



The Flightline



Volume 46, Issue 5 Newsletter of the Propstoppers RC Club AMA 1042 May 2016



President's Message

Both fields are wet but Elwyn would be your best bet for parking and flying.

Show & Tell would be great at this meeting.

We want to go over the bylaws.

We will have coffee and donuts.

So come on out and bring something to show off

Dick Seiwel, President

Minutes of the Propstoppers Model Airplane Club April 12, 2016

Call to order took place at 7:12 PM by President Dick Seiwel

Roll call by membership chair Ray Wopatek showed 21 members and 2 guests present

Minutes of the previous meeting as published were approved

Treasurer's report by Pete Oetinger was given

New Business:

Dave Harding noted that an e-mail was sent from AMA discussing pending legislation affecting our hobby. This will be relayed to the club.

Several of the members proposed adding a control line circle and Elwyn Field. Dick Seiwel will examine the field for site.

President Seiwel asked about interest in the indoor flying since very few attended the recent events.

He also noticed that water is collecting near the gate to the Christian academy field. He would like to reestablish drainage from the road.

Picnics: the dates for our summer picnics have been set for:

June 25, 2016 from three o'clock PM to dusk, and

August 20, 2016 from 3:00 PM to dusk

Show and Tell:

Al Tamburo showed a K&B 049 fuel outboard motor. He also showed an IMP electric powered outboard motor. These were sold in the past for model boats.

He also showed a low wing electric ARF Cherokee that he really recently purchased. He is anxious to see it fly.

Adjournment took place at 8:25 PM

Dick Bartkowski Secretary

Agenda for May 10th Meeting At At the Church Room, CA Field Meeting 7:00pm till 8:30?

1. Membership Report
2. Finance Report
3. Club Calendar Review
4. Show and Tell

INSIDE THIS ISSUE

1	President's Message
1	April Meeting Minutes
1	May Meeting Agenda
2	Dave Bevan
5	Indoor Survey
6	FCC and FPV
8	Remembering the Heroes
20	Vernon Boehle

Calendar of Events

Club Meetings

Monthly Meetings

Second Tuesday of the month.

Gateway Community Church at the Christian Academy. Doors open at 7:00

Next Meeting; 10th May at Church Meeting Room

Tuesday Breakfast Meeting

Tom Jones Restaurant on Edgemont Avenue in Brookhaven. 9 till 10 am. Just show up.

Flying after in the summer at CA or Elwyn Field 10 am. Weather permitting.

Indoors at the Brookhaven Gym in bad weather 10:30-11:30 See dates allowable.

Regular Club Flying

At Old Christian Academy; **Electric Only**

Monday through Friday after school till dusk

Saturday 10 am till dusk

Sunday, after Church; 12 pm till dusk

At Elwyn Field; Gas or Electric

Monday through Saturday 8 am till dusk

Sunday 12 pm till dusk

INDOOR Flying, see attached dates.

Special Club Flying

Saturday mornings 10 am

Wednesday Helicopter evening in summer

Thursday evenings in the summer

Tuesday mornings 10 am weather permitting after breakfast.

Check our Yahoo Group for announcements;

<http://groups.yahoo.com/group/propstoppers/>

Beginners

Beginners using due caution and respecting club rules may fly Apprentice or similar models without instructors at Christian Academy Field.

The club also provides the AMA Introductory Pilot Program for beginners without AMA insurance.

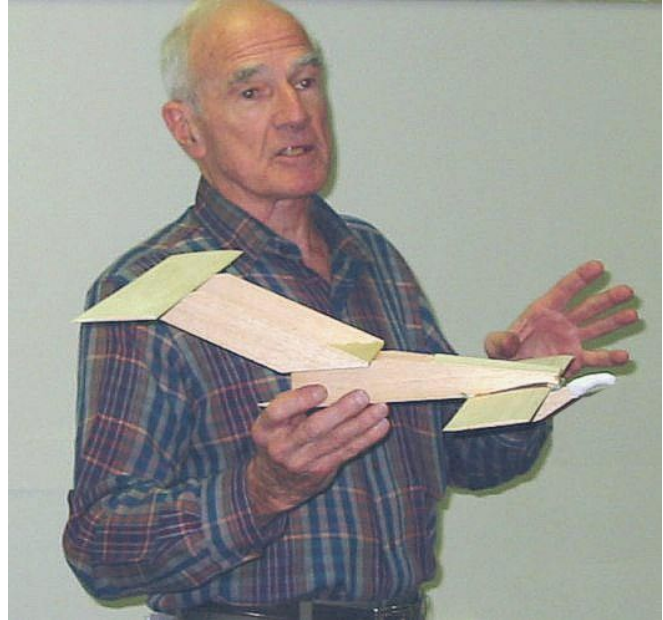
Dave Bevan; the Energizer Bunny Strikes Again

Our man of action obviously does not have enough on his hands to keep him busy. In addition to loving care of his wife he again took time to qualify as a volunteer tax preparer and processed countless tax returns. But having heard the prolonged discussion on how to drain the CA field and who would do it and when, Dave just went out and did it!

It has been a long time since we introduced Dave and some of his accomplishments to the club it occurs to me you could all do with a refresher.

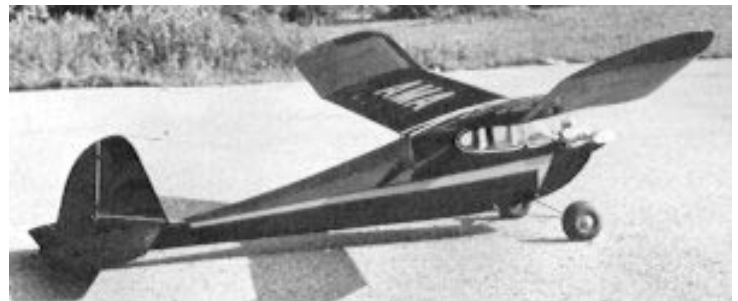
Here is his story, at least through 2005; most of you are familiar with his recent activities.

Meet Dave Bevan



. I have the privilege of working with and associating with Dave for over forty years, mostly through our work at Boeing. However, we shared a modicum of modeling during that time when we were both focused on earning a living. But I knew that Dave's lust for matters aviation and modeling had driven his earlier life so I asked him to share some of his background with the Propstoppers. Here is his "train of consciousness" biography, illustrated by "yours truly". Dave.

This whole thing started by building model airplanes. Around the age of eight there was a list of nearly a hundred models built. Preteen activity included Henry Struck's Flying Cloud Wakefield, the Buzzard Bombshell, Zilch CL stunt, lots of Comet, Megow, Scientific, Joe Ott, etc.



Propstoppers RC Club of
Delaware County, Pennsylvania.

Club Officers

President Dick Seiwell

(610) 566-2698

reslawns@verizon.net

Vice President Chuck Kime

(610) 833-5256

chuxtruk@yahoo.com

Secretary Richard Bartkowski

(610) 566-3950

rbartkowski@comcast.net

Treasurer Pete Oetinger

610-627-9564

Membership Chairman Ray Wopat

(610) 626-0732

raywop@gmail.com

Safety Officers

Eric Hofberg

bgsteam@comcas.net

Ryan Schurman

throttle152@hotmail.com

(610) 565-0408

Newsletter Editor

Dave Harding davejean1@comcast.net

(610)-872-1457

Propstoppers Web Site; www.propstoppers.org

Material herein may be freely copied for personal use but shall not be reproduced for sale.

A job at the local airport turned the boy into a teenage pilot and mechanic. Flew Aeronca C-3&7AC, Piper J-3, PA-16, and PA-22.



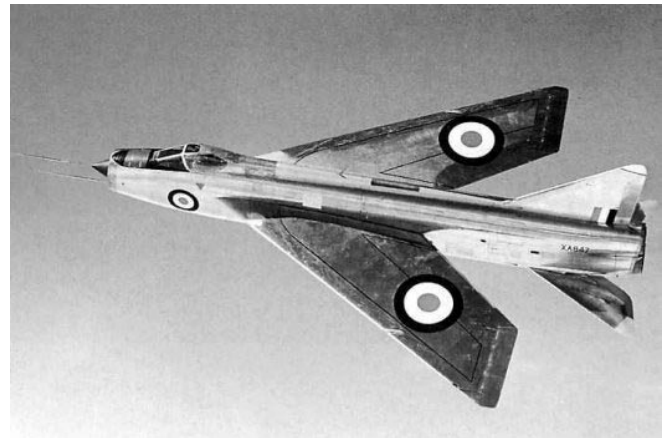
Took a BS in Aeronautical Engineering at Virginia Tech. Worked for Glenn L. Martin when he was alive, doing aerodynamics analysis, wind tunnel tests, and flight tests from Mach 0 to 22 on jets, props, rockets, air-to-air, launch vehicles, reentry vehicles, warheads, "upper atmosphere research (read spy plane)".

Cleaned up the Mach buffet, tuck and such on B-57 Canberra, and reworked the controls so we had a 54,000 lb twin-jet high-speed bomber with good low-speed maneuverability and low control forces with completely manual surfaces-no hydraulics or boost.



Glenn L Martin

Worked on Variable Stability F-106, English Electric P-1B Lightning.



Hywards, Robo, Dyna Soar orbital skip gliders-(stuff that looks like the subsequent Shuttle).



Member of Baltimore Aerocraftsmen Model Airplane Club, flying 1/2A, A gas and trying to get on the US Nordic FAI team.

Sixteen years later he joined Boeing Vertol as head of VSTOL Aero. Twenty eight years with Boeing brought varied assignments in R&D sales, technology manager of subway-surface railcars, and manager of the Boeing V/STOL Wind Tunnel.

The Boeing Philadelphia subsonic wind tunnel is the largest privately owned wind tunnel in the United States. The nine-blade fan (shown here), measuring 40 feet (12 meters) in diameter, can generate up to 15,000 horsepower and speeds greater than 220 knots. Since opening in 1968, the facility has logged nearly 70,000 test hours through 2005

At retirement I managed the Aerodynamics group, the Dynamics group, Noise Control group, Flying Qualities group, wind tunnel and simulator groups -all the people others called technical weenies.

Before retiring in 1995, we conducted classes at Boeing for the Widener and U. of Penn students entering the SAE - sponsored college contest for the radio-controlled model that would take off within 200 feet with the greatest payload, but the students have to predict the takeoff distance and weight! That activity continues at Widener.



Around 1995, at Warner School in Wilmington, the guidance counselor and principal asked if we would teach kids to build a glider, 10 kids at a time, who might have some potential if they could be reached. We did that for three years, but the little balsa glider design has now been built by something like 450 kids, mostly at the American Helicopter Museum and Education Center.

We give aerodynamic demonstrations at schools in Havertown School District, Friends Central in Ardmore, Darby, Feasterville, Ogontz Avenue and other places, and Cub Scout gatherings from Chadds Ford to Lansdale. We coach the Science Olympiad "Wright Stuff" indoor rubber –powered projects at Pierce Middle School and have done home schooled groups as well as hundreds of other groups at AHMEC.

After retirement, a bunch of us got together and built the American Helicopter Museum and Education Center. This now gives us a chance to enjoy interacting with and teaching school children and home schoolers and others, all the way from preschool to post- doctoral, about aviation in general and helicopters in particular.

As they say, those who can, do, and those of us who can't, teach.

Dave Bevan



Well, what's the good of "owning" a giant wind tunnel if you can't have fun in it? The return section of the Boeing wind tunnel is huge. How huge? Well big enough to hold an indoor model airplane competition.

Indoor Flying Program Survey

We have again had a very successful indoor program this winter. As you know the program has been once a month in both the Tinicum school's gym and the Brookhaven Borough Gym. In addition those of us who have the time go to Tuesday breakfast at Tom Jones fly in the Brookhaven Gym for an hour when the weather is inclement for outdoor flying.

Now towards the end of the season the monthly evening meetings became poorly attended. Also there have been occasions when the Tinicum gym became unavailable on our scheduled evening, sometimes with little notice. Consequently at the last club meeting we discussed a change in program whereby we would drop the Tinicum venue.

Now the question is should we try to get Brookhaven twice a month.

Also there is the question of funding. Those who fly currently pay a few dollars to defray the costs. It is proposed that this very small fee be increased so it mostly covers the expenses of the indoor program. This would be a small increase and makes sense; if you fly you buy.

Anyway, be prepared to discuss this issue again and vote for the rules to be applied next fall.



Lucas Weakley
lucas.weakley@gmail.com

FCC and FPV

Many modelers and RC pilots are aware of the current guidelines from the FAA that are attempting to more heavily regulate the hobby. Although that is ongoing, there are some already established regulations that many of us are not aware of.

The FCC (fcc.gov) has regulations for the radio frequencies that are most commonly used for radio control of our aircraft and other recreational hobby vehicles. I had really never heard of this. Let's look into these requirements and see who is affected and how we can all still fly within legal and safety boundaries.

The FCC is an independent government organization overseen by Congress that regulates national communication channels in all 50 states and in the US territories. There are two sections in FCC regulations that apply to modelers and are described by license-exempt usage (Part 15 of the FCC "Radio Frequency Devices") and Amateur Class radio license-required usage (Part 97 of the FCC "Amateur Radio Service"). These rules don't just apply to control frequencies. They also govern the use of video frequencies and power outputs.



This is the transmitting equipment that I use to control my line-of-sight and FPV models. My video transmitters are attached to all of my FPV aircraft.

Many people who haven't gone through amateur radio training wouldn't know which category their radio systems would fall under, so it's up to the manufacturer of your product to have the control system certified by the FCC. This certification is usually shown on a sticker somewhere on your radio equipment with an FCC identification code.

You can use this code to check the manufacturer's certification and verify that you don't need a license to operate your equipment. You can do this by going to the FCC ID Device Search (fccid.io) and entering the code that is on your device.

I was curious, so I decided to try this out with my gear. I got out all of my transmitters and radio modules and started looking for stickers. I have never really consciously looked for these before, but sure enough, I was able to find some. I have a

Spektrum DX6i transmitter (spektrumrc.com), Turnigy 9XR transmitter (turnigy9xr.com), and an OrangeRx T6 transmitter from HobbyKing (hobbyking.com). All of my Spektrum gear and FrSky modules and receivers (frsky-rc.com) for the 9XR transmitter had the FCC identification numbers that I was able to look up and verify on the device search page.

However, my OrangeRx gear, including the Open UHF (ultra-high frequency) module that I have, did not show any FCC ID numbers. The OrangeRx gear is popular because it piggybacks off of the same frequencies that Spektrum uses, so you can buy the company's inexpensive receivers for your Spektrum transmitter. The receivers aren't transmitting and use the frequency of the certified Spektrum radio.

Because my OrangeRx T6 transmitter does not have an FCC ID sticker, it is illegal to

use in the US. This is most likely why these transmitters are currently not listed on the HobbyKing website for the US warehouse locations. Even having an Amateur Class radio license will not make their use legal in the US, because they are on 2.4 GHz and must be FCC certified. The FCC ID code and sticker are the keys.

It is important to make sure your equipment has the FCC ID sticker if it is not purchased from a US vendor because equipment sold by US vendors is required to meet FCC laws. Some equipment is meant for sales outside the US and would be legal in other countries. Make sure before you make a purchase!

My OrangeRx UHF module operates on 433 MHz and is also not certified, but in this case, it is legal to use by an amateur radio licensee with a Technician Class rating or higher. It is up

Although most FPV transmitters require a Technician Class license to operate, this low-power Fat Shark video transmitter does not require a license. Photo used with permission from Fat Shark.



to the licensee to meet all required radiation power limits while in use, as set forth by the FCC.

This is also the case with my FPV gear, none of which is certified by the FCC. Companies such as Fat Shark (fatshark.com) and ImmersionRC (immersionrc.com) are starting to come out with low-power, FCC-certified transmitters on the 5.8 GHz band, but for most FPV equipment existing today, you do need an Amateur Class radio license to operate them legally.

What goes into the license, and how hard is it to earn?

Amateur, or ham radio, licenses are managed by the ARRL (American Radio Relay League; arrl.org). With more than 161,000 members, it is the largest amateur radio organization in the world. With so many members, there are chapters of the organization across the country. By going to the organization's website, you can find local members, license classes, examination times and dates, and other information needed to become an Amateur Class radio license holder.

There are three classes of amateur licenses: Technician, General, and Extra. For our purposes as RC aircraft and FPV pilots, the Technician License is sufficient for the frequencies we operate on.

The 35-question exam tests for knowledge of the rules and regulations and best practices for amateur radio usage.

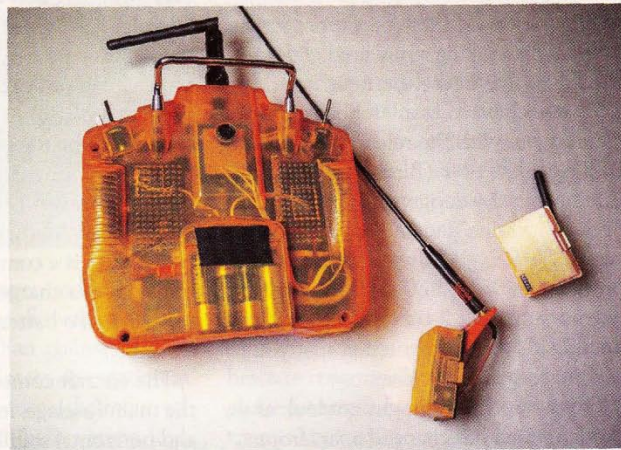
Although the ARRL does not state that this examination is easy, it does offer several online resources and local chapters that run classes to aid in the educational process and make the license accessible for as many people as possible.

With the license and the subsequent knowledge learned from earning it, you will be able to operate nearly every RC system. I do not have an Amateur Class radio license as of this writing, but I am working on one now. It's a good thing to have so that I can fly FPV and UHF legally, no matter what the FAA decides to regulate.

If you have questions regarding these FCC requirements, contact AMA Headquarters at (765) 287-1256. Information can also be found on the AMA website in "Document 590 Federal Communications Commission Requirements for Model Aircraft Operations" (modelaircraft.org/files/590.pdf) and "System Licensing Guidance for FPV Flight" (modelaircraft.org/files/FPVFCC.pdf). »



On the backs of my gear are stickers that display the FCC ID code and other product information.



There are no stickers or other forms of FCC identification on any of my OrangeRx transmitting gear, making the devices illegal to use in the US.

FCCID.io Home Elog Search Contact

FCC ID XYFD8TD8R

XYF-D8TD8R, XYF D8TD8R, XYFD8TD8R
FrSky Electronic Co., Ltd. 2.4GHz Radio System

An FCC ID is the product ID assigned by the FCC to identify wireless products in the market. The FCC assigns businesses 3 or 5 character "Grantee" codes to identify the business that created the product. For example, the grantee code for FCC ID: XYFD8TD8R is XYF. The remaining characters of the FCC ID, D8TD8R, are often associated with the product model, but they can be arbitrary. In addition to the application, the FCC also publishes internal images, customer reviews, user manuals, and test results for wireless devices. They can be under the "exhibits" tab below.

FrSky Electronic Co., Ltd.

Full Company Details: FrSky Electronic Co., Ltd. - XYF
Company Code: XYF
Address:
FrSky Electronic Co., Ltd.
No.100 Jinsi Road, Wuxi, Jiangsu, China
Wuxi, Jiangsu, N/A N/A
China

Application: 2.4GHz Radio System
Equipment Class: DSSS - Part 15 Spread Spectrum Transmitter

#	Purpose	Date	Unique ID
1	Original Equipment	12/13/2010	Luz2ChkyFeDkyKxmiCurEAu

Approved Operating Frequencies

App # (Line Item)	Lower Frequency	Upper Frequency	Power Output	Rule Parts
1 (1)	2402.5000000	2440.2000000	0.1000000	15C

The FCC ID Device Search allows you to search the FCC ID code found on your product, as shown here, and check the certification parameters. Photo from the fccid.io website.

From the AMA Park Flyer magazine, courtesy of Murray Wilson.

Remembering the Heroes

Periodically I read the obituaries in The Telegraph UK newspaper. I do this primarily because they include recognition of the last of the Great Generation who fought for us in WWII. The Obituary below is typical of these heroes. Of course there are similar obituaries of American and other heroes but they are not so easy to find. So read this and remember there are similar obituaries out there but not for long as this generation is almost all gone.

Wing Commander Len Ratcliff - obituary



Wing Commander Len Ratcliff, who has died aged 96, flew agents into occupied Europe and was one of the RAF's most decorated special duties pilots.

Ratcliff was an experienced bomber pilot and instructor when he joined No 161 Squadron at the secret RAF airfield at Tempsford in June 1943. Initially he flew the four-engine Halifax, dropping supplies and agents into France, Denmark and Norway at night. On one occasion he was crossing the French coast when one of the aircraft's engines failed but he decided to press on. He found the dropping zone near Mâcon, north of Lyon, and dropped two agents and two packages from a height of 600 ft. With daylight approaching, he headed for Algeria where the dead engine was replaced before he returned to his base



Later in the year, Ratcliff flew to a field east of Bordeaux and dropped Yvonne Cormeau, codename “Annette”, one of SOE’s most successful wireless operators, whose exploits were immortalized in the 2001 film *Charlotte Grey*.

Ratcliff (center) studying a photograph to select a dropping zone



In December 1943 Ratcliff was awarded a Bar to an earlier DFC for his “unfailing devotion to duty” and a month later took command of the squadron’s new Hudson Flight. He flew his first sortie almost immediately and landed in a field near Angers with an SOE officer who was to bring back Henri Dericourt – suspected of being a double agent – for interrogation. Dericourt became suspicious and persuaded the SOE officer that he had to secure a new landing ground and Ratcliff returned with eight agents but not with Dericourt. A Lysander picked up the agent a week later.



When landing fields were unavailable, agents were parachuted from the Hudson. In February Ratcliff dropped the SOE agent Wing Commander FFE Yeo-Thomas (known to the Gestapo as “The White Rabbit”) who was later captured but survived and was subsequently awarded the George Cross.

In April Ratcliff took command of the Lysander flight. The single-engine, black painted aircraft was capable of very short take offs and landings making it ideal for the hazardous operations. Flying alone, the pilot had to carry out precise navigation in order to find the small fields lit only by a handful of torches held by the



reception party.

On the night of April 28/29 he took three agents to a remote area near Chartres and on May 9 he flew one of three Lysanders to a field near Touraine taking in two agents and returning with three. The three aircraft flew independently to a landmark on the River Cher, arriving within three minutes of each other. Ratcliff headed for the rough airstrip, identified the coded flashing signal and landed. He was airborne again within five minutes allowing the second aircraft to land. After almost six hours he arrived back in England.

A month later Ratcliff had completed 40 special duties flights and was rested when he was awarded the DSO. The sensitive nature of his work prevented a detailed citation being published.

Leonard Fitch Ratcliff was born at Maldon, Essex, on July 27 1919. He joined the RAF Volunteer Reserve in June 1939 and trained as a pilot.

In July 1941 he was posted to fly the Hampden. New pilots flew their first sorties in the twin-engine bomber as the navigator so Ratcliff attended a brief navigation course, which was to stand him in good stead later when he flew his clandestine operations over France alone.



He joined No 49 Squadron at Scampton, near Lincoln, in July 1941. Over the next six months he flew 30 operations, the majority to industrial targets in the Ruhr and to Hamburg. He also flew operations to drop mines in the entrances to occupied ports and river estuaries in Germany, the Netherlands and France.

On the night of December 28 night fighters intercepted his aircraft as he headed for the synthetic rubber plant at Huls. He skillfully evaded the attackers and went on to the target. A few weeks later he was attacking the German capital ships at Brest when he was again intercepted but his evasive action allowed his gunners to frustrate the attacks of the two enemy fighters. At the end of his tour he was awarded the DFC for “setting a very valuable example”.

After leaving No 49 Squadron Ratcliff spent a year as a bombing instructor when his service was recognized with the award of the AFC. Ratcliff's long tour with No 161 Squadron came to an end in October 1944 when he was posted to the Air Ministry's Directorate of Intelligence where he dealt with the clandestine activities carried out in occupied Europe. In February 1945, he returned to Tempsford as a wing commander in charge of operations but, following the loss of No 161's commanding officer on operations, he assumed command of the squadron until the end of the war when there was no further requirement for such a unit. He left the RAF in December 1945.

The French Government awarded him the Croix de Guerre (with Palm) and later he was invested as a Chevalier of the Legion d'Honneur. He also added the Air Efficiency Award to his British decorations.

A modest, unassuming man, Ratcliff maintained close contact with his fellow RAF special duties colleagues. In 2010 he was invited by the French authorities to help dedicate the Musee de la Resistance et de la Deportation in the town of Bourges close to where he had once landed agents.

In May 2015 Len Ratcliff was a special guest at a Tempsford commemoration where he spoke of his wartime experiences.

Wing Commander Len Ratcliff, born July 27 1919, died April 1 2016

But Wait; There were a number of such heroes at Boeing when I joined in the early 60s.

Roland Kalpas

Roland was one of Piasecki's Polish engineers. He was a quiet fellow who worked in the hydraulics department. He didn't stand out in any way. Can't remember who told me his story or even if I spoke to him about it although we were on conversational terms.

He was one of the Polish Air Force pilots who escaped to England early in WWII and flew with the RAF.

In May 1943 a Luftwaffe JU-88 night fighter took off from an airfield in occupied Denmark on a routine mission. It was being flown by a very experienced crew the key members of which had flown with the Luftwaffe in the Spanish Civil War. This crew were disgruntled with the Nazi regime. Apparently they had flown through the entire war up to this point but had never shot down an allied airplane. Some of the ground crew were rather suspicious of this fact.

On this mission they declared an emergency, descended to sea level out of radar range and dropped three dinghies as you would if you were to crash land in the sea. But this was a subterfuge to cover the fact they were deserting to Scotland. Near the coast they were picked up by British radar and several Spitfires were vectored to intercept. On interception the JU-88 extended its landing gear, waggled its wings and fired a series of red flares. The spitfire pilots acknowledged this act by wagging their own wings and proceeded to lead the German to land at Dyce airfield in Aberdeen.

Getting this JU-88, one of Germany's best aircraft of WWII was a great prize, particularly since it was fitted with the latest German night fighter radar. You can read an extensive report of this action and the following utilization of this aircraft for the duration of the war. <http://www.rafmuseum.org.uk/documents/collections/78-AF-953-Junkers-Ju88-R1.pdf>

It is now one of the aircraft in the Battle of Britain wing of the RAF Museum in Hendon, north London. I saw it there in 2002.

But wait, imagine this Luftwaffe night fighter, the prize, was in Scotland whereas all the research on enemy aircraft took place in Farnborough 550 miles south in the south of England. Here is a line from the report;

The aircraft was given temporary markings and was flown from Dyce to RAE Farnborough by **Squadron Leader R A Kalpas**, escorted by Beaufighters.

Imagine flying a German airplane the length of the British Isles during WWII! And Roland was a Squadron Leader. Who knew!



This is JUNKERS Ju88 R-1 W/NR.360043/PJ876/8475M

Ken Waters

Ken was a voluble happy guy, a propulsion engineer. I worked with him for most of my Boeing career. He was a B-17 pilot in WWII flying for the US Army Air Corps out of one of their many airfields in England. Operational practice was for flight crews to fly for 25 missions and if they survived they would be rotated to another position away from the action.

Ken's commanding officer asked him if he would volunteer for a special assignment for which he would be forgiven the remainder of his allotted missions. He was not told the nature of this assignment except to say it was Secret. Lt. Walters duly volunteered to what we now know was Operation Aphrodite; the program to load old B-17 with as much explosive as they could carry then radio control them as huge bombs to attack the V-2 rocket bases. The allies had intelligence that the Germans not only had this long range rocket but were working on advanced weapon which might have intercontinental range; all the way to NYC! Operation Aphrodite was an all out attempt to forestall these threats. https://en.wikipedia.org/wiki/Operation_Aphrodite

The program was to modify old B-17s filled with high explosives and recently developed radio controls. The operational concept was to guide these "drones" from a companion B-17 via radio and a TV link between them. The drone B-17 had to be taken off by a pilot accompanied by a flight engineer. This crew would take off and climb to altitude where they would trim the aircraft, switch to mother guidance, fuse the explosives, hand control to the mother aircraft then bail out while still over England. Lt. Ken Waters was such a pilot involved in this development program. You can see him talking about it in this YouTube video; <https://www.youtube.com/watch?v=zTWZjbie-dI>



The program turned out to be terribly dangerous for all concerned. There were many crashes and many pilots who didn't make the jump; either hitting the tail or fuselage or snagging their parachutes. The exit was made at high speed due to the highly loaded airplane. Ken's jump was successful, but watch the video to understand it better.

The early program was fraught with problems and by the time they thought it suitable for operations the V-2 sites had been rolled up on the ground. But a second important set of targets seemed ideal; U-Boat pens. These installations had massive reinforced concrete "roofs". The Brits had developed the Tall Boy bomb, a ground penetrator and they were flown on specially modified Lancaster Bombers.

The Aphrodite project found a different ordinance and to carry them in the B-17 it was necessary to load them from the top. So they modified some planes by cutting off the top from the cockpit back through the bomb bay.

Naturally all elements of these missions were practiced and Ken tells the story of flying one of these "convertibles". He says they would take off and occasionally fly formation with a bomber group forming up for a mission to bomb Germany.

One day Ken was called in to the CO's office and torn off a strip because he had been reported that while flying to have stood and saluted the crew on one of these active missions. Ken said he hadn't, but sounds like the thing a young man facing likely death might do to keep the spirits up.

Operation Aphrodite "Convertible" modified B-17



The companion piece to Operation Aphrodite was led by the Navy. They did similar modifications to PB4Y (B-24) bombers. But they used all different equipment including the flight controls and bomb initiation hardware. It was in one of these airplanes the eldest Kennedy brother Joe was killed when it blew up in flight.

The following table lists the actual missions and crew. Of course there were many other training flights which involved losses to aircraft and crew.

APHRODITE MISSION SUMMARY - 388TH BOMB GROUP 1944/45

No	Date	Pilot	Copilot/Tech.	Target	Remarks
1	8/4/44	1Lt F.H. Pool	S/Sgt P. Enterline	Watten	Two runs at target, would not dive, shot down by flak.
2	8/4/44	1Lt C.A. Engel	T/Sgt C.A. Parsons	Mimoyecques	Hit 1500 ft. short, controller error in judgement.
3	8/4/44	1Lt J.W. Fisher *	T/Sgt E. Most	Siracourt	Robot 42-39835 crashed at Sudborne, Suffolk, Pilot KIA.
4	8/4/44	1Lt F.L. Houston	S/Sgt W.D. Smith	Wizernes	Hit 500 ft. over, cloud covered target at release.
5	8/6/44	1Lt J.P. Andrecheck	Sgt R. Healey	Watten	No attack on target, robot crashed in sea.
6	8/6/44	1Lt J. Sollars	Sgt H. Graves	Watten	No attack on target, robot crashed in channel.
7	8/12/44	Lt J.P. Kennedy *	Lt W. Willy *	Mimoyecques	PB4Y exploded @ 2000', Hinton Lodge, pilots KIA.
8	9/3/44	Lt R. Spalding	None	Heligoland	USAAF B-24 robot crashed on Dune Is. Heligoland.
9	9/11/44	1Lt R.W. Lindahl *	1Lt D.E. Salles	Heligoland	Hit 300 ft. rt from target, Pilot KIA static line tangled.
10	9/14/44	1Lt M.P. Hardy	1Lt E. Hadley	Heide/Hemmingstedt	Hit 200 ft. over in field.
11	9/14/44	1Lt W.G. Haller	2Lt C.L. Shinault	Heide/Hemmingstedt	Robot lost in haze crashed in sea.
12	10/15/44	1Lt W. Patton	1Lt J.W. Hinner	Heligoland	Hit by flak at 500 ft. blew up in air.
13	10/15/44	1Lt R. Betts	2Lt N. Garvin	Heligoland	Robot hit lower town of Heligoland.
14	10/30/44	1Lt G.A. Barnes	1Lt R. McCauley	Heligoland	Bad weather, robot aimed at Berlin, crashed in Sweden.
15	10/30/44	1Lt W.C. Gaither	1Lt W.M. Dunnuck	Heligoland	Robot aimed into North sea where it crashed.
16	12/5/44	1Lt R.F. Butler	1Lt K.T. Waters	Herford	Shot down, exploded, between Damme and Steinfeld.
17	12/5/44	1Lt T.H. Barton	1Lt F.E. Bruno	Herford	Mushed in 3 miles short of target, destroyed by fighters.
18	1/1/45	CPT J. Hodson	1Lt L. Lawing	Oldenburg	Hit 2 miles over target. Copilot cut cheek.
19	1/1/45	2Lt J. Stein	1Lt E. Morris	Oldenburg	Hit about 5 miles south of target.

* Killed In Action (KIA)

Of course there were official reports written about Operation Aphrodite and they were classified. Some time, probably in the 1990s Ken was attending a symposium at the Air Force Academy in Colorado. During a break in proceedings he wandered over to the library and asked if there was any material relating to Aphrodite. Why yes the librarian said, there is even a movie that has just been declassified. You may buy a copy from the government source. Which Ken did. He then had a video tape made from that 16mm movie and subsequently in the early 2000s had a DVD made from that. I have a copy.

In 2005, after my retirement I planned a trip to see my mother in England and ken asked me to take a copy and deliver it to a farmer who lived near the Fersfield, the airfield from which Aphrodite missions were accomplished.

It seems that this farmer while ploughing his land would find all kinds of WWII debris and had built a small museum to house it. Ken had been communicating with him and saw the opportunity for me to deliver the DVD.

Wow, what a thrill. Not only did I get to meet the farmer and see his museum but he and his wife asked if I would like to see Firsfield Airfield. Would I, you bet.

And there it is, most of the WWII buildings still there including the main hangers and even the bunkers. The landing strip has been broken up and is now pasture but the perimeter track is still there and that was the route we took around the field. Imagine all the activities flown from this hallowed place, not only Aphrodite but many of the spook missions inserting and extracting agents from occupied Europe.

Dave

Pete Howell

Pete was another quiet reserved engineer of slight build. He flew P-51s but told no stories.



Carl Weiland

Carl was a big burly gregarious guy; the Project Engineer for the CH-46 flew P-47s in Europe. Apparently he completed his quota of active missions and was flying maintenance flights in the same type airplane. He tells the story of flying such a mission and having a wing fall off in flight. He said they were so well trained that the first he realized what had happened was as he was drifting down in his parachute.



Leon Crane

I had no business dealings with Leon but his desk was close to mine. He was a project engineer on the Chinook program. The things I remember was his dress was always smart and dapper and his desk was always clear at the end of the day. I was told he had an extraordinary adventure from an aircraft downing during WWII. I was told he lived with the Eskimos in an Igloo.

Turns out not to be true, but the true story is much better.

On Dec. 21, 1943, a B-24 Liberator with a five-man Army Air Corps crew took off from Ladd Army Air Field in Fairbanks Alaska to conduct high altitude propeller feathering tests. While climbing through 23,000 feet, the crew suddenly found themselves flying in the clouds. According to Maj. Richard Ragle, officer in charge of the post-crash investigation, the crew experienced failure of their pitot-static instruments followed by mechanical failure of the number one engine. An unusual attitude, spin and high rate of descent followed. In an attempt to correct the spiraling plane, the pilots broke both elevator actuator tubes, which exacerbated their dire situation. Pilot-in-command, 2nd Lt. Harold Hoskin, ordered the crew to bail out.

Only two crew members managed to secure parachutes and get out in time: co-pilot Crane and crew chief Master Sgt. Richard Pompeo.

The B-24 crashed near the headwaters of the Charley River, a tributary of the Yukon. No radio contact or distress calls were successfully accomplished during the uncontrolled descent. After aerial search and rescue efforts covered nearly 40,000 square miles over the course of six days with no positive results, all aboard were presumed dead. Upon impact, the plane's wreckage burst into flames. Crane had no time to assist his comrades or retrieve emergency gear. Crane was unable to link up with Pompeo. The last glimpse he saw of the crew chief was an open chute floating over a mountain ridge about a mile away. His body was never found.

Crane realized the immediate severity of his situation. He had no idea where he was within a 200-mile radius from aircraft's last known position (southeast of Delta Junction) reported to Ladd operations center 40 minutes earlier. The wreckage was burning intensely and all of his comrades were dead or missing. On the positive side, Crane had no broken bones despite landing on the side of a treacherous, boulder-strewn mountain. The ability to walk and keep warm would later prove essential to survival. He also had a parachute that could be used as a makeshift sleeping bag. Crane was dressed in regulation arctic flight gear: a down flight jacket, parka and overalls. On his feet he wore three pairs of wool socks inside a pair of heavy mukluks. In addition, Crane had a pocketknife and 40 matches. He could start a fire.

Since Crane couldn't climb uphill through deep snow to reach the plane, he decided his first course of action was to build a sign visible from the air and then get warm. He must get below the tree line for signaling material, fuel and cover. Crane scanned the valley below and noticed he was about two miles above a sizable stream. If rescuers never came, perhaps he could follow it downstream and eventually reach a settlement. The stream was frozen, hidden under four feet of ice, but spruce trees grew nearby. Crane plunged in among the pines, breaking branches to form a large "SOS" on the snow-covered river. Sunset was around 2:30 in the afternoon, so it would be dark and even colder soon. Unfortunately, Crane's prior field experience consisted of only one night of camping during his boyhood years in Philadelphia.

Crane felt hopelessly isolated. His fingers ached from the tremendous cold. He knew nightly temperatures averaged -30 degrees Fahrenheit, but temperatures often dropped to 50 below at night. After several attempts striking a match to light the wood shavings he had scraped together, Crane could not start a fire. Was this the end? Then he remembered a letter he had stuck in the pocket of his parka a few days ago. Quickly he made one last try to light a match and hold it to the paper. It caught. Soon a roaring fire of spruce branches and driftwood reflected against the snow. Crane stomped an area down, and breaking off more boughs, arranged them in a hatched pattern to make an insulated barrier above the snow. Then he swaddled himself in his parachute and curled up by the fire.

The next morning, Crane awoke cold and hungry. Trudging downstream all day, he found an excellent camping spot in a thick grove of spruce trees along a high cutbank. To his surprise, a small overflow escaped the ice nearby allowing cold water to bubble to the surface. Carefully crawling along a skin of ice, Crane touched his mouth to the cold rivulet and sipped the sweetest water he had ever tasted. He chose to remain at his campsite for several more days, hoping that a search party would find him. While Crane waited, he grew increasingly hungry. Huddled at the base of a tree, red squirrels chattered a tirade above him. He tried repeatedly to kill one: first with a driftwood club, then with a fire-sharpened spear, and finally with a bow and arrow made from small branches feathered with spruce needles and parachute line for a string. He made one last effort to build a slingshot using the rubberized rebound cord from his chute. But this proved as ineffective a tool as the bow and arrow.

Final effort to survive

On the ninth day, Crane — starving but alive — decided to make a final effort to survive. At dawn he started to walk. He grew light-headed and stumbled frequently, finding it necessary to stop and catch his breath every few paces. Crane told himself that around each bend he would find what he was searching for — some sign of life or civilization. Just before dusk, he noticed the small silhouette of a cabin ahead. Crane rushed to the cabin and pushed open the door. Inside this 9x10-foot log structure he found a bunk, a wood stove and food! Sacks of sugar and raisins, with cans of cocoa, dried milk and baking powder rested on the table. After shoving handfuls of raisins into his mouth, Crane lit the stove and combined the dried milk, sugar and cocoa in a pan and started sipping hot cocoa. Outside he discovered a cache nearby elevated on stilts for protection from grizzly bears. Crane found a collection of tools, two canvas tents, some rope, and two cans of tallow. Returning to the cabin, Crane made a bed on the wooden bunk using the tents for warmth in addition to his parachute.

The next morning he awoke with renewed vigor. "Would someone build a cabin and cache far away from a town? Surely there must be a settlement nearby," he thought. With this in mind, Crane shoved some raisins in his pocket and set out downstream. He walked all day before conceding he was in the heart of wilderness. Discouraged, he returned to the cabin and took stake of his surroundings. In his haste, he had overlooked a second tarp in the cache that covered two large boxes. In one box he found four 30-pound bags of food filled with rice, flour, sugar, dried beef and beans. The other contained clothing and supplies:

winter underwear, wool socks, mukluks, moose-hide mittens, a wool blanket and a bearskin, overalls, a lantern, two large washtubs, several dozen candles, and a .22 rifle with ammunition.

Now he was equipped! He had protection from the severe cold and enough food to last at least a month. His physical condition was deteriorating, but he had a chance for survival if he could regain his strength. Crane gorged himself, unable to drive the hunger pains away. But soon he wisely rationed himself to two modest meals daily. He utilized all clothes available to keep warm while sleeping including burlap bags, tent canvas and the bearskin. Candle wax served as a salve to care for his badly cut hands. He kept a protective coat of wax applied for a week and started to notice gradual improvement. Most importantly, he discovered a 1938 calendar while cleaning the cabin and started keeping track of time, figuring back to December 30th, the day he reached the cabin.

To combat depression, Crane structured his days with a routine, which included gathering food, firewood and water. Since melting large amounts of snow produced very little water, he used a miner's pick to chip a hole through four feet of river ice. This became a daily job since the hole froze solid each night. Crane used the .22 to supplement his diet, with red squirrel and ptarmigan quickly becoming his favorite. He saw very few big game animals, and was always on his guard for wolves, though he only saw their tracks. Crane utilized the next few weeks for recuperation and conducted scouting trips downriver. In early February, the river started cracking and popping and the ice started to break up near cutbanks where the current was swift. He realized his rations would not last until spring thaw and he needed the frozen river to escape. Crane methodically packed the crude sled he had fashioned with items that would guarantee his survival.

On the move

At first light on Feb. 12, Crane pointed his sled downstream. He would not be returning to this life-saving shelter. Pulling the sled was awkward at best, and he strained against the tank-like toboggan through waist-deep snowdrifts. To his dismay, he had not left a day too soon, for at times the ice was nothing less than treacherous. Crane cautiously inched forward, the horrible condition of the river always pressing. Then, without warning, his fear became reality. He felt the ice give way beneath his feet and in a second was wet to his waist. Quickly he floundered out to a firm crust but the sub-zero air took his breath away and caused him to shake uncontrollably. His mukluks became blocks of ice instantly as he struggled up the bank and searched near the base of a large spruce tree for dry branches. He worked deliberately, pushing aside panic. He knew he must not fail in his first attempt to make a fire — for death lurked just beyond the promised warmth of a flame.

He kicked a rude hole in the granular snow with the side of his foot and dumped a handful of kindling in the center of the crater to serve as a base. Then he arranged a ball of tiny dry twigs and gingerly prepared the mass to receive the flame of a match. Luckily, the matches in his pack were dry. Crouching in the snow, he struck one and held it to a strip of birch bark. Crane's life depended on the success of this burgeoning flame. As it spread, he snapped twigs from a dead spruce bow and cautiously fed the precious fire. When it burned with strength, he tied a rope between two trees, and draped his canvas tent over the top. Peeling off his frozen clothes, Crane dried each article over the fire and made camp for the night.

Crane revised his plan. The river was tricky to traverse now and it snowed regularly. He constructed a shoulder pack to carry no more than 50 pounds, and a long stick for testing the ice. To facilitate fast travel, the only additional supplies would be his .22 rifle and two frying pans.

On March 10, after two more weeks of travel, Crane came across a strange sight: the tops of spruce trees were broken off and stuck into the snow down the middle of the river, forming two parallel lines about 50 feet apart. The trees ran the length of a straight section of river and appeared to outline a suitable landing area for bush pilots. Crane noted the green spruce tops would provide contrast and depth perception against the flat white river during a landing. Excited, Crane slid down the bank to investigate. He noticed what seemed to be a dim dogsled trail weaving through the trees and heading downstream! Crane jumped on the trail. Two hours passed quickly. Rounding a bend, he saw a neatly built cabin on the far side of the river. A chorus of barking rose from behind the cabin.



Leon Crane during a recovery mission to the B-24 crash site the year after his ordeal.

"Hey! Hey, there!" Crane yelled. A sturdy man in stocking feet poked his head out the door. "I'm Lieutenant Crane of the U.S. Army..." he blurted. "I've been in a little trouble."

Crane was welcomed into the home of the trapper Albert Ames and his family, not far from where the mouth of the Charley flows into the Yukon River. According to Ames, Crane had walked approximately 120 miles, including turns — covering almost the entire length of the Charley River. Crane later learned that by traveling downstream he had selected the only feasible route of escape. If he had traveled any other direction, he would have been blocked by mountain ranges and perished from lack of food and shelter.

After three days of rest and moose stew, Crane was transported back to Ladd Army Air Field by a bush pilot, and proclaimed a hero. With very little field, wilderness or cold weather experience, Crane survived almost three months in isolation during the heart of Alaska's formidable winter. Unsure of his location, Crane managed to walk until he made human contact, long after he was presumed dead. He emerged from the country healthier and perhaps happier than before, despite the extreme cold weather and harsh subarctic environment.

In October 1944, Crane led a recovery team to retrieve the remains of two of his crewmen, Lt. James Sibert and Sgt. Ralph Wenz. No evidence of Master Sgt. Richard Pompeo (thought to have parachuted free of the plane) nor pilot Lt. Hoskins was found.



Aerial view of the B-24 crash site today in Yukon-Charley Rivers National Preserve.

In 2006 a team from the Joint POW/MIA Accounting Command traveled to the site at the request of the National Park Service and found bone fragments believed to be those of Lt. Hoskins. The remains were returned to his family and then buried with full military honors at Arlington National Cemetery. Today the tangled wreckage of the B-24 Liberator exists as a poignant reminder of lives lost and of a survival story that will endure

1-52 Aviation Regiment, 16 Combat Aviation Brigade, participated in a joint remains recovery mission to the Charley River B-24 crash site during the summer of 2006, which resulted in the discovery and positive identification of 2nd Lt. Harold Hoskin at the crash site. Hoskin was buried in Arlington Cemetery in 2007. Leon Crane passed away in 2002, and is survived by his six children. He was 83 years old.

Dave Harding

Vernon Boehle, Aero Modeler, RAF and USAF WWII Pilot

Most of the club members have seen me fly my Boehle Giant 1936 Old Timer contest model. But it is a long time ago that I described the history.

In the mid 30s model airplane contests were for free flight airplanes and, as today, involved flying as long as possible while still in view. As the technology of airplanes and engines progressed they flew higher and it became difficult to see them. So this young man Vernon Boehle (pronounced Bailey) decided to build a really big airplane; the Giant. As it turned out the engines available did not yield good performance so it was not successful at that time.



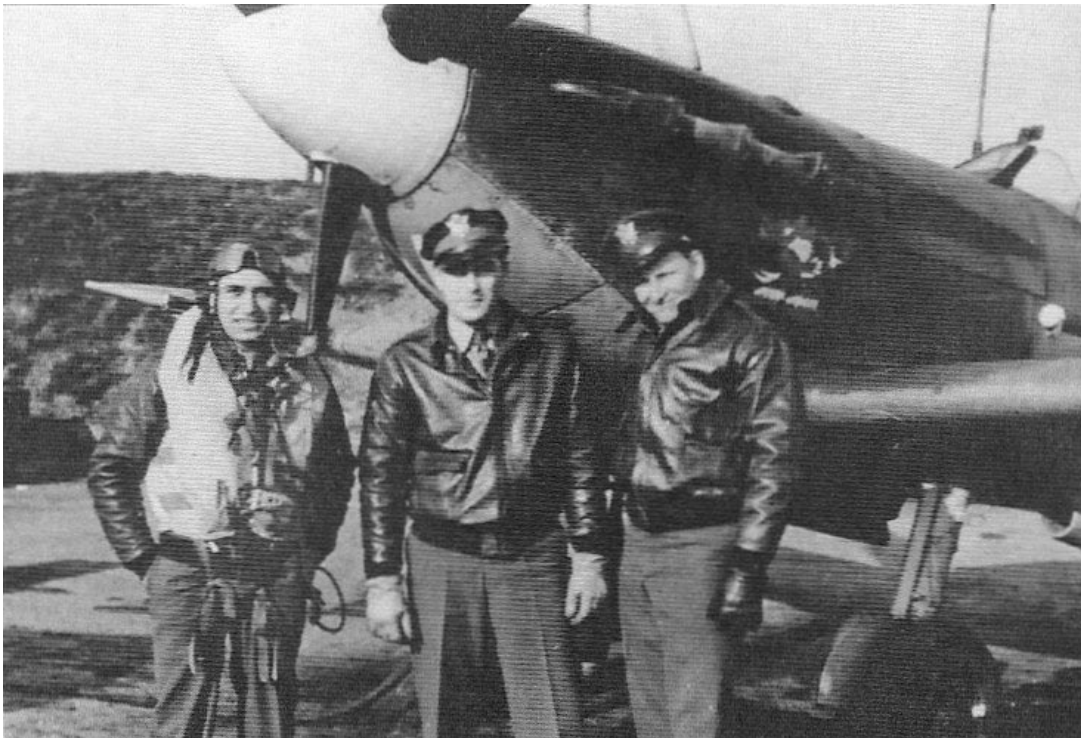
At the beginning of WWII in Europe Boehle joined the Royal Canadian Air Force and went on to fly Spitfires and subsequently with the USAAF flew P-4s.

You may read his biography on the AMA site here; <https://www.modelaircraft.org/files/BoehleVernon.pdf>



334th Fighter Squadron dispersal headquarters on the north flight line at Debden. The clerk on the telephone is in the operations office.

Other men seated are L-R: unknown, S/Sgt John DeKay, Lt. Vernon Boehle, Lt. Alfred Markel and Capt. Ben Ezzell.



2nd Lt. 'Steve' Pisanos, and Capts. Don Blakeslee and Vernon Boehle pose in front of a Spitfire Mk Vb in late 1942.

Imperial War Museum picture.

Anyway, I just happened to be cruising the web, as you do, when I discovered this previously unknown piece about one of his missions in the P-47 and thought it would follow the previous articles on WWII flyers.

On Sept. 9, 1943, with the Fourth Fighter Group in escort, more than 30 enemy fighters went after B-17s near Elbeu. 334 and 336 Squadrons broke up their attack, reformed, and broke up another group of 16 German fighters. Unfortunately, at least three B-17s went down, and two planes from the Fourth were lost. Frank Fink suffered an engine failure and bailed out over Paris, where he became a POW. Lt. Vernon Boehle also didn't come back with the rest of the unit. "I dove after an Fw 190 that was attacking a Fort," he said. "I followed, but pulled up unable to get into firing range. Climbing back up, another Fw 190 dove to attack me." This was the aircraft of **Oberleutnant** Artur Beese of I/JG.26, who would score 22 kills before his death. "I took evasive action, ending up in a spin and dive, coming out at 10,000 feet. The Fw followed, firing at every opportunity as I maneuvered. I was able to get in a short burst at him, but saw no strikes. I then dove for the deck. He followed, still firing, until, apparently out of ammo, he broke off and climbed."



Vernon Boehle

Boehle headed for home, nursing the P-47, when suddenly there was a terrific vibration; the engine broke loose and fell away. "With some difficulty, I bailed out at about 15,000 feet," said Boehle. "I landed in the water about 30 miles off Dieppe." He released his dinghy, inflated it and climbed in, getting "as comfortable as possible," he said. After midnight on his second night adrift, Boehle heard MTB boats and flashed the torch on his Mae West. "They finally saw me and picked me up after 43 hours in the water."

Boehle was not a big fan of the P-47 – in fact, when he heard that the 354th Fighter Group of the Ninth Air Force was the first to receive P-51s, he requested a transfer to a Ninth Air Force unit. He got his wish and went to the 362nd Fighter Group – after the decision was made to make the Ninth a primarily P-47-equipped unit! Meanwhile, the Fourth switched to Mustangs in March 1944. Just the same, Boehle had a distinguished career with the 362nd Fighter Group.

September 9, 2012

Categories: [362nd Fighter Group](#), [4th Fighter Group](#) . Tags: [334th Fighter Squadron](#), [336th Fighter Squadron](#), [4th Fighter Group](#), [Artur Beese](#), [Frank Fink](#), [Vernon Boehle](#) . Author: [obscureco](#) . Comments: [Leave a comment](#)



Capt. Vernon A Boehle, Indianapolis, IN, 334th Fighter Squadron, ex 71 "Eagle" Squadron. P-47C 41-6400 QP-O "Indianapolis". Later the word "Indiana" was added under the name. This is the A/C that lost its engine on 9 September 1943 causing Vern to ditch into the channel 45 miles south of Beachy Head. He spent 48 hours in his dinghy before being rescued.

