



Runway 15



The Monthly Newsletter for EAA Chapter 1541, Lincoln, California

December 2016

Briefing Strip

- The Chapter 1541 Christmas Party is being held on **Wednesday, December 14**, at Cattleman's Restaurant in Roseville. More information on page five of this newsletter.
- Chapter dues of \$20 (per calendar year) are coming due for 2017. Members can pay using PayPal, with check or with cash. Dues are tax deductible since we are a 501[c]3. See Jim Hughes to pay your dues, or go to the chapter website to pay via PayPal.
- The chapter has received a 5th wheel travel trailer as a donated item and it will be offered for sale as a fund raiser for the chapter. Check the website for updated information.
- As has become the chapter tradition, the January and February chapter meetings (**Wednesday, January 18** and **Wednesday, February 15**) are being held at Cattleman's Restaurant in Roseville. It's a winter thing.
- One of the two EAA Ford Tri-motors is wintering in northern California. As part of that opportunity, local events are being scheduled that offer flight experiences. Tentative dates are Marysville for the weekend of **January 5-8**, and another event at Lampson Field (Lakeport) on **January 19-22**. Go to <http://www.eaa.org/en/eaafly-experiences/fly-the-ford-eaa-ford-tri-motor-airplane-tour> for the latest information.

Calendar

- Wednesday, December 14:** Chapter 1541 Christmas Party at Cattleman's Restaurant, Roseville, beginning at 18:00.
- Saturday, December 17:** Lincoln Airport Aircraft Display Day, 08:00-12:00.
- Wednesday, December 21:** Lincoln Airport Committee Meeting, 10:00 am in the First Floor Meeting Room at Lincoln City Hall, 600 6th Street, Lincoln.
- Sunday, December 25:** Christmas Day, Closed.
- Wednesday, January 4:** Chapter 1541 Board of Directors meeting Pizza Roundup, 2270 Nicolaus Rd., Lincoln. Dinner at 18:00; meeting at 18:30.
- Thursday, January 5-Sunday, January 8:** EAA Tri-Motor tour stop at KMYV.
- Saturday, January 7:** EAA Chapter 1541 Pancake Breakfast, 08:00-10:00.
- Saturday, January 7:** Sutter County Airport (O52) Open Hangar Day.
- Wednesday, January 18:** EAA Chapter 1541 Member Meeting Cattleman's Restaurant,, 18:00.
- Thursday, February 2:** Take Christmas decorations down.

*For the most up-to-date information, go to the website
<http://eaa1541.org/>*

Newsletter Contributions

Please help make this newsletter better by contributing stories and photos that might be of interest to other chapter members. Perhaps where you flew, what you are building, or what you know about something. A few short paragraphs and a photo or two of your project or travels would be a great contribution. I'll take care of the rest. Please email me (Scott Thompson) at sthompson@aerovintage.com or call me at 916-716-3442.

Tidbit from the AIM

4-3-24. Flight Inspection/'Flight Check' Aircraft in Terminal Areas

a. Flight check is a call sign used to alert pilots and air traffic controllers when a FAA aircraft is engaged in flight inspection/certification of NAVAIDs and flight procedures. Flight check aircraft fly preplanned high/low altitude flight patterns such as grids, orbits, DME arcs, and tracks, including low passes along the full length of the runway to verify NAVAID performance.

b. Pilots should be especially watchful and avoid the flight paths of any aircraft using the call sign "Flight Check." These flights will normally receive special handling from ATC. Pilot patience and cooperation in allowing uninterrupted recordings can significantly help expedite flight inspections, minimize costly, repetitive runs, and reduce the burden on the U.S. taxpayer.

Wants and Disposals

Wanted: Things to list here that members want to find or want to get rid of. Please advise of the item and contact information via email to sthompson@aerovintage.com. One email gets one entry for one month here.

Chapter Information

Meetings:

Usually the third Wednesday of each month held at KLHM Hangar S-12. Details available at the website.

E-mail:

lincolneaa@hotmail.com

Website:

<http://eaa1541.org/>

Mailing address:

EAA Chapter 1541, PO Box 1126, Lincoln, CA 95648

Chapter Hangar:

Hangar S-12, Lincoln Airport

Chapter Officers

President:

Ron Wright (ronpw@hotmail.com)

Vice President:

Tony Kasabasich (tonykasabasich@yahoo.com)

Secretary/Treasurer:

Jim Hughes (jim.hughes1@att.net)

Chapter Board of Directors:

Bruce Estes

Tom Lieb

Bob Miller

John Perry

Bruce Robinson

Dug Smith

Bill Wootton

Webmaster:

Dug Smith

Newsletter:

Scott Thompson (916-716-3442)
(sthompson@aerovintage.com)

Membership:

Open to all. Chapter dues: \$20 per year.

President's Corner

Time goes by so quickly. I am half way through my time as President. I find myself at this point understanding and appreciating how our group is really a team and definitely not a organization lead by one. The first half of this letter is to thank the friendly, knowledgeable, proactive officers, board members, and general members of 1541.

Everything we have done over the last year and are actively doing at this time has truly been enhanced with the ideas, input and actions of all. Just to name a few that make everything possible are Secretary/Treasurer Jim Hughes (the glue that holds everything together) for sending out announcements, record keeping and much more, board member Dug Smith for providing a first class web site (and he is a darn good cook too), and Scott Thompson for a monthly news letter that we are all very proud of. Lastly, I wish to thank the Gold members that made the impossible become possible by enabling us to have a Home club hangar. Our membership has very nearly doubled in the last year as a result and the energy and enthusiasm can be felt. Our current membership is 109 and growing. Thanks to all.

Looking ahead to our goals for 2017, there will be another Air Fest with a second day of activity to include a STOL competition. I would compare this event to a airplane rodeo of short takeoffs and extremely short landings that look more like a controlled crash than a landing. This will be very exciting and what's more, the STOL competition will be organized by our Vice President Tony Kasabasich!

Additionally for 2017, we are now in our second month of research to develop a youth and community outreach program. Board member Bruce Robinson is spearheading this effort. This program is now beginning to take form; however, details will not be in place for another month or two. What is exciting about this effort is how the program will reach out to the community and youth in a unique way that will enhance and restart our Young Eagles and a new Eagles program. If this sounds like something you might want to help with, contact Bruce Robinson and you will be included in the planning and development of the effort.

2017 will be a very exciting year. I want to thank you all for participating in 1541 and making it the great organization that it is.

Ron Wright
President
Chapter 1541

tower, Teletype, Weather. Tel: 331.

LINCOLN—Lincoln Municipal Airport (3) City ; 3.5 mi W ; El 112 ; Sacramento Cht. Paved runways: 3 N 4250 ; 1 E 4250. Field markings. Services: Adm Bldg, Office, Minor repairs, Gas: 80-91 Oct, Training, Charter Sales, 24 hr service, Car, Restaurant, Lounge, Rest rooms, Airtel. L. H. McCurley, Mgr. Tel: 211-J.

SHELL PRODUCTS AVAILABLE

LINDSAY—Colburn Field (s-l) Private; 4.7 mi

The entry for the "Lincoln Municipal Airport" as contained in a 1948 Airport Directory published by the Haire Publishing Company.

Last Month's Meeting...

by Jim Hughes

The November EAA 1541 Member meeting included a special presentation by Chris Brooks, an Aviation Safety Officer with the Office of Airports, the Aeronautics Division of the California Department of Transportation (better known as CalTrans).

Have you ever wondered who issues permits for California airports and heliports?



Did you know that every public use California airport and heliport is inspected every year for compliance with California and FAA regulations?

There are six Aviation Safety Officers that do this work across six areas of the state.

They and the aircraft they fly are all based at the Sacramento Executive airport, so flying south to areas V and VI makes for a long day for them.

Chris Brooks contacted me about doing a presentation. He found me from an FAA Safety Seminar that I had posted on the FAA website for the Beale Aero Club. (I'm an FAASTeam Safety Representative.) I asked him if he would do his presentation for our EAA chapter, and after his

supervisor had approved, we set it up for our November member meeting.

Chris and all of the other five Aviation Safety Officers are pilots with commercial and IFR ratings, both of which are required for the job. They fly to the airports within their area of responsibility in one of the office's Beech Bonanzas.

Chris flew into KLHM at about 6 p.m., after flying to Redding and then Lampson, where he rented a car so he could perform an inspection of a hospital heliport.

Chris started the presentation with a Powerpoint slide show on the Aeronautics Division the Office of Airports. The office employs a total of 26 people, and their budget is derived from the aviation fuel tax.

The list of California facilities that they inspect is extensive;

217 public use general aviation airports

27 commercial airports

68 special use airports

8 seaplane bases

163 hospital and 196 corporate, police, fire, and private heliports

Chris reviewed the purpose, the funding, and a lot of statistics on the organization. Interest and attention perked when Chris showed a number of accident photos that were caused by improper activities on a couple of airports.

But the most interesting part was the question and answer session, when chapter president Ron Wright asked about why the runway at Catalina was in such poor condition. Chris's reply was that the local conservancy operates the airport and may be ignoring maintenance in order to get it closed.

Another question was asked about the Santa Monica airport and that city's effort to close the airport. Chris indicated that he didn't want to comment. It's well understood that the fight is between the city of Santa Monica and the FAA.

Also there was Chuck Jones, the FAASTeam Program Manager from the Sacramento Flight Standards District Office. He added to what Chris was saying about some of the local airport conditions and operations.

I'll be inviting Chris to do his presentation again so that more of our members will understand what this important organization does to maintain the safety of our airports.

The Next Meeting... ...is the Christmas Party

Well, there is good and bad news here. The good news is the much-anticipated chapter Christmas Party will be held on **Wednesday, December 14**, at the Cattleman's Restaurant in Roseville.

The bad news is if you are reading this and you have not yet purchased your tickets for the gala event it is, sadly, too late. Ticket sales ended on December 7 to allow the chapter to complete the planning and provide a final number to the restaurant for the set up.

Hopefully, you are not in that situation, and you have tickets firmly in hand and are ready to party.

Joining us will be EAA Chapter 526 members from Auburn who, coincidentally, were planning an identical event on the same night at the same place, so a decision was made to bring the two groups together for one night of holiday fun.

The evening begins at 18:00 and will include live entertainment by our chapter's own Danny Hull and friends. Also on the agenda: a silent auction with some great items including rides in vintage aircraft, local dining opportunities, and wine tasting. Also, there will be a raffle along with the customary good food and holiday cheer.

The menu options are shown below: Come prepared to order your favorite selection and to spend the evening doing some serious hangar flying.



Food will be ordered at the table from the selections below.

2016 EAA 1541 Xmas Party



When: 6:00 PM. December 14th, 2016
Where: Cattleman's Restaurant, 2000 Taylor Rd
Roseville, CA 95678

Dinner: \$45 per person

Entrée choice: Prime rib, Rustler rib eye steak, Grilled Atlantic salmon, Lemon herb chicken, Porcini mushroom & truffle ravioli

Comes with: baked potato, Seasonal vegetables, Salad, Ranch style beans, Sourdough Bread

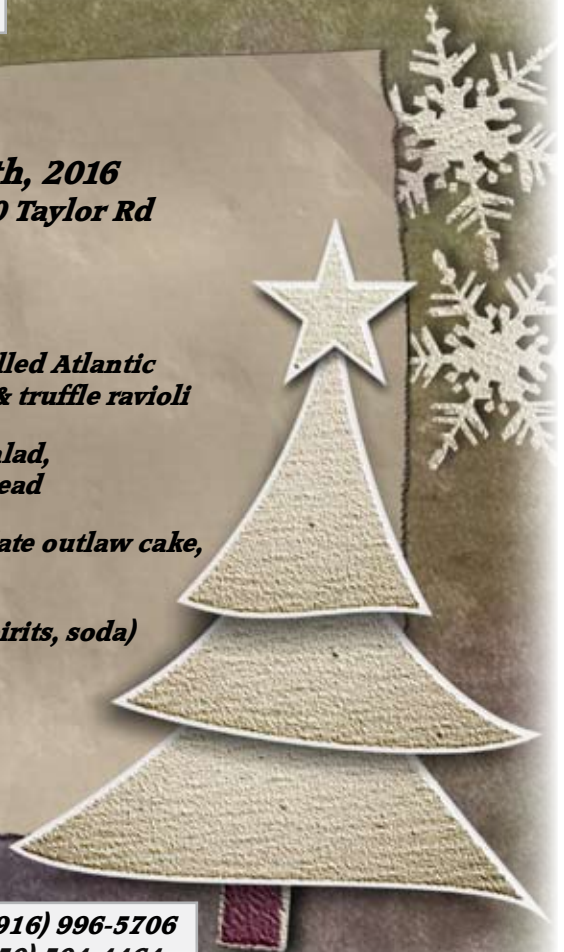
Dessert choice: Grand Canyon cheesecake, Chocolate outlaw cake, 3C ranch carrot cake

Includes coffee, tea, two beverages (wine, beer, spirits, soda)

Entertainment by our own Danny Hull
Silent auction and raffle



Seating is limited, so get your tickets: Bill Wootton (916) 996-5706
Bruce Estes (650) 504-4464



Member Spotlight

Text and Photo by Bruce Estes

Dave Magaw started flying in 1999. He had been building radio controlled models and wanted a bigger challenge, so he purchased a Whitman Tailwind project. Dave figured (correctly) that if he could build models, he could build a full size airplane. He then decided it would be a good idea if he got his pilot's license. Since then, Dave has completed the Tailwind, which he flew for about 350 hours and then sold. Then, he completely rebuilt a Thorp T-18 project which he flew for a while and sold. He also rebuilt a Pitts S-1C single seat biplane (which included rebuilding the engine), rebuilt parts of a two place Pitts that he recently sold, and is currently building a RV4. In addition, Dave owns a 1958 Cessna 172 that had been converted to a tail dragger. It too is currently getting some upgrades. Dave currently owns the Cessna, the Pitts S-1C, a Christian Eagle project that resides in his hangar and the RV4 project. He flew his Cessna 172 to Oshkosh twice, and has traveled to many other spots in the U.S. also.

Dave has so far logged a little over 1,700 hours of flight time, of which about 2/3 is in tail wheel aircraft. On many weekends, Dave can be seen at Byron Airport where he tows gliders for the local glider club. He has been towing gliders for about six years and has about 850 tows. Dave (and the other tow pilots for the NCSA club) does not charge for piloting of the tow plane. Dave explained that gliders introduce a lot of young people to aviation, and he feels strongly that not charging for his piloting services is a way that Dave can contribute to exposing more people to aviation. Plus, Dave really enjoys watching these new glider pilots learn the excitement of flying.

Dave graduated from University of Nevada in Reno with an degree in electrical engineering, then went to law school and got his law degree. While working for the government and a couple of companies, Dave and some friends started restoring a steam locomotive. Yes, a full size, real locomotive. This was another hobby of Dave's. He and his friends then got the bright idea of starting



a railroad company, forming the Yolo Shortline Railroad in 1989. The company was in operation by 1991. In 2003 the Yolo Shortline merged with the Sierra Railroad Co., another short line railroad, and it is now known as Sierra Northern Railway. Dave retired 2 years ago after hiring his replacement, but is still on the Board of Directors and serves as Corporate Treasurer.

Dave obviously stays very busy. Earlier this year he spent three months in Europe, where he was able to fly with some friends. On the day that I interviewed Dave for this article, Dave had ridden his bicycle 63 miles in the morning. Dave has a large hangar two rows East of Tony K's hangar. Stop by and chat with Dave. You will enjoy it.

A Few Statistics for Pondering

- FAA: In 2015, there were 590,029 pilots in the United States, of which 170,718 were private pilots, and of which 122,739 were student pilots. There were 304,329 pilots who held instrument ratings.
- FAA: In 2006, there were 36,101 female pilots of these, there were 14,111 private pilots. In 2015, there were 39,287 female pilots, of which 11,339 were private pilots.
- FAA: The average age of pilot in 2002 was 44.4 years of age; in 2015, the average age was 44.8 years.
- CIA: In 2010, there were 43,982 airports in the world. Of these, there were 15,079 airports in the U.S. (34%). Of those in the U.S., 5,194 airports had paved runways (34%).
- CA Office of Airports: California has 217 public use airports & 108 AWOS locations.
- CA Office of Airports: 59,841 FAA certified California pilots (10% of the US total).
- CA Office of Airports: 29,167 FAA registered aircraft in California (also 10% of the US total).

Have You Thanked a Board Member Recently?

I had the occasion to attend the December board meeting that was held the first Wednesday of the month. In attendance were the ten or so chapter board members and officers, as well as several other interested members who were there to contribute. It occurred to me during the meeting that volunteer organizations such as ours rely critically upon having an active and vital leadership team that not only keeps the lights on, the meetings organized, and the coffee pot full, but also set the overall direction and provide 'big picture' guidance.

There are always opportunities to offer a helping hand for anyone in the chapter, but this group of guys (all men right now, not surprisingly) are the ones doing most of the work to keep things going. Their names are listed on page 2 of the newsletter. It would be a nice gesture to offer a word of thanks to them for what they do.

-Scott Thompson

Five B-17s were used in England in 1989 for the filming of "The Memphis Belle" including this one, B-17F 42-29782, seen here at Geneseo, New York, in July 1990 just after it returned from England. This B-17 is now in the collection of the Museum of Flight at Boeing Field in Seattle. (Scott Thompson)



A Brief History of the People who Created the Light Aircraft Industry in the U.S.

by Martin Maisel

(photos used with appropriate permission)

Part 2

Walter Beech

Walter Herschel Beech was born in Pulaski, Tennessee, on January 30, 1891. Walter attended public school but did not progress beyond the sixth grade. What he lacked in formal education, however, he made up for with his love of reading and his instinctive technical abilities. His interest in aviation showed up early and, in 1905 at the age of 14, he attempted to build a glider of his own design. Although the glider was a failure, it didn't deter him from his dream of flight.

Beech's mechanical talents led to a job as an apprentice automobile mechanic in Minneapolis, Minnesota, in 1911. His adeptness in maintaining automobile engines and his newly acquired chauffeuring skills soon put him in demand among automobile-owning financial executives in that city.

In 1914, Beech and a friend bought a damaged Curtiss biplane. After making all the necessary repairs he, like Clyde Cessna, taught himself how to fly. By 1916 he was an accomplished aviator, having accumulated many hours aloft in his repaired Curtiss aircraft. When the United States entered World War I in 1917, Beech joined the U.S. Army Air Corps and served as an aircraft engine mechanic.

When the Armistice was signed in 1918, Beech decided to remain in the Army. He was chosen as a pilot candidate and became an enlisted airman in October 1919. However, due to air service funding cuts dictated by a peace-minded Congress, Beech's Army service was soon terminated.

Walter Beech, now out of work, approached Art Hill who operated an automobile repair shop in Arkansas, Kansas, seeking employment. As an indication of Beech's financial state at the time, after he was hired Beech asked Art to advance him money, so that he could buy breakfast before starting work the next day. Before long Beech bought an "old" Army surplus biplane in need of repairs. Art Hill allowed him to put the airplane in his shop while Beech and his friends restored it to flying condition. Recollections of local residents indicate that Beech intended to use that aircraft to barnstorm – a popular activity for ex-military pilots during that time.

In 1920 Beech joined the Williams & Hill Aeroplane Company of Arkansas, Kansas, and, during the summer,

took passengers on local sightseeing flights from the landing field north of the city. In December 1920 the Williams–Hill Airplane Company (note the slight difference in the company name, as reported in the local newspaper) put on a "big air frolic," an early fly-in and air show, for which flyers within a radius of 200 miles were invited to attend. One attraction was a "machine designed by Walter H. Beech, engineer and designer for the Williams-Hill Company." The newspaper article continues with "The purpose of the flying frolic is to raise funds for the local company with which to erect hangars on the field north of the city."

Historic records are unclear about what happened next, but there are reports that a hangar, perhaps the one built with proceeds from the air frolic, and where Beech and a few other local pilots stored their aircraft, burned down. The fire was fed, in part, by a drum of volatile dope. The story, as remembered by local residents, was that "Walter Beech approached businessmen in town for \$500 to replace the hangar, saying that he wanted to build airplanes there – they laughed at him. That's when he went to Wichita".

In 1921, now in Wichita, Beech was hired by "Matty" Laird as a test and demonstration pilot and salesman for the E.M. Laird Aviation Company, producers of the Laird Swallow biplane. Beech continued to hone his piloting skills, and within a year had established a reputation throughout the Midwestern states as a daredevil aviator. To prove the reliability and performance of the Swallow, Beech entered, and won, numerous races.



Laird Swallow advertisement (Image courtesy of Dennis Parks, Museum of Flight, Seattle)

When Matty Laird left the company and sold all of his rights to financier Jacob Mollendick, the company was renamed the Swallow Airplane Manufacturing Company. Walter Beech was given increased responsibilities, eventually becoming the general manager of the company. With fellow employee Lloyd Stearman, a proposal to improve the structure of the Swallow by changing the wood fuselage to a steel tube design was presented to their boss. Mollendick would hear nothing about changing the established design of the Swallow. His response to Beech's and Stearman's proposal was typical of the cantankerous Mollendick, and, in 1924, the two young employees decided to leave Swallow and start an airplane company of their own.



Walter Beech, Jacob Mollendick and Lloyd Stearman, 1923 (WingsOverKansas.com)

Beech and Stearman approached a well-known local aviation figure, Clyde Cessna, to join them in the new venture. Cessna had gained his reputation as one of the first aviators and aircraft builders in the region, and had run a successful flying exhibition business. Cessna was named as president of the new Travel Air Manufacturing Company, and provided both business leadership as well as financial support. With the key individuals in place, the Travel Air Company was established in February 1925.

Stearman, having some formal engineering education would be the chief engineer and Beech, with his mechanical skills, took over the manufacturing aspects of the company. The twelfth employee hired by Travel Air was secretary and bookkeeper, Olive Ann Mellor, the only non-pilot in the company at that time.



Olive Ann Mellor, circa 1935 (Beechcraft)

The initial design that rolled off of Stearman's drafting board was a biplane, originally labeled the Model A. Successive models were available with alternate wing designs and provided increased performance with an array of higher horsepower engines. (Later the Model A series was designated the Travel Air 1000, the Model B called the Travel Air 2000, etc.) By the way, the fuselage and tail structures of all Travel Air aircraft used steel tubing, as they had proposed for the Swallow aircraft. Like most planes of the day, the wings had wood spars and ribs and were fabric covered.

Within a year Stearman left Travel Air to start his own aircraft company in California. But, with the customer's ability to select the aircraft configuration that suited their needs, along with a growing reputation for good performance, ruggedness and high reliability, business continued to expand. By August of 1928 Travel Air aircraft accounted for just over 50% of Department of Commerce license applications.



Travel Air 4000 (W.T. Larkins, aerofiles.com)

Clyde Cessna had, for some time, been unsuccessful in persuading Beech to develop a monoplane. Cessna was convinced that a monoplane, with its reduced drag, would offer significant performance advantages over the biplane. In 1926, after Cessna had designed and built a high-wing monoplane, Beech agreed that Travel Air would produce the monoplane. Before long, a fleet of Travel Air 5000 aircraft, a high-wing, strut-braced, enclosed-cabin, 4-passenger monoplane, was ordered by National Air Transport company for their mail and passenger routes. Other airlines soon followed suit. The highly efficient Travel Air 5000 became the first commercial aircraft to cross the Pacific Ocean in July 1927.



Travel Air 5000 "Woolaroc", winner of the California to Hawaii Dole Air Race. (Image is in the Public Domain in accordance with https://commons.m.wikimedia.org/wiki/File:Travel_Air_5000_Woolaroc_NX869_winner_of_ill-fated_Dole_race_in_flight.jpg)

Cessna then wanted to develop a fully cantilevered monoplane which would provide better performance than the strut-braced monoplane. When Beech and the Board of Directors rejected his idea, Cessna sold his Travel Air stock and resigned to start his own company in 1927.

With Cessna out of the picture, Beech, the only remaining member of the original three partners, became president and general manager of the Travel Air Manufacturing Company.

Air racing was not only a major spectator sport of the day, but it was a key means of establishing a company's prominence over aviation competitors by demonstrating exceptional reliability and performance. One of the major events of the time was the National Air Races held in Cleveland, Ohio.

Travel Air designers Herb Rawdon, Ted Wells, and Walter Burnham, set out on their own time to develop an airplane that could outperform all known possible competitors. With the design in hand, they convinced Walter Beech to build the aircraft in the company's shops. The Travel Air entry to the 1929 event, from its inception, was hidden from

the press, who usually had access to, and did extensive articles about the new aeronautical innovations employed to win the races. The restricted access resulted in the press labeling the Travel Air racer as the “Mystery Ship,” and the name stuck. The Type R (“R” for Rawdon, aka the Mystery Ship) went on to win the Thompson Cup Race – the first time in air racing history that a civilian airplane “outraced” the military entries. Other variants of the Travel Air racer set numerous records for both pylon and cross-country racing and were considered to be the most advanced aircraft of the day.



Travel Air Type R Mystery Ship with Jimmy Doolittle. (Image is in the Public Domain in accordance with - https://commons.wikimedia.org/wiki/File:Travel_Air_Mystery_Ship_with_Doolittle.jpg)

The success of the -5000 transport led to the 5-passenger improved and slightly larger Model-6000 in 1928 which served the National Air Transport company well in its growing airline business. However, the good times were about to end.

Travel Air had its peak year in 1929. By that time the company had 650 employees working two shifts in a state-of-the-art aircraft production facility, rolling out up to 25 airplanes per week. But sales slowed significantly just before the Great Depression wiped out much of its customer base.

By the end of 1929 the Travel Air Manufacturing Company had merged with the Curtiss-Wright Corporation. The Travel Air Division joined Curtiss-Wright’s other airframe manufacturing divisions which included the Curtiss-Caproni, Keystone, and Leoning Divisions as well as the Wright Aeronautical (engine) Division and the Curtiss Propeller Division. Beech, serving as a vice-president directed operations of the new company’s Wichita and St. Louis plants.

At Travel Air during the mid-to-late 1920s, Olive Ann Mellor learned the business from the ground up, handling correspondence, maintaining records, conducting transactions, and managing the office. She was quickly promoted to office manager and secretary to Walter Beech, in recognition of her financial and business insight. In February 1930, after the Curtiss-Wright/Travel Air merger, Walter Beech and Olive Ann were married.



*Walter and Olive Ann Beech
(Beechcraft)*

Beech was then appointed president of the Curtiss-Wright Corporation and the couple moved to New York in 1931 so that he could carry out his new responsibilities. However, Walter found that being an executive of a large corporation did not provide the satisfaction that he got from his hands-on involvement in the design and production of aircraft. Beech resigned from Curtiss-Wright in 1932 and Walter and Olive Ann returned to Wichita to start the Beech Aircraft Company – a bold move during the darkest days of the depression. Walter Beech would be the president and his wife served as secretary-treasurer.

Working in a small rented factory, Walter, Olive Ann, engineer Ted Wells, and a small group of employees set out to design and build the first Beechcraft airplane. The product of that effort was a single-engine, fixed landing gear, enclosed-cabin, “negative-staggerwing” biplane, designated the Model 17. Its first flight was on November 4, 1932. The performance of the Model 17 exceeded expectations, and it later won the 1933 Texaco Trophy Race.



*Beech Model 17 – produced from 1934 to 1948
(William Charney)*

As demand for the Model 17 increased, improvements were made that included a retractable landing gear and more efficient engines. The airplane was sleek, comfortable and fast and, as the economy slowly began to recover, the “Staggerwing”, as it was unofficially known, became the epitome of executive airplanes in the 1930s.

In 1934 in order to handle the growing production, the company was moved to the larger old Travel Air facilities which became Beechcraft’s permanent home.



As World War II loomed, demand for variants of the Beech Staggerwing grew. Orders from U.S. and foreign military services poured in and, before production of the type ceased in 1948, nearly 800 had been built. Reflecting its classic and graceful lines, several recent surveys have named the Beech Staggerwing among the world's top ten most beautiful aircraft.

By late 1936, the company issued common stock and changed its name to the Beech Aircraft Corporation. With a growing order list and sufficient funding reserves, Beech was able to invest in the development of a new aircraft. The all-metal Twin Beech Model 18 was designed to serve as an executive transport or to meet the needs of feeder airline businesses. Its outstanding performance was demonstrated by pilots Walter Beech and H.C. Rankin by winning the 1,084-mile non-stop Macfadden Trophy race from St. Louis, Missouri, to Miami, Florida, at an average speed of 234 mph.

During World War II large numbers of Beech Model 18 variants served as multi-engine, bombardier and navigator trainers, executive and utility transports, and ambulance transports. By the time production of the Model 18 family of airplanes ended in 1969, over 9000 Twin Beech aircraft had been built.



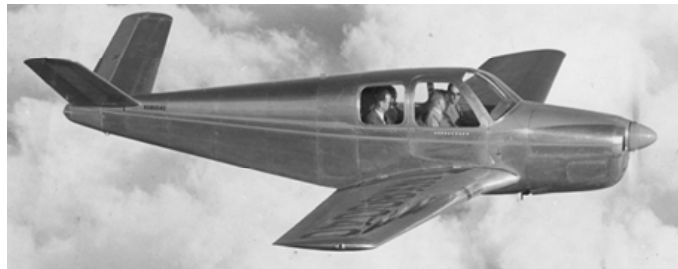
Beech C-45, the US Army Air Forces version of the Beech Model 18S. (National Museum of the USAF)

In addition to the production of variants of the Staggerwing and the Model-18 during the war, Beech developed the AT-10 twin-engine trainer using wood instead of scarce aluminum that would be needed for the military's fighters and bombers. The Beech company also produced parts for troop carrying gliders and other military aircraft.

Walter became seriously ill in 1940 and he was hospitalized for nearly a year. The responsibility of leadership at that critical time fell to Olive Ann, who skillfully steered the company through a period of rapid growth. Employment at the company climbed from 235 in 1939 to over 4000 by 1942. Before the war ended, Beech employment exceeded 14,000 workers.

As the war was coming to an end, Beech again turned his attention to the civilian market. In addition to producing

a commercial version of the Model 18, a single-engine, 4-place, V-tail general aviation was designed and first flown in December 1945. Certification of the Model 35, known as the Beechcraft Bonanza, was obtained in 1947 and it sold well. Production of the Model 35 series did not end until 1982.



Beechcraft Model 35 Bonanza (Beechcraft)

Walter Beech, however, did not live to witness the success of the Bonanza. He died suddenly of a heart attack on November 29, 1950.



Walter H. Beech (Beechcraft)

Following Walter's death, Olive Ann was elected president and chairman of the board. Under her guidance, Beechcraft continued its expansion and diversification. While she was in charge, the company developed a series of new aircraft including the Queen Air, the Debonair, the Baron, and the King Air and entered the space age with the production of a number of missile systems. Beech also teamed with other major aerospace companies to produce assemblies for aircraft and helicopters.

Olive Ann stepped down as president in 1968 and fully retired from the position of chairman of the board in 1982. She died on July 6, 1993, at the age of 89.

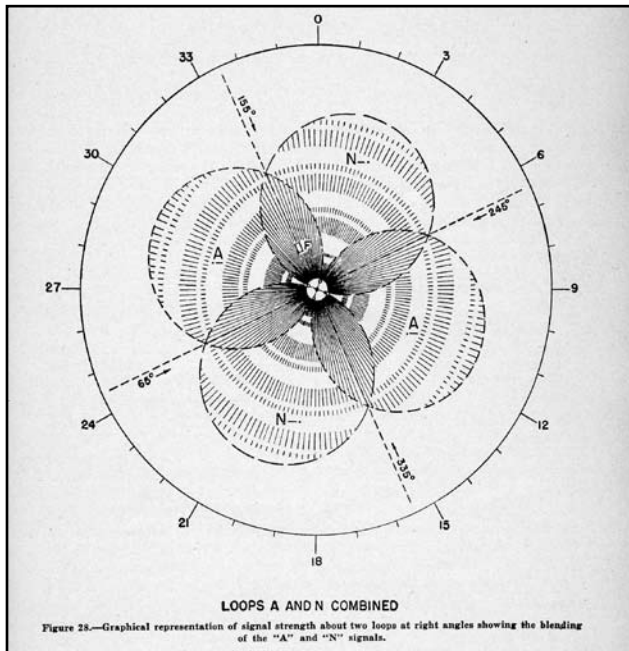
Over its long history, in peace and war, Beech Aircraft built more than 50,000 airplanes and set many speed and distance records. Not a bad legacy for a company run by a man who never got past the sixth grade and a woman trained as a secretary and bookkeeper.

Walter Beech held a Transport Pilot Certificate and had logged more than 10,000 hours in the air. He was inducted into the National Aviation Hall of Fame in 1977 and the International Aerospace Hall of Fame in 1982.

Olive Ann Beech was awarded the Wright Brothers Trophy in 1980. She was enshrined in the National Aviation Hall of Fame in 1981 and the International Aerospace Hall of Fame in 1995. The only other couple in the National Aviation Hall of Fame is Charles and Anne Lindbergh

From Airway Beacons to Radio Navigation: 1920 and 1930s

by Scott Thompson



At left is a graphic suggesting the theoretical radiation pattern of the four-course ranges set up by the Bureau of Air Commerce and the later CAA. The four courses produced by the transmitters could be adjusted in azimuth by changing the relative power of the output. This allowed rudimentary airways to be developed that could interconnect and provide a measure of enroute navigation. It was not particularly accurate and it was difficult for pilots to master, but the four-course ranges provided the first practical method of air navigation when operating solely by aircraft instruments. (CAA)

Below is an 1934 Bureau of Air Commerce Radio Facility Map depicting the four course ranges installed at Williams, Oakland, and Fresno. As the chart indicates, radio marker beacons were also installed at the range sites to aid in knowing when station passage occurred. These ranges transmitted in the low/medium frequency range and thus subject to predictable interference from weather and other anomalies. (CAA)

