winds were too strong and the airship was deflated at Bermuda with no injuries as I recall. I was taking a K-ship from Key West to Lakehurst for maintenance, overnighing in Glynco at the time, and offered my ship and services to Bert Hickman, the squadron CO there, if I could be of help, but there was little anyone could do. With the airship's 60-knot maximum airspeed versus a 60-knot westerly headwind well out to sea, Bermuda was the only choice. At another time, a request came to conduct a search in Lake Okeechobee, Florida, for a Navy torpedo bomber (TBM) which some civilians had observed crashing

in the lake while on a training flight. I took a K-ship from Key West to the north shore of the shallow lake and used our MAD equipment to conduct a search pattern for six hours at low altitude in hopes the steel in the engine might provide a MAD signature, but made no contact. However it demonstrated another worthwhile capability of the airship. ZX-11 operations at Key West were conducted principally with the Navy submarines based there. Since the airship was a fine photo platform, and we could maneuver easily for the best angle and lighting, I initiated the practice of using our excellent aerial cameras to take photos of the submarines as we were working with them, then making the photo prints available to the appreciative individual sub skippers for their own ship's use.



I left ZX-11 in August 1958 with orders to the Office of Naval Research (ONR) in Washington, D.C., and was assigned as Assistant Head of the Undersea Warfare division under CAPT C. B. "Swede" Momsen, Jr., submariner and son of VADM Momsen who invented the Momsen Lung for submarine rescue. Swede's office was principally involved in acoustic (sound) means of detecting submarines, and I took on the added task of Air ASW project officer with mission to develop non-acoustic (un-sound) methods. At that time work was going on with the secret SOSUS (Sound Surveillance System) which author Tom Clancy somehow was apprised of and referred to in his fictional book "Hunt for Red October" (the Red referred to Russia, and October was a one-month juxtaposition from November, a name the Navy had applied to a class of Russian submarines). Extensive Navy acoustic research work was ongoing in the Bahamas' deep Tongue of the Ocean (TOTO), which I had flown over in the K-ship

in 1949 enroute from GTMO to NAS Glynco. Several defense contractors proposed various projects to me for un-sound methods, one of which, by General Electric Research Laboratories in Schenectady, New York, appeared to have potential. I had the researchers pick out a project title consisting of a feminine name with five letters, which was the accepted mode at that time. They came up with Project GENNY (General Electric, Northern New York), and we started work on the classified project. They needed a nuclear submarine (SSN) and a surface ship (DD, destroyer) for an experiment to collect data at night. I spent several weeks arranging for an SSN from Navy Submarine Base New London, Connecticut, and a DD from Naval Destroyer Base Newport, Rhode Island, to operate in Narragansett Bay, Rhode Island, overnight on a particular date. I asked the Naval Research Laboratory (NRL), Anacostia, D.C., for the use of a number of their \$65 expendable submarine signal-marker lights to be released one at a time at fixed intervals by the submerged SSN, float to the surface, and mark its path so the DD could follow and collect samples of undisturbed surface water from a collector just forward of the DD's bow. Two weeks before the event, I received a call from NRL that they couldn't spare the signal markers---without which the experiment could not proceed! What could I do? I thought of the plastic one-battery light aviators wear clipped on life vests, It was cylindrical with a clear plastic dome over the bulb, so should be able to resist the 200 pounds per square inch water pressure at the 400-foot depth of the submarine, but had to be buoyant to rise to the surface. I had the Navy Supply officer send two dozen of them to the Project GENNY team to solve the buoyancy problem. They selected the next smaller battery size, wrapped it in plastic foam to fill the remaining cylinder space, and, voila, it was buoyant. A pressure test showed it would survive. Total cost of one light was one dollar. The experiment went off on schedule with the GENNY researchers and me on the DD. The easily-visible lights popped up to the surface defining the track of the SSN, and the needed water samples were successfully collected. The "new" inexpensive submarine signal light caught the attention of researchers at the Woods Hole Oceanographic Institution (WHOI) on Cape Cod, MA, who later put the device to good use in some of their experiments.

In a follow-up to this test, the GE researchers needed to test operation of a particular radar to scan the sea surface from a fixed elevation, and I arranged for the use of a Navy offshore tower (like a small oil drilling platform) in the Gulf of Mexico some miles off the FL panhandle and went there with them to observe the testing. The Navy's Bureau of Aeronautics had gotten involved by this time and was able to provide funding to continue development of this project. Later, another project called for observations at night of possible bioluminescence created by an SSN cruising submerged in ocean waters. I obtained the SSN commitment from New London. For observing, I asked for an airship from NAS South Weymouth because of the low speed (for better visual scan) compared to fixed wing aircraft and the ability to fly near the water surface. Pilot of the airship on this all-night flight at sea offshore Cape Cod, with researchers and I observing, was my former ZP-2 squadron mate LCDR "Cece" Manship. The operation was very useful in collecting the needed data.

My three-year tour at ONR was cut to 2.5 years when the need arose in 1960 for a Navy CDR with graduate work in Operations Research to fill a billet on the newly-established Joint Command and Control Development Group (JCCDG) in the Operations Section (0-3) on the Joint Chiefs of Staff (JCS) in the Pentagon. Since I was already in Washington and time was critical, the Navy Bureau of Personnel felt it more expeditious to pick me rather than bring someone in from elsewhere. My hope to join a VP squadron in the Pacific was again dashed. The JCCDG was headed by an Army BGEN and comprised eight officers from the four Services, one each of COL/LCOL rank, Army, Marine Corps, Air Force plus Navy CAPT/CDR. A Department of Defense "civilian senior systems analyst" was attached to our Group, and we all had Top Secret clearances since we were working with plans for nuclear war with Russia should such an event occur. Part of our work involved observing the actions of the individual Services in the annual world-wide military war game exercises, wherein it became evident that these actions were not well coordinated. I made two trips to European Command Centers with some Group members, while others went to Command Centers in Japan. We also had tours of the President's Alternate Command Center in the Maryland hills, as well as his

primary Command Center in the bowels of the White House. I was with JCCDG for 1.5 years until August 1962 when I received orders to the Nuclear Targeting Section (NTS) of NATO's Operations Division (0-3) in Paris, France, headed by a U.S. Army BGEN with officers from U.S. Army, Navy, Marine Corps, and Air Force, plus Britain, France and Germany. Travel with my family to France was on the classy ocean liner SS *United States*, holder of the trans-Atlantic speed record. It also carried my automobile, which was unloaded at Le Havre, so we drove to Paris in our own car. I spent my last three Navy years there selecting targets for NATO nuclear strikes in communist Eastern Europe and Russia, as well as working on a computer program to pinpoint timing conflicts between the NATO forces delivering the strikes. I visited most of the bases from which such strikes would launch, in England, France, Germany, Italy and the U.S. Fleet aircraft carriers in the Mediterranean Sea. Interestingly, my middle son, who was born at NAS Lakehurst Naval Hospital in 1947, graduated from USNA in 1969 and went into aviation, where he flew the Grumman A-6 'Intruder' twin-engine jet attack-bomber in the early 1970s off the carrier USS *John F. Kennedy* in the Mediterranean. He trained to carry out just such strikes as I had been targeting at NATO back in the 1962-65 period. During the Cuban Missile Crisis in 1962, I and the rest of the NTS staff went underground into a converted mushroom cave outside Paris (formerly used by German General Rommel during WWII to hide his 'Tiger' Tanks), which was our alternate NATO Command Center, prepared to carry out our targeting duties if the Russians became aggressive. It was a tense three days. Our families had to be left to take care of themselves in our Paris homes. Returning from Paris in August 1965, I retired from the Navy and worked as a Senior Research Engineer for United Aircraft Research Laboratories (now United Technologies) in Hartford, Connecticut, for several years.

Recently I turned 90 years of age, the big NINE-OH, and marvel at how I have survived this long, through WWII, Korean War, two major cancers, a replacement left knee and a heart attack. My wife Peg had to enter a nursing home June 2011 and sadly passed last Feb 9th, two weeks after her 92nd birthday. Peg had a long and fruitful life as a Navy wife. Ω

A Wooden Rigid for the U.S. Navy

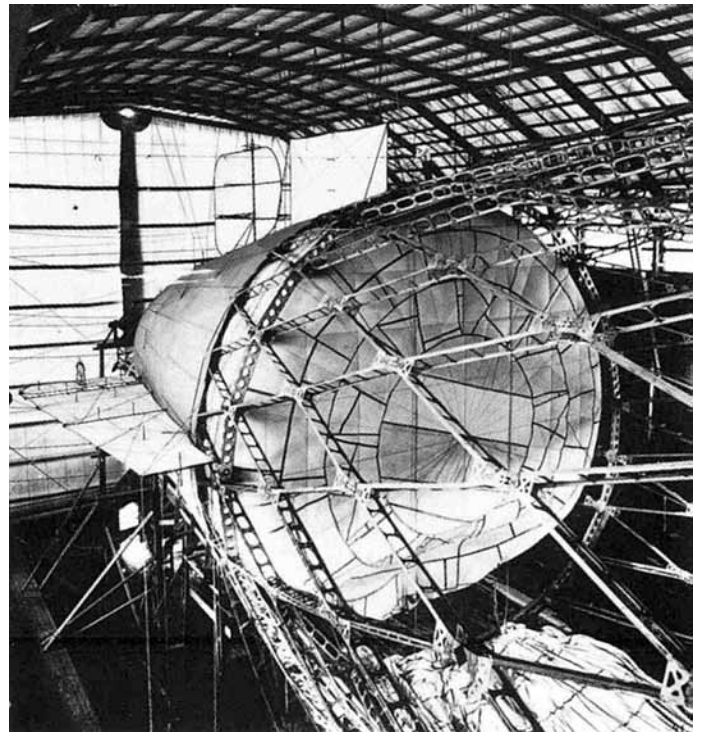
by Herman Van Dyk

At the outbreak of the First World War in 1914, the latest type airship to be accepted by the German Navy was the LZ-23, a Zeppelin type 1. It was capable of carrying a payload of 19,500 lbs. The performance of follow-on airships improved by leaps and bounds; three years later, the type V was capable of carrying a bomb load of 85,200 lbs. There seemed to be no limit as how much the performance of airships could be increased. On Nov. 21, 1917, Zeppelin LZ-104 left Jamboli, Bulgaria on a supply mission to German forces near Khartoum in S.E. Africa. The ship carried 30,300 lbs of supplies and a crew of 22. Arriving there only to be turned away by a fake radio message the Germans had surrendered, the ship returned to Jamboli. It had flown 4,200 miles in 95 hours and had fuel left for another 65 hours.

These and other developments made top U.S. Army and Navy brass aware that the U.S. would fall far behind if they didn't develop or acquire their own rigid airships. Recommendations made to the Secretary of War and the Secretary of the Navy led, in Jan. 1917, to the formation of a "Joint Army & Navy Airship Board" (JANAB) to study how a rigid airship may be acquired. CDR Jerome Hunsaker was appointed to represent the Navy.



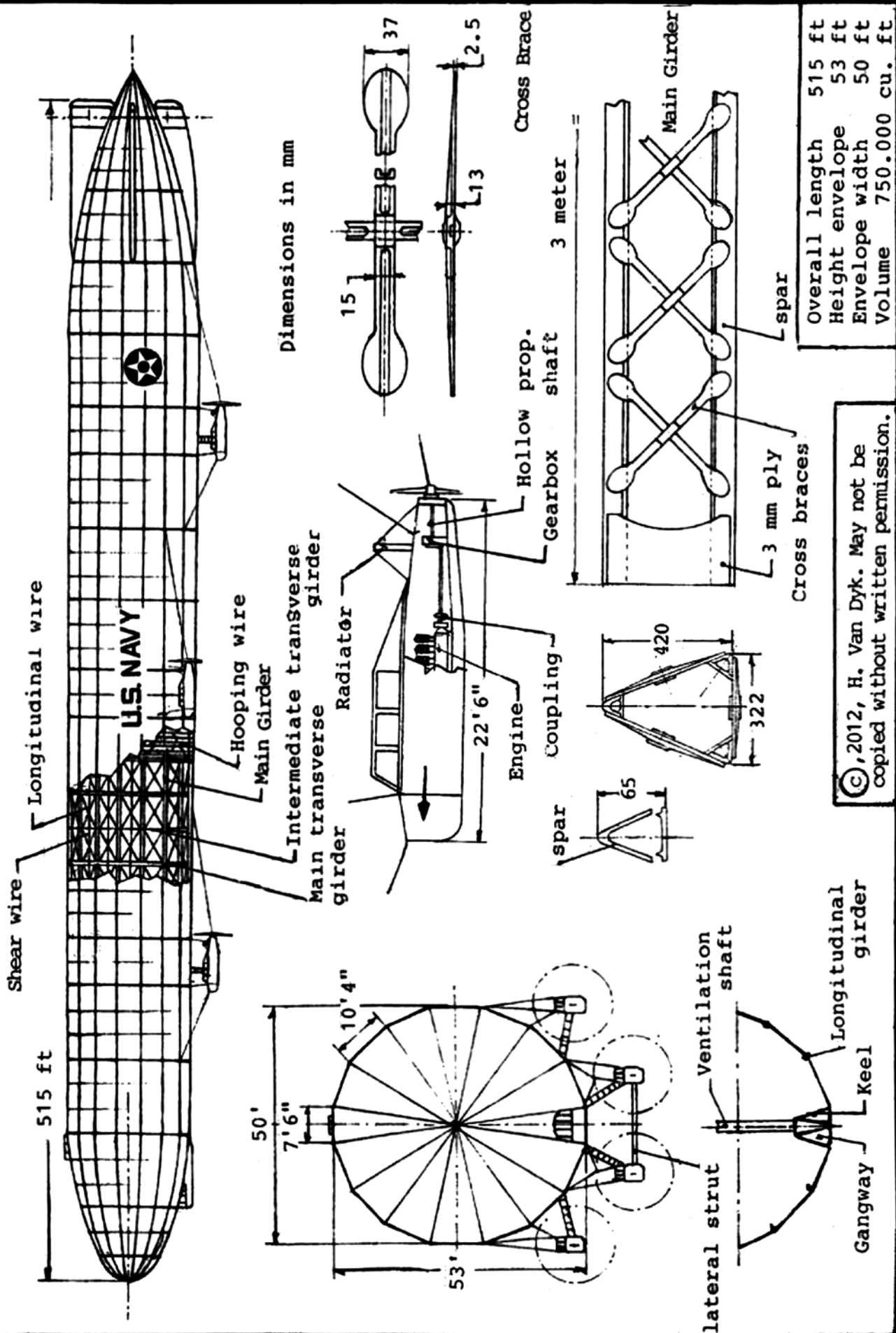
Before the war, Hunsaker (above) had been sent to Germany to inspect "The state of the art" in Germany. He had walked around the Zeppelin *Victoria Luise* and made a flight in it as a passenger. A civil engineer, Starr Truscott, became Hunsaker's chief engineer, responsible for the design of a wooden rigid airship. Although it was known that the wooden Schutte-Lanz airships (above) were less reliable than the aluminum-



framed Zeppelins, Truscott had to use wood. America didn't have the special aluminum alloy, called duraluminum (or dural), strong and light enough to be used as a construction material for airships. Dural had been invented by the Duren Metal Co. in Germany. Vickers Ltd. of England had bought license rights just before the war, but their production capacity was severely limited and almost its entire production went to the British airship program. A proposal to have Vickers Ltd. build a metal airship in the U.S. was not accepted. The U.S. could buy small quantities of dural from Alcoa in the U.S., but was unable to obtain information about processing and forming the metal until after the war.

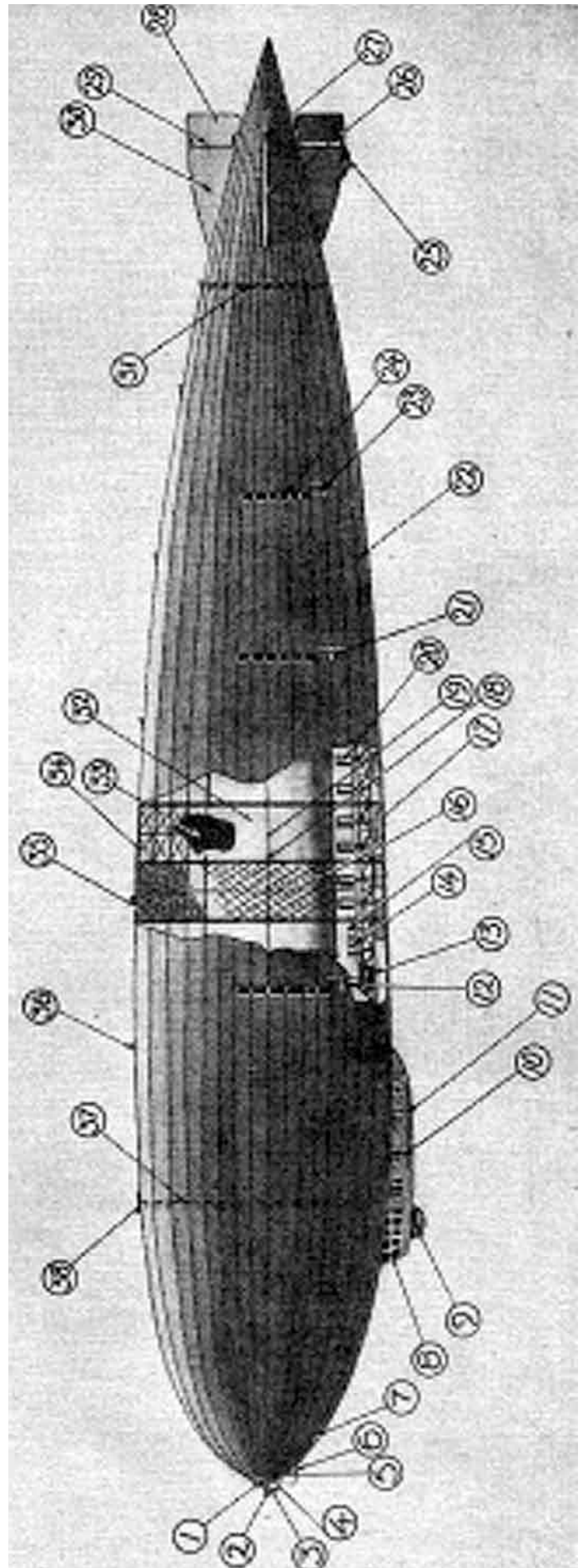
The outline of an airship and all its details appeared slowly on Truscott's drafting board. The hull was a 16-sided polygon with a diameter of 53 ft. and a length of 515 ft. Its volume was 820,000 ft³. An internal keel with a gangway gave access from the control cabin to the engines; the ballast and fuel tanks; the ventilation shafts with the valves. The keel had a configuration of a double "A" frame. The airship was to be propelled by three pairs of engines driving pusher propellers. The airship was to be built in the Washington Navy Yard, but the particular building selected as construction shed was found to be too narrow for the airship as designed. The simpler solution was the airship had to be narrower. This was accomplished by shortening all transverse girders of the very top and bottom panels

Joint Army & Navy Airship Board, 1917.



by 3 ft. This changed the hull from a true polygon to a multiple sided body 50 ft. wide and 53 ft. high. This multiple sided body 50 ft. wide and 53 ft. high. This modification reduced the volume from 820,000 ft³ to 850,000 ft³. The hull rigid framework consisted mainly of two kinds of wooden girders: longitudinal and transverse. The longitudinal girders were all the same, triangular in configuration and consisting of 3 hollow spars interconnected by a number of cross braces, and a short piece of 3 mm plywood on each side at the ends. The spars consisted of a "V" shaped wooden strip, the open side closed by a flat strip of material. These main girders were 420 mm high (16.5 in) and had a base of 322 mm (12.5 in). The length was 3 meters (10 ft). The individual parts were held together by casein glue; no nails or any other type of fasteners were used. The size of the transverse girders depended on their particular location in the framework and their function. During the design phase, many experimental girders and other parts were strength tested to destruction in order to find the best configuration. The airship was to be propelled by 6 engines arranged in 3 pairs and all suspended from the hull by a set of wires. The pair in the center is placed level with the keel, the others were on a level below the keel. To prevent the center engines from swinging sideways, they are attached to the lower girder by lateral struts, the engine cars of the other pairs are interconnected to each other. The engines were to be 6-cylinder, in-line aircraft types driving pusher propellers. (A standard aircraft engine is designed to drive tractor propellers. They don't have the bearings to with-stand the thrust of a pusher propeller.) To solve this problem and to be able to use standard engines, a special drive system was designed. The engine was connected to a gearbox with a normal extension shaft. The propeller was connected to the gearbox by a hollow shaft which transmitted the torque from the engine, but not the thrust from the propeller. This was taken up by a metal bar inside the hollow Propeller shaft and taken up by the gearbox. The Armistice in Europe took the pressure of the JANAB airship and opened several different avenues to obtain a rigid airship. At first sight, the airship seems to have a rather conventional configuration. A closer view, however, makes one realize that the airship doesn't have any sign of a landing gear, nor any possibility to fit one. It may have been the intention to build the airship at the program's beginning, but later on it was decided to use Truscott's work only as a design study. Ω

"Rigid Dirigible Balloon" graphic from May 1936 *Air Trails*



MEDIA WATCH



Smithsonian's National Postal Museum Exhibit
"Fire & Ice: Hindenburg and Titanic"

reviewed by **Dr. Addison Bain**

I recently toured this exhibit [*story and artifact photos, TNB 93 pg. 34*], reading its pamphlet and accompanying book. While the pamphlet is fairly "clean," the book republishes some common misconceptions. The poor iceberg gets the sole blame for the *Titanic*. In my book, *THE FREEDOM ELEMENT* (pg. 226), I discuss the eyewitness accounts of the event as a "casual rubbing" of the starboard hull with a wall of ice, not a "collision" as assumed by the public. The exhibit does mention suspect materials, but does not finger the high sulfur steel and rivets as her Achilles' heel. Likewise, the LZ-129 material does not appear to benefit from recent research and publishing.

The exhibit's book incorrectly states the LZ-129 was designed for helium lift, which the US refused to sell. Actually, the Zeppelin archives contain a drawing of the original dual-cell H₂-He "wish list" design, of which one bay was tested and the design rejected. Prof. Meyer's research therein also showed the Germans never asked for helium before 1937.

Between the book and exhibit we see the "34 seconds" fire duration many times. Claude Collins of *Pathe News* indicated his camera shot 90 feet of film per minute and the footage he got was 51 feet. That equates to the "infamous" 34 (some say 32) seconds. Claude and the others missed the most important 18 seconds. Starboard aft witness Lizzy Tobin reported seeing "small flame immediately in back of the top fin, in back of the fin, in back of the whole surface and the rudders..." The smoke-belching diesel fire proved difficult to extinguish well into the next day.

NAA member **Cheryl Ganz** had videotaped an interview with Frank Ward, a member of the Lakehurst ground crew the night of May 6, 1937. The video is displayed in the exhibit, which also features other NAA members.



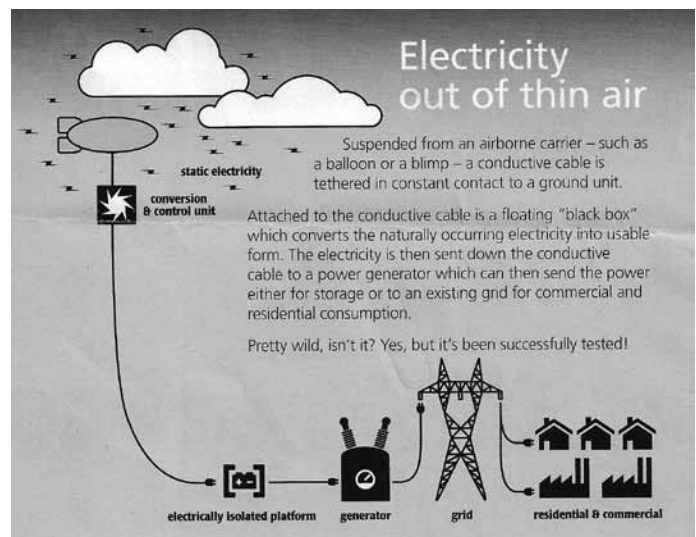
Ward mentions "it was not hydrogen," but seemingly oblivious, the exhibit book lists the cause of the disaster as "prevailing theory is that a spark ignited loose hydrogen." I was very disappointed, and not just because no evidence or witness statement has ever been presented to implicate nature's simplest element in starting the covering afire. As has been shown five times in four labs in two countries, the *Hindenburg's* fabric was easily ignited when it became part of the ship's static electrical discharge path, once the nose ropes had become wet enough to conduct to ground.

With the future of the airship hanging in the balance, it is vital we understand the past. **Ω**

The above is the opinion of the editor and not a stated position of the Naval Airship Association.

On May 6th **CP Hall** wrote, “The items that I am about to bring up have almost nothing to do with that anniversary, starting with the May 2012 issue of PROCEEDINGS, the “Naval Review” issue. For the first time in I do not know how many years, under the heading, “U. S. Naval Aviation and Weapons Development in Review,” there is a sub-heading, “Lighter-Than-Air Vehicles.” The MZ-3A is named, and there is a photo in the hangar at Lakehurst. In the Sunday CHICAGO TRIBUNE is a story by Stephen Benzkofer, “Death Rained from Sky,” which is not about *Hindenburg* (which was mentioned but only in passing) but is instead about the crash on July 21, 1919, of the Goodyear blimp, *Wingfoot Express*, which caught fire and crashed into the skylight of the Illinois Trust and Savings Bank. It is interesting that he notes that the engines and fuel did not catch fire until they crashed onto the bank floor. Benzkofer continues, “No definite cause was reported, though the Tribune ran one story attributing the explosion to a static spark lighting the highly flammable hydrogen gas.” A second story on the same page by Benzkofer discusses the Herb Morrison “radio broadcast.” {See last item.} Finally, if you wish to hear the Morrison broadcast recording on line; go to chicagotribune.com/flashback. Perhaps we should mention to Mr. Benzhofer that both *Macon* and *Graf Zep* overflow “The Century of Progress” in 1933?” **Ω**

Navy Lakehurst Historical Society’s heartfelt ceremony observing the 75th anniversary of the *Hindenburg* accident, attended by an estimated 400, got a notice in the Asbury Park Press. (Other papers ran an interview with witness George Whittle, who Scripps-Howard writer says watched the airship “blow up.”) A long-hidden home movie showing a different starboard side view angle on the fire was seen on a laptop at the gathering, sadly also not including the actual moment or the angle where the fabric was first ignited. Some e-mail messages expressed continued hope that the visible glow, flares, fireballs, smoke, etc. seen therein would overcome test results in the court of public opinion. Most interesting, at the exact same time, **Walter Lion** forwarded Ed. a flyer, offering investors a chance to cash in on “a way to capture and convert naturally occurring static electricity in the atmosphere into a constant, abundant source of renewable energy.” (See illustration, next column.)



Forget igniting just aluminum-impregnated nitrate-doped fabric, the TCOM aerostat guys should be first in line to cash in on this new very green idea. It’s not “alternative” electrical energy like that from mechanical windmills or expensive solar arrays, but actual electrical energy, period. These would-be John Gaults would do Ayn Rand proud, if they can perfect the idea twice tested on the Space Shuttle. One wonders if our DOE or even DARPA could overcome bureaucratic inertia; perhaps they should view the lighthearted movie STARDUST in which Robert De Niro and crew use their airship to gather lightning. **Ω**

Member **William Althoff** (ARCTIC MISSION discussed Spring TNB) reports his earlier book SKY SHIPS -- improved, corrected, updated -- will be published by the Naval Institute Press this November. Bill is beginning new research for his next project, postwar U.S. Navy lighter-than-air (1945-1962)--more or less completing a trilogy on the subject. He is seeking unpublished images from the postwar program. Credit will be granted to all loans, of course. **Ω**

NAVY TIMES had reported the US Navy airship would be retired. Then the Gannett News Service (3/21) reported, “A one-of-a-kind Navy blimp that last month was scheduled to be deflated and stored as part of Defense Department cuts will be put to work for another year, Navy officials say.” Matt Weiser of THE SACRAMENTO BEE got the banner “NASA uses blimp to search for meteorite fragments” while other newshounds correctly i.d.ed the Zeppelin NT *Eureka*. (See “Short Lines”). In a reversal of LTA outsourcing, “Public Asked To Try To Find Missing Balloon Payloads”

read a SPACE article. "Aurora team members are asking the public to help find six research balloon payloads they were not able to find after launching a series of balloons over the course of two weeks. If found, a person can "keep the GoPro camera that launched with it - as long as you send in the SD memory card, along with the payload's GPS device." Expedition leader Ben Longmier said "One of these payloads contains a Le Petit Prince action figure. ... The person to recover the payload that contains the Le Petit Prince will receive a special GoPro accessories package." Ω

Ed. chastised AIR & SPACE Smithsonian for errors in their recent story about Moffett's Hangar #1: "Gentlepeople, Airplanes seen in Hangar One ("Soundings," May) are not Sparrowhawks, of which only eight were made (including prototypes), nor is the airship a blimp, but rather the mighty *Macon* herself. The 1937 fire of LZ-129 was not "the end of the great dirigibles" but lead to LZ-130's outer cover being fireproofed, made conductive and bonded to her framework. Hydrogen-inflated, *Graf Zeppelin* (II) flew spy missions just before WWII began, and the US Navy didn't complete disassembly of LZ-126 until 1940. Hangar One's framework is not stainless steel as stated, but the structure still has tremendous possibilities." Surprisingly, the editor replied she'd gotten some of the bad info from... the NAA Website! She e-mailed, "Well, I got just about everything wrong on that one. In my defense, the caption on the picture of the biplanes in Hangar One, from the Naval Airship Association, says "Forlorn Airship Sparrowhawks..." Calling the *Macon* a blimp was just a dumb mistake on my part. I know better. Thanks for your gently worded corrections." Several messages have been exchanged re: correcting possible errors and taking advantage of enhancement opportunities on the NAA website. Ω

In a story "Amateur sleuth helps stop National Archives thefts" the AP reported a judge in Maryland sentenced Leslie Charles Waffan to a year and a half in prison and fined him \$10,000. Waffan, who had worked at the National Archives for 40 years, acknowledged stealing thousands of sound recordings from the archive. The stolen recordings ranged from a recording of the 1948 World Series to an eyewitness report of the *Hindenburg* crash. Ω

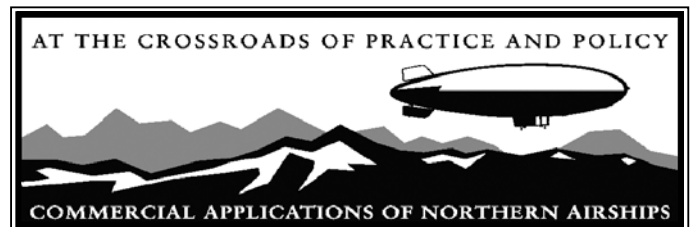
BLACK BLIMP



Joseph Gordon Vaeth, 91, passed 11 MAR 2012. Gordon was a most accomplished author and historian on the subject of airships. He was called 'leader of the airship underground' during his earlier days with the Naval Airship Program at the start of World War II. During his active duty in the Navy (1942-1946), he was assigned to Commander Airship Patrol Group One, later Commander Fleet, Airships, Atlantic, as air intelligence officer. VADM Rosendahl tasked him to research LTA in postwar Europe. He entered civilian life in 1947, continuing to work with programs relating to airships, including the Office of Naval Research, The Helios project, and Skyhook. He continued to author numerous articles and books on airships. He is survived by his wife Corinne and son Gordon. Ω

READY ROOM

July 31-August 2, 2012, Anchorage, Alaska





Claude Makin



Al Robbins



(Top) I would like to thank the nominating committee and voting membership for your confidence in my abilities to lead this fine group. I would also thank Ross Wood for his encouragement and support. The NAA has come a long way from its earliest meetings and I am proud, and humbled, to join such a distinguished list of presidents. I will do my best to continue their legacy. I will present my vision for the future at an upcoming executive council meeting and a future Noon Balloon. I am very pleased to announce that **Bill Wissel** has agreed to accept my invitation to join the Executive Council as the West Coast Member-at-Large. This gives us a very reliable and professional presence on the west coast for our members. Bill has extensive experience with the Moffett Field restoration project and has been an NAA member in good standing for a number of years as well as a generous supporter of our association. He brings a deep interest in LTA and many years of business experience to the table. Please join me in welcoming Bill. - **Fred Morin**

(Top Rt) ZW-1 NAN pilot **Claude Makin** retakes control. (Right) History Committee Chair **Al Robbins** points out an AN/ARC radio in one of the 243's parts crates. We noted some other equipment that was missing some vacuum tubes, no doubt long robbed for HTA craft. (Below) First step in the long road to restoration is completed by AMARG's Gene Pearson – refreshing the Patrol Aircraft Commander and Plane Captain's names on the sides. At right is **Bob Keiser** in happier days, ready to board the 3W at Akron. Bob sent a message to the assembly expressing his regrets that poor health did not allow him to attend this year's Reunion.





Wick Elderkin (left) not only made up a thank you signature poster for Gene Pearson, Mark Seitz (r) and the other helpful folks at AMARG, but organized a comment card effort to petition the folks at Pima to consider including LTA at their Air Museum.



(L to R) **John Kumke, Ross Wood, Larry Gallagher** and **Charlie Weithaus** pose by their ZW-1 ride.

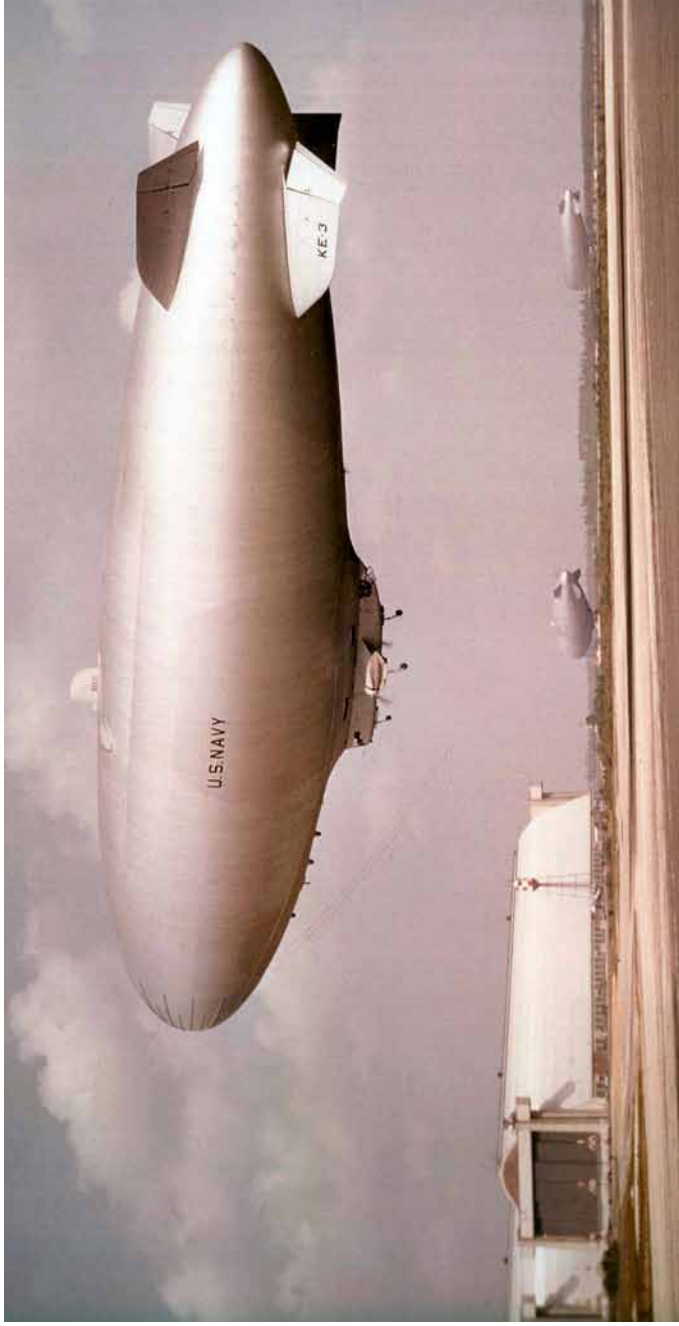


“This kitchen is a disaster!” The dinette seats and tables are outside in a crate, but the 3W’s pantry and mess is still recognizable compared to new (Right).



With engine access through the ballonnet ducts, the pylons housed the more substantial 3W main gear and the same radials as the Super Connie.





ZPG-3W in her 1959 prime at Lakehurst and the NAA assembly what's left, 3 May 2012. With some difficulty the group was positioned by Ross Wood, who not only took pictures but printed copies for attendees.

