



Runway 15



The Monthly Newsletter for EAA Chapter 1541, Lincoln, California

April 2017

Briefing Strip

- Going on right now is a decision-making process to possibly make changes to our monthly chapter meeting days from Wednesdays to Saturdays. Talk to Ron Wright or Jim Hughes, or any board member, with your input.
- The April chapter meeting will be held at the EAA Hangar at KLHM on **Wednesday, April 19**. The program will be on **The Nuts and Bolts of Instrument Approaches** and will be presented by Scott Thompson. Dinner will be available at 18:00 and the meeting will start at 18:30.
- The chapter is going to expand programs by offering technical, educational, and historical presentations on various Saturday mornings at the chapter hangar. The first one will be held on **Saturday, May 13**. Contact Scott Thompson for ideas and input for forthcoming programs. See elsewhere in the newsletter for upcoming programs.
- EAA Chapter 1541 will be providing volunteer support for the Lincoln AirFest to be held **Friday and Saturday, June 9-10**. Jim Hughes is coordinating our chapter volunteers. Ramp support volunteers will be needed. The chapter will organize pancake breakfasts on Saturday and Sunday also.
- Keep checking in at the EAA Chapter 1541 website at <http://eaa1541.org/> for new events being posted all the time. Spring is here and flying activities and opportunities are popping up on a regular basis.

Calendar

- Wednesday, April 19:** Lincoln Airport Committee Meeting, 09:30 am in the First Floor Meeting Room at Lincoln City Hall.
- Wednesday, April 19:** EAA Chapter 1541 Member Meeting at the Chapter Hangar; 18:00 dinner, 18:30 meeting.
- Saturday, April 22:** Calaveras County Fly-In (KCPU), 08:00-17:00.
- Sunday, April 23:** Rancho Murietta (RIU) Historic Aircraft Display Day, 09:00-13:00.
- Wednesday, May 3:** Chapter 1541 Board of Directors meeting, Beermann's Beerwerks, 645 5th St., Lincoln. Dinner at 18:00; meeting at 18:30.
- Saturday, May 6 :** EAA Chapter 1541 Pancake Breakfast and a Movie, 08:00-10:00.
- Saturday, May 13:** Program: Scrapping our World War II Air Force, Chapter Hangar, 0900-1100
- Wednesday, May 17:** EAA Chapter 1541 Member Meeting, KLHM Hangar S-12.
- Saturday, May 20:** Lincoln Airport Aircraft Display Day, 08:00-12:00.
- Thursday-Monday May 25-29, 2017,** Lincoln Powered Parachute FLY IN
- Friday-Saturday, June 9-10:** Lincoln AirFest at Lincoln Airport.

*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

2-1-3. Runway End Identifier Lights (REIL)

REILs are installed at many airfields to provide rapid and positive identification of the approach end of a particular runway. The system consists of a pair of synchronized flashing lights located laterally on each side of the runway threshold. REILs may be either omnidirectional or unidirectional facing the approach area. They are effective for:

- a. Identification of a runway surrounded by a preponderance of other lighting.
- b. Identification of a runway which lacks contrast with surrounding terrain.
- c. Identification of a runway during reduced visibility.



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

Byron Maynard

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



*by Ron Wright
Chapter President*

With the outlook of clear and warm weather coming we (the EAA board members and officers) are looking at some new and fun activities for the coming months. As many EAA Chapter 1541 members have seen recently, there is a survey out to consider having the monthly chapter meetings on a Saturday morning rather than Wednesday evening. This might be limited to summer months only to deal with the heat of evening meetings. We could do this most effectively if the meeting were to be changed to the 2nd or 4th Saturday to avoid conflict with LRAA's display day or, if on the same Saturday as LRAA's event, we would have a 12:00 lunch meeting with a member meeting after lunch. Whatever the day that is ultimately decided to be the best for all, the following is some of the thinking behind the change.

Based upon what many folks have said at the Saturday pancake breakfast, "now that breakfast is over and I'm here at the airport, I think I'll go for a flight." Why not take advantage

of that timing opportunity for a flight with a fellow EAA member? This could be a way to build friendships and to share the fun. As for the chapter monthly meetings, no decision has been finalized yet so there is time to talk to a Board member or send an email to myself or Jim Hughes with your ideas as well. I hope to hear from you on this subject.

On another front and somewhat related to what is discussed above is a new activity program that is to be headed by Scott Thompson, our monthly newsletter editor. To offer additional membership activities and to use the EAA hangar on nearly every weekend, Scott is putting together programs that are aimed at educational and technical programs. Events might include Wings Presentations, how-to clinics, and other aviation programs that should be of interest to members and guests. Another recently suggested idea was to organize a monthly Fly-out. Fly-outs would likely be to meet at an airport within a 40 minute flight time for lunch. This would also be a great time to bring a fellow member.

As you can see we are always looking for ways to make membership in the chapter fun and educational. Please take the time to share your ideas to help make EAA Chapter 1541 a great experience.

In the 1960s and 1970s, Tallmantz Aviation operated a pair of B-25s as motion picture cameraships. They flew world wide missions on various assignments including, as noted on the nose markings here, for the Walt Disney Company. Tallmantz was formed by famed movie pilots Paul Mantz and Frank Tallman, and operated from Orange County Airport for decades. (Scott Thompson)



The March Chapter Meeting...

Chapter 1541s First Standing Ovation!

by Ron Wright

photos by Ron Wright and Jim Hughes

If you were not at Cattlemens last month you missed a presentation that rocked the room. Brian Shul, SR-71 Sled Driver, filled the room with motivation, dedication to personal goals, and self-optimism. For anyone not familiar with Brian's story, you can go to YouTube and watch any number of videos that detail his story of being a survivor from a fireball crash in Vietnam, his horrific recovery from extensive burns from the crash, and his new life after the recovery. Ultimately, he went on to become one of a select few as a "Sled driver" pilot of the SR-71. Brian's presentation was often funny but was consistently inspirational to hear. He made all present recognize the self-potential that lives in all of us if we chose to recognize it.

The presentation was an entertaining balance between the love of flying and of self-discovery. At the conclusion of Brian's presentation, he signed his book of SR-71 photography for all those that purchased. He sold 26 books at \$225.00 each! That could only be done by touching the hearts of everyone in the room which in turn resulted in 1541's first standing ovation for a speaker.

The March chapter meeting was held on Wednesday, March 15, at Cattlemens Restaurant in Roseville.



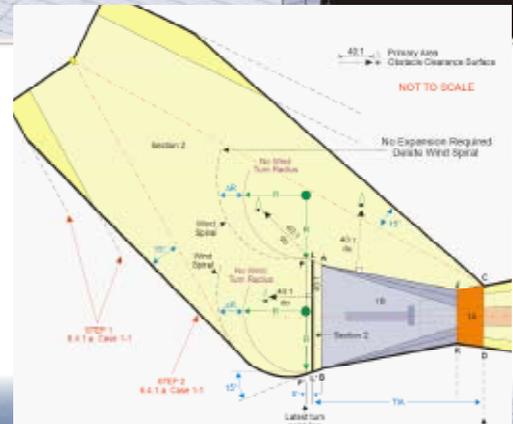
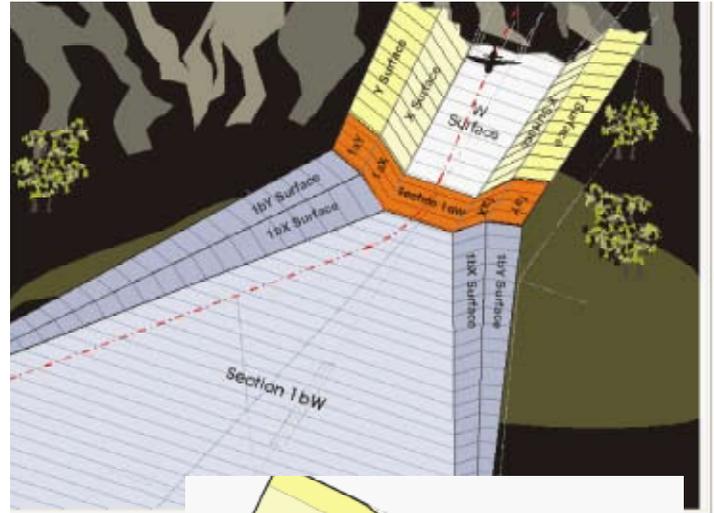
***For more on Brian Shul,
visit his website at <http://galleryoneimages.com>***

...and then the April Chapter Meeting

The April chapter meeting is on Wednesday, April 19, and will be the first this year to be held at the EAA Chapter 1541 hangar at the Lincoln Airport. Dinner will be available at 18:00 and the meeting will start at 18:30. The subject of this month's presentation will be **The Nuts and Bolts of Instrument Approaches** and the presenter will be Scott Thompson (your's truly).

The presentation will hopefully be of interest to both the instrument-rated pilots and VFR-only pilots. Instrument procedures are why our airspace system provides all-weather, day and night capability and are the backbone for both air traffic control and navigation. We'll dive into how instrument approach procedures are developed and the reasons why they are set up the way they are. Also, we'll look at how instrument procedures impact VFR pilots and perhaps explain a bit about how to minimize some of the traffic conflicts that can occur between VFR and IFR operations.

As a bit of background, I've worked for the FAA as a flight inspection pilot since 1990 and spent several of those first years primarily designing instrument procedures. The primary focus of flight inspection is analyzing, quality checking, and then performing airborne inspections of instrument procedures and the navaids that support them. (Disclaimer: this is not an FAA presentation but a presentation by a EAA chapter member on instrument procedures...)



Flight Check Lear 60 completing a PAPI installation check at the Bishop airport in February 2017. Photo by Ken Babione



Member Spotlight

Text and Photo by Bruce Estes

Bruce Robinson has always loved aviation. So, in 1962 he took the plunge and started working on his Private Pilot's License. One year later, Bruce was a licensed pilot and could pursue his passion of aviation. Like a lot of us, life got in the way of Bruce's passion and he ended up taking a long break. But, thanks to a neighbor of Bruce's, who is an A&P mechanic and an IA, Bruce's passion was rekindled. Bruce was able to get back behind the control yoke about 5 years ago.

Bruce has a variety of work experiences. He started as a chemist, doing liquid rocket fuel research for Aerojet General. While doing a two year stint, Bruce did biological and chemical research for the Army. Today, Bruce is semi retired, but still finds time to work with two partners restoring grand pianos. Bruce is also a board member of our EAA chapter and is in charge of education development. His goal is to "develop an ongoing program for older Young Eagles with hands on activities to further stimulate their interest in aviation".

Bruce owns a 1966 Cessna 150 and a 1963 Cessna 172. He keeps both of them at McClellan Airport. He has had a variety of flying experiences, and has flown skydivers from a Cessna 182 while in the Army. Bruce has his tail wheel endorsement and has flown a Piper Super Cub.

Bruce has had a long time interest in EAA and AOPA. EAA 1541 is fortunate to have Bruce Robinson as a member and Board Member.



Seventeen RVs gathered for a SacRVators meeting at McClellan Airport on Saturday, April 15, including several from EAA Chapter 1541. (Scott Thompson)



Coming Soon to an Airport Near You
Lincoln AirFest
June 9-10, 2017

Mark your calendars for Friday and Saturday, June 9-10, for the Lincoln AirFest. Expanding on the success of the event held in 2016, the 2017 AirFest include an airshow on Saturday that will feature numerous noted aerobatic performers and formation teams. Hot air balloons, powered parachute demonstrations, a USAF parachute team, and military aircraft flybys are scheduled. Also on the agenda is the Golden Gala Dinner Dance to be held between 6:00 pm and 10:30 pm Friday evening at the Ryan hangar at the Lincoln Airport.

The AirFest is being organized by the Lincoln Regional Airport Foundation in

cooperation with the city of Lincoln. A growing group of corporate and community sponsors have signed on to make the AirFest happen.

Besides the airshow, there will be a large static display of aircraft, food and drink vendors, and a variety of programs.

This will be another opportunity to feature the Lincoln airport to the local community and the region at large. EAA Chapter 1541 will be supporting the event, as it did last year, with AirFest volunteer teams and pancake breakfasts to be held on Saturday morning. A great website is already up and running and can be found at <http://lincolnairfest.com>

A Brief History of the Tilt Rotor Aircraft

*by Martin Maisel
(photos as credited)*

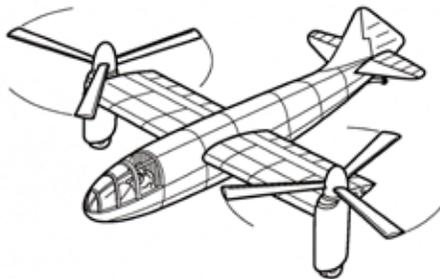
Part 1 – The Beginning

One of the key aspects of the EAA is aeronautical innovation – largely focused on small, general aviation aircraft. The story of the tilt rotor is also about innovation by a few people who sought to develop a new vehicle capable of efficient vertical flight, like a helicopter, but with the ability to fly long distances at high speeds, comparable to the performance of fixed-wing aircraft.

Early Tilt Rotor Aircraft

While earlier notions of a tilt rotor type aircraft can be found, a good time to begin this story would be the late 1930s – a time when no practical helicopter had been developed in the USA.

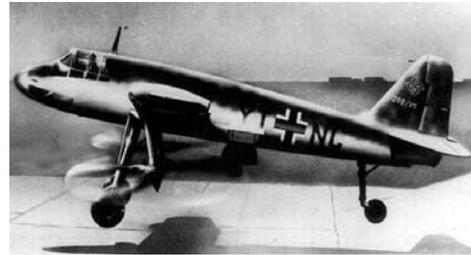
In 1937 Leslie E. Baynes, an English aeronautical engineer, patented an aircraft configuration that employed large diameter propellers on tiltable wing-tip mounted nacelles. Baynes was unable to acquire financial backing and his innovative design, intended to provide both vertical and forward flight, never progressed beyond the patented concept.



The Baynes “Heliplane” patented in England in the late 1930s (NASA SP-2000)

In Germany, during the early years of World War II, the Focke-Achgelis company began the fabrication of mock-up of the FA-269. This tilt rotor design placed the propellers below the wing for vertical flight and, once airborne, the propellers would be tilted to a position aft of the wing trailing edge to provide thrust for forward flight. The purpose of

this unique design was to provide the Luftwaffe with a fighter aircraft that did not require runways which may be damaged due to enemy action. The project was discontinued when the mock-up and surrounding facilities were destroyed during an allied bombing raid.



Artist Illustration of the Focke-Achgelis FA-269 (Image is in the public domain iaw <http://worldwartwo.filmspector.com/2014/09/nazi-helicopters.html>)

Neither the Baynes Heliplane or the FA-269 advanced the development of the tilt rotor aircraft.

The Path To The Tilt Rotor Aircraft

While inventors and engineers in the United States and Europe strived to demonstrate a practical helicopter since the early years of the 20th century, the task proved to be extremely challenging and no successful vehicle appeared until 1936. In Germany, the Focke-Wulf Fw-61, with twin rotors mounted on tubular steel outriggers to the left and right of the fuselage, successfully demonstrated a stable hover as well as controllable rearward, sideward, and forward flight (to 76 mph). Those performance capabilities result in the Fw-61 being generally recognized as the first practical helicopter.



The Focke-Wulf Fw-61, generally regarded as the first successful helicopter. (Image is in the public domain)

The success of the Fw-61 attracted the interest of two enterprising American engineers with autogyro experience, Dr. Laurence LePage and Haviland H. Platt. They formed a company with the goal of being the first to produce helicopters in the United States based on the Fw-61 design and approached

the German company to acquire rights to build Focke helicopters in the United States. Their attempt to contract with the German company failed because of the deteriorating political conditions between Nazi Germany and the U.S. Nevertheless when a request for proposals for the development and production of a VTOL-capable rotorcraft was issued by the U.S. Army in 1940, the Platt-LePage Aircraft Company submitted the successful bid.

The Platt-LePage XR-1 with laterally-displaced rotors on outriggers (similar to the proven Fw-61 configuration) therefore became the Army's first helicopter. However, the Platt-LePage engineers discovered that they did not comprehend the complex technological elements of a helicopter and, eventually, their inability to resolve the XR-1's flight control, loads, stability and dynamic problems caused that contract to be terminated. The Army then turned to the more successful Sikorsky XR-4 for its first production rotorcraft.



The Platt-LePage XR-1 (Image is in the public domain)

Before the Platt-LePage Aircraft Company folded in 1946, Haviland Platt conceived of a convertible aircraft that appears to be derived from the XR-1. In the patented configuration, that we now recognize as a tilt rotor aircraft, the XR-1 outrigger structures are replaced by wings. The rotors, mounted on the wing tips, were capable of being moved from a horizontal plane (for helicopter operations) to the vertical plane (for airplane flight). It is not known if Platt was aware that a similar configuration was patented in England or that a tilt rotor aircraft was being developed in Germany during World War II.



Sketch of Haviland Platt's Tilt Rotor Concept, 1946. (NASA Ames AD98-0209-22)

Feb. 15, 1955 H. H. PLATT 2,702,168
 CONVERTIBLE AIRCRAFT
 Filed July 7, 1950 10 Sheets-Sheet 1

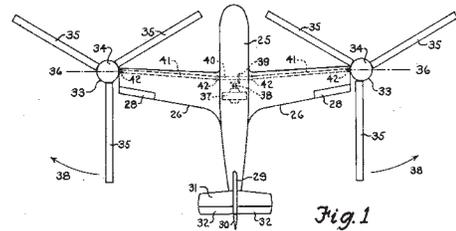


Fig. 1

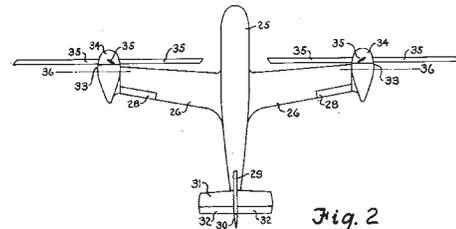


Fig. 2

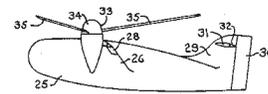


Fig. 3

INVENTOR:
 HAVILAND H. PLATT
 BY *Howard L. Kelsch*
 ATTORNEY.

Illustration from Haviland Platt's U.S. Patent 2,702,168 for a Convertible Aircraft, filed in July 1950. (Image is in the public domain)



The Transcendental Model 1-G (Photograph courtesy of John Schneider)

The demise of the Platt-LePage company led to the formation of a new enterprise, the Transcendental Aircraft Company, by Mario A Guerrieri and Robert Lichten. Lichten, a young engineer who previously worked for Platt-LePage and was apparently inspired by Platt's tilt rotor concept, planned to develop a small flight demonstrator aircraft, the Transcendental Model 1-G. After successfully completing a series of hover and conversion mode tests, the 1-G crashed due to a mechanical control failure. The crash occurred prior to completion of a full conversion to the airplane mode. The aircraft was lost but the pilot survived.

The tilt rotor aircraft had captured the interest of some people in the aviation community, but a convincing demonstration of its capabilities remained elusive.

Saturday, May 13th Chapter 1541 Program

Scrapping Our World War II Air Force

So, just what do you do with 64,000 airplanes that nobody really wants?

Find out how we answered that question after World War II

*Presented by Scott Thompson
Saturday, May 13, 0900-1100 at the Chapter Hangar*



This is the first in a new series of Saturday programs put on Chapter 1541 to be held, generally, on the second and/or fourth Saturdays of each month. It is the chapter intent to provide some new and interesting programs that cover technical, educational, or historical subjects of interest to chapter members and guests. This first program will be begin at 0900 with coffee and muffins and hangar flying until 0930, when an hour long presentation will begin. It should all wrap up by 1030 or so, with time for more hangar flying afterwards. Spread the word and plan on attending. In the works for future programs: *NORCAL Approach and You; Flying A Bay Area Tour; How to Love Your Airplane Electrical System*, and more.... Contact Scott Thompson with ideas and feedback.