

THE SLOW ROLL



CHARTERED #921
Since DEC. 1974



President—Frank Moskowitz
Vice President—John Geyer
Treasurer—Oliver Henien
Secretary—Mike Peck
Editor—Bob Purdy

AUGUST 2023

The Slow Roll is published by the Sun Valley Fliers by and for its membership to all others interested in the building and flying of radio control aircraft.



Sun Valley Fliers @Goshen, IN

Inside this issue: Cover Photo showing Bonnie, Brian O'Meara, Ken, Brian Rhodes, Wayne Layne
SVF CLUB ending 48 years as a charter club

President Report
Board Minutes YES
Minutes YES
Birthdays
MANY, many, VIDEOS
Reno
Sweden

Happenings NO
Toys 4 Tots Flyer
FUEL FACTS
Derek Micko
Scale Master Flyer

AZ Classic

MEETING AT FIELD CANCEL

August 2023 SLOW ROLL PRESIDENTS LETTER



Welcome to the August Slow Roll.

Now I know why it's called the lazy days of summer. By mid-day our field looks like a ghost town. For those lucky enough to arrive at the crack of dawn, the temperature and wind conditions are excellent. By mid-morning you must deal with 100° plus temperatures. Soon we will have high humidity, and high dewpoints associated with our Monsoon season. We typically have until mid-September for the end of the Arizona Monsoon season. Until then arrive early and enjoy the morning flying conditions.

The Ramada permitting process is coming along nicely. For information on this topic, please read the Board of Directors comments under Old Business. Nicely written by Secretary Mike Peck.

We are still looking for flight instructors. As our membership grows, we need to offer the services that our club is known for. Especially being the friendliest and most forward-thinking club in the valley. If you are interested in this position, just inform me or any club officer or board member.

John Gerhardt has volunteered to be the Contest Director for the 2024 Winter Warbirds event. Tony Quist will perform most of the advance prep work for the event but has indicated he does not want to run the contest this coming year. The contest dates are to be Jan 26, 27, & 28, 2024.

The One Eighth Air Force has requested to co-sponsor Bob Bayless's Dec 9th Fly 4 Tots event benefiting the Marine Corps Reserve Toys for Tots program. Both organizations would benefit from the publicity, and the event should see an increase in the number of donated toys. Expenses for the Fly 4 Tots event would be split 50/50 between the SVF and the OEAF.

I always welcome comments so please feel free to call me anytime you want to chat about club related issues. You can always reach me at 602-809-4195. If I do not answer, please leave a message and I will get back to you. I can receive text messages on that number as well.

That's if for this month. Our August 5th Club Meeting is canceled due to the heat and numerous members on vacation. We will resume on Saturday September 2nd.

Have fun out there!

Frank Moskowitz

President

Meeting Canceled



Sun Valley Fliers BOD Meeting Minutes – July 13, 2023

Club Officers Present:

- President Frank Moskowitz, Vice-President John Geyer, Treasurer Oliver Heinen, Secretary Mike Peck

Board Members Present:

- Craig Guest, Jamie Edwards, Dan Bott, Val Roqueni

Guests:

- None

Open: President Frank Moskowitz

1. The Zoom internet meeting was opened at 6:01PM, there was a quorum present.

Secretary's Report: Mike Peck

1. The June 12, 2023 Board of Directors meeting minutes were moved to approve, seconded, and approved unanimously.

Treasurer's Report: Oliver Heinen

1. The club treasury balance as of the end of June was \$\$\$\$\$\$\$\$\$.
2. Expenses for June included the usual trash and port-a-potty expenses plus the cost of the NL editor's computer.
3. There was a motion, a second, and the report was approved unanimously.

Membership Director's Report: Tony Quist

1. The SVF membership count remains at 241 members with no new members since last month.
2. There was a motion, a second, and the report was approved unanimously.

Safety Officer's Report: Ken Rhoads

1. No report, Ken & Brian are out-of-town. No safety issues reported to attending BoD members.

Information Technology Report: Bobby Santoro

1. No report, Bobby is also out-of-town. He is developing a proposed new website format that will be presented to the Board at a later date.

Old Business:

1. Ramada permitting – John Geyer and Mike Peck met today with Steve Bargeloh of Earthline Civil Engineering. Steve works for Frank Moskowitz's son-in-law and is preparing the submittal to the City of Phoenix for a permit application. There will be no cost to the SVF for Mr. Bargeloh's work. Steve's first contact will be with Keith Kesti who is the Civil Plan reviewer for the planning department, but Mr. Kesti is currently on two weeks vacation. This initial contact

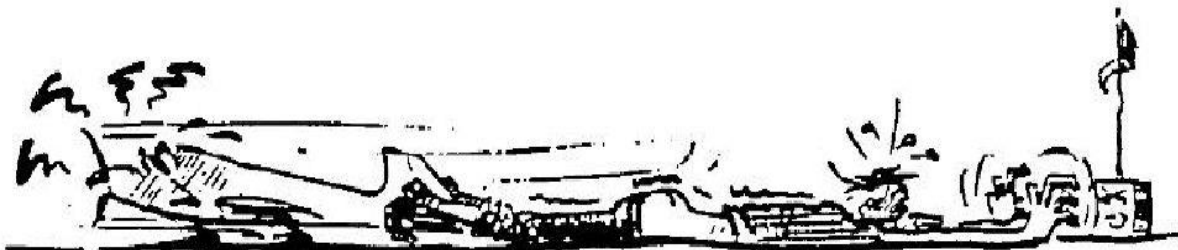
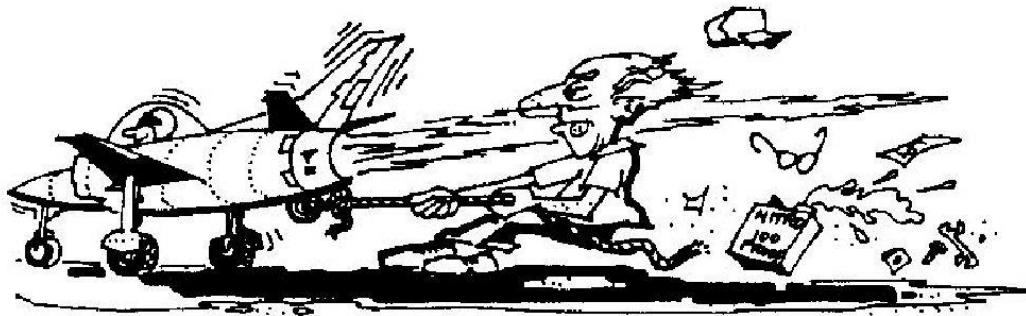
will determine what will be needed in terms of a site plan and other documents before the formal electronic submission. Once the application is made electronically, we can expect to wait 30 to 60 days for review and permitting by the City. John Geyer also provided some contact information to Steve for the Flood Control District of Maricopa County and for the COP Parks and Recreation Department. Both John and Mike were impressed with Mr. Bargeloh and believe this is a major step forward in our project.

New Business:

1. John Gerhardt has volunteered to be the Contest Director for the 2024 Winter Warbirds event. Tony Quist will perform most of the advance prep work for the event, but has indicated he does not want actually run the contest this coming year. The contest dates are to be Jan 26, 27, & 28, 2024.
2. The One Eighth Air Force has requested to co-sponsor Bob Bayless's Dec 9th Fly 4 Tots event benefiting the Marine Corps Reserve Toys For Tots program. Both organizations would benefit from the publicity, and event should see an increase in the number of donated toys. Expenses for the Fly 4 Tots event would be split 50/50 between the SVF and the OEAF. Mr. Bayless has no objection as CD. There was a motion to approve, a second, and unanimous approval of the request.
3. John Geyer reported that Brian and Bonnie O'Meara would like to run the Warbirds and Classics of Arizona event again in March of 2024. More information will be presented on this in the future.

Adjournment: The meeting adjourned at 6:31 pm.

Respectfully submitted,
Michael Peck
Secretary





Sun Valley Fliers Club Meeting Minutes July 1, 2023

Officers Present: President Frank Moskowitz, Vice-President John Geyer, Treasurer Oliver Heinen, Secretary Mike Peck

Board Members Present: Charlie Beverson, Dan Bott, Jim Sprecker, Val Roqueni

Meeting Open: President Moskowitz called the meeting to order at 8:03 AM at the SVF field.

Guests: Dave Webber

New Members: Dean Webber

New Solo Pilots: None

Secretary's Report: There were no corrections or additions to the June 2023 SVF meeting minutes, and the minutes were approved as written.

Treasurer's Report: Oliver Heinen reported the club treasury has a balance of \$\$\$\$\$\$. The highest monthly recurring cost to the club is for the porta-potty services. There was also a software expenditure for the club newsletter editor.

Membership Director's Report: Tony Quist was not able to attend the meeting, so there was no membership report. Last month the membership was 241, trending upward.

Safety Officer's Report: Ken Rhoads had nothing to report, as no incidents or problems came to his attention in the last month. Members were reminded they are welcome to call Ken with any safety concerns or questions.

Old Business:

1. Ramada permitting is still in progress.
2. The Club Charter, AMA Insurance documents, and the current list of club officers and board members have been provided to the Deer Valley tower, Phoenix Parks & Recreation, and Maricopa County Flood Control District in accordance with the SVF Administrative Actions/Submission Schedule.

New Business:

1. President Moskowitz's son-in-law's engineering architect, Steve Bargeloh, is working on getting SVF's documents submitted to the City of Phoenix commercial planning department for permitting. The architect's company is Earthline Civil Engineering, LLC. Frank's son-in-law has generously determined that the architectural and submission services will be provided to the SVF at no cost.

Steve has sent emails to the civil review manager and is addressing getting the scope of work clarified and obtaining a proper address assignment. Commercial projects need to show ADA compliance that could require striped concrete parking and sidewalks for handicapped access. Steve is working to get that altered, however, the concrete sidewalk to the ramada area may still be required.

Vice-President Geyer assured the club that there will be coordination with the architect, our contractor, and the SVF board of directors, and new costs will be known and approved by the BoD.

2. Dan Bott addressed the membership to remind them that if they fly in any location other than a FRIA club flying site, they will have to have remote identification equipment for their models/drones. This is anticipated to begin in October of 2023. The SVF field is an approved FRIA flying site. FAA Registration ID numbers will continue to be required on all models, and members have to pass the educational TRUST exam that can be taken through the AMA website.

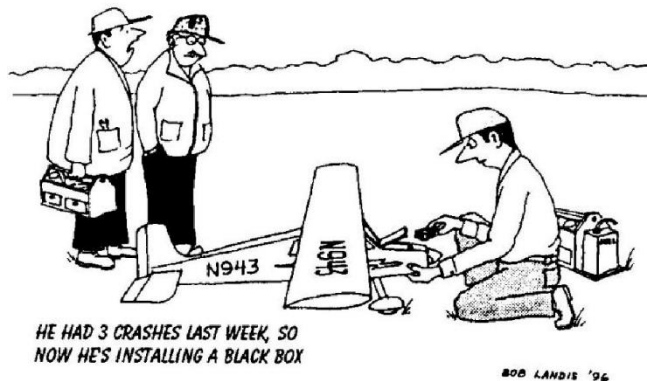
3. Bob Bayless addressed the membership to remind them of the December 9, 2023 Fly 4 Tots event at the SVF Field. It will be an electric flying event to benefit the Marine Corps Reserve Toys for Tots drive. The entry fee will be one unwrapped toy.

50/50 Raffle: The raffle was won (again for the 3rd month) by Nancy Sprecker who donated the money back to the club. Thank you Nancy!

Show & Tell: Rick Vinet showed some function tri-stock chocks he had made with Velcro material on the bottom that attaches to the artificial turf on our tables. Good idea, Rick.

Meeting close: Motioned, seconded, and approved to close the meeting at 8:33 AM

Respectfully submitted,
Michael Peck
SVF Secretary



ARIZONA WARBIRDS & CLASSICS

A low-stress, high-fun flying good time!

BY PJ ASH ;

PHOTOS BY PAUL MROZ & BARRY HINRICHS



SPONSORS

EDITOR NOTE: Buy MAN to see all of the photos

AERO PANDA AMAZON BONNIE & BRIAN O'MEARA BOOMA RC GATOR RC HORIZON HOBBY JETCAT MODEL AIRPLANE NEWS NATIONAL BALSA POWERBOX VIC RC ZAP ADHESIVES



Brian O'Meara brought several impressive planes to the show. This huge MB-339 was a real crowd-pleaser!

The One Eighth Air Force started this event more than 50 years ago, in 1972. It was the first large event in the country that catered to strictly scale models. This was the first time the event was held at the Sun Valley Fliers field in Phoenix, Arizona, and attendees enjoyed a beautiful flying field and sunny, 70-degree weather. There is no secret that Arizona weather has some of the best year-round flying in the country, and March 16-19 was no exception.

Just west of Phoenix, Sky Harbor airport lies a beautiful flying field with an East-West, 700 x 60-foot runway, long covered pilot pavilion, plenty of huge tables, and even a beautiful bar with a fireplace—perfect for chilly mornings and evenings. Wrap this all up with power outlets for battery charging and you have a perfect flying field. I couldn't think of a better place for Bonnie and Brian O'Meara to hold such an amazing event! With over 90 pilots, we had nonstop action all day, every day!



The flightline was packed all day every day with a multitude of scale airplanes. There was something for everyone at this event!



SUPER MARINE SEA OTTER Noel Hunt's scratch-built Super Marine Sea Otter sports a 92-inch wingspan and is powered by a Saito 60cc gas engine. It has modified Robart retracts and uses 14 channels. Noel says the 30-pound plane is a real joy to fly, and picked it to design because he loves unique planes. It's a real head-turner!



During the WW I gaggle there were more than eight planes in the air at the same time. Here is a great example of two Balsa USA 1/3-scale planes.

OV-10 BRONCO It is always fun to meet people who have history with the aircraft they've modeled. Frank Kelly flew the actual OV-10 he modeled from a Hangar 9 ARF. This monster has a 108 inch wingspan and is powered by a pair of E-flite 1.80 electric motors. It has a full cockpit and full-bodied pilot. Frank modified the nose to more closely match the aircraft he flew as well as painted the covering and added a few extra scale details. Frank flew as a forward air controller in Vietnam and served there for a year.

I especially enjoyed the camaraderie and positive, “can-do” attitude everyone at the event had. I felt right at home the minute I stepped on the property. I was asked to cover the event as well as announce. This was a great opportunity for me to not only attend a great event, but to see some of my good “West-side” friends and meet some new ones. There were no restrictions on what could fly. As long as the plane is scale, everything from foamies to turbines were welcome. Everyone respected the airspace and spotters announced the pilots’ landings, takeoffs, and low passes.

Thursday was the first official day of flying. By 9:00 am there were already 50 pilots and more coming in the gates. After the pilots’ briefing, flying immediately started and didn’t stop until sunset. Not only was the flightline busy with aircraft and pilots, the pit area was a buzz of activity as pilots were getting aircraft together, telling outlandish stories, and even applying some glue here and there.



Event organizers Bonnie and Brian O’Meara wear the shirts of the One Eighth Air Force. It was Bonnie’s idea to resurrect the event started by the One Eighth

Air Force more than 50 years ago.

FW 190D-13 Evan Quiros of Seguin, Texas one of the most scale and amazing planes I’ve seen. This ¼-scale plane is totally scratch built from his own plans. It’s powered by a BME 110 with scale welded exhaust. Evan spent seven years working on this beauty on and off. As of this publication, the plane has had over 300 flights and is modeled after a Fw 190 in the Museum of Flight in Seattle, Washington. Evan also molded the scale spinner and the working cowl flaps!



No matter what time it was, the flightline was full of amazing airplanes of all eras as well as pilots and spectators! Wonderful fun

and fellowship were had by all.

F-9 COUGAR One of the most impressive jets was this mammoth ⅓-scale F-9 Cougar designed and built from Accurate Scale Jets. This plan has a wingspan of 112 inches and a length of 135 inches. The all up weight full of fuel is just under 97 lbs. The plane is guided by a Jeti Ds24 radio and uses a huge Kingtech K320g4+ for power. There was ample power on board because Don expertly flew this giant plane through every maneuver! He had Phil Noel of Fighter Aces (Based out of the UK) expertly weather and detail the bird, then had the Cougar shipped to the states. This was an impressive plane and the only one flying at the time of this article.

SPECIAL AWARDS

AWARD	PILOT	AIRCRAFT
Best of Show	Don Corum	Cougar
Most Realistic Flight	Kenny McSpadden	Oscar
Best ARF Bash	Steve Gladstone	Hawker Hunter
Best Formation Flight	Mark Feist/Alex Feist	Fokker D.VII/Fokker Dr.1
Best Jet	Spencer Killenhans	F-16
Best Multi	Barry Henricks	F-18
Best WW I	Noel Hunt	Spad 13
Best Post WW I	Howard Kennedy	Stearman
Best Finish Classic	Dave Zarra	Spirit of St Louis
Best Military Finish	Evan Quiros	Fw 190D-13
Best WW II	Brian Young	Japanese Raiden
Best Post WW II	John Gerhardt	A-7 Corsair
Engineering Excellence	Evan Quiros	Dornier Do-335
Most Unusual	Greg Thomas	Westland Wyvern
Pilots' Choice	Brent Hecht	T-22
Smoking Hole Crash	Tim Hardin	P-47
Youngest Pilot	Liam Gowell (11 years old)	T-28



One of the “Young Guns” at the event, 12-year-old Jason Standstedt fuels up the MB-339 he flew all weekend.

DORNIER DO-335 Another amazing aircraft from Evan Quiros’s stable is this beautiful Dornier Do-335 he built from an Engle kit. He modified Don Smith wings with a fiberglass fuselage. The wings are built up and glassed. This plane comes in at 47 pounds and is powered by a 3W 80cc engine up front and a G45 in the center of the plane (in the scale location) with a 3-foot

driveshaft to the rear prop! He scratch built the cockpit and the canopy. He has flown this amazing aircraft since 2010 and it has over 300 flights to date. With a 108 inch wingspan and a length of 108 inches, this plane comes in at 1/4-scale. Evan flew this magnificent model several times at the show. He is looking into alternatives for the rear engine as he says that “strange” harmonics are causing issues during flight.

T-38 TALON If there was ever an award given for most flights in one day, it would have to be the T-38 Talon flown by Brent Hecht! This is a very special plane as it was fully scratch-built several years ago and first flew in 2012. This 144-inch-span plane was carved out of foam and originally powered by electric motors. The foam core aircraft is fiberglassed and has a carbon-fiber layup. It carries about 10 pounds of fuel and is powered by a pair of Swiwin 80 turbines. As of this writing, it has over 120 flights on it!



The “Pilot’s Brief” held every morning was quick and to the point. All the pilots respected the airspace and the safety rules.



A real crowd-pleaser was Joshua Bybee's MiG-21, which performed almost every aerobatic maneuver you could think of.



The unique awards were expertly crafted by Tighe O'Meara. The pilots all appreciate the hard work and dedication that Tighe put into something truly unique!

A-7 CORSAIR II This masterpiece was flown by John Gerhardt from Anthem, Arizona. John was one of three guys who took this project on over 14 years ago. This is the only one that is flying and was intended to be the first prototype for testing. Well, 14 years later, John is still tearing up the skies with this beauty. Scaling in at 1/7.5, it has a wingspan of 63 inches and a fuselage length of 72 inches. A Wren 1000 now hauls this bird through high-speed passes as well as a full aerial display. The scale retracts were scratch-built as well, and John guides the A-7 with a Spektrum iX20. This A-7 is modeled after one that was on the Midway aircraft carrier in VA93.



PATEL F-86 Designed by California modeler Shalish Patel 20 years ago, only 20 kits were created of this F-86. This one is covered in Flite Metal and is powered by a JetCat 220 and controlled by a Futaba radio. Its 96-inch-wingspan was huge 20 years ago and still large by today's standards. It is a work of art with detailed speed brakes and fully detailed cockpit. Shalish competed for many years at the U.S. Scale Masters and competed at the first three Top Gun Scale Invitationals.

On Friday night, event organizers Bonnie and Brian O'Meara hosted a fried chicken dinner at no charge for the pilots. On Saturday night, pilots enjoyed a steak dinner for a nominal charge and 20 beautiful handmade trophies created by Tighe O'Meara were awarded to outstanding planes and pilots. Scale experts Kent Walters and Bob Frey were the judges for the awards.

I can't believe how much fun one weekend could be packed into an event. A huge thank you to Bonnie and Brian O'Meara for the amazing show. Their whole team worked tirelessly to make sure everything went smoothly! A huge thank you to the One Eighth Air Force that helped with everything, from keeping the flightline safe to managing pilot registration (and everything in between). They are a great group of people who are one of the main reasons why scale model aviation is where it is today.

Whether you have a foam warbird or a large turbine-powered jet, you have a place at this event. And while pilots and attendees had a blast, it was gratifying to know that the event raised over \$10,000 for the Morgan Adams Children's Cancer foundation—truly a win-win for everyone. If you ever find yourself ready to fly in a fun, low-stress event with non-stop flying, you should look up the Arizona Warbirds & Classics. Believe me, you will be happy you did! ■



GOSHEN MUNICIPAL AIRPORT TO HOST R/C AIRCRAFT SHOW

The Goshen Municipal Airport is proud to host, for the third year in a row, the annual Air Supremacy over Goshen Show from July 11 to July 13. This giant-scale, remote control aircraft event is bound to bring a fun, family-friendly time for Goshen residents and surrounding communities.



More than 250 museum-quality aircraft, of wing-spans of 80 inches or more, will soar through the skies controlled by more than 100 radio control craftsmen from all over the Midwest. Flying will take place between 9 a.m. and 6 p.m. all three days.

The show will feature aircraft from WWI, The Golden Age, WWII, and the classics like the Piper Cubs and even military-style turbine jets! Food and hobby vendors will be located at the airport during the shows as well.



Event co-founder and Coordinator RJ Monroe invites all residents as well as anyone from around the region who may be interested in learning more about the R/C aircraft.

“The Goshen Municipal Airport has become the home of our event, which each year brings record numbers of pilots from around the Midwest,” Monroe said. “Our airshow also brings spectators from all ages, so come to our show, bring a lawn chair or a blanket, sit back, and enjoy the flights!”



SVF @ Goshen, IN Fly In



SVF 
Sun Valley Fliers

SVF @ Goshen, IN Fly In



“GENTLEMEN, YOU HAD A RACE...?”

The end of the Reno Air Races

BY JAN TEGLER



It has been almost 59 years since legendary pilot Bob Hoover first uttered the famous words, “Gentlemen, you have a race!”

Hoover’s now iconic phrase was the cue commencing the first-ever air start for Unlimited class racers at the inaugural National Championship Air Races a few miles northeast of Reno, Nevada in 1964. In early March, the Reno Air Racing Association (RARA) announced that 2023 will be the final year that Reno-Stead Airport, the site of the event since 1966, will host the Air Races from September 13-17.

After nearly six storied decades in Reno, far surpassing the longevity of the renowned pre-war/postwar Cleveland Air Races, the National Championship Air Races—the world’s only multi-class air racing event—appear to be a casualty of concerns including “rapid area development, public safety, and the impact on the Reno-Stead Airport and its surrounding areas.”

That’s the official rationale from the Reno Tahoe Airport Authority (RTAA), which runs Reno-Stead Airport, on why it chose not to renew a contract with RARA to hold the event at the airfield.

Speaking to Forbes.com, RARA COO Tony Logoteta told my brother Eric Tegler, “They gave a variety of reasons. From concerns about public safety and area-development around the airport to possible future plans for development on the airfield to concerns about the BLM [Bureau of Land Management] on site. At the end of the day, it was a mix of everything and they decided, ‘Let’s do this on our terms.’”

The decision has sparked controversy, with many speculating that the real reason RTAA cancelled its contract with RARA is a desire for development on and off airport. That development would complete the encroachment on the existing racecourse that has threatened the event for decades.

Since 1966, just 22 pilots/participants have died in competition crashes and airshow accidents at Stead, according to the Reno Gazette Journal Ten spectators perished in 2011 when Jimmy Leeward’s P-51 racer crashed, but in the entire run of the Races at Reno-Stead, there have been no reported off-airport deaths, or even injuries, as a result of air racing/practice/airshow activities.

That comparatively good safety record is juxtaposed against the presence of current Bureau of Land Management fire-tanker operations at Stead, which see chemical-laden firefighting aircraft fly from the airport over surrounding residential and commercial developments 24/7, year-round, suggesting that public safety concerns are in the eye of the beholder.

Reaction to the announcement has been overwhelming, literally. On March 22, RARA's Facebook reported that its ticketing servers were overloaded when tickets went on sale for the final event. Tens of thousands of fans as well as aviation luminaries are expected to descend on Reno-Stead in September.

There is a glimmer of hope that this one of a kind event can continue, somewhere. According to Logoteta, RARA has begun a process to identify and potentially sign with a new location. But finding a site with the right combination of an airport amidst undeveloped land yet close enough to a population center is a stiff challenge.

Still, it's worth the effort. Where else can you see aircraft racing at 500 mph?

"This is a beautiful piece of Americana here," Logoteta told Forbes, "a unique event that sees more than 150 airplanes in six classes race on a pylon [delineated] course heads-up against each other. People come from all over the world to see it."

In the early 1980s my father, John Tegler, penned the definitive history of the Reno Air Races to that point. Hoover's phrase is the title of his book. Let's hope we'll hear it beyond

For almost six decades, the National Championship Air Races in Reno, Nevada have been the only place on the planet where multi-class pylon air racing takes place. From Unlimited-class racing icons like Lyle Shelton's "Rare Bear"—seen here in 1970 as "The Able Cat"—to the Jet, Formula One, T-6, Sport and Biplane class racers and pilots, the annual gathering at Reno-Stead has been a magnet for aviation luminaries and enthusiasts that many consider their "September family."

(Photos by Jan Tegler)



As the sun sets, we are here



Dustin & Allen Y EC-1500 twin



-Doug R & I at sunset

Marty



Martys new F-9 Cougar



Martys new Avanti S V2



Chris N & his big Edge 540



-Barry H new jet



Barry Heinrichs new full-scale Christen Eagle!

MODEL

07 / 2023

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AVIATION

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THE MODEL AIRCRAFT OF

Battle of Britain

THE STORY OF HOW RC MODELS ENDED UP IN THE MOVIE

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COLLECTING THE BATTLE OF BRITAIN MOVIE MEMORABILIA

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BUILD THE HURRICANE

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BUILD THE JU-87 STUKA PARK FLYER

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E-FLITE F-14 TOMCAT TWIN 40MM EDF BNF BASIC

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E-FLITE ERATIX 3D FF



THE OFFICIAL PUBLICATION OF
THE ACADEMY OF MODEL AERONAUTICS

SVF Derek Micko on the July 2023 Model Aviation and having an article on page 34. Build The JU-87 Stuka Park Flyer.

Fuel Facts: What's best for your engine?



[Editor's note: As part of the Model Airplane News archives, this classic article contains a great deal of interesting information. However, since it was first published, some of the pricing may have changed.]

In today's hobby industry, commercial fuel-blending companies are hard-pressed to make a profit, and stay in business. Nitromethane is no longer made in the USA; our only refinery dedicated to its production was moved to India years ago. We now import nitro from China and are subject to interruptions in supply. As refineries shut down to reduce air pollution, the supply of nitro dwindled here, and its price soars. Later, when supply is restored the prices remained high.

Although they are struggling, there is still stiff competition among fuel companies. In their advertising, a few come across boldly, verging on arrogance. One particular blender proclaims an almost divine knowledge of the discipline, predicting the fuel needs of all engine types and sizes; to him, the engine manufacturer's recommendations should be dismissed as insignificant. In other words, some blenders attempt to persuade the modeler to disregard the engine's instruction manual, and instead turn to them for guidance about fuel purchases.

Are Engine Manufacturers too Conservative?

There is a concern throughout the fuel industry that many of the world's engine manufacturers are too conservative when recommending lubricating oil percentages for their products. A high lubricating oil percentage never hurt an engine ... or did it? A growing body of experimental and practical evidence suggests that modern engines are being impaired by excessive oil content in the fuel. Here are three examples:

The engine has difficulty maintaining a reliable, low-rpm idle.

The engine has difficulty obtaining a crisp throttle-up.

The engine exhibits diminished wide open throttle power.

The Traditional Modeler

Suggest reducing the fuel's oil content to a traditional modeler, and there'll be an immediate objection, "What are you trying to do, ruin my engine?" Fuel blenders have discovered that change comes slowly when dealing with life-long modelers. Faced with a traditionalist attitude, some blenders have ventured onto a new path: mix the fuel based on the latest technology and delete the label specifications. Lube percentage and sometimes the nitro content are often left off entirely, thus avoiding the inevitable criticism from engine manufacturers, engine repair centers and modelers comfortable with custom and tradition. Modelers are often suspicious that fuel blenders might substitute a less expensive component, such as methanol, for an expensive component such as nitromethane or a synthetic lubricant. When purchased in bulk, the fuel component costs to one commercial fuel company, minus the shipping charges (2006) are:

Synthetic lubricants: average \$16 per gallon in multiple barrel lots (55 gallon).

Special synthetic lubricants: average \$30 per gallon in multiple barrel lots (55 gallon).

Castor oil lubricant: \$9.75 per gallon in multiple barrel lots (55 gallon).

Traditional synthetic oils (UCON, etc.): less than \$10 per gallon (55 gallon).

Methanol: \$1.49 per gallon in 5,000-gallon lots (tank truck).

Nitromethane: \$14 per gallon in 80-barrel lots (53 gallons/barrel, 2-gallon nitrogen space).

The Increased Cost of Reducing Oil Content

A ring-less .40-ci ABC-type 2-stroke-cycle engine with a ball-bearing-supported crankshaft is a good example for comparing blending costs between traditional and non-traditional (reduced lubrication content) fuels. Traditional modelers generally agree that 18% oil (14% synthetic, 4% castor) is safe for this type and size of engine. Conversely, an honest commercial fuel blender knows that he can easily cut the total oil content to 14% (or less) with a mixture of 12% special synthetic and 2% castor oil, while improving the engine's power, idle and throttling characteristics as well as maintaining its longevity.

Traditional blend:

18% lube, 15% nitromethane, and 67% methanol

14% traditional synthetic (\$10 x 0.14 = \$1.40)

4% castor oil (\$9.75 x 0.04 = \$0.39)

15% nitromethane (\$14 x 0.15 = \$2.10)

67% methanol (\$1.49 x 0.67 = \$1)

Ingredient total: \$4.89/gallon

Special synthetic blend:

14% lube, 15% nitromethane, and 71% methanol

12% special synthetic (\$25 x 0.12 = \$3)

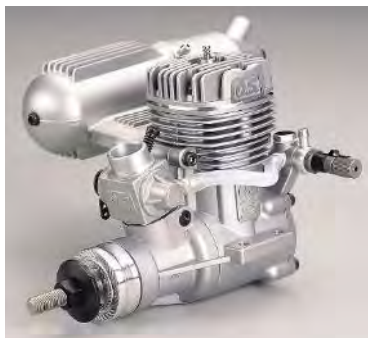
2% castor oil (\$9.75 x 0.02 = \$0.195)

15% nitromethane (\$14 x 0.15 = \$2.10)

71% methanol (\$1.49 x 0.71 = \$1.055)

Ingredient total: \$6.35/gallon

By removing all of the inexpensive traditional synthetic lube (16% at \$10 per gallon) and replacing it with a special synthetic (12% at \$25 per gallon) and methanol (4% at \$1.49 per gallon), it should be clear that the reduced lubrication content fuel costs more to produce. Note: fuel blends are formulated by component volume, not component weight.



Nitro-powered glow engines are excellent choices for sport and scale RC aircraft. Understanding your engine's fuel requirements will help you get the most out of your power system.

Commercial fuel blenders don't always reduce the oil content of their fuels. Older engine designs that have lapped (ringless) ferrous (iron and/or steel) pistons and cylinders, and/or plain bearing (bushing) crankshaft support, require relatively high percentages of castor oil to provide adequate high-load (pressure) protection. For these engines, it's common to find fuel blenders recommending up to 28% lube. RC helicopter fuel is another example of where the oil percentage (both special synthetic and castor) is often boosted

several points (up to about 24%) due to the heavy loads and high cylinder head temperature conditions that are often encountered.

At the opposite end of the model fuel controversy, some engine companies are fighting against the commercial fuel blenders' "secret" ingredients and percentages. Here's a statement by NovaRossi, from the instruction manual of Serpent Engines: "Only use fuels which contain pure fuel elements like nitromethane, methanol and castor oil. We do not recommend using synthetic oils or any other fuel additives. Do not use after-run products. If you use high quality fuel then this is not necessary."

This recommendation comes from a company that has won multiple European and World Championships with 2-stroke-powered RC model cars.

Engine Categories & Lubrication Requirements

Ringed and ringless pistons represent the two broad categories of glow-ignition engines.

Ringed 2-stroke engines require lower castor oil percentages.

Ringless ABC (aluminum piston, brass/chromed cylinder), ABN (aluminum piston, brass/nickel cylinder), and AAC (aluminum piston, aluminum/chromed cylinder) engines need a bit more castor oil.

Ringed pistons run best on higher quantities of synthetic oil, limiting varnish build-up. Although castor oil provides superior protection, it will varnish an engine when used in higher quantities. Varnish is not a problem until it begins to interfere with the ring's ability to seal against the piston's ring-land and cylinder wall. Synthetic oils will not varnish, but they tend to flash off during the combustion process, limiting the lubricant's protection. The best traditional strategy to maximize the qualities of both lubricant types in ringed engines is the following mix: 16% synthetic, 2% castor oil (18% total).

Ringless pistons require higher percentages of castor oil than ringed pistons. These engines are designed with an interference fit (zero clearance) between the piston and cylinder near TDC (top-dead-center), requiring additional scuff protection. Of course, higher castor oil percentages varnish the piston/cylinder more rapidly, requiring more frequent cleaning. A good traditional combination of lubricants for ringless engines is: 14% synthetic, 4% castor oil (18% total).



Regardless of the brand or type of your glow engine, installing it correctly and setting up your fuel system are very important.

Bushing-Supported Crankshafts = Higher Oil Percentages

Ringed and ringless piston engines that use bushings (plain bearings) for crankshaft support require a higher castor oil percentage than engines utilizing ball bearings. Practical experience, over a long period of time, has shown that about 4% additional castor oil is correct for the traditional blends in question (e.g., ringed engine: 16% synthetic, 6% castor, 22% total oil; ringless engine: 14% synthetic, 8% castor oil, 22% total). Nostalgia glow-ignition engine designs (1948-1970) that use plain bearings for crankshaft support, and a ringed or ringless iron/steel piston/cylinder require additional castor oil lubricant. Duke Fox specified 28% oil content (all castor) for his famous Fox .35 Stunt engine. In continuous production for 60 years, it has a ringless iron piston, steel cylinder and a bronze bushing for crankshaft support.

Traditional Fuel Blends: Ringed and Ringless Pistons

The following charts show recommended traditional fuels for both ringed and ringless piston engines fitted with ball bearings for crankshaft support. Although the fuel blends shown are formulated to work over a wide range of engine displacements (from approximately .19 to 2.20ci), the total lubricating oil content is probably best suited to a .40ci engine (18%). The range of nitromethane percentages is provided to offer flexibility in performance, depending if the engine is designed for sport or racing type applications, or something in-between. Typically, the 5-, 10- or 15%-nitro content fuel would be used for sport flying.

Reduced Oil Content

I began experimenting with home-brew fuel and reduced oil content in the late '60s. The findings were applied to our RC pylon racing program, where there were no restrictions on fuel. Eventually, a summary of this work was published in the May 1974 edition of Model Airplane News ("Two-Stroke Oils: Their Analysis"). Briefly, I found that a racing 0.40ci engine would produce its best bhp (brake horsepower) with 14% oil content, using a blend of synthetics and castor oil; previously, conventional wisdom dictated that the safe minimum was 18%. By reducing the lubrication content by 4%, the fuel becomes less viscous (thinner), often allowing the engine to realize a modest power boost. This is due to:

Decreased pumping and bearing-drag losses.

Improved fuel and oxygen molecule contact within the engine's inducted air.

Reduced energy loss (heating the excess oil) out of the exhaust.

When reduced oil content was tested in our RC pattern fuel, we found that the .60ci engines were better behaved; they idled steadily at a lower rpm, and throttled-up crisply without stumbling. Thirty years ago, a .60ci displacement 2-stroke glow engine was considered large. Over the decades, power requirements for giant-scale and pattern models enticed engine manufacturers to develop larger glow units, including: 1.2, 1.5, 1.8, 2.0, and 2.2ci 2-stroke single-cylinder designs.

Fuel Requirements for Larger Engines

As an engine's size (displacement) increases:

- It requires less lubricating oil percentage.
- It demands less nitromethane percentage.

If you're a traditional modeler who believes that high oil percentages are always needed throughout the engine displacement spectrum, take time to absorb the following two concepts.

Larger Engines Require Less Lubricating Oil Percentage

The following quote was excerpted from a paid advertisement (Duke's Mixture) from the late engine manufacturer, Duke Fox, (Fox Manufacturing Company) in the August 1989 issue of Model Airplane News magazine:

"... Larger motors need less oil, percentage-wise, than small ones. The reason being that as the size of the motor increases, the displacement goes up as the cube, while the area to be lubricated goes up as the square. Thus a motor with a 1.5-inch bore would be as well lubricated on a 10% oil mix, as one with a 0.75-inch bore would be with a 20% oil mix." This is known as the lubricating area to displacement ratio.

When doubling the engine's bore from 0.75-inch (.33ci, with a stroke of 0.75 inch) to 1.5-inch (2.65ci, with a stroke of 1.5 inches), displacement increases as the cube of the bore increase (0.75 in. x 2 = 1.5 in.); therefore $2^3 (2 \times 2 \times 2) = 8$ times. Assuming similar design features, an engine that is 8-times larger than another (ci), will consume fuel about 8 times faster than the smaller engine. Conventional thinking suggests that 8 times the lubrication will also be needed for the larger engine. However, the large bore engine (1.5 inches) has only 4 times the lubricating area of the small bore engine (0.75 inch), since cylinder area increases as the square of the bore increase, or $2^2 (2 \times 2) = 4$ times. Consequently, the larger engine receives twice the lubrication of the smaller engine ($8 \div 4 = 2$). By reducing the larger engine's lubrication content by half (from 20 to 10%), it will lubricate the same as the small engine. ($\text{Bore}_1 \div \text{Bore}_2 \times \text{Bore}_1 \% = \text{Bore}_2 \%$), ($0.75 \div 1.5 \times 20 = 0.5 \times 20 = 10\%$). Based upon traditional lubrication content, here are a few engine displacements (bore = stroke) with their calculated lubrication percentages:

Disp (ci)	Bore (in)	Suggested lube %	Disp (ci)	Bore (in)	Suggested lube %
2.65	1.50	10	2.65	1.50	10
1.09	1.12	13.4	1.09	1.12	13.4
0.65	0.94	16	0.65	0.94	16
0.47	0.81	18.5	0.47	0.81	18.5
0.33	0.75	20	0.33	0.75	20

Larger Engines Demand a Less Nitromethane Percentage

In 1948, three American engine manufacturers released their versions of the revolutionary 1/2A glow engine, but the so called "baby engines" would soon cause problems for unsuspecting modelers. Initially, they were expected to run on fuel that was formulated for larger displacement glow ignition engines that contained mostly methanol. The tiny engines protested by being difficult to start and touchy to adjust; they vibrated, misfired and often quit cold. As it turned out "cold" was the operative word for understanding their balky operation. Small engines have a much higher

*cooling area to displacement ratio when compared to larger engines; therefore they overcool, disrupting the normal combustion process. Adding 25- to 35% nitromethane solves the problem, since it provides additional heat to the tiny engine's operating cycle – it also adds power. *Cooling area includes both the cylinder and the cylinder head.

The cold-running 1/2A experience helps to explain why engine designers enlarge the cooling fin area (head and cylinder) as displacement increases. Even with enhanced fins, acceptable head temperatures are often difficult to maintain, illustrating why big engines demand lower percentages of nitromethane. Elevated cylinder head temperatures often lead to potentially destructive combustion problems such as pre-ignition and detonation.

From the figures below, various ratios of cooling area (cylinder + head) to engine displacement are compared, ranging from the largest to the smallest engine; notice that the baby engine (0.049) has almost four times the cooling area per unit of displacement than the 2.65 ci engine ($12.8 \div 3.3 = 3.88$). Also note the approximate nitromethane percentages suggested for the given displacements; these are difficult to predict accurately because the engine's design plays a significant role in its ability to cool:

Disp. (ci)	Area/disp.	Suggested nitro %
2.65	3.3/1	2
1.09	4.5/1	7
0.65	5.3/1	10
0.47	5.5/1	13
0.049	12.8/1	35

Disp. (ci)	Area/disp.	Suggested nitro %
2.65	3.3/1	2
1.09	4.5/1	7
0.65	5.3/1	10
0.47	5.5/1	13
0.049	12.8/1	35

Non

-Traditional Sport Fuel Blends

Ringed pistons, ball bearing supported crankshafts. As we have seen, larger engines require less lubrication and nitromethane content to attain their operational sweet spot. What can be expected? A lower, steadier idle, a quicker, crisper throttle-up, and a more powerful wide open-throttle performance, while enjoying the same level of engine component protection. The following fuel blends for various engine displacements are offered for your consideration: Note: the ratio of synthetic to castor oil (8/1) is maintained from the traditional blend for ringed, ball bearing engines. The synthetic lubricant used for the all of these fuel blends is poly-alkylene glycol, the relatively inexpensive UCON oil. There are a multitude of other synthetics that are available including polypropylene glycol, polyesters, and polyol esters, but they are much more expensive. Fortunately, as confirmed by several lubricant experts, when castor oil is mixed with almost any synthetic, a superior lubricant is produced.

Castor Oil Helps to Cool a Hot-Running Engine

Another consideration for non-traditional fuels that use reduced lubricant percentages: Castor oil helps to cool any size engine, but it's especially effective with larger displacement engines where the ratio of cooling area to cylinder displacement is limiting heat rejection. Castor oil has been proven to carry away more heat through the engine's exhaust than any common synthetic. The reason? Castor oil doesn't burn in the combustion chamber until extremely high temperatures are reached; most synthetics flash from hot internal surfaces, such as cylinder heads and upper cylinders; often, many synthetics simply burn, adding to the engine's heat load. Several options are available to the engine tuner to alleviate high cylinder head temperatures:

- Reduce the fuel's nitromethane content.
- Reduce the engine's compression ratio (add a head shim).
- Reduce the engine's propeller load.
- Increase the fuel's castor oil content.

The first two suggestions will probably reduce the engine's performance and should be used as a last resort. Reducing propeller pitch and/or diameter should probably be tried first. However, if overheating is still a problem, add a bit more castor oil to the existing fuel blend. How much? Start with 0.05% extra, and increase from there.

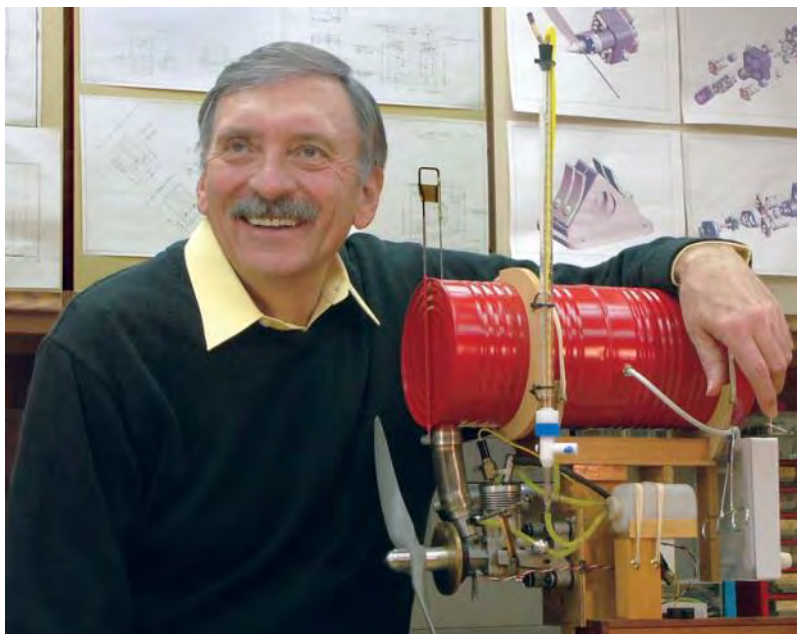
Final Thoughts

My goal in writing this series of fuel articles is to provide you, the sportsman/hobbyist, with sci-tech answers regarding fuel and the modern 2-stroke glow ignition engine so that you can get out to the field and fly, and your engine will perform well and maintain its longevity. See you at the field!

Text & Photos by David Gierke

About the Author

Longtime Model Airplane News contributor David Gierke is an acknowledged internal combustion engine authority, having written three well-received non-fiction books and numerous magazine articles on the subject. A retired high school teacher and dedicated pioneer aviation historian, Gierke has received extensive recognition for his work, including the 1978 New York State Teacher of the Year award and a citation from the Buffalo, New York chapter of the American Society of Mechanical Engineers. Dave was inducted into the national Model Aviation Hall of Fame in 2003.





DURING WORLD WAR II, AMERICAN AIRCREWS FOUND SANCTUARY IN THE NEUTRAL SCANDINAVIAN COUNTRY

BY GARY G. YERKEY

In an illustration by Jack Fellows, the damaged Boeing B-17 *Shoo Shoo Shoo Baby* gets escorted by a Swedish Reggiane Re.2000 to a safe haven on May 29, 1944. The Flying Fortress was one of many American aircraft that made detours to Sweden during the war.

©JACK FELLOWS, ASAA



Swedish civilians and soldiers check out the *Georgia Rebel*, the first American airplane to reach their neutral country during World War II. The B-17 made a crash landing on July 24, 1943, after dropping its bombs on Norway.

NATIONAL ARCHIVES

Osce V. Jones, a 26-year-old first lieutenant in the U.S. Army Air Forces, was a war-tested pilot by the summer of 1943. Born in the small Georgia town of Camilla on August 6, 1916, Jones attended Louisiana State University and enlisted in the U.S. Army National Guard in the fall of 1940. He entered flight school a few months later, graduating in early December 1942, and was assigned as the pilot of a Boeing B-17 Flying Fortress. The next May he and his crew flew their airplane from Dow Army Airfield in Maine to RAF Ridgewell airfield in southeastern England, the eventual home of the Eighth Air Force's 381st Bombardment Group. After they arrived, the crew named their bomber, tail number 42-3217, *Georgia Rebel*.

Jones had completed five missions over Europe, but his luck ran out on July 24, 1943. On that day, *Georgia Rebel* was one of the 324 bombers that Brig. Gen. Ira C. Eaker, commanding general of the U.S. Eighth Air Force, sent out on what was the Eighth's first operation against targets in Nazi-occupied Norway. *Georgia Rebel's* target was an aluminum, nitrate and magnesium manufacturing complex at Herøya, just south of Oslo.

After releasing its bombs, the aircraft was hit by a barrage of anti-aircraft fire at 2:18 p.m. and was last seen by its group as it left the formation. One engine was smoking, another was out of commission, and fuel was leaking through a hole in the port wing. Jones and his navigator, 2nd Lt. Arthur L. Guertin, agreed that a safe return to England was unlikely, so the young pilot swung the crippled aircraft northeast from Herøya toward neutral Sweden. Once over the Swedish town of Årjäng, Jones turned north and flew low over rolling, wooded hills for about 15 miles until he saw a long, open field just south of the village of Vännacka. Local residents looked up as the plane passed over the field and circled back to make a perfect belly-landing.

Among the first to reach the plane was farmer Olof Persson. "I understood immediately that it was a British or American bomber because it said 'Georgia Rebel' on the fuselage, and I saw a five-pointed star and the colors of the flag," Persson told a reporter from the Swedish newspaper, *Aftonbladet*. "So I hurried to the bog where the plane had crashed." Persson greeted the pilot in English. "Well, how do you do?" he said.

By the time Persson reached the B-17, the Swedish military had also arrived and began to surround the wreck. "I asked the pilot if anybody had been injured," Persson recalled. "[The pilot] said that he and his nine buddies were [safe and] happy to have landed in Sweden...and he asked me to tell the Swedish military that they had machine guns on board and that they were all loaded, but there were no bombs. They had been released over Norway."

Jones and his men were the first American aircrew to land in Sweden during the war. They were not the last.

As a neutral country, Sweden was required by the Hague Convention of 1907 to intern any military personnel from belligerent nations who arrived within its borders. Sweden ended up accommodating many Americans. By war's end, more than 150 crippled American warplanes followed the *Georgia Rebel* to land or crash land in Sweden, leading to the internment of 1,218 airmen, including Jones and his crew. The vast majority of the internees reached Sweden during a hectic 48-hour period in mid-June 1944 when no fewer than 34 B-17s and B-24 Liberators landed safely or crashed on Swedish soil. A Swedish newspaper, *Trelleborgs Allehanda*, reported that on June 20—after the Eighth Air Force had deployed 1,965 “heavies” across Europe in one of the largest such operations to date—there was “literally a queue” of American bombers waiting to land at Bulltofta airfield in Malmö. A total of 21 bombers made forced landings in Sweden that day, by far the largest single-day influx of American aircraft in the country since the beginning of the war.



A Consolidated B-24 Liberator passes over the Swedish city of Malmö on its way to a landing at the Bulltofta airfield on June 20, 1944. This was the busiest day for emergency landings in Sweden, with a total of 21 bombers arriving.

GRENNA MUSEUM-ANDRÉEXPEDITIONEN POLARCENTER

After the planes were on the ground at Bulltofta, according to *Trelleborgs Allehanda*, “it was hard to find an empty spot” at the airfield. “What’s going to happen during the next few days if a similar invasion continues?” the paper asked. But the invasion continued the next day, June 21, with another 13 American bombers arriving.

One American airplane to reach Sweden that June was a Consolidated B-24 Liberator with the tail number 42-51125 piloted by 1st Lt. Leander Page Jr. Page had been interned in Sweden once before, after his B-24 *Queen of Peace* had landed there on January 4, 1944. Page was released and he returned to combat, and his plane was hit by flak over Pölitz, Germany, on June 20, damaging the right stabilizer, the rear bomb bay, the fuselage and the two engines on the right wing. “After being hit...the ship dived straight down,” a U.S. intelligence officer later reported after interviewing the copilot, 2nd Lt. F. Leroy Qualey. “The manual controls were found to be inoperative, so the pilot turned the auto-pilot on. The plane went on its back, then recovered. They flew for about twenty minutes more, and No. 2 engine failed. A few minutes later the auto-pilot ceased to work, and they went into a tight spin. The order for bail-out was given.” By this time the airplane was over Swedish territory. Qualey said that after bailing out he landed on a greenhouse and sustained cuts and bruises, while pilot Page hit the side of the bomb bay as he bailed out but suffered only minor injuries.



Collier's magazine ran a feature about the Americans in Sweden in its August 26, 1944, issue. Such coverage did not please Hap Arnold, commander of the U.S. Army Air Forces. He ordered an investigation into the “stopovers.”

COLLIER'S/HISTORYNET ARCHIVES

The unmanned airplane crash-landed in a field near the village of Röstånga and burned for some time. Eight of the 10 crew members were safe, although shaken and slightly injured. The body of Tech Sgt. Robert B. Kellerman, the engineer, was found some distance from the aircraft. According to reports, the body of the tail gunner, Sergeant Glenn A. Deck, was found either in the wreck or nearby. Page said later that both men had been “paralyzed with fear.” Another survivor said that Kellerman may have bailed out too late for his parachute to open fully and that Deck was too frightened to bail out and may have waited too long to make the attempt, or he may have been prevented from exciting by the overwhelming centrifugal force. Page said that his own escape from the aircraft had been due to “great luck,” explaining that he had been literally thrown from the plane when it inverted and

went into a spin. Page became the only American airman to be interned in Sweden twice.

After landing, the surviving members of the crew were taken to a local inn and served a hot meal before being sent the next day to an internment camp at Fornäs, near Falun. On July 3, the remains of Kellerman and Deck were interred at a cemetery in Malmö. Copilot Qualey attended the funeral on behalf of the surviving members of the crew, along with representatives of the Swedish government, the U.S. Army and the U.S. Army Air Forces.

Some of the airplanes heading for Sweden never made it. On May 24, 1944, a B-17 with the tail number 42-107178 plunged into the sea off the southern coast of Sweden following a bombing raid on Berlin. According to the ball turret gunner, Tech Sgt. Leonard A. Bielawski, the airplane's pilot, 1st Lt. William F. Nee, along with two other crew members, 2nd Lt. Reginald Aragona, the copilot, and Tech Sgt. Gaetano A. Scida, the top turret gunner, bailed out after the plane was hit by enemy aircraft fire or flak over Berlin. Apparently, the other members of the crew did not hear the order to exit the plane because the wiring on the back of the pilot's seat had caught fire, cutting off inter-aircraft communications.

Frederic T. Neel, the 2nd lieutenant who was serving as navigator, managed to extinguish the fire and jumped into the pilot's seat, telling Tech Sgt. Donald E. Spaulding, the tail gunner, to fly as copilot. Close to the Swedish coast near the village of Örnahusen, the rest of the crew, except for Neel, bailed out. Sgt. Robert Heimbach, the waist gunner, went out first and drowned. Spaulding was killed when he hit the water. Bielawski and Tech Sgt. Philip J. Branner, the radio operator, both landed uninjured. The bombardier, 2nd Lt. Richard Markley, landed in the water and was rescued by Swedish fishermen. As for Neel, he "went down with the ship," according to Bielawski, who spoke with investigators after the incident. On July 1, several months later, Neel's body was recovered near the coastal village of Gislöv, about three miles from where the plane had crashed.



These internees were able to roam while in Sweden.



Two Americans clearly enjoy Swedish hospitality during their internment. Perhaps surprisingly, most men surveyed said they were ready to return to war before too long.

GRENNA MUSEUM-ANDRÉEXPEDITIONEN POLARCENTER (BOTH

The survivors of Nee's B-17 joined the growing population of internees in Sweden. The numbers continued to rise, particularly in the first six months of 1944, until there were about 900 by the end of June. As the numbers swelled, so did concerns that some the airmen had diverted to Sweden simply to avoid further combat. In May 1944 *The New York Times* wrote that the interned airmen were being held in "one of Sweden's most picturesque regions"—the province of Dalecarlia—and that they were playing "all sorts of games," reading and enjoying "great freedom of movement." In August, a multi-page photo essay in *Collier's* magazine showed U.S. airmen in tuxedos laughing and drinking at a Stockholm restaurant surrounded by beautiful Swedish women. Others were photographed skiing, riding bicycles and enjoying a dip in a heated indoor swimming pool.



Soldiers guard the B-17 *Short Stuff* after the big Boeing landed in Sweden on April 18, 1944, following a mission to Brandenburg.

CLASSIC PICTURE LIBRARY/ALAMY

General Henry H. Arnold, commander of the U.S. Army Air Forces, was not pleased by the coverage and he ordered an investigation. He even sent an uncommonly unfriendly memo to his long-time friend, Brig. Gen. Carl A. Spaatz, commander of the newly formed U.S.

Strategic Air Forces in Europe (USSTAF), noting that an increasing number of aircraft were landing in neutral countries, like Sweden and Switzerland, “without indication of serious battle damage or mechanical failure, or shortage of fuel.” He wondered whether the landings were “intentional evasions of further combat service.”

Spaatz blew up over the implication that the crews were cowards or lacked the will to fight. “Such is a base slander against the most courageous group of fighting men in this war,” he wrote back, adding that the number of interned airmen amounted to only a small fraction of the crews dispatched.

Nevertheless, Spaatz followed up on Arnold’s concerns. Maj. Gen. David N.W. Grant, the air surgeon for the USSTAF, wrote to Brig. Gen. Malcolm C. Grow, director of medical services at USSTAF headquarters in Washington, D.C., saying that Arnold believed—and I agree with him—that the “best survey” of crew morale should be carried out by flight surgeons. One flight surgeon who was selected for the task was Major John D. Young Jr., who had been a passenger on the Liberator *Mistah Chick* that had made a forced landing in Sweden on June 20. As a “non-combatant,” he was not interned with the crew but was attached to the American Legation in Stockholm to provide medical care to Americans. While in Sweden Young interviewed about 500 internees and concluded that the general feeling among them was one of “great thankfulness” to have survived and that they would “not like to repeat this experience.” But after a week or two, the more harrowing aspects of the experience tended to fade, Young said, and the men would begin to feel restless and want “to get back to flying again.”



The B-24 *Princess Konocti* made a forced landing near Halmstad on June 20, 1944. Most of the crew were returned to England that September.

SWEDISH AIR FORCE
MUSEUM/FLYGVAPENMUSEUM

There were five main internment camps in Sweden—Falun, Rättvik, Loka Brunn, Gränna and Mullsjö—and Young visited all of them. He said that the internees were free to leave the camps and mix with Swedish civilians and that the men were able to “freely date” Swedish women. “I think it has been remarkable that they have gotten on as well as they have,” Young said.

Queried by an Air Forces intelligence officer, Lt. Col. R.E. Stone, Young said that the internees had not force-landed in Sweden to evade further military service. “There are aircraft reports to substantiate that their planes were badly damaged and that it was foolhardy to attempt to return [to England],” Young said, adding that, beyond any doubt, they had used their “good judgment” in deciding to head for Sweden.

In addition, the USSTAF’s Office of the Surgeon sent out a questionnaire to every squadron surgeon serving in the Eighth Air Force at the time, and representatives of the office made personal visits to units that were suspected of having low morale or whose personnel had made force-landings in Sweden.

At the end of the process, Grow concluded that five crews “may” have landed in Sweden “for the purpose of avoiding further combat.” But his report emphasized that the number of crews that had done so was “so low that it is not considered to be of any particular significance.”

As the winds of war began to shift inexorably toward the Allies, the Swedes saw fit to release the internees at a relatively rapid pace—as quickly as they could be flown out of the country. By the end of November 1944, in fact, the number of internees had fallen to about 200—down from a near-high of 1,076 in mid-October. By mid-January 1945, the number was just 25.

Herschel V. Johnson, the American Minister in Stockholm, wrote to Acting Secretary of State Edward R. Stettinius on November 24, 1944, expressing relief and praising the Swedes for the way they had treated the Americans. “The treatment in every respect which the Swedes have accorded our aviators has been humane and understanding to a high degree and beyond the bounds of what are their obligations under international law and custom,” Johnson said.

After their release from internment—sometimes following protracted negotiations between American and Swedish officials over, for example, the sale of North American P-51 Mustangs to the Swedish Air Force—most of the American “bomber boys” were returned to England and further combat. Some released internees were shot down a second time. Arthur Guertin, the navigator on *Georgia Rebel*, was killed on April 28, 1944, in *Georgia Rebel II*. Osce V. Jones of *Georgia Rebel* was also aboard *Georgia Rebel II*. He survived but spent the rest of the war in a Nazi prison camp.

After the war, Jones continued to serve in the Air Force and flew B-52s and KC-135 tankers as commander of the Strategic Air Command’s 4241st Strategic Wing at Seymour Johnson AFB in North Carolina. But Jones never forgot the American airmen who had lost their lives in service to their country in World War II, including the 40-plus men who were killed when their planes force-landed or crashed in neutral Sweden.

Gary G. Yerkey is an author and journalist based in Washington, D.C. He previously spent more than a decade in Europe reporting for TIME-LIFE, ABC News, the Christian Science Monitor and other U.S. news outlets. For further reading he recommends Making for Sweden: Part 2, The United States Army Air Force, The Story of the Allied Airmen Who Took Sanctuary in Neutral Sweden by Bo Widfeldt and Rolph Wegmann.

Repatriated



One airplane interned in Sweden eventually made its way back to the United States. A Boeing B-17G Flying Fortress named after a song by the Andrews Sisters, *Shoo Shoo Shoo Baby* landed safely in Sweden after suffering multiple engine failures over Poland on May 29, 1944, during its 24th and last bombing mission. After the war the B-17 flew as a passenger plane in Sweden before being sold to a Danish airline. Following later stints in the Danish army and navy, the airplane was purchased by a French aerial mapping company that used it until 1961. In 1972 France gave the airplane to the United States and it was disassembled and flown to Dover Air Force Base, Delaware, for restoration. The restored B-17 was flown to the National Museum of the United States Air Force in 1988 and put on display. The well-traveled *Shoo Shoo Shoo Baby* is currently in storage prior to an eventual transfer to the National Air and Space Museum. ■

One airplane interned in Sweden eventually made its way back to the United States. A Boeing B-17G Flying Fortress named after a song by the Andrews Sisters, *Shoo Shoo Shoo Baby* landed safely in Sweden after suffering multiple engine failures over Poland on May 29, 1944, during its 24th and last bombing mission. After the war the B-17 flew as a passenger plane in Sweden before being sold to a Danish airline. Following later stints in the Danish army and navy, the airplane was

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FLY 4 TOTS

An Electric Flying Event

To Benefit



Date: December 9, 2023
Location: Sun Valley Fliers Field
Time: 8:00 AM till 3:00 PM



AMA card required
AMA Sanction 15317

Entry fee: 1 Unwrapped toy

Lunch: Sub Sandwiches will be available for purchase

Mystery Judges will award trophies

There will be a raffle for all attendees. Must be present to win.

Robert Bayless CD
623-694-3379
sumobob@cox.net

All Electric Flying Models welcome!

Sun Valley Fliers Field is located on the Southwest corner of Cave Creek Road and Jomax.





VIDEOS and Websites Links
Click on to view video, website



CHECK THESE VIDEOS OUT

B-36 RESTORED

<https://youtu.be/VykzdDToHmU>

The birth of the Boeing B-29

https://www.youtube.com/watch?v=_InegQxwbwE

B-29 RESTORED

https://youtu.be/b_AZeMRqCfq

B-29 IN FLIGHT

<https://youtu.be/6TcTDd2v090>

CONNIE

https://youtu.be/PoO14Wv_e4I

Aircraft Junk yard

<https://youtu.be/HM6W6GVwGnl>

GEE BEE Damage

<https://www.youtube.com/watch?v=puZDmj2QuX8>

Very big Pulse Jet

<https://youtu.be/CJNhoSXvxYs>

Battle of Britain???

<https://youtu.be/goJVGUPV4Cs>

Gee Bee R2 in near crash

<https://youtu.be/puZDmj2QuX8>

Gee Bee after repairs

<https://youtu.be/thdp7ZqSESo>

Worlds Largest RC Concorde Jet model

https://youtu.be/HfnldSV_4vo

ME-163 Comet

<https://youtu.be/BNlpJcOZPIA>

AirVENTURE

https://www.youtube.com/watch?v=6k_OUa8QCHg&t=7s

WW2Aircraft.NET



Where are your videos????

My thanks to those who passed this info on.



AUGUST 2023 SVF Birth Day Boys

Boccia	John
Chamberlain	Roger
Clawson	Jim
DeLawder	Paul
Doerenbecher	Bernhard
Falconer	John
Fulks	Raymond
Hamra	Paul
Marshall	Richard
Marshall	Ronald
Miller	Gavin
Moskowitz	Frank
Neumann	Steven
Niehaus	Mike
Pearse	William
Perez	V.Nigel
Riese	Larry
Santoro	Joseph
Seminera	Frank
Smith	Daniel
Smith	Jeff
Stark	Ron
Wilkerson	Tom
Young	Dustin
Young	Allen



Duncan's R/C
 (602)347-5518
 7146 N. 35th Ave.
 Phoenix, AZ 85051

Mon-Fri 9:00 AM — 8:00 PM
SAT 10:00 AM — 8:00 PM
SUN 11:00 AM — 6:00 PM



8058 N. 19th Ave. 602-995-1755 Phoenix
 M-F 9:30-8PM, SAT 9:30-6PM 11-5PM
 4240 West Bell Rd. 602-547-1828 Glendale
 M-F 9:30-9PM, SAT 9:30-6PM, SUN 11-5PM

SPECIAL NOTICE TO PILOTS!

"Sun Valley Flyers Utilizes a 400ft ceiling for flying model aircraft allowing for only momentary breaks caused by non-sustaining maneuvers.

All pilots must utilize a spotter at all times and abide by AMA Rule 540d" (see and avoid procedures)

Any pilot willfully violating this rule is subject to loss of flight privileges.





THE SLOW ROLL



Club Officers 2022-2023

FRANK MOSKOWITZ, President
 John Geyer, Vice President
 Oliver Heinen, Treasurer
 Mike Peck, Secretary
 Safety Officer Kenny Rhoads
Bobby Santoro
 Website Supervisor
Please check your Membership list for Phone numbers.



Board of Directors

Jamie Edwards '23-25
 Jim Sprecker '23-25
 Craig Guest '23-25
 Brian Rhoads '23-25
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First Class Mail

SUN VALLEY FLIERS
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PHOENIX, AZ. 85050

To:

WWW.SUNVALLEYFLIERS.COM

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YEARS



SINCE DECEMBER 1974