THE SLOW ROLL

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DECEMBER 2016

President—Lou Pfeifer IV
Vice President—Andrew Schear
Treasurer—Nate D'Anna
Secretary—Allen Hemenway
Editor—Bob Purdy

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.

Inside this issue: **Cover Photo by Bob Purdy of Larry Sheffield Beechcraft D18/C45**

NO JANUARY SLOW ROLL

SVF MEETING December 7 @ 7 PM

Sun Valley Fliers

Presidents Report For December 2016

Hope you all had a nice thanksgiving. Now we all look forward to the Christmas and Chanukah season. The Board Of SVF and myself would like to take this time to wish each and every one of our members and their families a wonderful and prosperous holiday season may you all be blessed.

Our 2nd Family Membership Cookout/Fly-in was again a GREAT success! I thank everyone for coming out and supporting our club and at the same time having a great day! I thank everyone who helped in this event for donating their time and effort to help us out in the kitchen (Tony Quist, Hugh Duff, Nate D'ANNA, Robert Poe, Ron Thomas. Thanks also to Andrew Schear, Bob True, Luke Martin Martin, Jeff Buck, Fred Wright, Mike Roberts and if I missed anyone I am sorry! Thanks to our Sponsors Jim Jesky (Jesky RC), Brice Hatfield, Flex Innovations, Kelly from3D RC hobbies.

As you are all aware of by the club emails I been sending out, our **2017 Sun Valley Fliers Renewal is NOW TAKING PLACE!** This is the first year we are asking you to sign up **ON LINE AT THE SVF SITE.** The reason for this is so we can better track our member's renewals and also save the club a lot of money in USPS fees. It also helps Members Services (Bob True/Scott Johnson) save a lot of time. For those of you who do not have a computer or just do not understand the online process we will have **Bob True, Scott Johnson at the SVF Membership Meeting on December 7th** and also the **January meeting** to help you accomplish this. They will be there early around 6PM before the meeting and thru the meeting to help you renew your membership. We will also be out at the field if need be. We will also be handing out the **2017 SVF Club Stickers** at the above mentioned meetings along with down the field. See any board member and he will help you in this matter. If for any reason you have a problem please contact Members Services Bob True or Scott Johnson and they will help you! Again we know change can be a pain in the ass but please all pitch in and back us with this so we can make SVF a better club for all of us!

Tony Quist will be running the **Winter War Birds event on January 13th, 14th ,15th** . Tony is looking for help to run this event. Anyone interested in helping please contact Tony or I. This is a great event for SVF lets help to support it. This is a great fund raiser for SVF so please lets all pitch in to make this a success!

Well in closing may you all have a wonderful Holiday Season and hope to see you all at the SVF Membership Meeting at Deer Valley Airport on December 7th at 7PM. Again if you need help in renewing on line for 2017 and need help please get to the meeting early.

President SVF

Lou Pfeifer IV

Happy Hanukkah

Sun Valley Fliers General Membership Meeting Minutes – 11-2-2016

Meeting called to order by Lou Pfeifer at 1900. There were 24 members present.

Executive members in attendance **President – Lou Pfeifer, VP.- Andrew Schear, Secretary- Allen Hemenway**

Board Members in attendance: **Steve Miller, Bob True, Tom Kametz**
Absent: **Nate D'Anna, Scott Johnson, Wayne Layne, Ernie Mack, Luke Martin, Steve Myers, Mike Smith**
Open: Lou opened the meeting and wished Nate D'Anna a full and speedy recovery and wished everyone a happy and safe thanksgiving holiday. Lou honored the memory of Robert W Blair who passed on 5-25-2016. Robert was a member of AMA Flying Aces. He also thanked the family for donating Robert's RC equipment.
Guests: None
New Members: None
Solo Pilots: Congratulations to **Jeff Ragan** on his solo!
Secretary's Report – A motion to approve the minutes from the October 5, 2016 meeting was made by Bob True and seconded by Tom Kametz.. The minutes were approved as published in the **Slow Roll**.
Treasurer's Report – **Lou Pfeifer**

- Lou gave the Treasurer's report in Nate's absence**.** Andrew made a motion to approve the report which was seconded by Lou Pfeifer Sr. The Report was approved and is on file to see by request.

Membership Director's Report – **Bob True**

- A discussion was held regarding membership renewal for 2017, which will be done via the Club web-site.

Safety Officer's Report – Tom Kametz and Lou Pfeifer Lou commented on the need to abide by the deadline and pointed out that it extends to infinity, not just over the runway**.**
Old Business- **1**-The second semi-annual Family Fly-in is set for November 12th. Lou indicated that he has most help needed but additional assistance to ensure spectators stay away from the flight line is needed.

2-A discussion was held regarding adding a solar charging system to the field through Club donations. Most, but not all the money needed was donated and we will work on a design while we continue to solicit the remaining money necessary. If you fly electric, please consider making a donation. To make a donation contact Andrew Schear or any Board member.

New Business - 1-A driver (not a Club member) smashed through the entrance gate over the previous weekend. Lou is coordinating with the various agencies and a new gate is being installed.
2- Club renewal for 2017 was discussed and Lou indicated that renewal for next year must be done through the web site using Pay Pal. For those who don't have internet access assistance will be available at the membership meeting in January. More information will be sent to all members later this month.

3-The recent swap meet did not produce much revenue for the Club. If we consider doing this again we will have to do a more widespread marketing event and open it up to other Clubs.

Door Prize Winners: **Jim Spice, Bernard Dorenbercher, Andrew Schear, Charlie Beverson, Dennis Lamb, Steve Miller, John Russell, Lou Roberts**

50/50 Winner: Bernard Dorenbercher (Thanks to Bernard who donated $30 back to the Club!)

The meeting adjourned at 1927.
Respectfully submitted,

Allen Hemenway

SVF 2ND MEMBERSHIP FAMILY FLY IN/COOKOUT

SVF Sun Valley Fliers

SVF 2ND MEMBERSHIP FAMILY FLY IN/COOKOUT












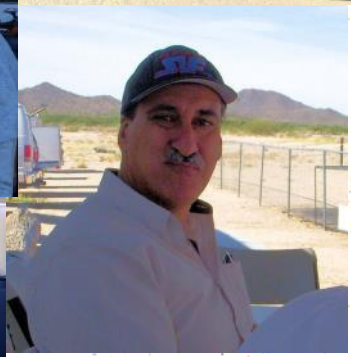

Sun Valley Fliers

SVF 2ND MEMBERSHIP FAMILY FLY IN/COOKOUT

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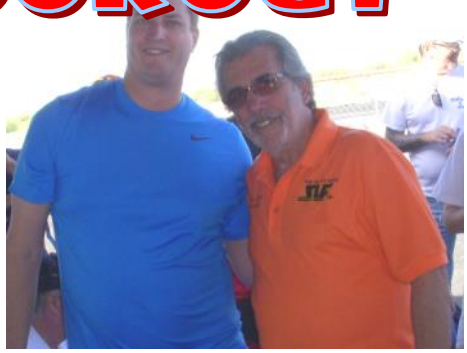
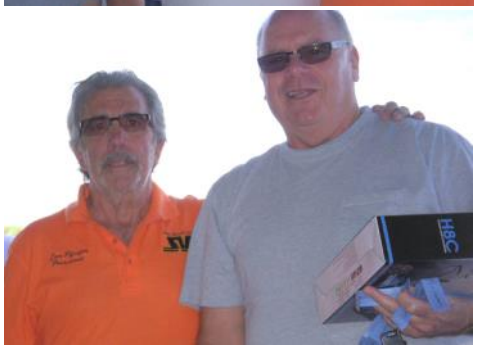
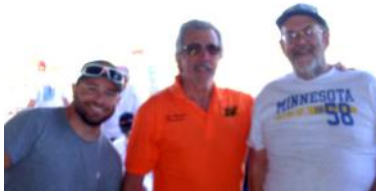






Sun Valley Fliers

Sun Valley Fliers

What's Happening

Lou presenting Jeff Ragen his Solo Certificate.
Congratulation Jeff!

The son Michael Duff
The daughter Tammy Duff
The father Hugh Duff

Home 'Fur' Good
ANIMAL RESCUE & PLACEMENT

SVF Sun Valley Fliers

New at the SVF Field

Larry Sheffield Beechcraft D18/C45 built from ZIROLI plans/parts. About 3 years in the making. Power by 2 DLE 35RA. It flys great!

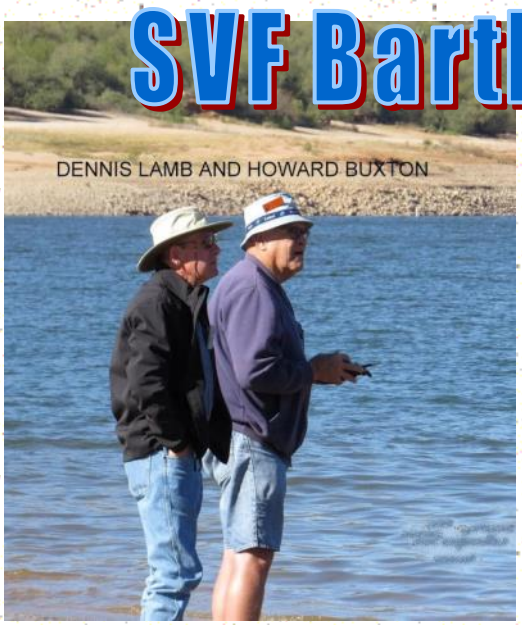
Sun Valley Fliers

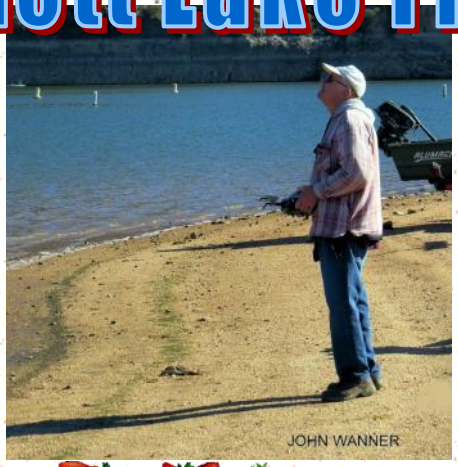
SVF Bartlett Lake Float Fly

November 29, 2016

Ken Rhodes

SVF Bartlett Lake Float Fly


DENNIS LAMB AND HOWARD BUXTON


JOHN WANNER


DENNIS LAMB AND SR KADET


Larry Shefield


GUESS WHO

SVF Bartlett Lake Float Fly

Dan Bott

Dave Linne

Sun Valley Fliers

Ken Rhoads

Seasons Greetings

12 O'clock High Video — Flightline Action and Highlights!

If you like warbirds and giant scale RC planes, the 12'Oclock High event is the place to be. Our event report is coming up soon in the next issue of MAN and we had our own long time contributor Rich Uravitch on scene covering all the action for the magazine. Here's a video highlight of all the amazing aircraft and pilots making it all happen at the Paradise Field run byFrank Tiano in Lakeland FL. From amazing WW1 biplanes to sleek turbine powered jets, and everything in between, check out this amazing video!

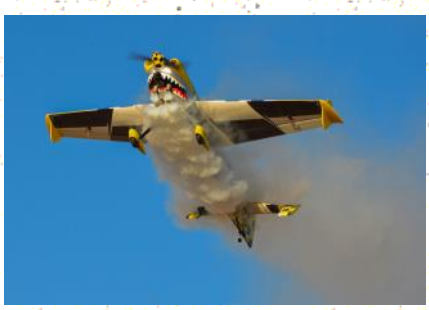
VIDEO https://www.youtube.com/watch?v=pOltRw53Lk0

Battle of Britain Fighter

This warbird has been flying for six years and has made 90 flights! Built by John Veasey, this 1/4.5-scale Hawker Hurricane was the prototype for the Tony Nijhuis line of Hurricane kits. Featuring all built-up construction with a fiberglass cowl and formed canopy, this 103-inch-span RC fighter weighs 38 pounds and is powered by a Zenoah G62 gas engine and controlled by a JR radio. Thanks to Dean and Pete Coxon for taking this video at the North Leeds Model Flying Club Large-Scale Day and sharing it with us. They note that the "bonus" clips at the end of the video were filmed at the Southern Headcorn RC Model Show in 2014 and 2016 and show some impressive one-wheel landings — one of which happened in a very strong crosswind!

VIDEO https://www.youtube.com/watch?v=h79u8tZMNqo

SVF's WET & DRY



Sun Valley Fliers

VOLTS OR AMPS — Need more power? What you need to know!

When you're deciding on a battery pack for a high-performance airplane, you have two options: use a higher cell pack (more volts) or a pack with higher capacity (more amps). Of course, you could run the numbers and get the answer, but I decided to do a real-life experiment, using a Shoestring as a test bed. Interested in the results? Read on.

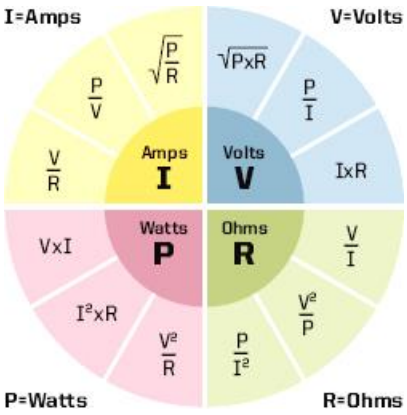
Ohm's law is a source of confusion for and elicits blank stares from many electric fliers, but the basics boil down to this: volts times amps equals watts, and watts are the power that flies your plane. To increase power (watts), you can increase volts or amps. In this article, I'll make a case that for high-power systems, it's almost always better to increase the voltage. There is a well-known Ohm's law chart or calculator (see illustration on the facing page) that can help you see how everything relates to one another.

I'm not implying that, as modelers, we need to exploit every bit of information that can be determined by the Ohm's law calculator, but as you progress and decide to fine-tune a system, it can be a handy thing. This column will use it and Joule's law to show why I think that you're better off using more voltage than higher current to power your plane.

WHY IS HIGHER VOLTAGE BETTER?

I can spend a lot of time using math to prove that higher voltage is a better choice than higher current, or I can summarize the process. I'm going to summarize. The bottom line lies in Joule's law, which shows us that voltage losses increase with the square of the current. That's important because those losses are a factor of heat and efficiency loss due to increased resistance. If our system is running hot, it's an indication that there are losses that we need to address. Waste heat indicates a problem. While there's more to it, Joule's law can be boiled down to the basic formula that waste power equals resistance (R) times the square of the current (I). Because they increase with the square of the current, these losses add up fast! We measure power in watts (joules per second), so the formula can be simplified as $I^2 \times R$.

This is a well-known Ohm's law calculator chart that helps you see how everything in electric power relates to the other.



In our planes, we know resistance comes from wire size, wire length, connectors, and motor design, so we do what we can to reduce that by using larger wire, shorter lengths, better connectors, and quality motors. What we have gotten out of the habit of doing is worrying about current, and some modelers wear high current as a badge of honor. Let's look at why I don't think that's a good idea.

The author's test-bed model, a Shoestring racer that he flew on both 3S and 6S systems.

REAL-WORLD APPLICATION

In the first scenario, we have a plane that needs a bit more power to fly the way that we want it to. The usual solution is to grab a bigger prop and pull a little more current. The less obvious solution is to increase voltage by increasing the size of the pack (e.g., going from 3S to 4S or even more). This will depend on the capability of the motor and speed control to handle the higher voltage, but most will allow for a range. If our 3-pound plane depends on having 100 watts/lb. for the performance that we want and we have a 3S pack providing 11.1 volts, we need to prop it to pull 27 amps (300 watts/11.1 volts = 27 amps). That same power could be accomplished by using a 4S pack (at 14.8 volts) and pull only 20 amps (300 watts/14.8 volts = 20 amps). We can get the extra power we want by propping the motor to pull 22 amps with a 4S pack. We've increased power and cut our losses by reducing current. This example might not seem significant, but it shows the theory.

The second scenario is for planning a new project. For this, I'll use a Shoestring racer that was flown on both 3S and 6S systems. I didn't have one motor capable of using both 3S and 6S packs without significantly exceeding the motor ratings, so two different motors were compared. If you study the chart at right where I've highlighted the most relevant data, you'll see that the 6S system was significantly better and it reduced the current (and subsequent losses) by almost 17 amps and increased overall power by 37 watts per pound. This is a huge difference—not to mention that it's a racer, so the speed also increased. The efficiency took a giant leap because we reduced all that waste heat potential. Our cruise flight times

are better, and we have a lot more power. The numbers just don't lie!

The weight of the plane remained almost the same because I went from a 3S 5000mAh pack, weighing 15.6 ounces, to a 6S 3000mAh pack, weighing the same. I was able to reduce the capacity of the pack because the reduced current was within the parameters of the smaller pack. Remember that you must ensure you don't exceed the highest safe current (C rating) of the pack. My 3S pack was rated at 30C, meaning that it could theoretically handle 150 amps (5.0Ah × 30 = 150 amps). My 6S pack was a 25C, so it's capable of 75 amps (3.0Ah × 25 = 75 amps). Since my setup only drew 41 amps, I was well within its parameters.

Setup Chart

Setup	3S Shoestring	6S Shoestring
Prop K rpm	6.32	10.89
Prop watts	557	717
Motor watts	606	786
Amps	81.5	41.1
mAh	5,000	3,000
Minutes	3.5	4.2
Throttle %	100	100
System eff. %	62	78
Prop diameter	14	11
Prop pitch	12	8
Pitch mph	71	80
Watts/pound	78	100
Climb ft./min.	1,257	1,485
Climb angle	43	47
Cruise minutes	8.5	10
Stall mph	21	21
Max. mph	76	82
Thrust oz.	93	101

THE PROOF IS IN THE MATH

If you spend just a little time studying the Joule's law chart below, you begin to see how using more volts than current can make a big difference in waste heat. My 3S setup produced over five times the waste heat of the 6S setup! This is real data from a four-minute run of each system. You don't have to do this for every setup, but it makes my point. Voltage is a good thing!

The current was cut in half, and since voltage losses increase with the square of the current, it's easy to see how much this affected the system.

Joule's Law Applied to the Shoestring Racer*

Size	Battery	Wt (g)	Am-pHrs	Motor	KVo	Amps	Dura-tion	Wire Ga.	Rm	ESC	Wire ohm/ ft.	Total Res	Joules	Waste Watts
System run time = four minutes														
3S	5000-3S-25C	442	5.00	4340-900	900	81.5	4.00	12	0.025	0.003	0.0019	0.0313	49,960	208
6S	3000-6S-25C	447	3.00	4052-590	590	41	4.00	12	0.016	0.003	0.0019	0.0224	9,037	38

Historical Perspective

Tom Hunt (and wife Eileen) preached the value of high voltage over high current way back before NEAT Fair was ever thought of.

Back in the early 1990s, when I was first getting into electric flight, I attended the KRC electric fly-in held in Quakertown, Pennsylvania. It was a gathering of greats who came together to teach the rest of us how to do things. Bob Boucher of AstroFlight fame, Larry Sribnick of SR Batteries, Bob Kopski of Model Aviation, Doug Ingraham of Lofty Pursuits, Keith Shaw, and Tom Hunt (just to name a few) were on hand to offer seminars (often taught over the hood of someone's car). In those days, the biggest thing there was flown by Keith Shaw and used 36 Ni-Cd cells to power his AstroFlight geared motor. Most of us were flying 7-cell setups and looking for four minutes of aerobatics. Dave Grife shocked us with his 10-cell AstroFlight 15 powered ElectroStreak because the rest of us were using an FAI 05 on 7 cells. His put ours to shame and flew longer as well.

Electrics guru Tom Hunt told me back then that he wished that the manufacturers would get onboard and understand that we'd all be better off using higher cell counts and lower currents. This was in 1994! The problem was—and continued to be—that nobody provided a speed control that would handle higher voltage, and if someone did, the battery technology of the time didn't allow for it. Our Ni-Cds were 1.2 volts per cell for a sub-C, and it weighed about 2 ounces per cell. Our 7-cell pack tipped the scales at 14 ounces or slightly more.

Fast-forward to today and our 6-cell 3000mAh LiPo pack weighs about 16 ounces and provides 22.2 volts compared to our old 7-cell Ni-Cd pack's 8.4 volts. Castle Creations developed its HV line of controllers to take advantage of the higher voltage available to us. Others have been slow to come along, but they're working hard now to catch up.

So even way back then, the forefathers of electric flight saw the advantage of higher voltage over current—they just didn't have the tools at the time. But we do. So let's not keep our heads in the sand. Plan your projects with the knowledge and equipment at hand!

OTHER CONSIDERATIONS

Our airplanes contain a lot of things that can affect efficiency. The quality of the motor is a biggie, and if you compare the resistance of the cheap and the quality motors, you'll see a big difference. If a manufacturer doesn't list the resistance of a motor, I shy away from it.

Most of us are using 10-, 12-, or 14-gauge wire depending on the size and need of our setups. I would say that, for the 3S to 8S size, 12 gauge is the most common. On my 12S planes, I try to use 10-gauge wire, but if the currents are kept in check with proper sizing of motors and props, even 12 gauge can be fine there. The table above show how these sizes stack up.

Connectors can play a big part in resistance. There are some very good ones available—and some very poor ones too. I use a lot of Anderson Powerpole connectors because I can crimp them and they are extremely adaptable. The company lists all the specs for its connectors on its website, so nothing is hidden. I like to use the 45-amp contacts in the standard housings because they accommodate up to 10-gauge wire, 600 volts, and 55 amps (per connector). A paired connection is listed as having a resistance of 0.525 ohm.

Indoor 8 foot span A-10

You wouldn't think an 8-foot-span aircraft could easily navigate an indoor flying venue, but pilot Daniel Hör makes it look easy with this A-10 Thunderbolt II! Powered by two Electro Accu ducted fans using a 4S 1200mAh LiPo pack, the Depron foam plane uses 12 servos and is equipped with an onboard camera. At 1:30 into the video, the big jet slows down to an unbelievably slow pace! Thanks to RC Media World for taking this video at the Modell-Hobby-Spiel in Leipzig, Germany.

VIDEO **https://www.youtube.com/watch?v=aQkbO35g19c**

What's Happening @ Dan Bott's Hangar

Next new projects to be maidened are my Skymaster BAE Hawk Jet with a Kingtech 160 and then (weather permitting) at the November 28th Barlett float fly I will maiden the PC6 in the Swiss scheme. The Pilatus was built by the Porter ace himself Kenny Rhoads.

NO JANUARY SLOW ROLL

FROM THE BBC ON THIS DAY

1941: Japanese planes bomb Pearl Harbor

Japan has launched a surprise attack on the American naval base at Pearl Harbor in Hawaii and has declared war on Britain and the United States.

The US president, Franklin D Roosevelt, has mobilised all his forces and is poised to declare war on Japan.

Details of the attack in Hawaii are scarce but initial reports say Japanese bombers and torpedo-carrying planes targeted warships, aircraft and military installations in Pearl Harbor, on Oahu, the third largest and chief island of Hawaii.

News of the daring raid has shocked members of Congress at a time when Japanese officials in Washington were still negotiating with US Secretary of State Cordell Hull on lifting US sanctions imposed after continuing Japanese aggression against China.

"*He remembered that moment [Pearl Harbor] in later years as the end of one existence and the beginning of another*"

At 0755 local time the first wave of between 50 and 150 planes struck the naval base for 35 minutes causing several fires and "untold damage" to the Pacific Fleet.

The Japanese squadrons dropped high-explosive and incendiary bombs.

A second strike followed at about 0900 when a force of at least 100 planes pounded the base for an hour.

At least two Japanese airplanes have been shot down but it is reported that at least 350 men were killed by one single bomb at the Hickam Army Air Field, an Air Corps post on Oahu.

Officials announced a further 104 Army personnel were killed and 300 were wounded in the raid.

It is believed the attack was launched from two aircraft carriers.

One radio report says US forces downed six Japanese planes and sunk four submarines.

There are reports the Hawaiian capital Honolulu was also bombed as well as the Pacific island of Guam and the capital of the Philippines, Manila.

A British gunboat, the Peterel, has also been sunk at Shanghai in China.

Reports from Singapore suggest a build-up of Japanese warships in the South China Sea and seem to be headed for the Gulf of Siam, towards Bangkok.

President Roosevelt is working on a message to Congress tomorrow in which he is expected to ask for a declaration of war with Japan.

The Times newspaper's Washington correspondent says the US Government expects Germany and Italy to declare war on the US within hours.

Although the attack has shocked the American people there is little doubt that it had been brewing for some years.

Relations with the United States have deteriorated since 1931 when Japan occupied Manchuria in northern China. Over the last decade conflict has intensified into a full-scale war between Japan and China.

Last year, the US imposed trade sanctions on Japan.

Then in September 1940 Japan signed a Tripartite Pact with Germany and Italy. It became a formal member of the Axis alliance fighting the European war but continued to negotiate with America for trade concessions until today.

Japan's fury over the embargoes and allied support for China prompted a declaration of war.

In Context

Within two hours, six battleships had been sunk, another 112 vessels sunk or damaged, and 164 aircraft destroyed. Only chance saved three US aircraft carriers, usually stationed at Pearl Harbor but assigned elsewhere on the day.

The attacks killed fewer than 100 Japanese but more than 2,400 Americans died - 1,000 of those were on the battleship Arizona which was destroyed at her mooring. Another 1,178 US citizens were injured.

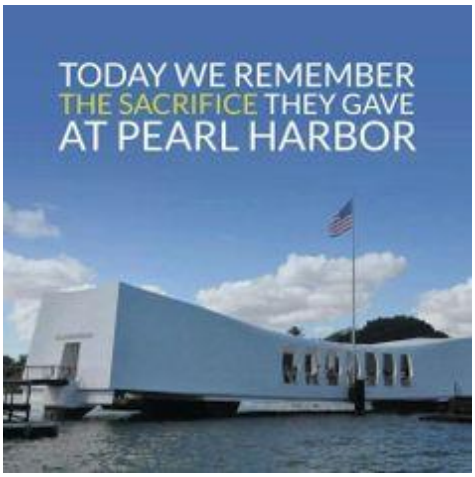
The next day, President Roosevelt called the attack on Pearl Harbor "a day that will live in infamy" and America declared war on Japan ending its policy of isolationism.

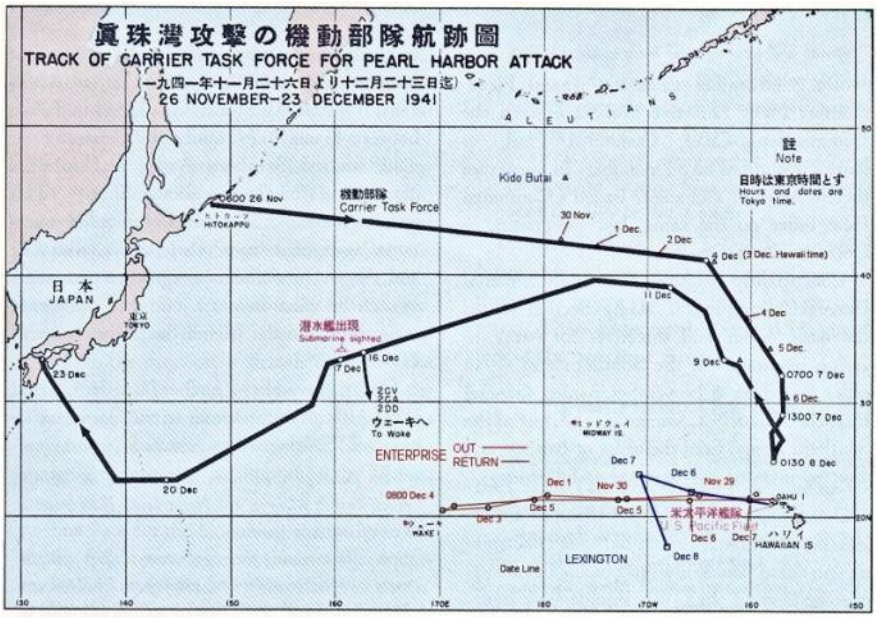
There were six wartime and one post-war investigation into how America was taken so totally by surprise. They revealed a lack of co-ordination and communication between Washington and Oahu, and between different armed forces.

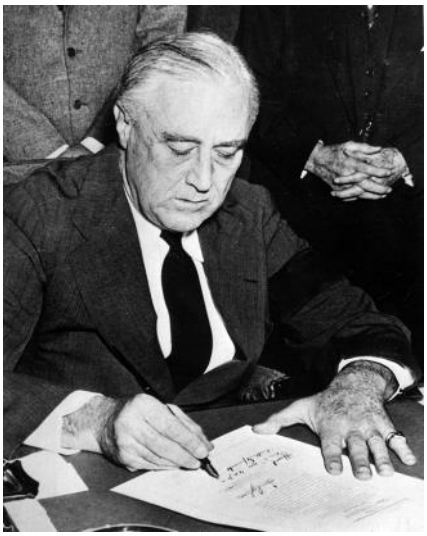
As a result local US commanders Admiral Kimmel and Lt-Gen Short were fired.

The attack was a victory for Japan and allowed it to launch a full-scale invasion of South-east Asia. But out of the US warships damaged or sunk on 7 December 1941, only three - the Arizona, Oklahoma and Utah - were beyond repair, and Utah was already obsolete.

Pearl Harbor also united an outraged American nation behind President Roosevelt and behind the war against Japan, and failed to destroy the major US ships , the aircraft carriers.








Honolulu Star-Bulletin 1st EXTRA

WAR!

SAN FRANCISCO, Dec. 7.– President Roosevelt announced this morning that Japanese planes had attacked Manila and Pearl Harbor.

OAHU BOMBED BY JAPANESE PLANES

SIX KNOWN DEAD, 21 INJURED, AT EMERGENCY HOSPITAL

Attack Made On Island's Defense Areas

Hundreds See City Bombed

A RARE LOOK AT THE ATTACK ON PEARL HARBOR
FROM THE POINT OF VIEW OF A JAPANESE PARTICIPANT

THE MIRACULOUS TORPEDO SQUADRON

BY MORI JUZO

TRANSLATED FROM THE JAPANESE BY NICHOLAS VOGE

http://www.vintagewings.ca/VintageNews/Stories/tabid/116/articleType/ArticleView/articleId/464/The-Miraculous-Torpedo-Squadron.aspx

5th Annual

Winter Warbirds

January 13-15, 2017

Military Aircraft of all eras in military schemes are welcome to fly.
Foam aircraft will only be flown at designated times.
Landing fee is $40 AMA membership required
Flying awards for all eras of military aircraft
Static awards for kit built, ARFS, and craftsmanship.

Hosted by Sun Valley Fliers
Cave Creek and Jomax RD
Phoenix, AZ

CD Tony Quist quist23@cox.net

AMA Sanction 17/147

December 2016 SVF Birth Day Boys

First name	Last name	Member type	Dob
Archie	Dicksion	Senior	12/02/1938
James	Osborn	Senior	12/05/1941
Louis	Bennett	Senior	12/09/1944
James	Talmadge	Senior	12/15/1949
Michael	Carrillo	Regular	12/15/1960
Peter	Boland	Senior	12/17/1948
Stan Von	Drashek	Senior	12/18/1925
Dan	Bott	Senior	12/19/1948
Ronald	Topel	Senior	12/19/1937
Martin	Jones	Regular	12/19/1967
Jim	Schneck	Senior	12/20/1942
Kyle	Ponsler	Regular	12/20/1983
Joel	Lieberman	Senior	12/22/1937
Joe	Giammarino	Regular	12/22/1962
Bill	Marhevka	Regular	12/22/1963
Wayne	Frederick	Senior	12/25/1937
Mike Van	Heemst	Junior	12/28/2000
Vincent	DiFabbio	Regular	12/29/1955
Gary	Schlegel	Senior	12/29/1949
Tighe	O'Meara	Regular	12/29/1978
Adam	Yax	Regular	12/31/1973

January 2017 SVF Birth Day Boys

First name	Last name	Member type	Dob
Johnnie	Russell	Senior	1/12/1940
Leo	Chandler	Regular	1/15/1953
Norman	Pilcher	Senior	1/16/1940
Vic	Pietkiewicz	Senior	1/18/1944
Zach	Zhang	Junior	1/18/2005
Allen	Hemenway	Senior	1/23/1948
Gerald	Krause	Senior	1/24/1934
Roy	Halladay, Jr.	Senior	1/24/1951
Steve	Peterson	Senior	1/26/1943
Carey	Dicksion	Regular	1/28/1965
Kyle	Butkiewicz	Regular	1/30/1970

The Editor passes on his wishes to the SVF members for the very best of the Holidays.

We also want to give our thanks to does that have contributed to the Slow Roll. Bob

THE SLOW ROLL

Club Officers 2014-2015

Lou Pfeifer IV, President
Andrew Schear, Vice President
Nate D'Anna, Treasurer
Allen Hemenway, Secretary
Safety Officer Open

Scott Johnson
Website Supervisor
Please check your Membership list for Phone numbers.

Board of Directors

Wayne Layne '15-17
Steve Miller '15-17
Mike Smith '15-17
Bob True '15-17
Luke Martin '16-18
Scott Johnson '16-18
Steve Myers'16-18
Tom Kametz '16-18
?????????? '16-18

Sun Valley Fliers

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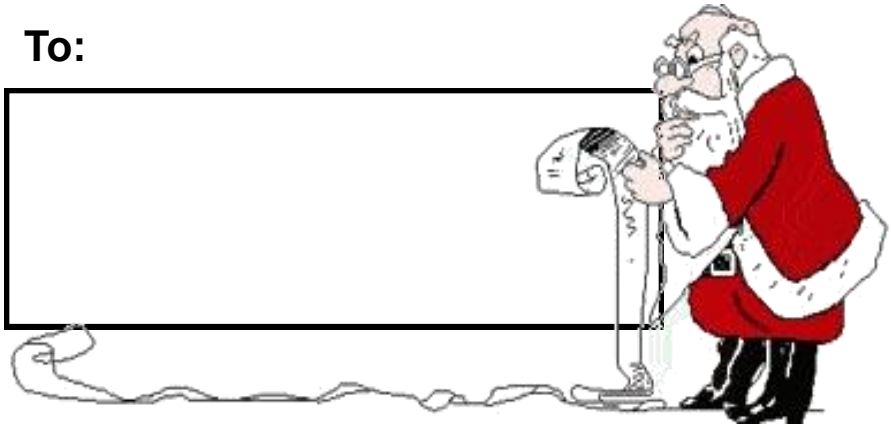

42 SUN VALLEY FLIERS ARIZONA **YEARS**

AMA CHARTERED #921

SINCE DECEMBER 1974