

# Air Currents



Ahhh, roger that, these hills are getting greener

Bob Wolfe's F-16

## The Official Newsletter of the Diablo Valley Radio Controllers



3500 John Henry Johnson Parkway  
Pittsburg, CA  
[www.dvrc.org](http://www.dvrc.org)

## President's Corner...

Wishing you all a happy New Year, and hoping that you can handle all the excitement and challenges that lie ahead in 2017 for us in this fantastic sport of ours. First of all, I would like to thank Bob Wolfe for his tireless efforts as 2016 club President. I can only aspire to follow in his footsteps and do as good a job as he has done during this last year.



We had a spotless safety record in 2016, and I hope that we will have a similarly clean safety record for this coming year. Safety has to be the most important concern of our club so please assist Ron Penn, our Safety Officer, by abiding by our field safety rules regarding airplane setup and no-fly zones.

I started building model airplanes some 55 years ago and have thoroughly enjoyed every minute of it. I began with simple rubber-powered stick-and-tissue kits and then moved onto Jetex (solid fuel) powered aircraft, control line models, tow line gliders, and then 2-stroke free flight models. I was always chasing airplanes and it was always great fun. My first 2-stroke was a Cox 049 in a control line plane; it was so difficult to start. At the age of 12, I bought my first diesel, a Davis Charlton .76cc engine with a novel Quick-Start propeller spring; it really made starting a lot easier and I still have it. I also held on to my Cox 049s and a 020 engine, and they still run.

I have built many balsa kits throughout my life and it is a sad testament that there are nowhere near as many of those kit manufacturers in business today as there was back then. On the other hand, the sheer variety of reasonably priced high quality ARF aircraft available today is almost intoxicating. Such quality aircraft allow newcomers to enter the sport of model flying without the knowledge of how to build an aircraft from a balsa and plywood kit. However, there is still much to know about aircraft setup that isn't covered in these ARF instructions, so please lend a helping hand to our new members when you can.

For our 2017 contest calendar, we have a number of events planned again, including T-28 Pylon Races hosted by Steve Anderson and T-34 Pylon Races hosted by Bob Wolfe, apparently with a new twist. Bob is proposing a "No Holds Barred" approach to his Pylon Race, meaning any type of aircraft, any size of aircraft, and any size motor (electric or internal combustion) combination can enter the event. It sounds very interesting and may the best pilot win. We also have club

favorites such as the Donut drop, 7/11 (Dice Game), Thomas Allen Fun Fly, Day on the Hill, and FrankenMort. They are all fun events and I encourage you to join-in.

As with most clubs, we all need to chip-in and assist our Field Manager, Ron Williams, with regular maintenance and upkeep. This applies to the pits, the bathrooms, the runway, and adjacent grassy fields. Last year we were successful in organizing several "Work Parties". Members were asked to bring shovels and other tools to assist with maintenance operations on specific days and it worked very well. No flying occurred on those days until operations ceased for the day, which usually lasted for 1 to 2 hours. We all need to look after, and protect our investment.

I look forward to another fun-filled year at DVRC. Keep challenging your building and flying skills, and be safe. Until next time, keep the sun on your back and the wind under your wings.

- Nigel Watson, President DVRC

## Upcoming Events ....

Sat Feb 11 @ 9:45AM - Membership Meeting

Sat Feb 18 @ 9:00AM - Donut Drop

Sat Mar 04 @ 9:00AM - Unlimited Racing

Sat Mar 11 @ 9:45AM - Membership Meeting

Sat Mar 18 @ 9:00AM - T-28 Races

## Note from our Membership Coordinator ...

Welcome to all of the new members, and as a way to start off the New Year, a reminder to ALL members to review the DVRC Guidelines that are posted on our website.

- Gene Aughtry, Membership Coordinator

# Understanding RC Propeller Size ...

(Reprint from RC Airplane World, <http://rc-airplane-world.bmobobilized.com/?ref=https%3A%2F%2Fwww.google.com%2F%2Furl=http%3A%2F%2Fwww.rc-airplane-world.com%2Fpropeller-size.html>)

The subject of radio control propeller size selection can be a bit of a minefield, but outlined below are some generally accepted guidelines and recommendations for choosing the right prop for your plane. It goes without saying that selecting the correct propeller size for your rc airplane is very important if you want to get the optimum performance from your IC engine/electric motor and plane. In the worst case scenario, the wrong prop can cause serious damage to components and this is especially true for electric powered rc airplanes.

The first and foremost plan of attack is to follow the engine/motor manufacturer's recommendations for the engine or motor that you have. The manufacturer of the plane might also give a recommended prop size, but it's more common for the recommendation to come with the engine or motor. If you can't get the info from an instruction manual, get online and ask in an internet forum - someone somewhere will know!

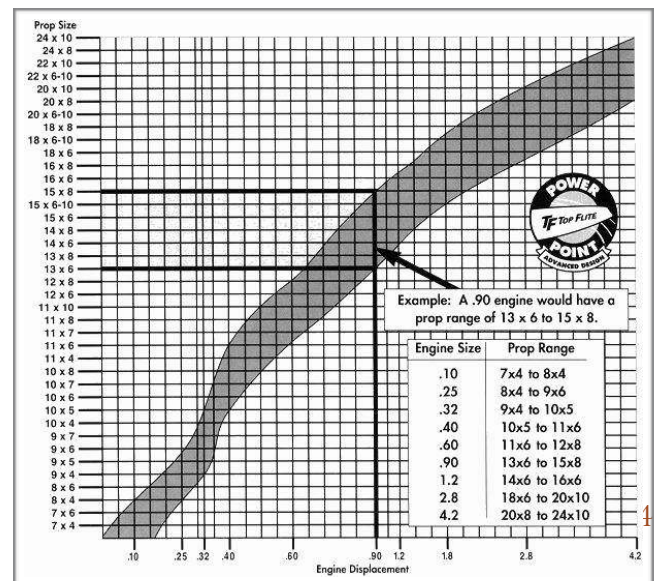
## IC propeller size recommendations:

As already mentioned, following the propeller size recommendations made by your engine manufacturer should always be your first point of reference. But there are generally recognised prop size ranges for each engine size and these are the sizes to choose if you're unsure about propeller selection.

The propeller size chart below (and full size image at end of article) is easy to use; select your engine displacement along the bottom scale, then follow the vertical line up to the shaded area to give the prop size range for that engine.

## EP propeller sizes:

It's no secret that matching a prop to an IC engine is fairly easy if you follow the general size recommendations outlined in the above chart, which have long been accepted in the hobby. Fitting an incorrect prop would mean the engine would still run, but your plane would perform poorly.



But with the advent of electric power (EP), propeller selection became a whole new minefield! EP prop selection is much more critical because different combinations of motors, ESCs and battery packs can generate huge differences in operating speeds and loads.

As with IC, electric motor manufacturers give a specific propeller size range for their motors but it's more critical that the range must be adhered to. Over-propping can do irreversible damage to electric motors and ESCs, because an incorrect propeller will force the motor to work harder than it was designed to.

If you put an oversize prop on an IC engine, the engine will likely stall. No harm done. Put an oversize prop on an electric motor and the motor won't stall, it'll just keep on trying to turn the prop. The motor will draw more and more current as it tries to keep up with its Kv rating - the number of revolutions per minute it has been designed to turn, per each volt fed into it. With too big a propeller, the motor will just keep working harder and harder to spin the extra load, until something (likely the ESC) overheats and catches fire.

Too small a propeller on an EP motor won't do any damage, but you won't get the required performance for your plane. The motor will draw less current and the plane will likely be seriously under-powered. The only accurate way to know whether or not your EP propeller is resulting in the correct current draw through the ESC and motor is to use a watt meter connected between battery pack and ESC.

## Number of Propeller Blades:

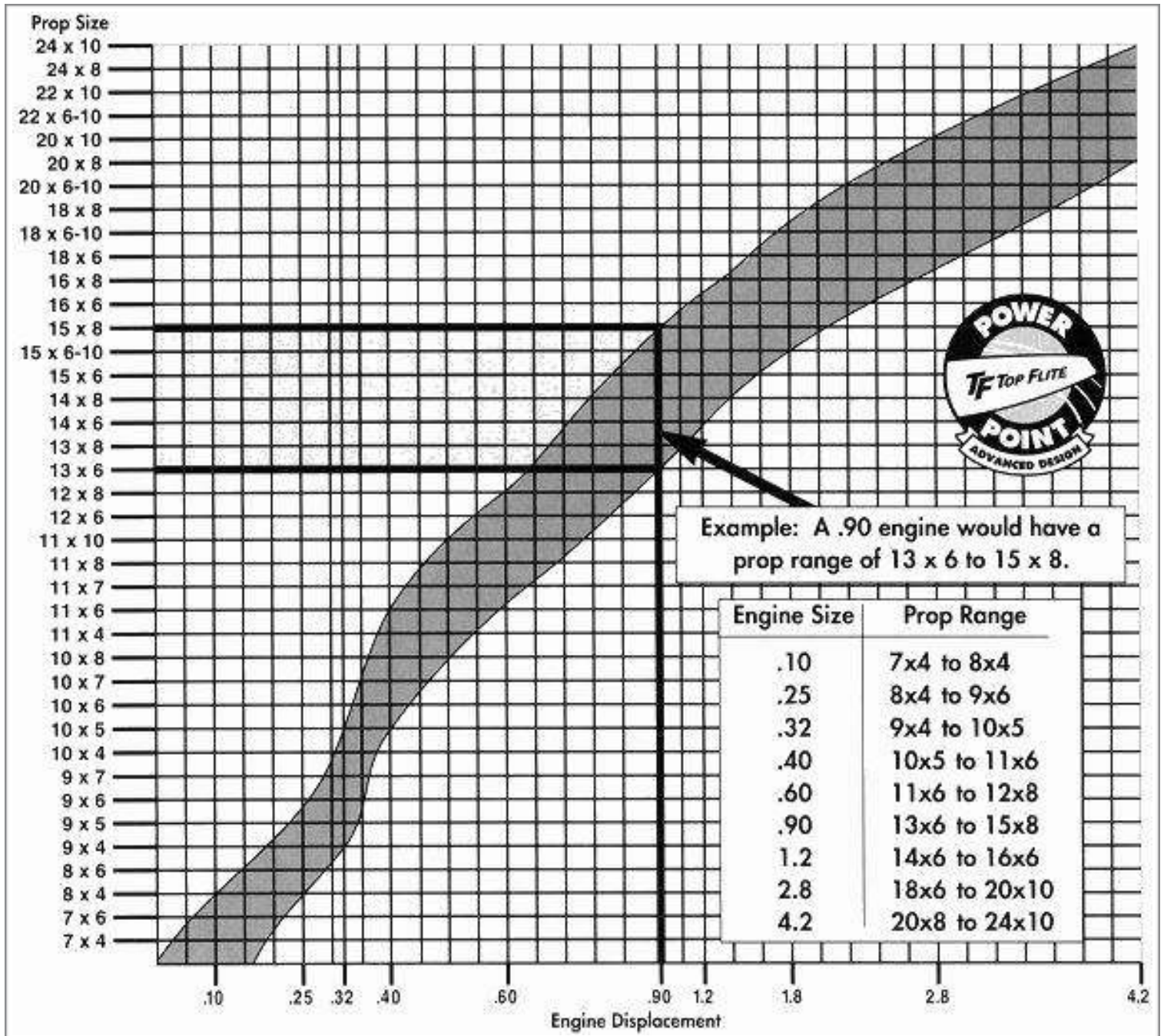
The majority of propellers used in the radio control flying hobby have two blades but props with three or even four blades are available.

Two-bladed propellers are commonly used because they are relatively efficient and easy and cheap to produce but sometimes an rc airplane will call for more blades, particularly where a scale look is required.



Adding more blades decreases the overall efficiency of the prop because each blade has to cut through more turbulent air from the preceding blade - in fact a single blade propeller is the most efficient but these are rarely (almost never!) seen in our hobby although they have been experimented with. Incidentally a single blade prop has to be balanced with a counterweight on the other side of the hub to the blade, otherwise the plane would shake itself to pieces as soon as the prop was turning!

If choosing a three or four bladed propeller the general rule of thumb is to decrease the prop diameter by an inch and increase the pitch by an inch, but on some models fuselage and ground clearance issues might dictate which propeller size you can and can't have on the model. As with everything, trial and error - and forums! Remember to follow your engine/motor manufacturer recommendations whenever you can, and use a Watt meter if you are going to experiment with different propeller sizes for EP rc planes.



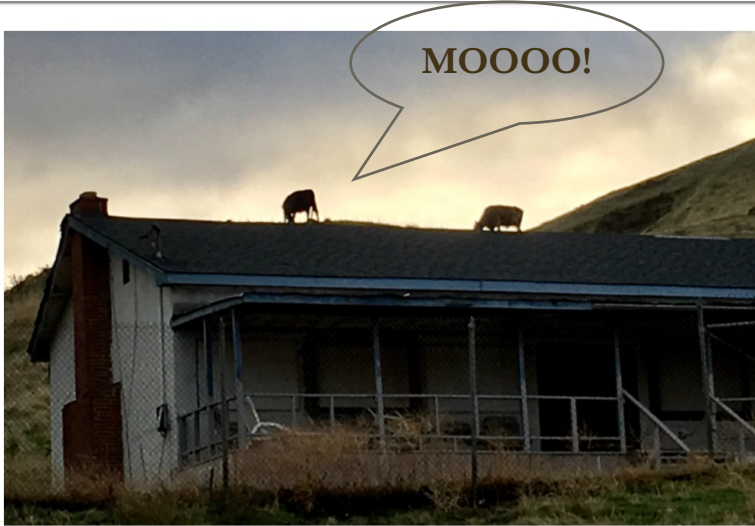
# DVRC Club Photos - FrankenMort! ...



# DVRC Club Photos...



# More DVRC Club Photos ...



# RC CLASSIFIEDS

## BUILDER WANTED

Looking for an RC Plane builder that will fix all of my landing mishaps. Willing to pay top dollar at \$1 per hour

## Rent To Own!

Fly the RC Airplane of your DREAMS!

Just pay 99% of the aircraft value up front as rent and the other 1% after you crash

## HELP WANTED

Gate help needed for local RC Club during Open House Events. Must be friendly and approachable. Hooters restaurant experience is required.

## Prop Repair

Looking for someone to help fix all of my broken 4 blade props to 2 blade. Will trade other broken stuff I don't want for the work

## RC MAIDEN FLYER

RC Maiden Instructor Wanted! Must be willing to fly my new planes on their maiden flights with a guarantee of a perfect flight – or my money back!

## HUSBAND WANTED

Looking for someone who loves to build RC planes on the kitchen table – not to mention having them all around the house, garage, and back shed. I am not very attractive, did some modeling work for Victoria Secret and Sports Illustrated two years ago. I'm single w/no kids. My modeling friends like to stop by often – hope that's not a prob. I own a few homes on the California Coast and in Italy. Email if interested ...

[valeriefromitaly@VS.com](mailto:valeriefromitaly@VS.com)

## ASSOCIATE NEWSLETTER EDITOR WANTED!

Local RC Club looking for Newsletter help! Current editor can only produce about 6 issues per year (every other month). New hire will need to help create a newsletter every alternative month to help achieve 12 newsletters yearly. Contact Steve if interested at ...

[steven.iverson@rocketmail.com](mailto:steven.iverson@rocketmail.com)

## FLYING HELP NEEDED!

Please email Ibin Crashmore  
[IbinNeedHelp@comcast.net](mailto:IbinNeedHelp@comcast.net)

## RC PLANE INSURANCE

Are you tired of taking the time to build a model airplane only to have it crash on the first or second flight? Time to take care of this problem with RC Insurance! The next time you buy an airplane, just send us the same amount of money you spent for the aircraft w/shipping cost. When you crash, we'll purchase and send you the same exact model. No need to worry about losing that favorite model any longer. Contact a representative at [RCplaneinsurance.com](http://RCplaneinsurance.com)  
*Shipping and handling charges will be charged at 85% of value*

## ITEMS FOR SALE

### Wonder Woman Jet

I have a newly built up Wonder Woman Jet for sale. Its never been flown. Hard to see while flying.

### OS FS 120 Engine

I've used this engine for a few different planes over the last 10 years. A great and reliable engine. But honestly, only one gallon of fuel through her. \$300.  
[ucantrustme@yahoo.com](mailto:ucantrustme@yahoo.com)

## RC 'NASA' Diapers

Very rare package of NASA Diapers for Sale. Only \$80 for a pack of ten. Good to use while flying a new plane that cost a lot of money. If you crap your pants on a tough flight or hard landing, no one at the club will be able to tell that you lost all control of your bodily functions.

Please call and order before that messy flight, 1-800-NOS-HITY

## LEARN HOW TO FLY IN 7 MINUTES!

Order you VCR video disk on how to learn how to fly RC planes in 7 minutes – don't be faked out by those other video offers that say you can learn in 6 minutes – they are not true! No one could learn how to fly in that short amount of time. Call NOW!

Rides for your Pets. Starting at \$400 per hour. Please call now!



# General Monthly Meeting Minutes...

DATE: 01/14/2017

MEETING CALLED TO ORDER @ 9:55 am

## OFFICERS PRESENT:

P-NIGEL WATSON VP-BOB WOLFE T-MEL NASH S- DOUG SCHRAMM

## BOARD MEMBERS PRESENT:

RON WILLIAMS, STEVE ANDERSON, JACK SCHONBERGER, CARLOS GRACIA

GUESTS PRESENT: Alex and Mike

NEW MEMBERS: Rob, Joe and Marv

TOTAL MEMBERS PRESENT: 31

THE RECORD OF THE LAST MEETINGS MINUTES WERE READ-MOTION PASSED

TREASURERS REPORT: Club finances were reviewed

## FLIGHT OPERATIONS:

Gene reported there are 83 paid members. Pilots should have a flight badge or work with an instructor. Reminder that there is no flying during the general members meeting. Gene also reminded everyone to read the rules. Example fire extinguishers required to be on hand when flying "gasoline" powered aircraft.

## SAFETY:

Ron Penn reported that there were no injuries reported in 2016. Wants the same for 2017

## FIELD REPORT:

Ron Williams and Nigel reported that there is a big need for work party's. Fence repairs are needed around the perimeter. Reminder that there is no garbage left at the field. Pack out what you bring in. The roadway has deteriorated due to heavy rains. Carlos will talk to the police department about repair and maintenance of the main road. Maintenance volunteer list going around. Work party will be scheduled after the weather improves.

#### OLD BUSINESS:

There was no old business.

#### NEW BUSINESS:

A 2017 events calendar has started. New CD's are needed. The board would like to have CD volunteer names and potential event dates by the next meeting. Bob discussed the new UNLIMITED class races. Any plane, any size and any type of motor. T28 races need a new CD. Members were told to contact Bob Wolfe for CD opportunities.

#### SHOW AND TELL:

Jim Seibert brought in a new Zaggy that he built and covered with EconoKote. Jim also built a steerable trolley to launch the Zaggy. (Worked great!).

Jenifer presented a drone that had landed in her front yard.

A guest, Alex, proposed that DVRC host FPV races this spring/summer. Races could bring 30 contestants and 30 spectators. Alex will follow up with more info.

#### RAFFLE:

Nigel drew the 1st ticket. Bob Wolfe won the Tucano, Dan Heering won an OS46 engine, and Werner Hoch won a gallon of fuel.

MEETING ADJOURNED: 10:41

- Doug Schramm, DVRC secretary

Still here?! You are 100% dedicated-  
Carrie Fisher - No One Could Wear A Metal  
Bikini Better Than You! 1956-2016, RIP!



Diablo Valley Radio Controllers  
3500 John Henry Johnson Parkway  
PO Box 9411  
Pittsburgh, CA. 94565  
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2017 Club Officers:

Nigel Watson, President. 925-229-2336  
Bob Wolfe, Vice President. 925-787-0264  
Mel Nash, Treasurer. 925-597-8142  
Doug Schramm, Secretary. 925-222-8060

Board of Directors:

Ron Williams. 925-825-5845  
Jack Schonberger. 925-672-4562  
Steve Anderson. 925-672-7352  
Anthony Cox. 925-783-3980  
Carlos Gracia. 925-640-8257

Flight Operations:

Gene Aughtry 925-687-1762

Membership Coordinator:

Gene Aughtry 925-687-1762

Safety Officer:

Ron Penn 925-383-3232

Newsletter Editor:

Steve Iverson 925-963-9459

Field Manager:

Ron Williams 925-825-5845

Flight Instructors:

Ron Williams 925-825-5845  
Henry Lu 925-757-1657  
Anthony Cox 925-783-3980  
Jim Seibert 925-822-7822  
Mel Nash 925-597-8142  
Ted Edginton 925-408-7548  
Dale Parsons 925-684-2248  
Ray Davis 925-352-7229  
Greg Gallegos 925-783-1072  
Gene Aughtry 925-687-1762  
Daniel Heering 925-267-2461  
Doug Schramm 650-222-8060  
Mike Woodring 925-798-6086

For DVRC driving directions and some club information, check out this link:

<http://youtu.be/Owc7yDVYhc4>