



THE SLOW ROLL



CHARTERED #921
Since DEC. 1974

President—Frank Moskowitz
Vice President—Tony Quist
Treasurer—Gene Peterson
Secretary—Rusty Fried

Editor—Bob Purdy
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December 2008



*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 Marty Jones...Prez report...Minutes... Dec/Jan B'Days & Treasurer Report....Turkey Photos....SVF Pattern Photos....AMA Open House....SVF Members photos..... Fuel SafetyPaints..... Xmas Eve V-1's....Lost Buggati.....WINGS-AZ flyer..... etc...**ENJOY!**

No January Slow Roll

Dave Morales F4-U



MERRY CHRISTMAS and a HAPPY NEW YEAR!



December Slow Roll Presidents Letter

Welcome to the December 2008 Slow Roll. Since it is December, it is time to reflect on the past year and think ahead to next year.

So, I will take this opportunity to do a little reflecting on 2008. First of all, I want to thank all of the members of the Club. We had a great year of flying and FUN. We welcomed many new Club members and they have become friends. Our membership is very active and we shared many hours of flying, instruction and great conversation. We made amazing improvements to our field. A dust proof entry road (well almost), a repaved runway, a park flyer area void of weeds and a contract with the top landscaper in Arizona for continued field maintenance. We are in the process of installing a weather station at our field so those of you who live a few miles away can simply go to our web site and click on the link for "SVF Weather". No longer will you have to guess how fast the wind is blowing or in which direction. This is just the start of our improvements. 2009 holds many surprises for our membership. Sun Valley Fliers Club will become the premier flying club in the US. 2008 was a year I will remember for the great contributions of our elected officials and board members and the many members that gave their time unselfishly. I thank you all very much!



For those of you that haven't attended a club meeting in a while, December is the time to start. Please join us for the December 3rd club meeting. We will be hosting a great buffet of food for your enjoyment. Our show-n-tell will have Rick from Hobby Bench talking about a 1/4 scale Fokker D-7 (if he can manage to fit it through the door), and Tom Stokes will show a power point presentation of how to take aerial photos using an RC plane. Tom was the photographer who was gracious enough to take our aerial photos. We will preview the latest at this meeting. We will have many raffle prizes and the 50/50 could make you very happy \$\$\$. You never know what might happen, and you don't want to miss it. Meetings start at 7:30 pm. If you want to eat I suggest you arrive no later than 6:30 pm. Location is Deer Valley Airport Restaurant. (7th avenue and Deer Valley Road).

I would like to close this month's article by wishing all a wonderful holiday season. Whatever holiday you celebrate, may it be filled with good health and happiness and the promise of a great new year. Enjoy your Holidays and start your projects for next year's fun. Have fun out there!

Frank Moskowitz

President

HAPPY
HANUKKAH



Editor note; this December The SVF Club will Celebrate 34 years as a charter club

NO JANUARY 2009 SLOW ROLL. SEE YOU IN FEBRUARY.

SVF MEETING DECEMBER 3 @ 7:30 P.M. DV AIRPORT

AMA EXPO JAN. 9-11 ONTARIO, CA



Sun Valley Fliers Club Meeting Minutes Date, November 5, 2008

The meeting was called to order at 7:30 pm by Vice President Tony Quist. There were 43 members in attendance. Frank Moskowitz was not in attendance, however he said hello from Idaho.

Officers in attendance: Tony Quist, Rusty Fried, Gene Peterson

Board members in attendance: Tony Holden, Charlie Beverson, Bruce Bretschneider, John Geyer, Mike Peck, Ronald Thomas

Guests: None

New Members: Welcome to Jerome Druen & Steven Gay.

New Solo Pilot: None.

Secretary's Report: Voted and approved as published in last month Slow, Roll.

Treasurer's Report: Gene Peterson Gene read the treasurers report voted and approved.

Safety Officer Report: By Tony Holden.

1. People are not paying attention when taking off or landing. We need to call both landing and takeoffs very loud, people must not be timid **SHOUT IT OUT!**
2. There are too many people on the startup pad while guys are starting up. There should be only two people on the pad, the pilot and the holder!

Old Business:

1. Clean up day was last Saturday which included the foamy area south of the wash. Ron Long had his crew moved granite to the runways edge.
2. 1/8th AF income was as followed, Kitchen income \$948.00, Field rental \$500.00, Total income \$1448.00 Paul sold \$165.00 worth of clothing at the 1/8th.
3. The repainting of the Ramada was well received Dan Jacobsen and his crew did a great job. Again many thanks to Wallace Balfour for his great paint donation. We went through 10 five gallon tubs of paint. Charlie Beverson and Mike Peck were great help during the clean up. Also Jack, Bob, Tony, and Gene.
4. While driving on the GAS part of the road we still need to keep the SPEED down it still produces dust so go slow. Please keep the speed to a no dust condition on all the roads!
5. The aircraft holding bars have not yet been installed. Gene Peterson was asked why they have not been installed he said he just hasn't gotten around to it.
6. The 1/8th was a great success they had 80 registered pilots.
7. Electric Fun Fly will be this Saturday. Prize donations were less than last year probably due to the economy. Looks like we will have great weather.

New Business:

1. Cole Cunningham spoke about the weather station to be installed at the SVF field. We will be using a ham frequency from our field to a repeater then the information will be available on line from [a link on the SVF web site.](#)
2. Rob Beaubien spoke about the pattern contest and how it was progressing. He talked about the Club Class event and the staggered entr   fees; Club Class \$10.00, Sportsman \$25.00 and all other classes \$40.00. He had a good selection of prized for the pattern raffle. The Club Class will be a new contest each day with trophies for each day, this will allow a guy to fly one day and have a chance to win.

Door Prize Winners:

John Deacon of AZ Model Products gave 3 Door prized won by Wallace Balfour, John Warner and Raymond Przybyiski.

SVF Door Prizes: Brushes Harold Shelton, Sweatshirt Vivian, Screwdriver r set Tony Quist, Fuel George Tapia, Epoxy Raymond Przybuiski, Tee Handle Allen's John Warner, CA Bruce Bretschneider, Flashlight Mike peck, Files John Wisniewski, Threadlock Cole Cunningham, Sweatshirt John Geyer Clamps Rusty Fried, CA Mike Schmidt, Knee Pad David Morales, Fuel Chuck Liebich

50/50 Drawing Winner: won by Mike Peck in the amount of \$63.00.

Show & Tell: Rick Powers brought new slim line Pitts Style muffler that really works with good noise reduction and still good power. He brought a new series of painted pilots from Extreme Pilots. E Flite has new F-16 ducted fan at a very good price starting a@ \$149.00.

Food @ Decembers Meeting.

Meeting adjourned at: 8:12pm

Rusty Fried, Secretary

\$ TREASURERS REPORT \$ with *Gene Peterson*

Treasurers Report Dec 2008/Jan 2009



Thanks to all who have sent in their renewals early. Makes the job a lot easier not to have them all come in on 12/31. We're up to 175 renewals at this writing and \$1800.00 for the field maintenance fund. We are going to have a quarterly Maintenance done by Arizona Sun for \$750.00 so this should keep the field looking quite spiffy almost all the time. We of course will have special projects where we will ask club members to help, but for the most part this project will keep the field "looking good".

Results from the two recent events were, the Electric Fly grossed over \$470.00 and netted \$246.36, and the kitchen netted 85.00. Not a big money maker for the club but it is an All Electric Day and every one had a good time, and thanks to all who helped out and to **John Geyer** for putting on a good event. The Pattern contest held the following weekend grossed \$881.00 and netted the club \$500.00 after all was said and done. Thanks to all the pattern flyers who helped out and particularly **Robert, Rusty and Troy** who sponsored the event and did a great job.

Have a safe and sane **Christmas** and **New Year** and best wishes to all of you and yours for a Happy Holidays.

Best Regards

Gene Peterson Treasurer

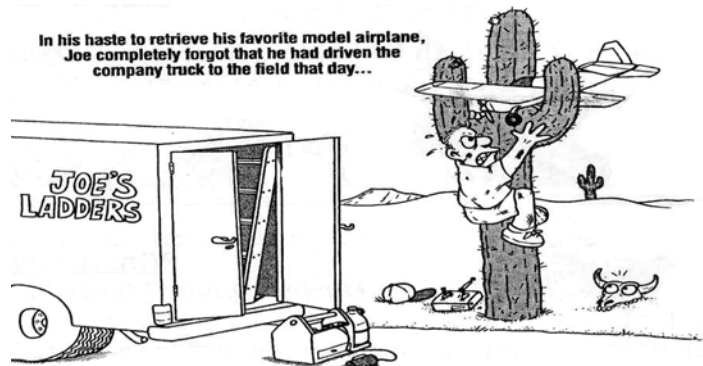
DECEMBER SVF BirthDay Boys

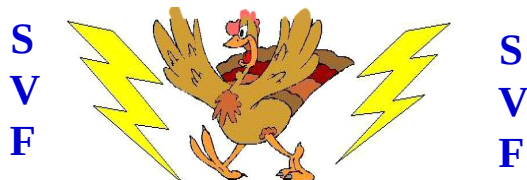
First --Last name	Member type	Dob
Louis Bennett	Regular	12/09/1944
Robert Muse	Senior	12/11/1937
Jack Jasperson	Senior	12/13/1937
Robert Morris	Senior	12/13/1927
Jack David	Regular	12/13/1949
Bernie Frank	Senior	12/15/1929
Jerry Wright	Regular	12/15/1949
Brennan Cook	Junior	12/15/1993
Brad Schrimsher	Regular	12/16/1962
Jason Krause	Regular	12/17/1974
Rick Powers	Regular	12/18/1957
Mark Bernier	Regular	12/18/1956
Dan Bott	Regular	12/19/1948
Ronald Topel	Senior	12/19/1937
Martin Jones	Regular	12/19/1967
Joel Lieberman	Senior	12/22/1937
Darren Dugan	Regular	12/23/1968
Wayne Frederick	Senior	12/25/1937
Robert Kintz	Senior	12/25/1926
Nick Nachor	Senior	12/25/1936
Ron Parmley	Senior	12/26/1939
Ryan Finley	Junior	12/26/1994
Vincent DiFabbio	Regular	12/29/1955
Gary Schlegel	Regular	12/29/1949
William O'Meara	Regular	12/29/1978
Donald Hill	Senior	12/30/1932

JANUARY SVF BirthDay Boys

First , Last name	Member type	Dob
Terry Jenkins	Regular	01/01/1957
Peter Wijatyk	Regular	01/05/1963
Kenneth Melbye	Regular	01/06/1948
Thomas Gray	Regular	01/06/1958
Michael Stankovic	Senior	01/07/1930
Max Hopkins	Regular	01/09/1952
Alexander Vidales	Junior	01/11/1997
Kent Story	Regular	01/13/1947
David Nicholson	Senior	01/16/1934
Norman Pilcher	Senior	01/16/1940
Mike Rauchle	Regular	01/16/1971
Robert Beaubien	Regular	01/17/1966
Denny Myrick	Regular	01/25/1944
Lance Sennette Jr.	Regular	01/25/1959
Bill Reitz	Regular	01/26/1946

In his haste to retrieve his favorite model airplane, Joe completely forgot that he had driven the company truck to the field that day...





Eighth Annual Electric Turkey Fly-In November 8, 2008

By John Geyer, CD

The 8th annual Electric Fun-Fly for Charity was an operational, and a financial, success. With the help of all the usual suspects: [Ron Thomas](#) in the kitchen, [Jay Steward](#) with the PA and associated field issues, [Jerry Wright](#) with Registration, [Gene Peterson](#) handling the money and [Bob Purdy](#), [Derek Micho](#), and [Charlie Beverson](#) jumping in and doing whatever needed to be done, we hosted 32 electric fliers from across the Valley and as far away as Tucson, Prescott and even a few from California. Thanks to all who helped, especially if I missed you in the list above. For those of you that didn't make it, you'll have lots of opportunity to support a club event next year – it really is a lot of fun and the work is not that hard. Come on out and get to know the other club members and learn about a flying discipline you might not be familiar with – Pattern, Scale IMAC, Helicopters, Electrics. We have plenty of events that cover the full spectrum of our hobby, and getting more involved will help increase your experience and enjoyment of flying R/C.

With each pilot bringing from 1 to as many as 5 or 6 airplanes, we had over 100 airplanes fly. There were representatives from just about every modeling discipline from Pattern and IMAC to Autogyros, 3-D foamies, hotliners, sport planes and, of course lots of scale airplanes – warbirds as well general aviation aircraft of every era. The focus was on flying safely and flying as much as possible. We saw a wide range of airspeeds and flying styles comfortably coexisting in a crowded sky – thanks to a little cooperation and close enforcement of the standard field safety rules. Spotters really do help!

Thanks to the generosity of our sponsors we were able to go through the entire roster of registered pilots during our prize drawings, with many pilots getting a second chance. We again used the “double draw” method to make sure the prizes were spread around as evenly as possible and everyone was reasonable happy with what they received. Please take a look at the Sponsor's list and remember these companies, especially the local ones, when it comes time to spend your hard-won hobby funds.

The awards were low-key and decided by Phantom Judges – “volunteers” recruited from among the visitors and guests attending. The only official criteria was the winners had to actually fly, after that it was up to whatever the judge decided defined the best airplane in each category. Please see the pictures and list of award winners to see who won what.

Financially we did better than last year, but were still down from some of our best years. With the registration receipts, we ended up with about \$250 profit. [However, on the Monday after the event I received some late-coming donations from Hobby Lobby and Castle Creations so we'll auction four airplanes, two 7 ch. Receivers, two speed controls, and two high amp BEC's at the December meeting to add to our final donation to the Boys and Girls Club.](#) Be sure to come to the December meeting to get a good deal on some new equipment while contributing to a good cause.

If you made it to the event, thank you very much! We really had fun and got to see a lot of really cool electric airplanes and great flying. If you didn't make it, be sure you plan to attend next year – it's a lot more fun to see it yourself than to read about it after the fact.

[Our Spondsors: Frank's Hobby House, Hobby Bench, Hacker, Medusa Research, Castle Creations, Hobby Lobby, Tru-Turn, E-Flite, Electfily, Midwest Products and new items donated by SVF members.](#)



SVF EIGHT ANNUAL TURKEY ELECTRIC FLY IN NOVEMBER 8, 2008



Photos by Bob Purdy

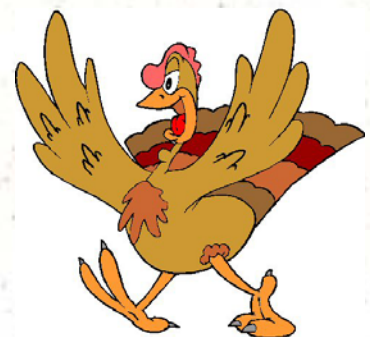
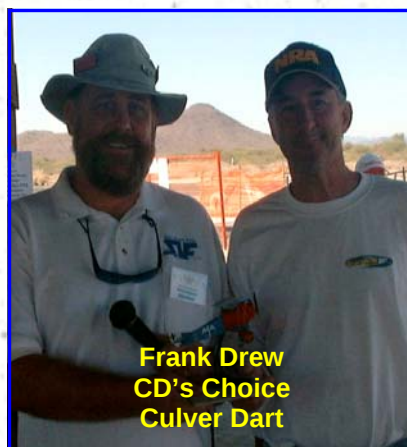
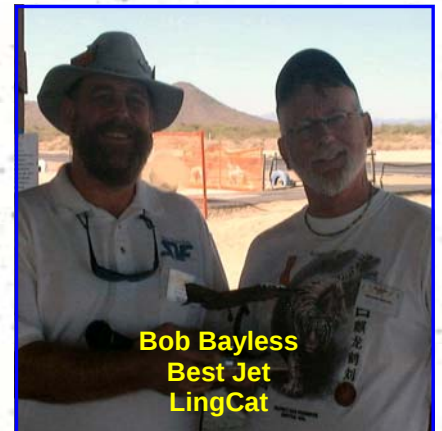
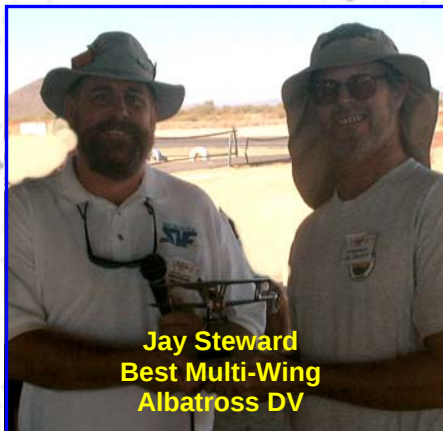
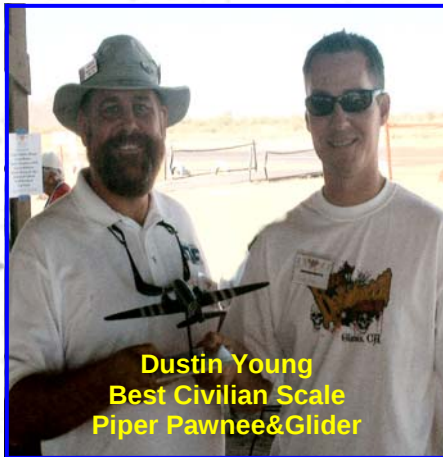


SVF EIGHTH ANNUAL TURKEY ELECTRIC FLY IN



Photos by Bob Purdy

SVF ELECTRIC TURKEY 2008 FLY IN WINNERS



1st ANNUAL SVF FALL PATTERN CONTEST

NOVEMBER 15-16, 2008



RESULTS ON NEXT PAGE
Photos by Frank Moskowitz

1st ANNUAL SVF FALL PATTERN CONTEST

Last Contest for 2008 At Phoenix.

The [Sun Valley Fliers](#) hosted a mid November non points contest with a twist. A new class called the club class. This class is a non turnaround pattern with low complexity maneuvers like one loop one roll a three hundred & sixty degree turn. We had a total of 17 contestant; 3 in club class, 2 in sportsman, 3 in intermediate, 4 in advanced, 3 in masters and 2 in F3A not bad for a fits year contest. The [CD Robert Beaubien](#) ran a good contest, especially since it was his first one. [Troy Newman](#) helped set the contest up but he had to work all weekend so he was unable to fly. Weather was good with light to moderate winds and clear skies with temps in the mid 80's perfect contest weather. The club class was broken into two separate contests Saturday was won by Jared Simmons and Sunday was won by Cole Cunningham. Howard Kennedy was a dogged contestant for both Cole and Jared on both days. I think I will run this club class event at our February 21 contest. The BBQ was good however the guys that paid didn't stay around to eat. We had contestants from California, New Mexico, Old Mexico as well as Tucson. [Sun Valley Fliers](#) had seven contestants participating in this event which is better than last Februarys contest; **pattern is not dead in Phoenix.**

Februarys' pattern contest results.

Saturday

1st place - [Jared Simmons](#) - 120.5 - 121 - 131.5 = 373
2nd place - Cole Cunningham - 130 - 108 - 115.5 = 353.5
3rd place - Howard Kennedy - 121.5 - 115.5 - 107 = 344

Sunday

1st place - [Cole Cunningham](#) - 122.5 - 130 = 252.5
2nd place - Howard Kennedy - 119.5 - 116 = 235.5

Sportsman

1st [Larry Fields](#) 3972
2nd William McKinley 3954

Intermediate

1st [Tony Watkins](#) 4000
2nd Ricardo Arcibar 3611
3rd Robert Beaubien 3580

Advanced

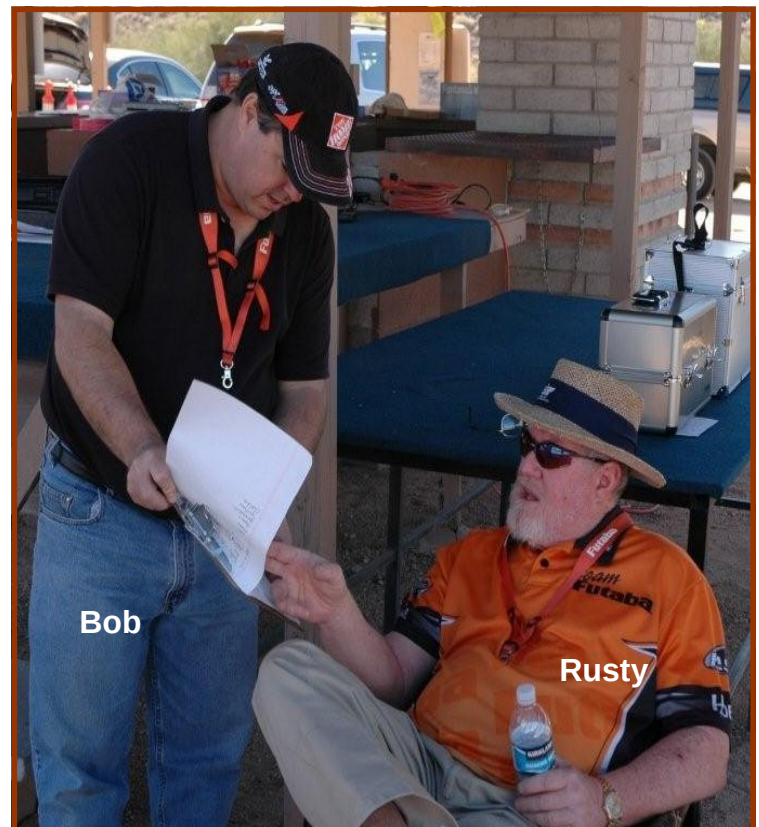
1st [Steve Kaneshiro](#) 4000
2nd John Gayer 3895
3rd Brad Schrimsher 3821
4th Ken Melbye 3705

Masters

1st [Rusty Fried](#) 4000
2nd John Contreras 3584
3rd John Wisniewski 3480

F3A

1st [Chip Hyde](#) 4000
2nd Bill Sheets



ARIZONA

Model Aircrafters



The SVF members were invited to an open house by [Jaime Johnston](#) of [Arizona Model Aircrafters](#). This was held just before the November meeting. Many interesting models were displayed at their locations from architecture modeling, aircraft modeling and also a model railroading display. The B-24 was built by [John Deacon](#) having four G-43 motors, @98 lbs, 10ft WS. [Download their catalog @ \[www.arizonamodels.com\]\(http://www.arizonamodels.com\)](#) it has some good info in it.

The Lost Bugatti

In the late 1930s, automotive genius Ettore Bugatti built a radical race plane to capture the world speed record from the Germans. Decades later, it was found in a barn in France and is now being restored in Connecticut.

The Model 100 is a remarkable airplane. It was hidden from the Germans when they invaded France in June 1940 and wasn't to be discovered again until 1973. Even after 30 years, it astounded the aeronautical world.

The airplane is an engineering tour de force, a showcase of innovation and ingenuity. U.S. and foreign patents were taken out for almost every significant part of the structure. Bugatti built almost every part of the airplane in his shop except the main landing-gear legs. The instruments were remarkably similar to those found in Bugatti automobiles.

The power train is perhaps the airplane's most unorthodox feature. The front engine was canted to the right, joined to its drive shaft by a universal joint at the firewall behind the pilot. The drive shaft passed by the pilot's right elbow. The rear engine was canted to the left, driving its drive shaft through a universal joint along the pilot's left elbow. The two drive shafts entered a reduction gearbox at the pilot's feet. The two-input gearbox allowed the propellers to be contra-rotating, a major advance for such a small, high-powered aircraft. The engines and power train were built in Bugatti's Molsheim auto factory, tested in a mock-up, and then shipped to the Paris furniture factory where the airframe was constructed. A patent still protects this revolutionary power system.

The aerodynamics of the Model 100 are almost as mind boggling as its power train. The basic problem of aircraft design is a trade-off between high-speed and low-speed efficiency. Bugatti attacked this problem with a unique and complex system of self-adjusting flaps. The Model 100 used split trailing-edge flaps. Both flap surfaces could be moved up and down to suit the speed and power situation.

The flaps would automatically set themselves to any of the six positions for take-off, cruise, high speed, dash, descent, landing, and rollout. The flap control was linked to a complicated system that sensed manifold pressure and airspeed. At low airspeed and low power, not only would the flaps drop into landing position, the landing gear would automatically extend. Not bad for May 1939.

You'd hardly expect such an airplane to have a normal structure, and it doesn't. In contour, the streamlining was remarkable for the day. It presented drag coefficients not attained until the mid-1970s. The fuselage is built up of a wood "sandwich," buttressed by rectangular box sections. On this polyhedral frame, layers of balsa wood, that's right—balsa wood, were glued then carved to obtain the subtle aerodynamic shape.

After shaping, hardwood rails and supports were set into the balsa wood around engine mounts, canopy, and inspection panels. The structure was then covered with thin strips of tulip wood to form the skin. After sanding and filing, it was covered with linen and dope.

The Model 100 was not quite complete by the time of the unfortunate visit by the German Wehrmacht. And by the time it resurfaced decades later, it wasn't the best of shape to take on the rigors of 500 mph flight. However, with a lot of TLC from the restoration team, it will be brought back to its original beauty.

Bugatti Specs

Gross Weight: 3,086 pounds

Wingspan: 27 feet

Length: 25 feet 5 inches

Wing Area: 22.7 square feet

Wing Loading: 13.9 pounds per square foot

Power Loading: 3.44 lb/hp

Design Max Speed: 500-550 mph

Engine: Two Bugatti Type 50B, 450 hp at 4500 rpm



From the Canandaigua Chiefs R/C Flying Club, Canandaigua, New York

SVF MEMBERS PAGE



Photos by Marty Jones



Dave Morales



Barry Finck



Paint Compatibility

By Wayne Dempze

Finishing materials, and especially some of the solvents they contain, react with one another. A lacquer applied over an old coat of the same material will partially dissolve the dry paint, so lacquers rarely peel. Sometimes, when one kind of paint is put over another, the whole finish may dissolve and wrinkle up. We call this a compatibility problem.

The table on the right shows what material can be applied over others. We think you'll find it easy to use. For example, a builder might wish to use Aero Gloss dope over a butyrate dope. Find Aero Gloss dope in the top row which is labeled Over. Find the butyrate dope in the left column labeled Under. The "N" in the table shows the combination not to be compatible.

Maybe a model was originally sealed with dope over the alkyd as the table shows. Perhaps a builder wished to paint a model with one kind of paint and trim it with another. The compatibility table shows if the trim will react with the base color; however, I don't recommend this practice.

Here's another example on how to use the chart. Vinyl spackle is compatible over polyester resin. Find vinyl spackle in the Over section and read down to polyester resin. Now let's reverse the two materials. Vinyl spackle is not compatible when put Under polyester resin.

Incidentally, always sand any color paint with 320 or 400 grit between coats. Sometimes paints need the rough texture to bite into; not all finishes partially dissolve earlier coats like lacquers do.

No doubt, some very skilled wood finishers may have been able to use materials in a way we say is incompatible. The table favors a conservative, safe approach. Compatibility characteristics change considerably with brands, weather, method of application, and the reducers used. A finisher using materials other than those listed had better plan to test for compatibility on a scrap of wood prepared in the same fashion as the model. Q

From the River Valley Fliers RC Club, Plover-Wausau, Wisconsin

C = Compatible N = Not Compatible OVER UNDER	Vinyl Spackle	Polyester Resin	DuPont 305	Aero Gloss Dope	Nitrate Dope	Butyrate Dope	Acrylic Lacquer	Alkyd Enamel	Epoxy Enamel	Acrylic Enamel	Polyurthane E.
Vinyl Spackle	C	N	C	C	C	C	C	C	C	C	C
Polyester Resin	C	C	C	C	C	C	C	C	C	C	C
DuPont 305	C	N	C	N	C	C	C	C	C	C	C
Aero Gloss Dope	C	C	C	C	N	C	C	C	C	C	C
Nitrate Dope	C	C	C	C	C	C	C	C	C	C	C
Butyrate Dope	C	N	C	N	N	C	C	C	C	C	C
Acrylic Lacquer	C	N	C	N	C	N	C	C	C	C	C
Alkyd Enamel	C	N	C	N	C	N	N	C	N	N	N
Epoxy Enamel	C	N	C	N	C	N	C	C	C	C	C
Acrylic Enamel	C	N	C	N	C	N	N	C	N	C	N
Polyurthane Enamel	C	N	C	N	C	N	C	C	C	C	C

Christmas Eve V1 "Doodlebug" raid on Manchester

On Christmas Eve 1944, a formation of specially configured HE-111 Heinkel bombers (I/KG53 squadron) flying over the North Sea launched 45 V1 Flying Bombs (Doodlebugs) aimed at Manchester 31 of which reached the target area. Fifteen fell on Manchester, the remainder impacting in surrounding towns and sparsely populated outlying areas [BBC Report -- Doodlebug attack on Manchester](#)

One hit a row of terrace houses in nearby Oldham killing 37 people, including some evacuees from London, and seriously wounding many others. The blast damaged hundreds of nearby homes.

Six people died when one landed on Chapel Street, Tottington, near Bury.

One V1 that impacted near Oswaldtwistle carried a load of propaganda leaflets. Leaflets from these V1s were also found at Brindle, near Manchester and Huddersfield, Yorkshire. I believe the V1 that flew directly over our house was the one that impacted at Oswaldtwistle.

One of the errant V1s impacted in a farmer's field at Gregson Lane near Bamber Bridge just outside Preston. This crash site has recently been examined and recorded by the [Lancashire Aircraft Investigation Team \(V1 Gregson Lane 24.12.1944\)](#).

This V1 raid was a rude Christmas Eve shock for all of us in the Manchester area, for local officials had been hinting that the danger from air raids was pretty much over for us in the North. D-Day had heightened the expectation that the war was winding down, besides, the unexpected V1 raids had been directed against London. Certainly none of us expected an air raid siren alert followed by the sound of Doodlebugs chugging across Lancashire skies during that Christmas of 1944! This V1 raid on Manchester occurred exactly four years after the first major Air Raid on the city -- the horrendous fire-storm Blitz of Christmas 1940.

Evidently a large number of V1s were loaded with propaganda leaflets. This subject is covered in meticulous detail by Herbert A. Friedman in his Web page article [The German V1 Rocket Leaflet Campaign](#). This fascinating article explains how the leaflets were stored and dispersed and includes an impressive number of V1 related photographic images and numerous actual propaganda leaflet reproductions. It is also a treasure trove of V1 Flying Bomb information.

The British government was pretty secretive about V1 impact sites for they did not want the Germans to know the number of those that reached the target area and exactly where they had fallen.

From www.ww2aircraft.net



In the February Slow Roll, [In The Pits, with D. Pits column will return](#). He will try to answer all your questions. Send your question to D.Pits, c/o the Editor @ www.rcbobsvf@aol.com

ON THE SAFE SIDE

Cabbage and Kings

"The time has come," the walrus said, 'To talk of many things: of shoes and ships and sealing wax, of cabbages and kings ..."

—Through the Looking Glass (Alice in Wonderland) by Lewis Carroll

Or ... let's talk about safety, which can sometimes be about as interesting as talking about buying insurance or clipping toenails. However, we all know we need to do both from time to time, so let's start with a few thoughts and facts [about safety when handling model engine fuel](#).

I owned a model fuel manufacturing business ("blender" would be a more accurate term) for a dozen years. For 20 years before that, I was involved in blending, packaging, and marketing a wide variety of flammable solvents used in the printing industry. Throughout those three-plus decades, I began to develop a healthy respect for the inherent dangers of flammable liquids—and a concern about the general lack of knowledge among even experienced users.

Flammable Liquids 101 (considerably oversimplified in the interest of brevity):

Flash point. Terrible sounding term, conjuring up all sorts of mental images. All liquids classified as either flammable or combustible by the U.S. Department of Transportation (and industry standards) have a listed flash point. Most often, the casual user assumes—incorrectly—that when the temperature of a particular liquid reaches that listed temperature, the liquid is going to explode or at least burst into flames.

[Not so](#). That event would be the auto-ignition point, and in most cases is several hundred degrees F.

Briefly stated, flash point is the temperature to which a liquid must be raised before the vapors can be ignited by a source of ignition (spark, flame, etc.). Vapors—in engines, or in the open—are what actually ignite, not the liquid itself. To put things in perspective, here are the approximate flash points of some common liquids:

[Gasoline: 45° F below zero!](#)

[Acetone: 0° F](#)

[Methanol: 50° F](#)

[Nitromethane: 95° F](#)

[Model engine lubricants: vary in the range of 350° F to 445° F.](#)

Surprised? I knew you would be. [So, as you can see, nitro methane](#), the baaaad-sounding ingredient in model glow fuel, is actually only about half as flammable as the methanol. The Department of Transportation classifies liquids with a flash point of 100 degrees F. or lower as "flammable;" higher than that as "combustible." So, if the flash point of nitro were just 6° higher, it wouldn't even have to carry the familiar diamond-shaped red label, because it would then be classified as combustible rather than flammable. Further, our hot glow fuel is actually far less flammable and dangerous than gasoline. [Gas users, please take note! Flash point of typical sport glow fuels is around 60° F vs. the minus 45° F of gasoline.](#)

Typically, people interpret stated flash points backwards ... a high flash point must be the most dangerous, right? Wrong. Here's a simple memory device you will never forget: flash points are like paychecks—high is good; low is bad.

[Modelers typically fly in relatively warm weather, so if the ambient temperature is 60° F or above, glow fuel can be ignited by the presence of a spark or flame. The greater the difference between the flash point and the temperature of the liquid, the greater the danger; because, as the differential increases, the rate of vaporization increases dramatically.](#)

[Example: Suppose the temperature of your fuel reaches 90° from sitting in the sun, the back of your car, etc. That would be a 30° differential for glow fuel, but an astounding \(and dangerous!\) 135° for gasoline. Please, never forget that.](#)

I've read reports where modelers had their fuel cans in the back of their vehicles, the starter battery contact points came in contact with the metal, shorted out and caused a dangerous fire. [My personal opinion is that model fuel is safer in plastic jugs than in metal.](#) Contrary to conventional wisdom, if the fuel blender has used the proper-type plastic jug, the fuel will remain just as moisture-free as in metal or better! [\(continue\)](#)

Toxicity 101

I hesitate to make a broad statement for fear someone will take it as license to do something stupid, but for practical purposes, **the most toxic ingredient of glow fuel is the methanol**. One of the big reasons is that—unlike many liquids —**methanol can be absorbed through the skin, and stated simply, it just ain't good for you. Ditto inhaling the fumes**. No, it's not going to kill you on the spot, that day, or that month, but try to minimize your exposure. **Finally, ingesting it could make you sick, possibly blind or kill you, depending on the quantity swallowed**.

Dating back to about the time the earth cooled, **methanol (methyl alcohol, referred to as wood alcohol in the dark ages)** was always considered poisonous, and my recommendation would be to continue to treat it as such. Having said that, I'll add that about 15 years ago, the U.S. Department of Transportation decided it wasn't toxic, and not only rescinded the requirement to put the usual skull-and-crossbones symbol and written warnings on the outer shipping container, but threatened to fine anyone who shipped it that way. Trust me on that; it happened to a friend, and I had some shipments blocked until we removed the warning on the cartons.

I've been away from the glow fuel business for some years now, but the last time I looked, all the model engine fuel I saw still carried the same warnings on the fuel containers (plastic or metal, inside the box) to encourage users to be prudent. Please heed them.

When it comes to gasoline, I'll do what I wish our politicians would do more often: Admit it when you're not too knowledgeable about a subject. Nearly all my personal experience was with glow fuel, but I don't think I would go very far out on a limb by saying that when it comes to toxicity, gasoline is considerably less of a health threat than glow fuel.

Here's what one source says: "No acute toxic health effects would occur during the normal course of using automotive fuels." Please note the bold, underlined, italicized emphasis. Water is the most essential substance on the planet to sustain life, but if one insists on diving into it and swallowing it, that person will die. Contrary to popular belief, gasoline is not just a single ingredient refined from crude oil. All of it contains varying amounts of many other chemicals, none of which would do your health any favors. Some states require gasoline pumps to carry a warning saying something like, "Gasoline contains ingredients known to cause cancer in certain ..."

That's enough for one session. Anyone who might care for more details, argue with me, or suggest subjects for future columns is free to do so at FLYERDON@aol.com.

From the Sacramento Valley Soaring Society, Novato, California

Soldering: It's All About Heat and Clean

By Tom Ball

When I was teaching school back in the 1950s, I got a summer job with the company that installed the first dial telephone system in Elk Grove. Eventually I moved on to other jobs as the work progressed, but initially what I did was solder each wire from a 200-pair cable to terminal blocks eight hours a day. By the end of the summer I had a pretty good idea how to attach two items together with molten metal while avoiding the dreaded "cold joint."

I just finished doing all the wiring for a new 1/5-size Cub that I am converting to electric power. While I had all the gear out, I also changed the terminals on three batteries that I bought at the last swap meet. This seemed like a good time to write an article I had suggested some time ago.

Before I get to the preparation of the actual materials to be soldered, let me talk for a minute about irons, solder itself, and tools. My standby is an older model Weller 8200 rated at 100 watts. I love this gun because it is ready to go as soon as the trigger is pulled and I can lay it back down on the bench without wondering an hour later if I turned it off. For really heavy work, like joining 1/8-inch piano wire for landing gear, I have a conventional 100-watt iron made by a company called Drake. My third iron is a small Ungar, which does not show wattage, but it has a very fine tip and is good for jobs like re-attaching a broken wire to a speed controller.

For solder I used a good quality resin core 60/40. The last numbers refer to the proportions of lead in the mixture to tin. The flux I happen to have on hand at the moment is Otaey No. 5 solder paste. On hand means it has probably been around five or six years. With paste, a little goes a long way.

Many of the tools I use, like needle-nose pliers and small files, are just normal bench tools. A more specialized tool I almost always use is called a "third hand." It consists of a base supporting frame with two opposing alligator clips, which can be twisted and moved to almost any position.

Soldering continued

By gripping the two parts to be soldered and holding them firmly together through the entire process, it helps eliminate burnt fingers and failed joints because of movement before the solder has completely cooled. The last two tools that always come out when I set up a job are a simple wire stripper and a small bronze brush which I use to clean off the tips of the irons when they start looking a little dull.

For a perfect solder joint, both surfaces must be clean enough and hot enough that the solder will melt and flow evenly on both items. Any dirt, rust, corrosion, or other foreign matter on either surface will prevent the solder from sticking to the dirty area and will cause a weak or imperfect joint.

This is less of a problem when dealing with new components and fresh wire than when doing repairs or reusing old components. Sandpaper, files, a Dremel tool, and the wire brush I mentioned earlier can all be used to get a bright and shiny surface. When doing repairs, I cut back enough fresh wire if the wire is long enough to allow it.

One way to guarantee that you are dealing with two clean surfaces is to apply a light coating of paste and solder to each surface before you make the actual joint. This is sometimes called tinning and will show up any places that are not willing to take solder.

Once both surfaces are tinned, they must be held together in some immovable way through the entire process, from the application of heat to the final cooling when the solder itself turns from bright to dull. If you are going to do this without some type of jig, be sure to use pliers. There is no way you can hold something with your fingers close enough to the joint to be effective without burning yourself. For larger jobs, I use everything from small vises to C clamps.

The actual soldering is generally over within seconds. The trick is to position the iron so that both surfaces are heated to the point where solder melts and flows.

For small jobs such as soldering wires onto plugs or terminals, you can generally get enough solder on the tip of the iron before applying it to the area. If more solder is needed, for example when building a heavy-duty landing gear, push the end of the solder right into the heated area but don't overdo it. Excessive solder buildup does not make for a stronger joint. Also, keeping an iron in an area until wire insulation and other components are melted does not make for a better job.

One last point to watch out for is the so-called cold joint. A true bond will be made only when both surfaces become hot enough to solder. Be sure that the tip of the iron comes in contact with both surfaces long enough for this to occur. Cold joints will often look fine and may even hold for while, but they have a nasty habit of failing on final approach.



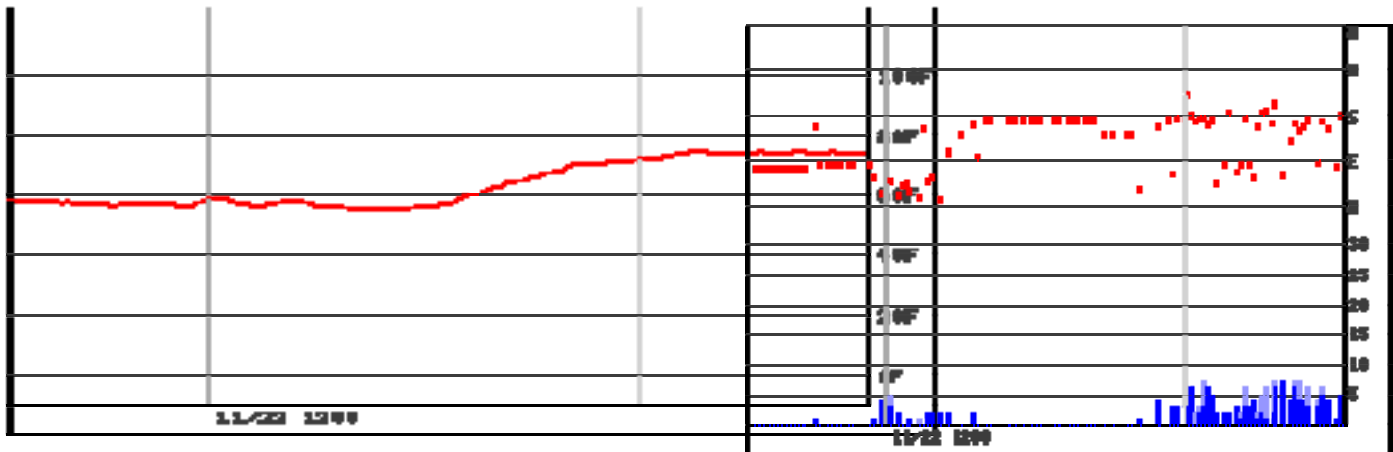
Go to the SVF Minutes page, safety report, read it!

Historical Data (Last 12 hours)

[1 day](#)[2 days](#)[3 days](#)[5 days](#)[10 days](#)

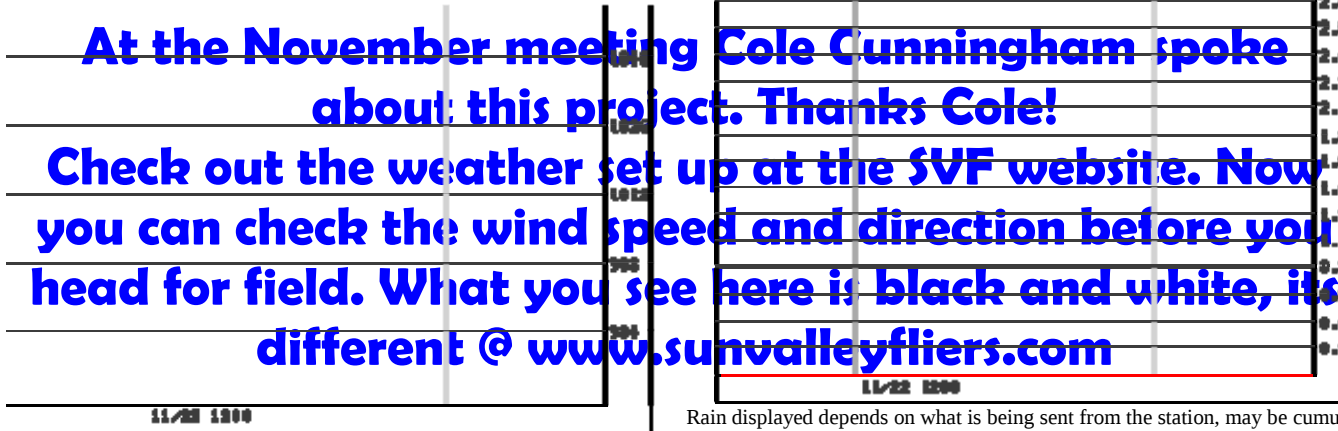
Temperature/Dew point

Wind (MPH)



Barometer (millibars)

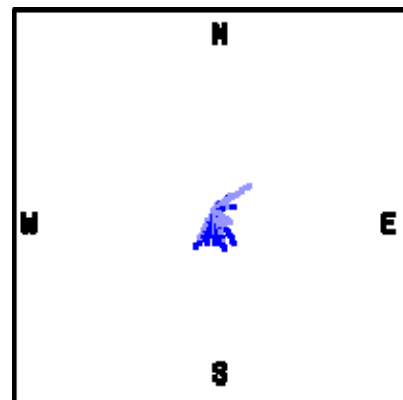
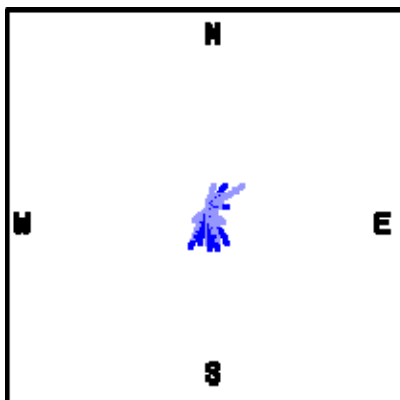
Rain (inches)



Rain displayed depends on what is being sent from the station, may be cumulative, last hour, last 24 hours, or since midnight

Wind Distribution (last 12 hours)

Wind Distribution (last 2 hours)



The Arizona Model Aviators Present WINGS OVER ARIZONA II



- **An IMAA sanctioned GIANT SCALE FLY-IN**

All aircraft must comply to IMAA Guidelines.

80" Monoplane, 60" Bi-Plane or True 1/4 scale. Jets must be 140" combined wingspan + length.

Proof of AMA and IMAA membership will be required.

For Turbines, a waiver will be required.

IMAA Memberships will be available at the event.

- **Date: Saturday & Sunday, December 6th & 7th, 2008**

Friday will be an informal get together day at the field to fly if you want.

- **Location: Superstition Airpark, Mesa AZ**

- **Food will be available Saturday and Sunday.**

- **Plaques will be awarded for nine different categories.**

Categories: Best 1. Military, 2. Civilian, 3. Multi-engine, 4. Multi-wing, 5. Finish, 6. Racer, 7. People's choice, 8. Pilot's choice 9. Mystery category
All planes must fly to qualify for an award.

- **There will be random Pilot prize drawings during the event.**

- **Landing fee \$20, includes: Pilot's Registration for all aircraft, Parking & The Saturday Night Pizza Party with Pizza & Soft Drinks for Pilots & crew.**

- **There will be a Public Raffle**

- **Public Parking is \$6 per car as per Maricopa Parks Dept.**
No Overnight Parking Is Permitted At The Airfield.

- **For More Info:**

Primary Contact: Paul Goldsmith 602-323-7753, wliinger@aol.com

Secondary Contact: Ken Kear -- kearskustomhobby@yahoo.com

Arizona Model Aviators web site www.azmodelaviators.com

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No January 2009 Issue

Have a safe holiday and enjoy it with your family and friends. See you in February with the SR.

The Editor and wife wishes everyone a very **Merry Xmas**, Happy Hanukkah, and a **Happy New Year**.

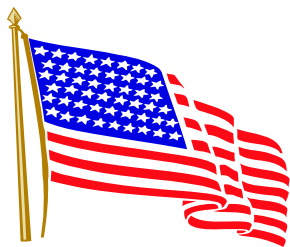
Would you like to be notified when the SLOW ROLL new issue is available? Give Gene your e-mail address.

AZ49ER@COX.NET

This Month Issue

Great turnout for the Turkey Fly In. Potos by your editor, great shots! More photos thru out this issue. *Our thanks to the SVF members for those photos, articles thru out 2008. Please keep them coming for 2009.*

Remember to **ZOOM** the **PDF** page to see more.



THE SLOW ROLL

Club Officers
Frank Moskowitz, President

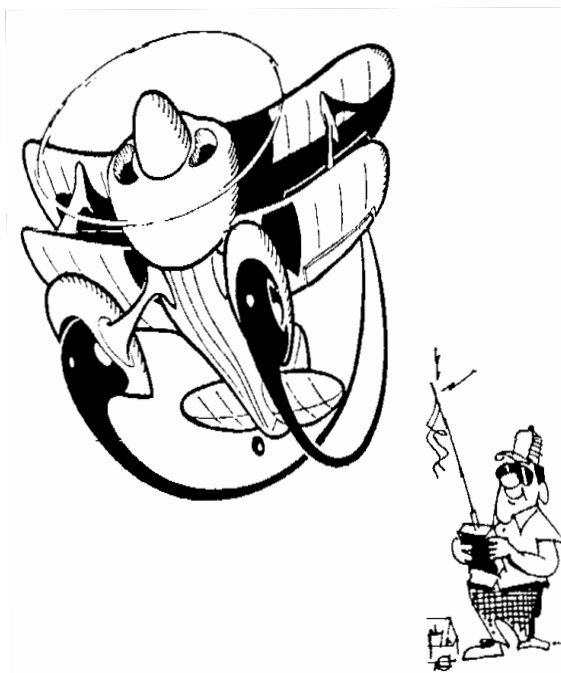
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Gene Peterson, Treasurer

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