



The early nuclear weapon delivery systems; Convair's B-36 and Boeing's B-52

# Long Island Early Fliers Club, Inc.

## January, February 2018 Newsletter

Editor: Fred Coste

Volume 3, Issue 1

### Editor's Note:

The name "Strategic bombing" became one of the military buzz words toward the end of WWII. With the start of the Cold War and the developing age of nuclear weapons, a delivery system was needed to place the newly found destructive power on an enemy's homeland. This was a time of transition before the development of Intercontinental Ballistic Missiles. (We had only just put Werner Von Braun to work on that project once we moved him and some of his friends here after the fall of Germany.)

It was a dangerous time in aviation research. The piston engine Convair B-36 Peacemaker was the first long range bomber to enter service in 1948, having six engines and a range of 10,000 miles. The B-36 was soon replaced, after only 7 years, in 1955 by Boeing's jet powered B-52 Stratofortress, which, in addition to jet power from eight engines, featured swept wings. It can carry 70,000 pounds of weaponry a combat range of 8,800 miles. The B-52, better known a "BUFF" (Big Ugly Fat F...well never mind – the title isn't fair), is still in service and projected to receive an engine upgrade soon. It is likely to be the first airplane to see service for 100 years. Because of its superior performance at high subsonic speeds with relatively low operating costs, the BUFF has been able to remain in service despite the competition from more advanced aircraft like the Mach 3 B-70 Valkyrie (program cancelled), the B-1 and the Stealthy B-2 Spirit.

One of my favorite bits of information about the B-52 is the fact that it has steerable main landing gear. With a 185 foot wingspan, a crosswind landing could mean the dragging of the



windward wing tip on the ground, during a crosswind landing. It is also necessary because the main gear is made up of four gear “trucks” two toward the front; two toward the rear. By having all four steer in unison, a BUFF can land and take off in a wings level, crabbed attitude. (see photo above).

Despite the size of this airplane, the crew area is cramped. The first time I climbed into one, I was stunned at how little room was available, not to mention the poor S.O.B who had to slink his way back to the tail gunner position before the modification that placed a video camera back there to allow the tail gunner to stay toward the front of the airplane with everybody else!

One last tidbit..... If you’ve ever been in the center seating section aft of the main gear in a jumbo passenger aircraft (like a 747), you may have noticed the winglets as you look left and right out of the cabin windows. As the plane accelerates down the runway, the winglets may seem to disappear. The wings actually bend upward and out of the field of vision

through the window as the wings start producing lift. On a B-52, the wingtips can flex 32 feet in either direction from the center point! (yes, a total of 64 feet). Next time you fly a jumbo jet, take notice of the wing flex. Phenomenal engineering – but that’s Boeing!

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### **A tough day of flying in a B-36**

**(A bad day, or just bad decisions? –Ed.)**

***(Author unknown)***

Aircraft Commander Lt. Oliver Hildebrandt, Pilot Lt. Walter Ross, and Co-pilot Captain Wilbur Evans and a crew of thirteen took off from Carswell AFB in a B-36B, of the 26th Bomb Squadron of the 7th Bomb Wing at 5:05 A.M. on November 22, 1950. The planned 30-hour training mission consisted of air-to-air gunnery, bombing, simulated radar bombing, and navigational training.

Immediately after take-off, the #4 alternator would not stay in parallel with the other three alternators, so it was taken off-line and de-excited three minutes into the flight.

About one minute after the #4 alternator was shut down, flames 8 to 12 feet long erupted from around the air plug of the number-one engine. The left scanner reported the flames to the pilot. Six minutes after take-off, the flight engineer shut down the number-one engine, feathered its propeller, and expended one of its Methyl bromide fire extinguishing

bottles. The mission continued on the power of the remaining five engines. We cruised to the gunnery range on Matagorda Island at an altitude of 5,000 feet, arriving at 7:00 A.M. and the gunners began practicing. Radar Observer Sgt. Ray Earl manned the tail turret. The charger for the right gun burned out, so he expended just half of his ammunition. Then the APG-3 radar for the tail turret started acting up, so Sgt. Earl secured the set.

Lt. Oliver Hildebrandt noted that the vibration from firing the 20mm cannon increased significantly during the fourth gunnery pass. Immediately afterward, radar operator Captain James Yeingst notified Hildebrandt that the APQ-24 radar set blew up and was smoking. Vibration from the firing of the guns was causing shorting between the internal components of the radar. Then the liaison transmitter failed as well.

The cannon in the left forward upper turret and the left rear upper turret stopped firing. The gunners attempted to retract the gun turrets, but the failed turrets would not retract. Gunner Sgt. Fred Boyd entered the turret bay, but other problems began to take precedence over the stuck turrets. Boyd was called out of the bay before he could manually crank the turret down.

At 7:31 A.M. the number-three engine suffered an internal failure. The

torque pressure fell to zero. The manifold pressure dropped to atmospheric pressure. The fuel flow dropped off, and the flight engineer could not stabilize the engine speed.

The pilot shut down the number-three engine and feathered its propeller. The B-36B had only one operating engine on the left wing, so the pilot *{finally!-ED}* aborted the remainder of the training mission and set course for Kelly Air Force Base.

Flight engineer Captain Samuel Baker retarded the spark, set the mixture controls to "normal", and set the engine RPMs to 2,500 to increase the power from the remaining engines. Unknown to Captain Baker, the vibration from the guns had disabled the electrical systems controlling the spark settings and fuel mixture. He immediately discovered that the turbo control knobs no longer affected the manifold pressure.

The B-36 could not maintain its airspeed on the power of the four remaining engines. It descended about 1,000 feet and its airspeed bled off to 135 miles per hour. The pilot called for more power. The flight engineer attempted to increase engine speed to 2,650 RPM and enrich the fuel mixture, but got no response from the engines except for severe backfiring. The fuel mixture indicators for all of the engines indicated lean.

The second flight engineer, Sgt. Edward Farcas, checked the electrical fuse panel. Although the fuses appeared to be intact, he replaced the master turbo fuse and all of the individual turbo fuses. He noticed that the turbo-amplifiers and mixture amplifiers were all cooler than normal. He climbed into the bomb bay to check the aircraft power panels and fuses, but could not find any problem there.

Kelly Air Force Base had a cloud overcast at just 300 feet and the visibility was restricted to two miles. The weather at Bergstrom Air Force Base was not as bad, with scattered clouds at 1,000 feet, broken clouds at 2,000 feet and 10 miles visibility. Carswell Air Force Base was clear with 10 miles visibility, but it was 155 miles farther away than Bergstrom.

Air traffic control cleared all airspace below 4,000 feet ahead of the crippled B-36. Aircraft Commander Hildebrandt was flying on instruments in thick clouds.

The poor weather at Kelly Air Force Base convinced Hildebrandt to change course from Kelly to Carswell Air Force Base, passing by Bergstrom Air Force Base on the way in case the airplane could not make it to Carswell.

Bombardier Captain Robert Nelson made two attempts to jettison the 1,500 pounds of practice bombs in the rear bomb bay, but the bomb bay doors would not

open by automatic or manual control, or emergency procedure.

There was no way to dump fuel to reduce the weight of the B-36. The flight engineers resorted to holding down the switches used to prime the fuel system in an attempt to increase fuel flow to the engines. Sgt. Farcas held down the prime switches for the number-two and number-four engines while Captain Baker held down the prime switch for the number-five engine and operated the flight engineer's panel. The configuration of the switches did not allow them to prime the number-five engine and the number-six engine at the same time.

The high power demand coupled with the lean fuel mixture made the cylinder head temperatures of the engines climb to 295 degrees C. Flight engineer Baker jockeyed the throttles, decreasing the throttle setting of the engine with the highest cylinder head temperature until another engine grew even hotter. The high temperature caused the gasoline/air mixture in the cylinders to detonate before the pistons reached top dead center, diminishing power and damaging the engines.

Despite the critical situation with the engines, Aircraft Commander Hildebrandt decided to continue past Bergstrom Air Force Base to Carswell.

Bergstrom was now overcast and its runway was only 6,000 feet long. Carswell offered a much longer runway.

By the time the B-36 reached Cleburne, the backfiring on all engines increased in violence. The number-2, number-5, and number-6 engines were running at 70% power and the number-4 engine was producing only 20% power. The airspeed had dropped off to 130 miles per hour. Commander Hildebrandt attempted to restart the number-one engine, the one that had spouted flames on take-off, but fuel was not getting to its induction system. He tried to restart the number-three engine, but could not unfeather the propeller.

As the bomber passed to the west of Cleburne, the right scanner reported dense white smoke, oil, and metal particles coming from the number-five engine. After a short while the number-five engine lost power, and Commander Hildebrandt feathered the propeller on that engine while still twenty-one miles from Carswell Air Force Base.

The B-36 could not stay airborne on the power of the three remaining failing engines. It was flying at just 125 miles per hour, seven miles per hour above the stall speed, losing both altitude and airspeed.

Howard McCullough and W. Boeten were flying a Civil Aeronautics Authority DC-3

near Cleburne. They were notified by Meacham Tower to be on the lookout for the B-36. They spotted it about five miles south of Cleburne. They observed that the number-one and number-three propellers were feathered and the number-five engine was on fire. They turned to follow the descending bomber.

Commander Hildebrandt ordered the crew to bail out of the stricken bomber.



*B-36 "Peacemaker" assembly line*

Bombardier Captain Robert Nelson had bailed out of airplanes on two previous occasions. He had crash landed twice and ditched once. He was the first man to bail out from the forward crew compartment. He suffered contusions of his lower spine when he landed.

Radar Operator Captain James Yeingst responded to stress with laughter and jokes. He was a bit giddy before the bailout. He was the second man to exit from the forward crew compartment. His parachute streamed after he pulled the rip cord. He passed Captain Nelson going

down. Captain Yeingst's parachute mushroomed open just before he hit the ground, but he suffered fatal injuries.

Co-pilot Captain Wilbur Evans was the third man to exit from the forward crew compartment. He had bailed out of airplanes twice before and crash landed several times during WW-II. This time he broke both bones in his lower right leg when he landed.

Navigator Captain Horace Stewart had previously tried to get off flying status because he felt that the B-36 was too dangerous. It is reported that during the hour before bailout, he was tense, nervous, and chain-smoking. He was the fourth man to bail out from the forward crew compartment. He pulled his rip cord right as he exited the forward escape hatch on the left side of the fuselage. His parachute opened and pulled him toward the number three propeller. His head hit the downward pointing blade of the propeller, killing him instantly.

Radio Operator Cpl. Paul Myers followed Captain Stewart out the escape hatch. Myers landed with minor injuries.

Flight Engineer Sgt. Edward Farcas jumped head first through the exit hatch of the forward crew compartment right after Cpl. Myers. His parachute did not open when he pulled the rip cord. He pulled the parachute out of its pack with his hands and landed with only minor injuries.

Radar Mechanic Robert Gianerakis and Flight Engineer Captain Samuel Baker were the next to escape from the forward compartment. Both landed with only minor injuries.

Radio Operator Sgt. Armando Villareal bailed out after Captain Baker.

Villareal did not trust his parachute to open, so he pulled the rip cord while he was still in the forward crew compartment. He held his parachute in his arms as he jumped feet first through the escape hatch. Despite his unorthodox method of escape, he landed with only minor injuries.

Pilot Lt. Walter Ross was the next to last to leave the forward compartment. He landed with only minor injuries.

Gunner Sgt. Andrew Byrne and Radar Observer Sgt. Ray Earl were the first two crew members to bail out of the rear crew compartment. Both landed with only minor injuries.

Gunner Cpl. Calvin Martin was the third man to exit the rear crew compartment. He was swinging under his parachute as he hit the ground. He broke his right ankle as he landed. He fell backward onto a rock, fracturing his third lumbar vertebra and compressing his tailbone.

**Gunner Sgt. Ronald Williams followed Cpl. Martin out the rear escape hatch. He landed with only minor injuries.**

**Gunner Sgt. Fred Boyd was the last man to exit the rear crew compartment. He called to Commander Hildebrandt over the intercom to let him know that everyone had escaped from the aft compartment. When he turned back to the exit hatch, it had fallen shut. He had to open the hatch again to make his escape. He broke the fibula of his left leg when he landed farther to the north than the other crew members.**

**After Sgt. Boyd reported that all other crew members had bailed out of the rear compartment, Commander Hildebrandt set the autopilot and jumped clear when the bomber was less than 1,000 feet above the ground. He and nine other crew members escaped from the B-36 with only minor injuries.**

**When McCullough and Boeten in the DC-3, saw the parachutes of the escaping crew members, they announced the bail-out on the emergency frequency of 121.25 megacycles.**

**Each report of Emergency Parachute Jump indicates that the incident occurred 20 miles south southeast of Carswell Air Force Base.**

**The descent of the B-36 was witnessed by Mr. Buck Bell and his wife, who lived about 5 to 7 miles southwest of Crowley, Texas.**

**Mr. Bell saw the crew members parachuting from the bomber, but did not see it hit the ground about one mile north of his house.**

**The B-36 descended straight ahead in a nose-high attitude for a mile after Commander Hildebrandt bailed out. It stalled, pitched nose down, and impacted in a terraced field on Les Armstrong's Dairy, 14 miles south of Carswell Air Force Base, and six miles west of Crowley at 9:50 in the morning. The forward crew compartment separated and folded underneath the rest of the fuselage. The tail section broke off, and the rear crew compartment came away from the mid-fuselage as the wreckage slid 850 feet along the ground and twisted to the right.**

**The rear sections of the airplane remained largely intact. The elevation at the crash site was approximately 700 feet.**

**Four minutes after the crash, McCullough and Boeten in the DC-3, reported that two Navy aircraft were circling the wreckage.**

**The wreckage smoldered for about eight minutes before a fire broke out in the number-six engine. The 15,000 gallons of remaining fuel consumed the forward fuselage and wings. The civilians and crew members were driven away from the crash site by exploding ammunition and the knowledge of the presence of 1,500 pounds of bombs aboard the airplane.**

***Click this link....the crew should have responded to the Commander like this! 😊***

<https://www.youtube.com/watch?v=qh42k3Kvxck>



***After only seven years of service, the B-36 was replaced by the B-52, which proved to be much more reliable and has stood the test of time. Next, a bad day in a B-52. Note the improved judgement and decision making in this crisis.***



### **Now for a look at the B-52**

January 10, 1964, started out as a typical day for the flight test group at Boeing's Wichita plant. Pilot Chuck Fisher took off in a B-52H with a three-man Boeing crew, flying a low-level profile to obtain structural data.

Over Colorado, cruising 500 feet above the mountainous terrain, the B-52 encountered some turbulence. Fisher climbed to 14,300 feet looking for smoother air. At this point the typical day ended. The bomber flew into clear-air turbulence. It felt as if the plane had been placed in a giant high-speed elevator, shoved up and down, and hit by a heavy blow on its right side.

Fisher told the crew to prepare to abandon the plane. He slowed the aircraft and dropped to about 5,000 feet to make it easier to bail out.

But then Fisher regained some control. He climbed slowly to 16,000 feet to put some safety room between the plane and the ground. He informed Wichita about what was happening. Although control was difficult, Fisher said he believed he could get the plane back in one piece.

Response to the situation at Wichita, and elsewhere, was immediate. An emergency control center was set up in the office of Wichita's director of flight test. Key Boeing engineers and other specialists were summoned to provide their expertise. Federal Aviation Administration air traffic control centers at Denver and Kansas City cleared the air around the troubled plane. A Strategic Air Command B-52 in the area maintained radio contact with the crew of the Wichita B-52.

As Fisher got closer to Wichita, a Boeing chase plane flew up to meet him and to

visually report the damage. When Dale Felix, flying an F-100 fighter, came alongside Fisher's B-52, he couldn't believe what he saw: The B-52's vertical tail was gone.



Felix broke the news to Fisher and those gathered in the control center. There was no panic. Everyone on the plane and in the control center knew they could be called upon at any time for just such a situation. In the emergency control center, the engineers began making calculations and suggesting the best way to get the plane down safely. The Air Force was also lending assistance. A B-52, just taking off for a routine flight, was used to test the various flight configurations suggested by the specialists before Fisher had to try them.

As high gusty winds rolled into Wichita, the decision was made to divert the B-52 to Blytheville Air Force Base in Northeastern Arkansas. Boeing specialists from the emergency control center took off in a KC-135 and accompanied Fisher to

Blytheville, serving as an airborne control center.

Six hours after the incident first occurred, Fisher and his crew brought in the damaged B-52 for a safe landing. "I'm very proud of this crew and this airplane," Fisher said. "Also we had a lot of people helping us, and we're very thankful for that." The B-52, Fisher said, "is the finest airplane I ever flew."



### \*\*\*\*\*LIEFC News\*\*\*\*\*

Andy Tomaiko reported that Member Richard Basak was hospitalized and released after some testing. We wish Richard a speedy recovery. You can send your good wishes to him at:

23 Dogwood Lane  
Patchogue, NY 11772

We were saddened to learn of the passing of long time member Lester Davis on December 9<sup>th</sup> in Cartersville, Georgia. He was 91 years old. Randy Davis sent us a

wonderful remembrance of his dad, which was emailed to members in December. The Long Island Early Fliers Club also gratefully acknowledges a donation of \$500.00 in memory of Les. Although not yet announced, we are planning to develop a Wall of Remembrance in our hangar, which will feature an engraved plate bearing the name of the honoree. Our first plate will be in honor of Les.

**L.I.E.F.C. Second Annual Holiday Party a great success!**



With 53 intrepid members and their families fighting the first winter chill in our nice warm hangar, we enjoyed great food, provided by Trio's Restaurant (located at Holbrook Country Club).



One of the featured events at this year's party was our Mach Money II Raffle drawing. Congratulations to the following winners:

First Prize: Eric Sandberg

Second Prize: Joseph Mercante

Third Prizes: Paul Emmert

K. Wanderlicht & F. Spies

Fourth Prizes: Dr. H. Heller

Jerry Monnachio

**L.I.E.F.C. Dues for 2017 are due!**

Dues bills have started going out to our membership list of almost 200.

We have several lifetime members who have indicated their willingness to make a dues payment to help support the Club, so if you are a Lifetime member and you receive a dues invoice, please don't be upset. We are simply following through on the request of several lifetime members who have indicated that for \$35.00 a year, they would like to continue their support and receive an invoice as a reminder.

For everyone else, please renew at your earliest convenience to keep our newsletter, meeting notices, and announcement of our activities coming to your computer. Realizing that there are some members who do not have email capability, we do send a handful of items out through the U.S. Postal Service. If you do not have email, you need to let us know! Please complete the card you receive in the mail and send it back with your dues payment in the envelope provided.

**Don't miss our next  
Washington bus trip  
April 12,13,14, 2018**

*Details and sign up form are at the  
end of this newsletter*

**Time to smile.....**

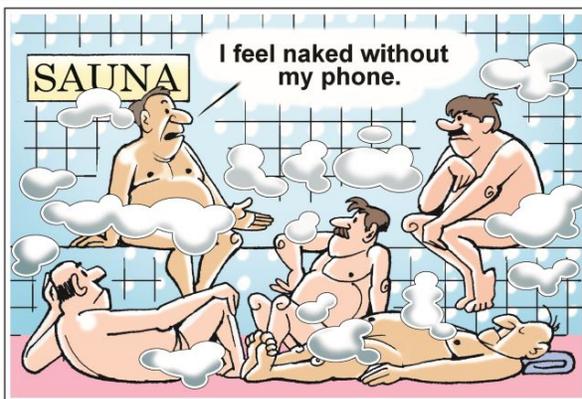
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**Some days  
I amaze myself.**

**Other days, I put my  
keys in the fridge.**

**When people  
say: "Stop living  
in the past, my  
thought in turn  
is, "But the  
music was so  
much better  
then!"**

**The generation of  
today are so allergic  
to everything, future  
wars will be fought  
by throwing bags  
of peanuts and cat  
hair at each other.**

VIA FUNNYSTATUS.COM

# The Long Island Early Fliers Club, Inc.

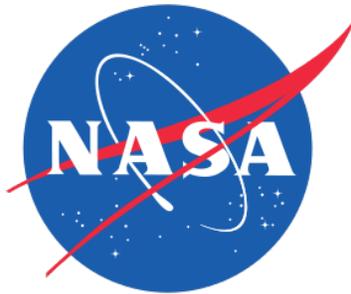
\*\*\*\*\**Special Notice*\*\*\*\*\*

We are pleased to announce our latest bus trip to the Washington  
D.C. area:

**Thursday, April 12<sup>th</sup> through Saturday, April 14<sup>th</sup> 2018**

*When was the last time you were behind the scenes at a NASA facility?*

- 1). NASA Goddard Space Flight Center – for a tour of the Hubble Space Telescope Operations Control Center and the Earth Science Control Center**



**this is a private tour during which we will see areas that most people only catch glimpses of on TV.**

- 2). Tour of Mount Vernon (George Washington's home) and  
The International Spy Museum**

**By popular demand, a day of something other than aviation themes!**



**3). Steven Udvar Hazy Center at Dulles**  
***(Includes a private tour of museum highlights and lunch)***



**Included in this trip:**

- 1). Roundtrip transportation from NY to Washington. (Includes bus driver gratuity)
- 2). Two nights at Embassy Suites Hotel (Includes full breakfast and cocktail reception each day)
- 3). Admission charges / tours at various locations. (Mt. Vernon, Spy Museum, lunch at Hazy Center)

**Cost of this excursion: (Prices include all items mentioned)**

- 1). Single Occupancy: \$567.00 per person
- 2). Double occupancy: \$461.00 per person (two sharing a room)
- 3). Triple occupancy: \$409.00 per person (three sharing a room –  
Embassy Suites Hotels have a bedroom with two double beds and  
a living room with a convertible couch.)

**To reserve your seat, please forward your deposit of \$100 per person by January 15<sup>th</sup>**  
**(after that date, unused rooms need to be released, so please book early – NOTE we need 30**  
**participants signed up by January 15<sup>th</sup> to make this trip work.)**

**Please call Fred Coste with any questions at 631-523-5407**

***(If no answer, leave a message and he will get back to you)***

**Thinking about it? When was the last time you were able to get into  
the control room for the Hubble Space Telescope at NASA?**

# The Long Island Early Fliers Club, Inc.

**Washington D.C. bus trip sign-up sheet:  
Thursday, April 12<sup>th</sup> through Saturday, April 14<sup>th</sup> 2018**

**Count me in!!!!  
(Please print legibly!!!!)**

**Name:** \_\_\_\_\_

**Sharing room with:** \_\_\_\_\_

**Address:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Phone:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Single occupancy: \$567.00 Please send \$100 deposit per person. (Sorry, the deposit is only refundable until January 30<sup>th</sup>.)**

**OR**

**Sharing a room: Two people - \$461.00 per person; Three people - \$409/00 per person (three sharing a room- Embassy Suites Hotels have a bedroom with two double beds and a living room with a convertible couch)**

**Visa, MasterCard, American Express, Discover Accepted!**

**Space is limited....book early!**

**Return to this form with a deposit of \$100.00 per person to:**

**L.I.E.F.C., Inc.  
P.O. Box 43  
Holbrook, NY 11741**

**Please call Fred Coste with any questions at 631-523-5407**

*(If no answer, leave a message and he will get back to you)*

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**The LONG ISLAND**  
*Early Fliers Club*

Long Island Early Fliers Club, Inc. is a non-profit organization founded in 1956 and Chartered by the New York State Education Department. We are dedicated to aviation education and preserving Long Island's aviation heritage. Volunteers who want to help educate and preserve our history are always welcome. Annual Membership in our organization is \$35.00 for individuals; \$50.00 for families.

Donations of aviation memorabilia, aircraft and aircraft parts, aviation clothing, display quality models and items of historic significance are always welcome and greatly appreciated. Cash donations, as well as artifact donations are tax deductible. You may visit our facility at Bayport Aerodrome, Vitamin Drive, Bayport New York most Wednesdays between the hours of 9:00 a.m. and 1:00 p.m. Appointments are necessary as airports are secure locations and can also be arranged at other times for your convenience. Contact us at: L.I.E.F.C., P.O. Box 43, Holbrook, NY, 11741 or call (631)-523-5407 (Fred Coste) or fax: 631-588-2147

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