

# The Stunt Pilot

## COME OUT SIDE GUYS THE GRAPHICS ARE UNREAL.

Not a fan of the modern flight sim but they do have a place for those who insist on trying to invent new ways to make or break their aeroplane. One of those barn door controlled surfaced 3D things. Virtual reality has saved the pain of replacing models whilst learning what to do and when to do it. When pushing the low flying envelope, of more importance is when not to do something, with the elevator.

To be considered as a prospective member of "The Stunt Pilot's Guild" your daredevil feats however have be performed in actual reality. Sooner or later you must do it in real time with real wood. Or fibreglass but wood is cheaper.

## WHAT DO YOU START WITH?

Not your dream plane, save that when you're ready to show off with something awesome. The obvious recommendation is a cheapy. This is a term we stunt pilots affectionately apply to an inexpensive model that doesn't let you down when you abuse it. Two decades ago the Trading Post was the way to prospect the second hand model market but that fertile ground was barren a week after "Pay if you Sell" advertisements were killed off. Now it's the modern ARF that removes the "Labour of Love" component that holds so many would be stunters back.

All around the country, clubs run simple fun fly competitions where would be barnstormers can learn their craft on basic trainer models. Anything with a constant chord wing is the way to go. Of the many aspects to correctly showing off an

aeroplane the pilot is the most important. They can make anything look good (even a trainer) but how it performs is nowhere as important as how it looks. Just having the wing on the bottom puts you ahead of the pack because everyone has been bought up to believe that a low winger is harder to fly.

Truth be told whether that wing is on the top or the bottom is neither here nor there, low wing loading is the key. To prove the point Terry Griffiths of The Hobby Specialists has kindly donated one VQ Models Mega Fly (he has seen me fly before) for me to wring out so for those interested in following this program I will take you through the basics of how to show off an aeroplane.

## MEGAFLY

Before we get into that a few words about the MegaFly are in order. I have previously flown a couple of VQ war birds which performed very well and this model went together without any real hitches but there are a few shortcuts for young players which have been highlighted in pictorial form.

A couple of points worth mentioning. One could be excused for thinking this rather unusual but first off the airframe is devoid of any hot glue. Judging by the way the screws can be torqued up it would seem the plywood is more substantial than many offerings from over the border that I have flown. (Abused?)

For ease of assembly the engine mount screws were replaced with #4 x 12mm self tappers. The wing joiner was a tight fit rectified by four scrapes of a Permagrit coarse sanding block. Prop clearance is not

an issue with the 50 mm supplied with the kit but the diameter was increased to 75mm to assist with what I had in mind.

The Dubro Diamond Tread Light Tyres reminded me of a pair of snow tyres purchased for a 67 Ford Galaxy during a trip round the USA in the eighties. The front end was shot and the fronts had to be replaced every 500 miles. The chap who accompanied me on the trip was a non aeroplane person (but I still went anyway) and he came up with the brilliant idea of convincing the tyre fitters to swap them around on the rim.

The increased range of a thousand miles got us to Salt Lake City where they refused to entertain our innovative idea. "Thou shall not steal" was the norm in that city and we were sold a used pair of snow tyres instead. Of the seven thousand miles covered those tyres accounted for half that mileage. More on the tyres later.

## TEST PILOT

As your ever increasing skills are observed by the masses being asked to volunteer for test pilot duty is part of that deal. Do it because the main benefit is relentless testing of your saving skills. Being caught out with the unexpected goes with the territory and to start you on your way a few tricks of the trade to protect your reputation have been included.

## GROUND SCHOOL

Using this project as an example firing up an old engine is one typical example of what you may face when people are milling around watching your handwork.



Fourteen touch n go's in two minutes?  
Rack it over



Off the power.



Hard on the nose gear.



Achieving the no trim needed test flight (many a reviewer's claim to fame) has never happened for me. Standing behind the model is a reliable way to get pretty close though. Works for me. Ailerons back the front is an easy mistake and even though I have managed to land a few, standing behind the model and saying it out loud is gold.

The VMAX 46 engine had not been run for four years and it would crank over but not fire. Remove the needle, open up to full throttle then pump fuel though to flush out the jet. Then remove the plug and fill the cylinder with fuel and crank it over with the starter to blow all the fuel out. Re-install the needle and glo-plug then start her up.



Commence looping now. Avoid digging up worms by making the first half bigger.



Fifteen loops a minute is on the money.



Bang that wing.



Open the tap before it hits.



Wasting precious seconds.

## Stunt Pilot

Works every time and you look like a hero. Checking the clunk line isn't hard up against the rear of the tank is a must before taking off. Hold the model vertical and shake it around listening for the clunk. If it doesn't well there is just enough fuel in the line to get airborne. With a good glo-plug, a reliable supply of fresh fuel and the correct needle setting one can rely on the glo engine to keep on running.

Recently my reputation took a hammering by a delightful little C182 whose motive power was furnished by a battery. "Is it charged?" "Yes" was the answer and a few seconds after take off the power quit and before something not printable in this publication was uttered it tip stalled and went in. The culprit? One dud cell. The question should have been "Is the battery is any good?"

Regardless of the answer a thirty second full power run should be on your test flight checklist.

### STUNT PILOT SCHOOL

Here are three events that can be run as a simple fun comp. "Don't like competition" I hear you say." Well it's not for everyone but these little impromptu comps are the fastest way to improve your flying. keep it small and just compete with a mate or against yourself. All that's needed is a stop watch.

Best rate for thirty second climb and glide.

Hold it off as long as you can.  
My score was  
2 minutes 37 seconds.



It's too late now  
baby it's too late  
but if you must  
wimp it and roll  
out drop the nose  
to build up speed  
first.



The inverted landing. A sure fire way to test the glue bond on the fire-wall. No worms were hurt during the making of this article.



Lower a wing just before it hits. (Low wingers only)



## LOOPS

The most loops in two minutes wins. Hold the model at full power and start the watch upon release. This teaches one to take off with the needle valve on a slightly rich setting.

When it's windy you learn to flatten out the bottom and tighten the top to prevent drifting backwards. Save that skill for an aerobatic comp because the increased loop diameter takes longer so don't do it. After the wheels leave the ground count to ten then pull the stick back.

The Megafly will do fifteen loops a minute.

## CLIMB AND GLIDE

A thirty second engine run is more than enough for most 46 powered jobs to bust the standard 400 foot ceiling height restriction so check the local laws before going vertical and scan the horizon too for any incoming spam cans. Hold the model at full power and start the watch upon release. At the top the engine must cut out and the watch stops when the wheels touch. Novice pilots can have the engine idle but this practice does open the door for the fast idle setting at altitude.

To negate the myth that a high wing glides better than a low wing hotshots do the last round inverted. If your model sports a flat bottom wing and somehow wins first place take up gliding. You were born a natural. To make it more interesting in the Hot Shot Division deducting one second for every



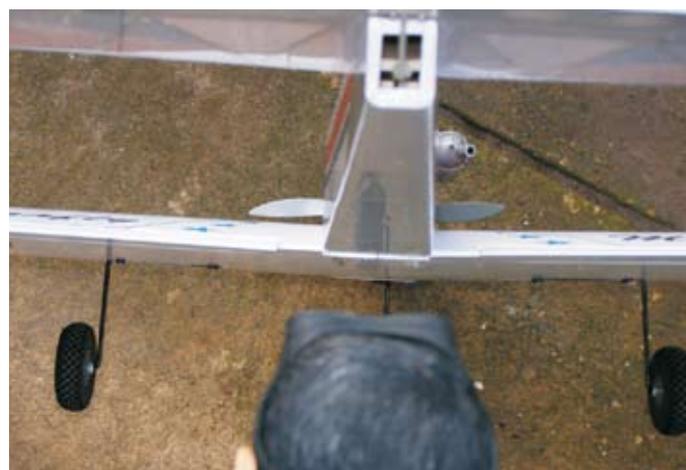
The safest way to check control directions.



The wrong way to line up ailerons.



A better way.



Left aileron is low.



A gentle tug on the hinges.

## Stunt Pilot



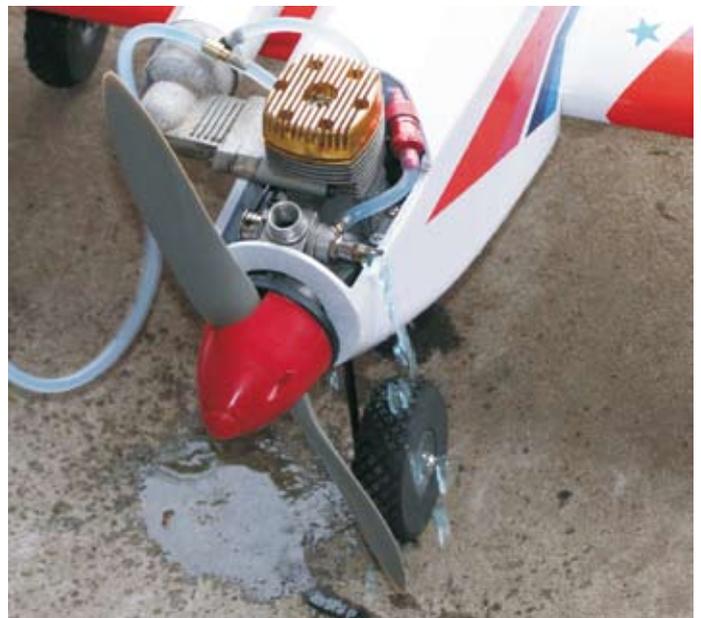
Was that battery charged? At least a glo engine gives an inkling it is going to stop.



Shake the model and listen for that clunk, most important!



Remove the plug fill the cylinder with fuel and spin it over. Be careful, if it makes your eyes water that's bad.



Remove the needle and flush the jet through.

metre the model is away from a spot in the centre of the strip livens things up even more .

The watch stops when the model starts to roll out from inverted but that practice is for wimps and those who paid far too much for their A.R.F. I mean really, any self respecting show off would land the thing inverted.

If the engine is mounted upright this will test the glue joint of the fire-wall. Smarties who read this and swing the engine around ninety degrees to gain an advantage will find the quality of metal in the carburettor will be tested. Inverted landings can be tough on the needle valve. Speaking of the needle, the setting that got you through the loops should be the go here too.

The VMAX 46 was propped with an 11x8 APC at 10,000 rpm. Keeps the noise level

A full power run up for thirty seconds may save your reputation.





Megaadhesive but not hot glue.



Make your own access to service the nose gear steering arm.



down yet still produces heaps of grunt for general sport flying. If you have to play the horsepower game to compete then drop the diameter an inch.

The climb component teaches one that somewhere around fifty to sixty degrees is the optimum climb angle and that leaning on right rudder throughout the climb helps. My first attempt with a thirty second climb was 2 minutes 37 seconds. Depending on how the entry at the top is handled the inverted glide should be around the same as upright.

### TOUCH N GO'S

The most touches (and gos) in two minutes wins. Very entertaining but best left till last. Hold the model at full power and the watch starts upon release. Landing under pressure and maintaining absolute concentration for two minutes is what this is about.

Tread pattern makes little difference on model aeroplanes but the advantage of an extra 10mm of prop clearance from the larger diameter wheels does. Dumping it on carrier style requires carrier technique so to keep the engine running get that tap open just before the model smacks on.

High wing models can remain cranked over for longer which may seem advantageous



The flat has already been filed on the nose gear. Do your reputation a favour, file one yourself for each wheel collar too!

until you see one land on a wheel and a wing tip. Low wingers cartwheel less.

A high score is fourteen and if you want me to believe that can be achieved using the flawed technique of touching at the bottom of loops I want to see the uncut video. That's been tried before and it's a dud.

### WAIT THERE'S MORE

Always a toss up which event should be left until last but having survived this article the Megaflay will be subjected to limbo and musical planes next. Spring is coming and another item on the list is creating a Megafloat. As much as we all love the Piper Cub on floats and no disparaging remarks on that subject, water based activity is where a low wing offers a distinct advantage when the wind blows.

Entry into the Guild requires dragging the fin through the water and that just isn't done with a Piper Cub. A seasoned campaigner also knows when to treat something with respect.

Now matter how good you there is always some hotshot wanting to knock you off but uncontrolled charging around the sky like a crash looking for somewhere to hap-



We love Top Gear and we love the Stig but can he fly? Okay Hotshots bring it on!

pen just scares people. And officials who also happen to be the people charged with grounding you.

That's not what this is about. There is a lot more to showing off an aeroplane than this but when you become proficient in these manoeuvres in all weather you are on your way. The best pilots stay the best by flying a lot so get started and please send photos.

WG

The VQ Megafun is distributed to hobby shops by The Hobby Specialists [www.thehobbyspecialists.com.au](http://www.thehobbyspecialists.com.au)