



April

Minneapolis, Minnesota U.S.A.

2017

# Spring Has Arrived! It's Time To Get Back To Flying!

by Jim Cook

March 20<sup>th</sup> as the official first day of Spring. With its arrival our thoughts should all turn to starting a new flying season at the TCRC Jordan Model Air Park.



TCRC has the most beautiful flying site imaginable. It is zoned for what we do, the surrounding land cannot be used for any structures or developments that could threaten its future, and we own it.

That being said, 2016 was not a very good year for flying on our runways because the Minnesota River had the strangest year we have ever seen with it creeping out of its banks and onto our runways countless times.

But 2017 is going to be a normal year. 2017 is going to be a great year for TCRC.

The club has tentatively scheduled Saturday, May 6<sup>th</sup> as 'Field Clean Up' day. The membership will turn out to do some clean-up, fix-up and paint-up, getting the field ready for a great summer of flying. The workers are urged to bring a plane or two down to the field that day so that when the work is done the flying can begin.

TCRC has scheduled lots of events for the Jordan field throughout the spring and summer. We will have our well attended 'meetings at the field in June, July and August. We have the 'electric fly-in' in June, a competition fun fly and Wings Over Jordan in July, and Model Aviation Day in August.

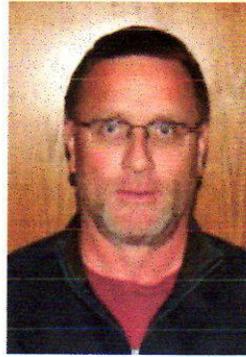
So, put the finishing touches on those winter building projects and get them down to Jordan for their maiden flights.

2017 is going to be a great year for TCRC! J



# A Note from The Head Wing Nut

By Bob Briesemeister



## TCRC Members

The mild spring weather has allowed an early start to the 2017 flying season. With temperatures in the 40's and 50's plus the lack of snow a lot of members have been out at the field. I hope you have been one of them. With work and a vacation trip I have not, but am hoping to do so in the next few weeks.

The April Fools Fun Fly will be held on Saturday the first of April at 10 a.m. Hopefully the weather will cooperate and continue to be spring like.

There is a clean-up day on the calendar for May 6<sup>th</sup>. There will be general clean-up of the field, sweeping the runways, cleaning the sheds, some maintenance on the shelter and building a platform for the water tank. If you can think of other items that need attention, please let the board know. Bring a plane or two so that you can fly after the work is done.

At the May membership meeting we will be holding our annual building contest. There are a few changes in the rules. Contact Chris O'Connor with any questions.

The Spring Float Fly will again be held at Bush Lake Beach in Bloomington on May 13<sup>th</sup> at 10:00 a.m. Bring a plane or just come and watch. For more information please contact Steve Meyer.

Keep in mind that the summer meeting will be once again held at the field starting in June...weather permitting of course.

As we all know, when we cannot use our field due to flooding we have permission to us the Scott County Fairgrounds. There is a possibility of using the parking lot on a more regular basis. More information to come.

Due to the lack of participation in the airplane raffle, I am going to suspend it for a couple months and may start it back up again at the summer meetings.

## New Member

Glenn Hagfors joined TCRC in March. Glenn lives at 302 Benton Street E in Cologne 55322. His phone number is 952-466-2052 and his email address is [mntagnar@earthlink.net](mailto:mntagnar@earthlink.net). Glenn has been flying R/C for 20 years and is currently flying an Extra 300, a Seawind, and an Easy Fly 40 among others planes.

When you see Glenn at a meeting or at the flying field, be sure and introduce yourself and welcome him to TCRC. 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.

#### 2017 Officers

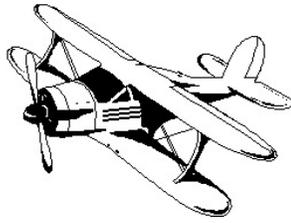
<b>President</b>	<b>Bob Briesemeister</b> 612-964-8877
<b>Vice President</b>	<b>Brian Johnson</b> 763-744-6379
<b>Secretary</b>	<b>Ken Weddell</b> 952-500-3446
<b>Treasurer</b>	<b>Tim Wirtz</b> 952-941-5357

#### 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>

# Show & Tell



Neat new planes at the March 14<sup>th</sup> meeting.



Bob Swenson had a Horizon Hobby Funtana S90 ARF. The plane was done in yellow Monokote and had a 70-inch wingspan. Fully loaded it weighed in at 7 pounds, 8 ounces. Bob had a Supertiger 90 glow engine in it for power.



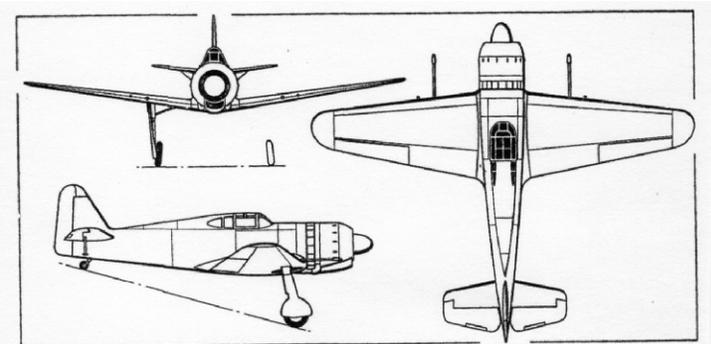
Prolific Joe Neidemayr had his newest plane, an OV-10 Bronco. This plane was built from a short kit and had a 46-inch wingspan. Total weight was 5

pounds. Joe used two electric motors for power. It had retracts. It was painted in tan with orange trim with the markings of a German target tow plane.



Steve Meyer had a great looking PT-19 done by Dynaflight. The plane had an 89-inch wingspan and tipped the scales at 16.5 pounds. The plane was done in conventional blue/yellow US Army trainer colors. The covering material was Ultrakote. For power plant, Steve had a gas DLE 35RA engine in it. The engine swung a 19x8 prop.

## April Mystery Plane



**Andersen Designs**

Andersen La-7  
Built by Jeff Quesenberry

**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...

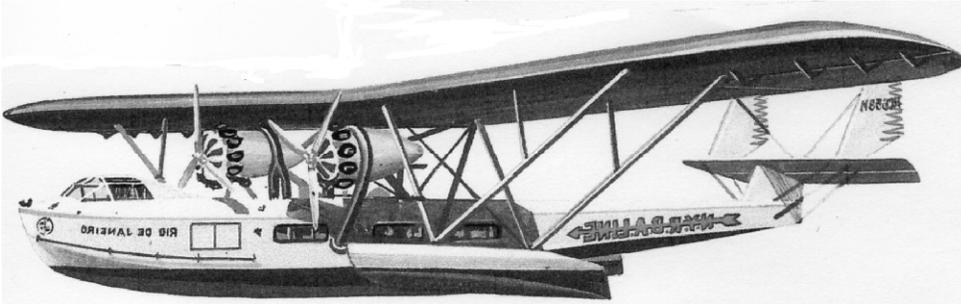
Composite Parts Available thru...

**MICKO**  
Aircraft & Accessories

# Consolidated P2Y-1

by Conrad Naegele

The March Mystery Plane was the Consolidated P2Y-1.



In 1928, the U.S. Navy decided they needed a flying boat. They asked the newly formed Consolidated Company to design such a boat. Strangely, the Martin Company underbid Consolidated since they had spent no money on the design process! They built the first few called the P3M-1 & 2. Then, Consolidated built several for civil use, for the North and South American trade. The plane was called the Admiral.

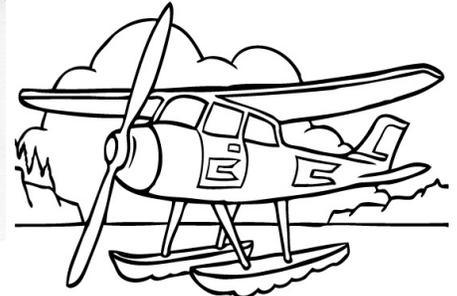
The first planes had Curtiss-Wright 575 horsepower radials and were very successful for several years. Then the Navy ordered 23 planes, improved models, all-metal, except the 100-foot top wing was fabric covered! The plane now featured a lower wing for added lift and stabilizing floats. This then made this a sesquiplane, as it was less than 50% of the main wing. Strangely the Navy added a third engine mounted on top of the wing, adding 1/3 more fuel consumption, but only 3 mph speed. It was soon deleted. Engines were upgraded to 200 horsepower.

The new series flew in 1932, with a crew of 3. One notable fact was six P2Y-1's flew from San Francisco to Honolulu in formation, in 22 hours, and all arrived OK. The plane had several upgrades, armament, bomb loads. Of particular interest was that this plane was the direct ancestor of the famous, and I think, the most successful Navy Patrol Bomber ever, the PBY5-A, the Catalina.

The P2Y-1 had a wingspan of 100 feet, 5 inches, a combat ready weight of 25,266 pounds and a speed of 139 mph. The most common engines were the Curtiss-Wright R-1820 9-cylinder radials that developed 750 horsepower. For armament, it carried three 303 caliber Browning machine guns plus 2,000 pound bombs. J

# TCRC Spring Float Fly May 13th

by Steve Meyer

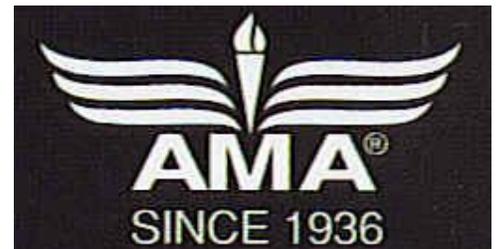


TCRC's annual Fall Float Fly will again be held at Bush Lake Park in Bloomington on Saturday, May 13th.

Start time is 10:00 AM. Chair for the event is Steve Meyer, and the event is open to any pilot with a valid 2017 AMA membership card. If it's too windy or raining we will cancel the event. In that instance we will try to post the cancellation on the club website TCRCOnline.com.

This event always attracts a lot of pilots, a lot of great looking float planes, a lot of club members, and a lot of spectators.

Get some floats onto a plane or two and be at Bush Lake beach on May 13<sup>th</sup> for the TCRC Spring Float Fly. J



## March Raffle Winner



The raffle winner at the March TCRC meeting was Julian Bristow taking possession of a nice Horizon Hobby Sukhoi SU-29 MM Bind-N-Fly ARF with a retail value of \$210.

At the April 11<sup>th</sup> meeting there will not be a raffle prize. Participation in the raffle has dropped off the last couple of months, so president Bob thought we should take a break for a few months before we get back to having raffle airplanes at the meetings. We will probably re-start sometime this summer. J

## Toledo AirExpo April 7<sup>th</sup> to 9<sup>th</sup>

Winter is gone and spring, arrived on March 20<sup>th</sup>.

With spring comes the biggest R/C Expo held here in the United States. That is the Weak Signals Air Expo in Toledo, Ohio at the Seagate Center.

Absolutely anything sold for the R/C hobby can be found at the AirExpo. Demonstrations of the newest and hottest items will be commonplace. Anyone who is well-known in the R/C industry will be in attendance. In addition, on the second level of the Seagate Center the largest R/C swap meet is held. Used item and new items can be purchased at some pretty reasonable prices.

Several members of TCRC make it a point to attend the Toledo Show regularly. This includes Scott Anderson, Chris, Mark and Nathan O'Connor, Mark Wolf, and Jim Cook.

Think about attending the Toledo Show in 2017. For more information see one of the above members. J

## 2017 TCRC Dues

With the arrival of the New Year comes the time to renew your TCRC club dues.

The TCRC board of directors met and set the 2017 TCRC dues as shown below:

- Regular \$85.00
- Junior \$47.50
- Social Affiliate \$35.00

Dues invoices were handed out at the December 13<sup>th</sup> meeting if you were present, or mailed on December 14<sup>th</sup>.

Remember, to be a member of TCRC you must be a member of AMA and supply proof of that membership at the time of your TCRC renewal.

Your TCRC dues can be paid to treasurer Tim Wirtz at a meeting or by mailing them to Tim at:

Tim Wirtz  
1511 Emerson Avenue N  
Minneapolis, MN 55411

The TCRC board confirmed the initiation fee for new members or members who had not paid their dues for the previous year. The initiation fee is \$75.

Take the time to pay your 2017 TCRC dues today. J

**Make Sure You Have  
Paid Your 2017  
TCRC & AMA Dues**

# A Very Beautiful ¾-Scale P-51 Mustang

by Jim Cook

While spending the winter months in Mesa, Arizona this year, a friend of mine, Doug Whittaker from Michigan, who is a full-size pilot and aviation buff, took me to a meeting of the Sun Lake Aero Club in late March. Their speaker that evening was Mike Still and he gave a presentation on the kit-built Titan T-51 that he had just completed. The T-51 is a ¾-scale P-51 Mustang.



**Mike Still taxiing out his T-51 for its maiden flight in November, 2016.**

Mike spent the last six years building the T-51 from the Titan kit. He was able to purchase the kit at a discounted price from a builder that had started assembling the aircraft before realizing he did not have the time commitment to complete the project. He was also able to purchase the Suzuki 2.7 6-cylinder narrow V engine at a good price from a builder who had started building a T-51 and sold the plane but still had the engine.

Mike completed the T-51 in April of 2016. The paint scheme was silver with a red nose and rudder, military markings and invasion stripes. The Suzuki V-6 engine develops 186 horsepower and drives a 4-bladed prop. The electronic equipment on the dashboard was totally modern and almost all functions

could be displayed on the Dynon 10" screen in the dash. Mike also installed a forward looking camera (identical to the back-up cameras on today's cars) just above the air scoop under the fuselage. With this camera he can see the runway, on his big screen in the dash, while taxiing.

When the airplane was completed it had to be inspected by the FAA to receive an airworthiness certificate which was done in April of 2016.

The date for the maiden flight came in November of 2016. Mike had discussed his maiden flight with the tower at the Chandler, Arizona airport he was to fly from. He had originally planned a morning flight, but some last minute adjustments put the actual flight in the afternoon.



**Mike's T-51 has just lifted off of the runway at Chandler on its maiden flight.**

The T-51 flew its maiden flight beautifully that day. He orbited the airfield at 3,500 feet for about 1/2 hour before doing a perfect wheel landing. The aircraft has a two axis autopilot, which holds altitude and heading perfectly. He did not retract the landing gear (mains and tail wheel) until the second flight.

Mike now has 20 hours flying time on the T-51. The FAA requires that he log 40 hours of flight time on the aircraft before he can leave an assigned flight area or carry a passenger in the second seat.

The plane has a wingspan of 24 feet, an empty weight of 1,333 lbs. and a gross weight of 1,850 lbs.

**Continued On Page 7, Column 1**

# 3/4-Scale P-51 Mustang

Continued From Page 6

The airplane cruises at 150 to 160 mph with a max speed of 216 mph. (However, Mike says it would really need to be going down a pretty steep slope to hit that speed)

Mike is no stranger to building airplanes and is a member of EAA Chapter 1445. His previous endeavors include a kit-built Murphy Renegade Spirit, the restoration of a 1940 Fairchild 24W, and the rebuild of a plans-built Starduster SA-100. Pictures of these aircraft can be seen below and to the right:



**Mike's Starduster SA-100.**



**Mike's kit-built Murphy Renegade Spirit**

The Murphy Renegade Spirit was kit-built and Mike flew it for several years before selling it to a pilot in Zanzibar.



**Mike's restored 1940 Fairchild 24W**



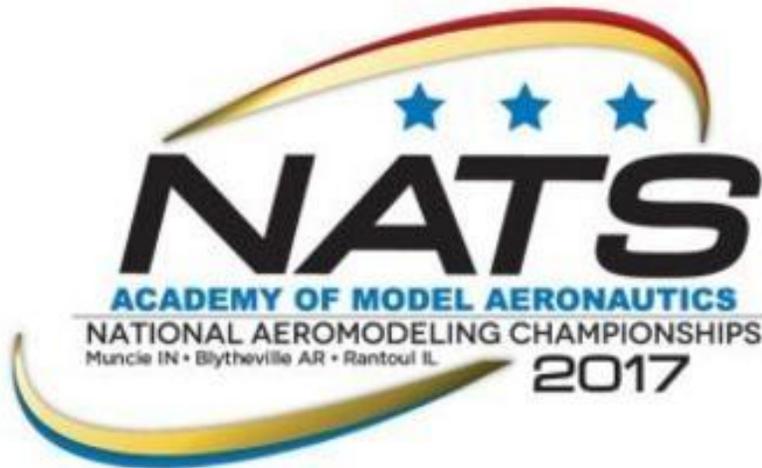
**Mike Still at the Sun Lake Aero Club meeting.**



**A full house was present to hear about the T-51.**

Mike fielded a lot of questions about his T-51 from the crowd. The final question was, "Is this your last building project?" Mike's response was, "This is my last project until I start building the next one!" J

## 2017 National Aeromodeling Championships registration is open



### 2017 National Aeromodeling Championships registration is open

It's that time again, registration for the 2017 Indoor and Outdoor Nats is now open. You can register for this year's competition by:

- Going to [modelaircraft.org](http://modelaircraft.org)
- Clicking on 'Competition & Events'
- Clicking on 'National Aeromodeling Competition (Nats)'
- Clicking on 'Nats Forms'

The Free Flight Indoor events will once again be held in Rantoul, Illinois, at the Rantoul National Aviation Center, Village of Rantoul, Hangar #3. NEW this year, the NSRCA will be hosting the RC Aerobatics (Pattern) 2017 Nats in Blytheville, Arkansas, July 25-29 at the Eaker Air Force Base. All other Outdoor competition will take place at the International Aeromodeling Center in Muncie, Indiana, from June 23-August 3. As always check out [www.modelaircraft.org/nats](http://www.modelaircraft.org/nats) for the latest information. Don't wait! Register now!

## Calendar

- |            |                                                                                  |
|------------|----------------------------------------------------------------------------------|
| Apr. 1     | April Fool Fun Fly<br>TCRC Jordan Field<br>10-10-10 Rule                         |
| Apr. 7,8,9 | 63 <sup>rd</sup> Annual<br>Toledo AirExpo<br>Seagate Center<br>Toledo, Ohio      |
| Apr. 11    | TCRC Membership<br>Meeting, 7:00 PM<br>CrossPoint Church<br>Bloomington          |
| May 6      | Jordan Model Air<br>Park Clean Up &<br>Fly In                                    |
| May 9      | TCRC Building<br>Contest<br>CrossPoint Church<br>7:00 PM<br>Chris O'Connor       |
| May 13     | Spring Float Fly<br>Bush Lake Park<br>Bloomington, MN<br>10:00 AM<br>Steve Meyer |

## TCRCOnline.com

The Best Little  
Website In Minnesota!

## TCRC Apparel For Sale

TCRC's new club apparel is available for sale at most membership meetings.

Those items for sale are: TCRC Hats, \$12.00; TCRC Hatbands, \$5.00; TCRC Gray Sweatshirts, \$18.00; and TCRC Gray T-Shirts, \$12.00. See treasurer Tim Wirtz at a meeting to make a purchase. J



# Cruising Arizona

by Jim Cook

Your editor has been noticeably absent from the meetings for the winter as he eschewed the snows of a Minnesota winter for the sunshine of Arizona. But he has not totally been away from airplanes. He did not do any R/C flying while he was gone but he did get into a full-size plane for a flight.



Jim's friend, Doug Whittaker of Michigan, is a pilot and currently owns a Cessna 175. The 175 is in Michigan but Doug rents a Cessna 172 while he is in Mesa. He is pictured above doing a pre-flight inspection on the 172 before the two of us took to the air for a few hours.



Doug is an accomplished pilot and very skillful. We took off from Chandler, Arizona and flew east around and over Superstition Mountain which is shown in the above picture. Doug pointed out the spot near the peak of Superstition where a pilot crashed his twin-engined plane a few years ago. Arizona east of Mesa is all peaks and canyons and would be

very rugged and inhospitable to anyone needing to put a crippled airplane down. We flew over the lakes formed by dams on the Salt River – Saguaro Lake, Canyon Lake, Apache Lake and Roosevelt Lake, which is the main reservoir and water supply for the Phoenix area.



Roosevelt Dam, shown above, looks like a smaller version of Hoover Dam and is beautiful with the arched road bridge that passes over it. The Dam sits at the start of the famous Apache Trail that goes west back to Phoenix.

We flew from the lakes up to Globe, Arizona, which is the home of several copper, gold and turquoise mines. At Globe, we did a few touch-and-goes on the un-towered airstrip, and then west and south to Eloy, Arizona where we landed. Eloy is famous for being the home of skydiving. In the short time we were on the ground we witnessed about 100 skydivers landing just to the east of the airstrip.



Back in the air, I got to do some flying from the right seat before we headed back to Chandler. It was a great way to spend the morning enjoying sunny Arizona from a very different perspective. **J**

# The “One Man Airforce” of World War II

(Reprinted from warhistoryonline.com)

**“The greatest fighter pilot story of WWII held off 30 German fighters from attacking a squadron of B-17 bombers for over half an hour.”**



**Colonel James Howell Howard in 1945.**

During WWII, he single-handedly protected a bomber squadron against German planes... even when he ran out of ammo. They called him the “One Man Airforce” after that.

James Howell Howard was born on April 13, 1913, in Canton (now Guangzhou), China. His parents were doctors who expected their son to enter the medical profession, as well. But it wasn't to be.

They moved back to America when he was 14, which wasn't easy for him. Other kids called him “China” and asked if he really was an American. Perhaps that's what made him do what he did next.

For during his senior year in college, he decided that medicine was no longer his thing – the military was. So after graduation, he signed up to learn naval aviation.

Of the 140 other applicants who tried, he was one of 15 who made it – becoming Navy Seaman Second Class. By 1938, he was in Class 109-C at the Naval Training Station in Pensacola. There he became an Aviation Cadet in the Naval Reserve... but not for long.

His first assignment was aboard the USS Wasp, with the Fighting Squadron Seven (VF-7). The year after that, he was with another ship learning to fly yet another plane. It went on like this till 1941 when his life would again take a different turn.

The Navy offered him a regular commission – a rare honor, and at the time, given to only one other ensign. But Howard refused. He wanted to go back to China.

America was unhappy with the Japanese occupation of China, but was determined to remain neutral. At least officially. Solution? A secret group of fighters taken from different branches of the US military. Except that they couldn't go to China. Too obvious. They went to Burma, instead... right across the Chinese border. And that's how Howard ended up

joining the American Volunteer Group with the Flying Tigers.

Based at the Kyedaw Airdrome outside the town of Toungoo, he was put in the Second Pursuit Squadron. Then Pearl Harbor happened, so many returned to the US.

But Howard stayed to protect the Chinese and Burmese. He was part of the joint US-British operation that destroyed the Japanese advance on Rangoon on December 25, 1941. The following year on January 3, he was one of four pilots who attacked the Japanese airdrome at Tak, Thailand as they were preparing another attack on Burma.

The Flying Tigers were disbanded on July 4 because America needed all its men.



**Captain Howard's P-51 Mustang “Ding Hao!”**

Having shot down six Japanese planes in 56 missions, Howard became an ace. Back in the US, he joined the US Army Air Forces as a commissioned captain with the rank of major and command of the 356<sup>th</sup> Fighter Squadron in the 354<sup>th</sup> Fighter Group. Howard got a P-51 Mustang, complete with his personal emblem – *Ding Hao!* (“very good” in Mandarin). Based in Britain, he had the honor of

**Continued On Page 11, Col. 1**

# One Man Airforce

Continued From Page 10

joining the longest fighter trip to Kiel, Germany on December 11, 1943 – setting a record.

On January 11, 1944 he set another – one that would put him in the history books. His squadron was escorting a group of bombers tasked with hitting the German town of Oschersleben because of its airplane factory – the AGO Flugzeugwerke. German planes met them, so Howard dispatched his fighters as best he could. The bombers were built for carrying heavy payloads, not aerial gymnastics, so they were particularly vulnerable. And that's where the Mustangs came in.

Howard didn't remember much about the first skirmish, only that he got separated from his squadron. Flying back up to bomber altitude, he saw a combat box (attack formation) of about 20 bombers under fire from six fighters. So he shot at one plane... hit it and dove after to make sure it was out of commission. It blew up on the snow-covered ground as Howard banked upward for more. Just before he reached the bombers, a Focke-Wulf FW 190-A3 flew beneath him. Howard fired... and hit! The pilot ejected, almost hitting the *Ding Hao!* with its canopy. The former Flying Tiger zoomed back toward the bombers when a Messerschmitt 109 flew beneath him several hundred yards ahead.

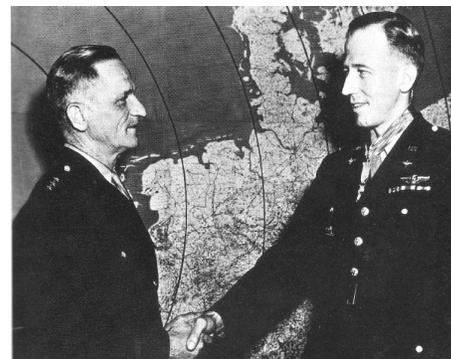
The Me-109 slowed, hoping Howard's momentum would carry him forward so he could be shot from behind. But the American knew that trick, so he also slowed down to keep the German ahead of him. The enemy responded by going into a dive. Howard fired... and hit again! No time to see if the plane crashed, because a Mustang and another Me-109 were zooming his way. The American saw Howard and dove. The German did, too, not seeing Howard – who fired. Howard didn't know if he hit the target because more German planes were attacking the bombers. Reaching them, he hit a Messerschmitt Bf 110, which flipped over and trailed smoke before moving out of sight. Howard didn't claim this as a kill, though some of the bomber crews he was protecting swear they saw it crash.

Zooming toward another bomber squadron, he saw a Messerschmitt weaving among the bombers to avoid getting hit. Howard stayed outside the formation and waited till the German zagged out... and fired. Another hit!

Howard later claimed that, "I never did see thirty or forty of those planes all at once the way the bomber people tell it. I'd see one, give it a squirt, and go up again."

But he was running out of ammo. So he used *Ding Hao!* to scare them off, using the kamikaze tactics he saw over Burma and China. As Howard put it, "I was quite busy in a constant merry-go-round... presenting a good enough bluff for them to break off and dive away."

He shot another German plane, which dove in a spiral. Howard followed and emptied his last bullets into the enemy, then zoomed back up to meet a Dornier 217 aiming at a bomber. Howard flew above the plane and dove. The Dornier did the same, probably wondering why it wasn't being riddled with bullets.



Howard (left) receiving the Medal of Honor from Lieutenant General Carl Spaatz on June 5, 1944

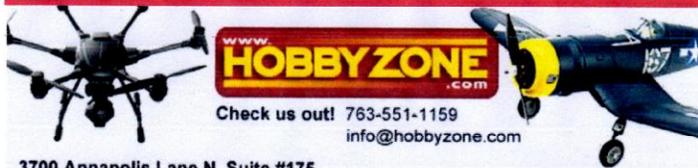
Brigadier General Robert F. Travis, head of the bomber formation, said, "For sheer determination and guts, it was the greatest exhibition I've ever seen. It was a case of one lone American against what seemed to be the entire Luftwaffe. He was all over the wing, across and around it. They can't give that boy a big enough award." So they gave him a Medal of Honor – the only fighter pilot in the European Theater to get one. They also made him a Brigadier General. J

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

  
**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  
  
 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](mailto:Jeremy@BigSkyHobby.com)

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