



July

Minneapolis, Minnesota U.S.A.

2016

3rd Father Hennepin Days Has Great Weather

by Tim Wirtz

Father Hennepin happened on a HOT June 11th this year. While the attendance was way down, those who came to the event had a lot of fun.

The wind was light and mostly out of the west, making it very pleasurable to take off and land. It also made it easier for interested new pilots to fly on the buddy box. In total, we had about 10 pilots and about 20 members on hand helping out. At one point in the early afternoon, our members outnumbered the spectators! Now at that time the temperature in the shade was 93 degrees F. I can tell you that it was a LOT hotter out on the grass in the sun. We had roughly 30 aircraft including two helicopters, deftly flown by Thad Gorycki.



Pete Stapleton brought his big Ercoupe, Bob Glass brought Mr. Big Stuff with the Minions and Jim Ronhovde brought the Witch. Many other pilots came out and braved the heat to put on a show. Scott Anderson and Steve Meyer helped with the emcee duties. Gerry Dunne, Larry Couture and John Dietz helped put the three door prize planes together. The leader of the Father Hennepin Festival from the City of Champlin provided concessions for us this year.

We gave away 3 planes, two mini Apprentices and one Apprentice 15e. The Apprentice 15e was not given away at the auction as the one intended to be given away had an unfortunate mishap on takeoff and didn't survive its return to earth. I had my Alpha 60 trainer up for more than an hour and a half total, letting interested new pilots fly it around on the buddy box. We had 6 people try flying on the buddy box and all got the hang of it pretty quickly. There were a few near misses with the plane-hungry field but it didn't get any food this day.

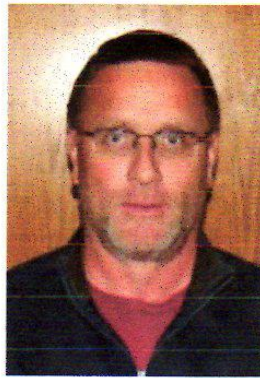
While we had fun the three years we participated in Father Hennepin, the decision was made by the City of Champlin, and supported by me, not to do it again next year. We had pretty decent attendance last year

Continued On Page 3, Col. 1

Bob Glass's Big Stuff had his minions parachuting over the Father Hennepin Field on June 11th. (Photo by Scott Anderson)

A Note from The Head Wing Nut

By Bob Briesemeister



Hello TCRC Members!

Wow it's already July! With the wind and rain and flooding June did not go as planned. First we had to move the June membership meeting back to CrossPoint Church on the 14th. Then on the 15th we moved all of the field equipment to higher ground with the threat of flooding. On Saturday the 18th I meet Gerry at the field to try and have the Electric Fun Fly but the water had risen faster than expected and was covering the parking lot. The field had to be closed and we made arrangements to fly at the fairgrounds.

The water has receded and the wind has helped to dry the field out so it has been reopened. A little cleanup is needed but it is flyable. An educated guess is that the field was about 3 feet under water but with any luck hopefully the flooding is done for the summer.

July brings a Competition Fun Fly, membership meeting at the field and Wings Over Jordan. First, on the 9th, Kris Hanson will be holding a Competition Fun Fly for TCRC members. The different events for the fun fly will be drawn that morning. So you should be practicing for all types of flying. Contact Kris with questions. Second, the July membership meeting will be held at the field on the 12th. TCRC will provide brats, hot dogs, chips and beverages. Dinner at 5:30 meeting at 7:00. Come and fly early or stay after and fly till dusk. Third is Wings Over Jordan on the 16th. This is an open event for all current AMA members. Any type of powered airplanes is allowed. Please contact Bob Briesemeister with questions.

Don't forget the first weekend of August is the Wisconsin Fun Fly. Contact Jim Cook for information on this event.

We are still in need of people to mow at the field. Please contact Corey Kaderlik to sign up.

This month's plane for the raffle is a Sig T-Clips 70 ARF - retail value of \$210.00.

See you at the field and happy flying.

Calendar

- July 5 to Aug. 4 AMA NATS
Muncie, Indiana
- July 9 TCRC Competition
Fun Fly
TCRC Jordan Field
Kris Hanson
- July 12 TCRC Meeting At
The Field
Dinner at 5:30
Meeting at 7:00
- July 16 Wings Over Jordan
TCRC Jordan Field
Bob Briesemeister
- July 16, 17 Wings Of The North
Air Expo 2016
Flying Cloud Airport
Eden Prairie, MN
- July 21-23 Watts Over Owatonna
SMMAC Field
Owatonna, MN
- July 25-31 EAA Air Venture
Oshkosh, Wisconsin
- Aug 5-7 Wisconsin Fun Fly
Siren & Rice Lake
Wisconsin
Jim Cook &
Bill Sachs

Field Gate Access Code Changed

The access code for the gate at the Jordan field has been changed.

After a TCRC member has renewed his membership for 2016, he will receive a letter informing him of the new code.

Father Hennepin Days

Continued From Page 1

and had hoped for better this year. However, attendance this year was the worst of the three years we've participated. While attendance was down more than 40% at the festival due to the high temperatures, the organizers felt that the site was just too far out from everything else to attract a sufficient crowd. Add to that the site preparation and takedown, it just wasn't a feasible event to do at next year's festival. That said, the organizer told me that, if we ever wanted to use the site for a show or event, that he would be happy to let us use the site free of charge. He also said there would be interest from the city's perspective of doing an event there when we wouldn't be competing with the rest of the festival for spectators and resources.

I would like to give a truly heart felt thank you to everyone who participated in Father Hennepin this year and previous years. I feel your commitment to these types of activities exemplifies our club's stated purpose, "To preserve, encourage and further develop the hobby of building and flying radio controlled model airplanes". Thank you very much. J

TCRC meets every month on the 2nd Tuesday at 7:00 PM in Fellowship Hall of CrossPoint Church located on the southeastern corner of the intersection of 98th Street and France Avenue in Bloomington. Guests are welcome to attend these meetings.

Getting A Plane Ready For A Lucky Spectator



Gerry Dunne, with moral support from Larry Couture, puts the finishing touches on a Mini Apprentice airplane to be used as a door prize at Father Hennepin Days. (Photo by Scott Anderson)

The Spectators Had Shade While Watching the Flight Demos



Pat Stapleton's Ercoupe tried to get under the canopy and enjoy the shade with the spectators to escape the heat at Father Hennepin Days. (Photo by Scott Anderson)

Pictures From TCRC's Father Hennepin Days



A very happy recipient of an Apprentice airplane that was put together at Father Hennepin Days by Gerry Dunne.



The Minions who parachuted out of Bob Glass's Big Stuff airplane didn't have to walk back to the pits. The kids had a great time helping out.

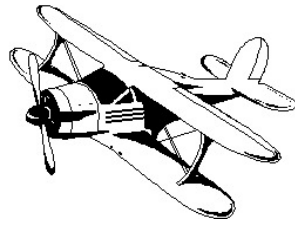


It wasn't just the youngsters who were delighted to win an Apprentice aircraft as a door prize at Father Hennepin Days, as shown in this photo.



The spectators at Father Hennepin Days were treated to lots of flights by some very beautiful airplanes flown by TCRC members.

Show & Tell



Two nice looking planes arrived for Show & Tell at the June meeting.



Sherwood Heggen continued his nostalgic tour of kits of yesteryear with a nice looking Lanier Stinger built from kit. Sherwood bought this plane at the TCRC auction in 2015 in its framed-up condition. He covered it with red and white Century 21 fabric and powered it with a Zenoah G62 engine. It had a wingspan of 80-inches and weighed in at 18+ pounds. He has had three flights on the plane. By the 3rd flight he had added a pound of weight in the tail to get the flight characteristics correct. With the big power plant, the plane had no problems going straight up. He feels this is going to be a fun airplane for him.



Joe Neidermayr had a great looking Ju-87 Stuka built from a Skyshark kit. It was done in desert camouflage with a wingspan of 60-inches and a

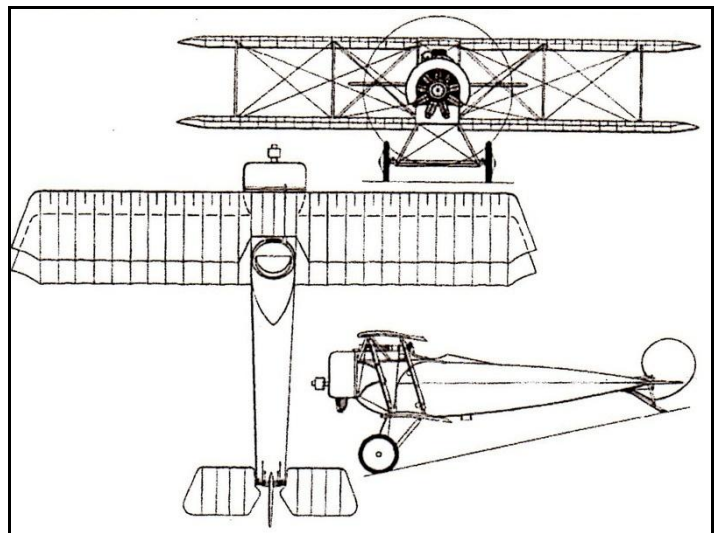
weight of 6-1/2 pounds. For power he had converted the plane from the designed 60-glow to electric using an FMS 4250 motor. As of the meeting, Joe had not given the Stuka its maiden flight.

Joe's Stuka being a Skyshark kit brought back fond memories to several TCRC'ers who would trek to Toledo for the AirExpo in years gone by. It was always a must to stop at the Skyshark booth to peruse the nice looking planes on display, but especially to peruse the very nice looking Ms. Skyshark. The picture below should need no further explanation.



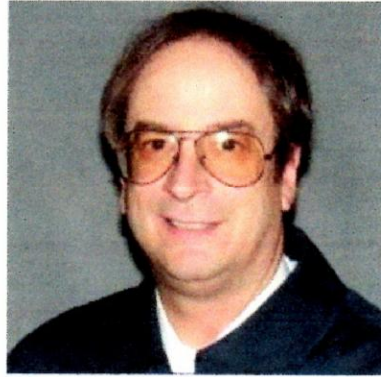
Scott Anderson and Stan Erickson pictured with Ms. Skyshark at the 2005 Toledo AirExpo.

July Mystery Plane



The Right Seat

by Mark Wolf



Wind – Part 2

*(Editor's Note: This is a four-part series on wind with Part 1 appearing in the June **Flare Out**, and the series continuing thru July, August and September.)*

The wing moving through the air provides the relative wind across the wings. We've also determined that whichever direction our airplane is moving will be the direction of the relative wind. (See definition of relative wind in Part 1). The airfoil or wing is designed to produce lift by reacting to the air flow over it. The wing moving through the air, or is it the air moving across the wing? When there is a wind present why not take advantage of it if we can. Turn the aircraft carrier into the wind.

The beginning of the Jimmy Doolittle Tokyo raid of WWII fame offers an interesting example. Land-based bomber aircraft designed to takeoff from somewhat lengthy runways being flown off the short deck of an aircraft carrier. First, the aircraft/wing sitting on the carrier deck ready for takeoff is already moving (The aircraft carrier's movement) in our direction. The wing is moving through the air and the relative wind is moving in the other direction. Second, in addition we have the headwind blowing back against the airplane (i.e. same direction as the relative wind) – the air moving across the wing. The wing produces lift and functions regardless of whether the wing itself is moving or whether the air is moving across it, or in this example, a combination of both. The airspeed indicator functions the same way in measuring all of this airflow and we'll use it to reference our performance reviewing that takeoff scenario.

Imagine ourselves as the crew of a fictitious 17th bomber on that mission. Basic takeoff briefing as follows: We need to get to 100 kts airspeed to fly. Sitting position, stationary on the carrier deck and ready to go. We're already moving. The carrier's forward speed is 30 kts. (Maybe a bit optimistic for the WWII aircraft carrier Hornet but more than enough for our example). We're looking at 30 kts on the airspeed indicator. That gives us 30 of the necessary 100. We still need 70 kts.

Let's assume a 25 kt headwind. As the carrier lines up into the wind we'll add that headwind component blowing back across our wings to our current speed of 30 kts. Airspeed indicator now showing 55 kts. $(30+25 = 55)$ of airspeed and already our wings are starting to go to work. Remember, the airspeed indicator is measuring all of this airflow. Not yet ready to fly but we're more than halfway to the 100 kts we need before the brakes are even released. 55 out of 100. We still need 45 kts. to fly.

Power and flaps set for takeoff, brakes released and we now accelerate on the takeoff roll to attain the remaining 45 kts. $(30+25+45=100)$ Airspeed indicator points to 100 kts and we takeoff. In this example with the combination of the forward movement of the carrier and the wind we can reach that flying speed quickly with a considerably shortened takeoff run.

Taking off and landing into the wind has the benefit of improving our aircraft performance. We usually have more than enough power available in our models for most takeoff procedures. For the most part this enables us to accelerate quickly to flying speed and we're off the ground and flying; taking off in any direction we'd like, electing to use or not to use the benefit of any prevailing wind that's present.

Landings on the other hand usually bring our attention right back to the wind and its effects. We'd like to touch down at the slowest possible forward speed (groundspeed, that is) and minimize the rollout after landing. Groundspeed? Yes, groundspeed.

Continued On Page 7, Col. 1

The Right Seat

Continued From Page 6

We've all had that deadstick approach and try our best to position ourselves for landing into the wind again to take advantage of that improved aircraft performance. The airplane moving through the air (airspeed) and the airplane moving with the air (groundspeed) are not necessarily the same.

End of Part 2. Next month continues our review with Part 3 about wind effects on the airplane.

Until next time . . . J

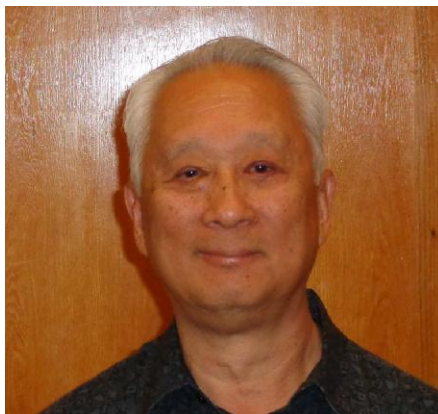
New Members

TCRC gained four more members in the month of June, bringing the total to 134, 13 of which are new to the club in 2016.



Brian Johnson lives at 484 Pleasant Court in Chaska, 55318. His phone number is 763-744-6379 and his email address is bjj4202000@gmail.com. Brian has been flying R/C for 25 years and currently has a Dirty Birdy, Skybolt and Big Stik, among other aircraft.

Brice Johnson is Brian's son and also joined TCRC. Although I do have his picture, it sounds as if I cannot post a minor's pix in this publication.



Cary Pao joined the club at the June meeting also. Cary lives at

6993 Kenmar Drive in Bloomington, 55438. His phone number is 310-989-5811 and his email address is kapao12@verizon.net. Cary is new to the hobby.

Steve Weisbrod (no picture at this time) lives at 12700 Bent Tree Road in Minnetonka, 55305. His phone number is 952-388-8042 and his email address is sweisbrod@live.com. Steve has been flying R/C for about two years and currently has a T28 trainer, a Masterstick and a Phantom 3.

When you see Brian, Brice, Cary and Steve at a meeting or the field, please introduce yourself and welcome them to TCRC. J

Volunteers To Mow Still Needed For Jordan Field

TCRC still needs volunteers on the mowing crew for the Jordan flying site.

Field maintenance manager Corey Kaderlik would like to see several more club members become trained in driving and operating the two tractors so that the grass cutting work load is shared by more people.

Corey says the crew mows one-half of the open area at a time rotating every other week.

If you are interested in joining the mowing team, either email Corey at kaderlik@frontiernet.net or call him at 507-364-7244. J

THE TCRC FLARE OUT Monthly Newsletter



TWIN CITY RADIO CONTROLLERS INC.

Purpose: To preserve, encourage, and further develop the hobby of building and flying radio controlled model airplanes.

2016 Officers

- President **Bob Breisemeister**
612-964-8877
- Vice President **Mark Wolf**
612-207-3128
- Secretary **Jim Ronhovde**
952-854-9062
- Treasurer **Tim Wirtz**
952-941-5357

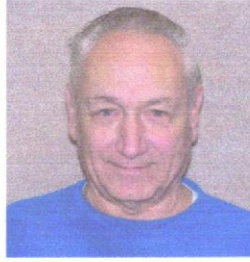
TCRC Flare Out

- Editor **James R. Cook** 952-445-5257
- Publishers: **Pat Dziuk** 952-445-3089
& **Mike Timmerman** 952-496-1631

Website: <http://www.tcrconline.com>

Safety At The Field

By Larry Couture



Well here it is the end of June. The field has been flooded for a week but it should be dry today on the 28th of June as the river level is at 15 feet.

The new rule is that a plane needs an FAA number on it but the old rule is still in affect so in reality you need your name, address and FAA number on your airplane and the actual FAA license copy must be on your person. Now as safety officer for our club I will not be actually checking planes or persons for this information but I hope that everyone is in compliance when flying at our field.

FOR NEW MEMBERS AND OLD MEMBERS:

The field rules are printed in the front of the roster and on a large board in the shelter at the field. I suggest that all members from time to time read these so that they are fresh on one's mind.

Now as always my harp is to LOUDLY ANNOUNCE take offs, landings, dead stick and on the field and make sure all others flying hear this. THIS SEEMS TO BE WORKING SO LETS KEEP IT UP !!!

Last but not least I will close with a PERSONAL CONDUCT VOW FOR ALL OF US TO USE:

I will always conduct myself in a responsible manner. Conscious that the maintenance of safety for others and myself rests with my ability to design and construct sound working models and to enthusiastically abide by the AMA, FAA and CLUB SAFETY CODE, and I will abide by the decisions and follow the instructions of any designated person in charge or control of the session or event.

Thought for the day: Fly often, have fun and crash less, and as usual all landings from which you can fly again are great but not always graceful, so keep the rubber side down.

Safety Always Comes First!

TCRC Membership Handbook And Roster

by Tim Wirtz

I am sending out the TCRC Membership Handbook and Roster to you all individually via email so that you can each have a personal copy. I know the one that has been on the website up to now is not current. That is my fault. I have been trying to update the Roster but it took me longer than I expected due to the fact I had to recreate the source document. In doing so, I updated all of the links, the AMA rules and other facts presented in the handbook as well as getting everyone's most current email addresses and pictures. If you don't see your picture but instead see an AMA logo, there are three possibilities:

1. I don't have a photo of you,
2. You chose not to have your photo in the roster, or
3. You are under 18 years of age and, by law, I cannot put your photo in the publication.

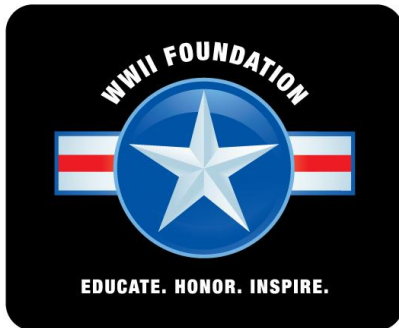
If you would like your photo in the handbook changed, please send me a new one electronically and I will get it in the next 'release'.

This new roster should be on the website soon but I wanted to get this out to you all as soon as I had it completed.

It probably won't print well on your home printer – at least not in booklet form. If you truly need a printed booklet, please reach out to me and I'll get one to you. **J**

World War II Aviation Facts

(Reprinted from
www.wwiifoundation.org.)



No matter how one looks at it, these are incredible statistics. Aside from the figures on aircraft, consider this statement from the article: On average 6,600 American service men died per MONTH, during WWII (about 220 a day). Most Americans who were not adults during WWII have no understanding of the magnitude of it. This listing of some of the aircraft facts gives a bit of insight to it.

276,000 aircraft manufactured in the US .

43,000 planes lost overseas, including 23,000 in combat.

14,000 lost in the continental U.S.

The US civilian population maintained a dedicated effort for four years, many working long hours seven days per week and often also volunteering for other work. WWII was the largest human effort in history.

Statistics from *Flight Journal Magazine*.

THE COST of DOING BUSINESS

— The staggering cost of war.
THE PRICE OF VICTORY (cost of an aircraft in WWII dollars)

B-17 \$204,370. P-40 \$44,892.
B-24 \$215,516. P-47 \$85,578.
B-25 \$142,194. P-51 \$51,572.
B-26 \$192,426. C-47 \$88,574.
B-29 \$605,360. PT-17 \$15,052.
P-38 \$97,147. AT-6 \$22,952.

PLANES A DAY WORLDWIDE

From Germany's invasion of Poland Sept. 1, 1939 and ending with Japan's surrender Sept. 2, 1945 — 2,433 days. From 1942 onward, America averaged 170 planes lost a day.

How many is a 1,000 planes? B-17 production (12,731) wingtip to wingtip would extend 250 miles. 1,000 B-17s carried 2.5 million gallons of high octane fuel and required 10,000 airmen to fly and fight them.

THE NUMBERS GAME

9.7 billion gallons of gasoline consumed, 1942-1945.

107.8 million hours flown, 1943-1945.

459.7 billion rounds of aircraft ammo fired overseas, 1942-1945.

7.9 million bombs dropped overseas, 1943-1945.

2.3 million combat sorties, 1941-1945 (one sortie = one takeoff).

299,230 aircraft accepted, 1940-1945.

808,471 aircraft engines accepted, 1940-1945.

799,972 propellers accepted, 1940-1945.

WWII MOST-PRODUCED COMBAT AIRCRAFT

Ilyushin IL-2 Sturmovik 36,183
Yakovlev Yak-1,-3,-7, -9 31,000+
Messerschmitt Bf-109 30,480
Focke-Wulf Fw-190 29,001
Supermarine Spitfire/Seafire
20,351

Convair B-24/PB4Y
Liberator/Privateer 18,482
Republic P-47 Thunderbolt 15,686
NA P-51 Mustang 15,875

Junkers Ju-88 15,000
Hawker Hurricane 14,533
Curtiss P-40 Warhawk 13,738
Boeing B-17 Flying Fortress
12,731

Vought F4U Corsair 12,571
Grumman F6F Hellcat 12,275
Petlyakov Pe-2 11,400

Lockheed P-38 Lightning 10,037
Mitsubishi A6M Zero 10,449
NA B-25 Mitchell 9,984

Lavochkin LaGG-5 9,920
Note: The LaGG-5 was produced with both water-cooled (top) and air-cooled (bottom) engines.

Grumman TBM Avenger 9,837
Bell P-39 Airacobra 9,584
Nakajima Ki-43 Oscar 5,919
DeHavilland Mosquito 7,780
Avro Lancaster 7,377
Heinkel He-111 6,508

Handley-Page Halifax 6,176
Messerschmitt Bf-110 6,150
Lavochkin LaGG-7 5,753
Boeing B-29 Superfortress 3,970
Short Stirling 2,383

Sources: Rene Francillon, Japanese Aircraft of the Pacific war; Cajus Bekker, The Luftwaffe Diaries; Ray Wagner, American Combat Planes; Wikipedia.

According to the AAF Statistical Digest, in less than four years (December 1941- August 1945), the US Army Air Forces lost
Continued on Page 10, Col. 1

World War II Aviation Facts

Continued From Page 9

14,903 pilots, aircrew and assorted personnel plus 13,873 airplanes — inside the continental United States. They were the result of 52,651 aircraft accidents (6,039 involving fatalities) in 45 months. Think about those numbers. They average 1,170 aircraft accidents per month — nearly 40 a day. (Less than one accident in four resulted in totaled aircraft, however.)

It gets worse..... Almost 1,000 Army planes disappeared en route from the US to foreign climes. But an eye-watering 43,581 aircraft were lost overseas including 22,948 on combat missions (18,418 against the Western Axis) and 20,633 attributed to non-combat causes overseas.

In a single 376 plane raid in August 1943, 60 B-17s were shot down. That was a 16 percent loss rate and meant 600 empty bunks in England. In 1942-43 it was statistically impossible for bomber crews to complete a 25-mission tour in Europe .

Pacific theatre losses were far less (4,530 in combat) owing to smaller forces committed. The worst B-29 mission, against Tokyo on May 25, 1945, cost 26 Superfortresses, 5.6 percent of the 464 dispatched from the Marianas.

On average, 6,600 American servicemen died per month during WWII, about 220 a day. By the end of the war, over 40,000 airmen were killed in combat theatres and

another 18,000 wounded. Some 12,000 missing men were declared dead, including a number “liberated” by the Soviets but never returned. More than 41,000 were captured, half of the 5,400 held by the Japanese died in captivity, compared with one-tenth in German hands. Total combat casualties were pegged at 121,867. US manpower made up the deficit.

The AAF’s peak strength was reached in 1944 with 2,372,000 personnel, nearly twice the previous year’s figure.

The losses were huge—but so were production totals. From 1941 through 1945, American industry delivered more than 276,000 military aircraft. That number was enough not only for US Army, Navy and Marine Corps, but for allies as diverse as Britain , Australia, China and Russia . In fact, from 1943 onward, America produced more planes than Britain and Russia combined. And more than Germany and Japan together 1941-45.

However, our enemies took massive losses. Through much of 1944, the Luftwaffe sustained uncontrolled hemorrhaging, reaching 25 percent of aircrews and 40 planes a month. And in late 1944 into 1945, nearly half the pilots in Japanese squadrons had flown fewer than 200 hours. The disparity of two years before had been completely reversed.

Experience Level:

Uncle Sam sent many of his sons to war with absolute minimums of training. Some fighter pilots entered combat in 1942 with less than one hour in their assigned aircraft.

The 357th Fighter Group (often known as The Yoxford Boys) went to England in late 1943 having trained on P-39s. The group never saw a Mustang until shortly before its first combat mission.

A high-time P-51 pilot had 30 hours in type. Many had fewer than five hours. Some had 1 hour.

With arrival of new aircraft, many combat units transitioned in combat. The attitude was, “They all have a stick and a throttle. Go fly `em.” When the famed 4th Fighter Group converted from P-47s to P-51s in February 1944, there was no time to stand down for an orderly transition. The Group commander, Col. Donald Blakeslee, said, “You can learn to fly `51s on the way to the target.

A future P-47 ace said, “I was sent to England to die.” He was not alone. Some fighter pilots tucked their wheels in the well on their first combat mission with one previous flight in the aircraft. Meanwhile, many bomber crews were still learning their trade: Of Jimmy Doolittle’s 15 pilots on the April 1942 Tokyo raid, only five had won their wings before 1941. All but one of the 16 copilots were less than a year out of flight school.

In WWII flying safety took a back seat to combat. The AAF’s worst accident rate was recorded by the A-36 Invader version of the P-51: a staggering 274 accidents per 100,000 flying hours. Next worst were the P-39 at 245, the P-40 at 188, and the P-38 at 139. All were Allison powered.

Bomber wrecks were fewer but more expensive. The B-17 and B-

Continued On Page 11, Col. 1

World War II Aviation Facts

Continued From Page 10

24 averaged 30 and 35 accidents per 100,000 flight hours, respectively – a horrific figure considering that from 1980 to 2000 the Air Force's major mishap rate was less than 2.

The B-29 was even worse at 40; the world's most sophisticated, most capable and most expensive bomber was too urgently needed to stand down for mere safety reasons. The AAF set a reasonably high standard for B-29 pilots, but the desired figures were seldom attained.

The original cadre of the 58th Bomb Wing was to have 400 hours of multi-engine time, but there were not enough experienced pilots to meet the criterion. Only ten percent had overseas experience. Conversely, when a \$2.1 billion B-2 crashed in 2008, the Air Force initiated a two-month "safety pause" rather than declare a "stand down", let alone grounding.

The B-29 was no better for maintenance. Though the R3350 was known as a complicated, troublesome power-plant, no more than half the mechanics had previous experience with the Duplex Cyclone. But they made it work.

Navigators:

Perhaps the greatest unsung success story of AAF training was Navigators. The Army graduated some 50,000 during the War. And many had never flown out of sight

of land before leaving "Uncle Sugar" for a war zone. Yet the huge majority found their way across oceans and continents without getting lost or running out of fuel — a stirring tribute to the AAF's educational establishments.

Cadet To Colonel:

It was possible for a flying cadet at the time of Pearl Harbor to finish the war with eagles on his shoulders. That was the record of John D. Landers, a 21-year-old Texan, who was commissioned a second lieutenant on December 12, 1941. He joined his combat squadron with 209 hours total flight time, including 21-½ in P-40s. He finished the war as a full colonel, commanding an 8th Air Force Group — at age 24. As the training pipeline filled up, however those low figures became exceptions.

By early 1944, the average AAF fighter pilot entering combat had logged at least 450 hours, usually including 250 hours in training. At the same time, many captains and first lieutenants claimed over 600 hours.

FACT:

At its height in mid-1944, the Army Air Forces had 2.6 million people and nearly 80,000 aircraft of all types. Today the US Air Force employs 327,000 active personnel (plus 170,000 civilians) with 5,500+ manned and perhaps 200 unmanned aircraft. The 2009 figures represent about 12 percent of the manpower and 7 percent of the airplanes of the WWII peak.

IN SUMMATION:

Whether there will ever be another war like that experienced in 1940-

45 is doubtful, as fighters and bombers have given way to helicopters and remotely-controlled drones over Afghanistan and Iraq. But within living memory, men left the earth in 1,000-plane formations and fought major battles five miles high, leaving a legacy that remains timeless. J

Membership Chair Needed

TCRC needs a volunteer to become the club membership chairman.

The chair would be responsible for collecting the new member form when a new pilot joins the club, verify AMA membership, issue membership badges, update the club roster, among other duties. The process to do this is very well organized and easily done.

If you are interested in becoming more involved in the operation of TCRC, and becoming the membership chairman, let a board member know, J

TCRC Auction Date Changed

The TCRC Board has decided to change the date for the Annual Auction held in February to the first Saturday in that month.

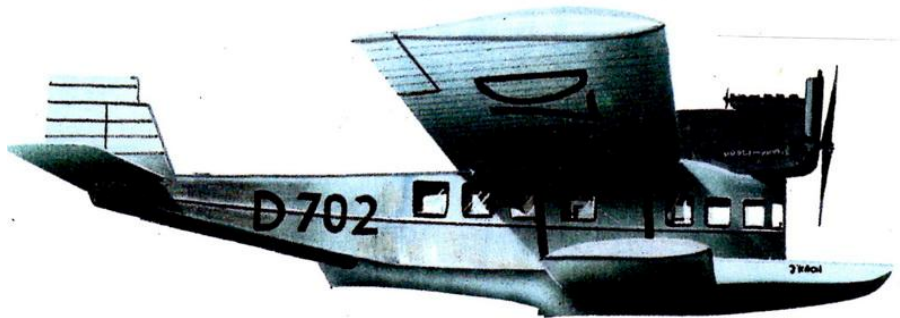
The 2017 TCRC Auction will be held on Saturday, February 4th.

President Bob explained that making this change will eliminate the potential overlapping of the auction with Valentine's Day weekend in future years. J

Dornier Delphin

by Conrad Naegele

The June Mystery Plane was the German Dornier Delphin.



Germany was one of the first to develop and use flying boats for commercial use. The Delphin series was developed between 1920 and 1928. These were particularly interesting, not only for its intended use but by virtue of its new ideas, and new methods of construction, but especially its use of the new Duralumin.

The Delphin was not really a successful airplane, and only a few were built. These were used primarily on German domestic routes.

They were all-metal single-engine monoplanes with rather short hulls, and included sponsons. Originally, the plane had the power plant in the nose, with the pilot directly behind, and space for 5 to 6 passengers. The final variant mounted the engine directly above the pilot, and accommodated 12 to 13 passengers.

The plane was a very clean design. Records now are scarce, but best guesses are that 8 to 12 were built. This figure is open to speculation, however.

The Dornier Delphin was powered with a BMW 6-cylinder inline liquid-cooled engine developing 300 horsepower. It had a wingspan of 56-feet, a weight of 5,556 pounds, a speed of 78 mph and a range of 800 miles.

Don't



Forget!

The TCRC Membership meeting on July 12th will be held at the TCRC Model Air Park in Jordan, weather permitting.

The grill will be on and dinner will be served at 5:30 PM. The meeting will start at 7:00 PM. Bring a plane and get some flying in before enjoying a dinner on the club and then attending the membership meeting.

In case of bad weather the meeting will be at its normal time of 7:00 PM at CrossPoint church in Bloomington.

FREE! *Scale Plan Downloads*

ARADO 96B, Focke Wulf TA -152H
Grumman Lynx, Howard Pete
Kawasaki Ki-45, Lavochkin La-7
Mitsubishi - "Babs"

MNBigBirds.com

Add'l Extras:
- In Flight Videos
- Construction Articles
- Scale Documentation
- Paint Masks & more...

Composite Parts Available thru...

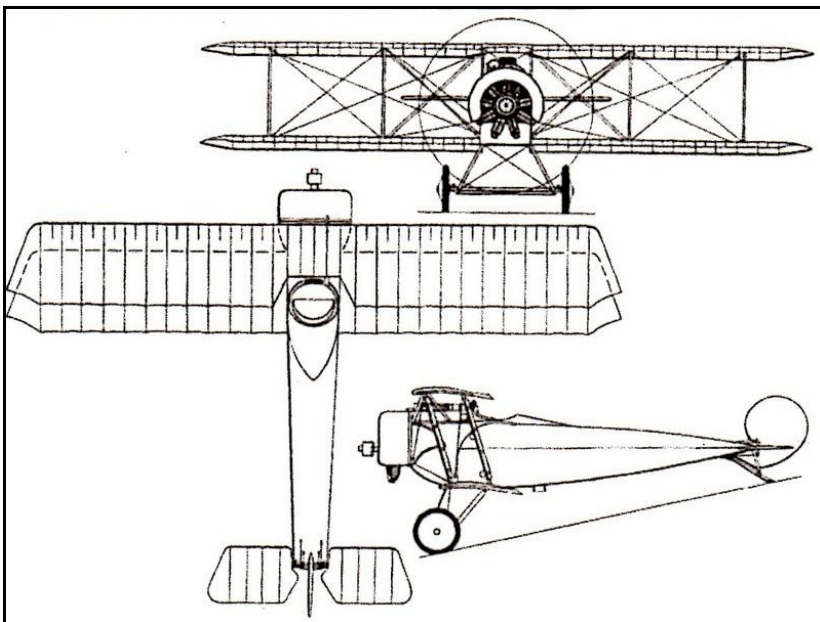
June Raffle Winner



Allan Boucher won the June raffle at the TCRC monthly meeting on June 14th. Allan's smile shows how pleased he is to be the raffle winner. The plane was a Horizon Hobby Ultimate Bipe with a retail value of \$240.

At the July 12th meeting at the field the raffle prize will be a Sig T-Clips 70 ARF with a retail value of \$210. Chances are only \$5/each and you may enter as many times as you wish. Come to the monthly club meeting at the field on July 12th at TCRC Model Air Park in Jordan and be the next winner of the TCRC raffle. J

July Mystery Plane



TCRC Competition Fun Fly July 9

Kris Hanson is again chairing a competition fun fly for TCRC members. The date is Saturday 9th and start time is 10:00 AM at the Jordan Model Air Park.

Kris has several ideas for events and each idea has been put in a jar. At the event, if that idea is pulled out of the jar, it will be one of the events.

All types of planes are permitted, but last year Kris said the plane needed to be large enough to carry a hardboiled egg!

Get your planes ready to go and come on down to Jordan on July 9th for a day of fun at the competition fun fly. J

Wings Over Jordan July 16th

"Wings Over Jordan" will be held on Saturday, July 16th. This is an open event to all AMA members. Also it is open to large or small airplanes, helicopters and multi-rotors that are flown 'line of site'. Gas, nitro, jet and electric power are all welcome.

Invite your friends from other clubs to come and fly off our 300-foot paved runaways. The weather promises to be sunny and bright. There will be no rain!

For more information contact Bob Briesemeister. J

Dormoy Flying Bathtub

by Jim Cook

At the May TCRC meeting long-time member Bob Swenson had his partially built Dormoy Flying Bathtub.



Previous to this edition of the Dormoy Bob has built three other of this unique aircraft.

According to an article by Walt Mooney, in 1923 Etienne Dormoy, then working for the Army Air Force at what is now Wright Field, designed and built a little ultra-light for the 1924 Lightplane air races. Its novel engineering has intrigued the aviation world (and Bob Swenson) ever since.



Pictured above is one of the editions of Bob Swenson's bathtubs with floats. Bob sold the third Dormoy he built to the late Doc Aziemann, another TCRC member. That plane almost always showed up at TCRC's Spring and Fall Float Flies, and it always attracted a lot of attention and comment. That plane was a great water craft and Doc did a good job of entertaining the spectators when it took to the air.



Bob's wife Joan is pictured with another float version of his Dormoy. This one has longer floats whereas Doc's had shorter main floats and a tail float.



Here is a picture of Bob, wearing a younger man's clothes, showing off what I believe might be his first Dormoy.



According to the pictures I have seen, all of Bob's Dormoy's have been yellow and orange. It will be interesting to see the colors of Dormoy 4.0, and especially exciting to see that plane take to the air. **J**


Visit Your
Local
Hobby Shop



HOBBY WAREHOUSE
 7144 Chicago Ave S
 Richfield, MN 55423
 612-861-5587
 MyHobbyWarehouse.com
 hobbywarehouse2@aol.com
 Hours: Mon-Fri 10:00-7:00
 Sat 10:00-6:00
 Closed major holidays
 Thomas Steinmueller
LOWEST PRICES IN TOWN
 Stop In Today To Find Out 'The TCRC Special Of The Month'

LITTLE CANADA (651) 490-1675  **RICHFIELD** (612) 866-9575
HUB HOBBY and... Fun for the Family Games Toys Stuff!
 HOURS: MON-FRI: 10:00-9:00 SAT: 9:30-5:30 SUN: 11:00-5:00
 Arts & Crafts Rockets Science Radio Control
 Games Slot Cars Puzzles Kites
 Plastic Models Trains Toys & Much More
 Visit Us Online At **HUBHOBBY.com**
 Find us on Facebook
LITTLE CANADA 82 Minnesota Ave. Little Canada, MN 55117 (Hwy 36 & Rice St.)
RICHFIELD 6410 Penn Ave. S. Richfield, MN 55423 (2 Blks S of Lunds)

HOBBY

HOBBYZONE.com
 Check us out! 763-551-1159 info@hobbyzone.com
 3700 Annapolis Lane N, Suite #175 Plymouth, MN 55447
 Monday - Friday 10AM - 5:30PM
 Saturday 10AM - 4PM
 Sunday Closed
 Most in-store prices are 5% - 10% OFF online prices. Plus, every month we select two popular items at 15% OFF!
 www.hobbyzone.com
ZONE


BIG SKY HOBBY™
 Great products, expert advice.
 Open Monday thru Saturday, 10 am - 6 pm
 Have Special Orders or Questions?
 Contact: Jeremy@BigSkyHobby.com

Big Sky Hobby
 3402 Federal Drive
 Eagan, MN 55122
 (651) 905-8909
