

Landing with flap.



By full sized standards most model fields have relatively unobstructed approaches and long runways so the requirement for a steep descent on final to clear obstacles and land within the available runway length doesn't really apply. The main benefit of flaps on most model aircraft is appearance but with many modellers trying their hand at larger, heavier and faster types, flaps are becoming more relevant. I can think of a couple runways at events that if the model doesn't touch down before the first third of the runway, it can easily run off the end.

At least forty degrees of deflection is required to get any noticeable drag and frankly I always go for sixty to eighty degrees. The resulting benefit of a steeper approach angle without building up speed is worth it. Even though we don't sit in the cockpit, it is still easier to aim for the imaginary piano keys using a steep approach.

On most types when flap is lowered the nose will pitch up and generally speaking high wings aircraft require more down trim than low wing. Of course the tendency

to climb varies directly with the airspeed the flaps are lowered so after the power and speed has been reduced I lower the flap either on downwind or base, actually the best place is during the turn to disguise any ballooning.

Full sized practice is to retrim but that is unusual with models, possibly because we don't have to use much physical strength to hold the stick forward and we also don't shoot a thirty second final.

TRANSMITTER SETUP.

If you intend trying flaps and the auxiliary channel on your transmitter offers a choice between a rotary knob or a switch, use the switch. Although variable flap may sound appealing the reality is that a small amount to reduce the take off distance is not required although that does not apply

to a few jets I have flown. For example the take off roll on Dad's F-100 Super Sabre and F-4 Phantom is demonstrably shorter with flap. Taking off with some flap looks more realistic, visually speaking that is and if this is something you want to do I strongly suggest using the switch. Getting your finger around rotary dial while flying the model isn't that easy.

If your set has flap elevator-mixing, as starting point set the elevator to move down 1mm or six percent ATV with full flap as a starting point. With advanced sets you can use the three position switch for take off flap with relevant elevator mixing during the initial climb and for take off flap, halve the landing trim values as a starting point. If your radio gear has these gadgets use them, they make accurate flying easier. The more advanced computer

Hawthorn Hobbies 20 Years In Business

Since 1984 Hawthorn Hobbies has established itself as a Melbourne Institution for flying models. For years active builders and flyers have relied on this very well stocked hobbyshop. As



well as attaining a masters ranking in aerobatics and flying everything from scale P47 to a remote paper plane Cliff McIver's advice and experience has been used by countless modellers to achieve basic bronze wings and gold wings standard, even to world championship level. [Check our website.](http://www.hawthornhobbies.com)



**Electric flight gear
Aircraft
Gliders
Hitec and JR radio
O.S. Engines
O.S. Spares
Simulators
Wood Wire Tubing
Performance Kites**

**FAST MAIL ORDER
24 hr despatch.**

733 Burwood Rd Hawthorn Vic 3133
Call Cliff on 03 9882 7521

www.hawthornhobbies.com 5km east of Melbourne CBD Melway map 45G1



radios with mixing offset can retract flap and re-trim the elevator once the throttle is opened.

FLYING

The only way to practice is to burn fuel and start by simulating a slightly higher landing approach. To cut a long story short it is essential to get the speed down first then drop the flap before gauging what elevator trim and how much power is required for maintain a stable approach.

Fly the model in with a bit of power and repeat the process until you are happy with the trim and the speed. Once you get the feel with the new mix try a few go rounds before landing. An important point to remember while learning the dual tasks of setting the approach attitude with trim is to remind yourself to keep pushing the stick forward.

The steep angle may make the model appear to be coming in too fast and if so, that's cool because when you kill the power and round out the model will pull up quite quickly. Default to lots of

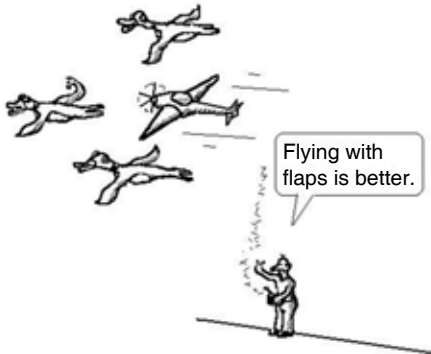
down elevator and speed until you get the hang of it. Large flap deflections create drag and slow speed flying requires deft use of throttle to keep it moving.

There a couple of other points worth mentioning when rounding out for landing. Anyone who has a floatplane or a biplane still in one piece will already know have some idea about this. After rounding out the speed decays quickly and if the aeroplane bounces, corrective action to either lower the nose or add power is needed quickly. Power is the safest option to correct a big bounce at low airspeed.

When adding power to propeller models the nose will pitch up so if going round watch the attitude and don't climb until the speed starts coming up then climb away and clean the wing up. That is full sized procedure and although most prop models accelerate quickly, thanks to their relatively high power weight ratio, it is still a very good habit to have. One day you may well get caught out flying away at low airspeed while fiddling about trying to find the flap switch when the nose pops up a few degrees. With jets I would suggest not using a throttle offset capability because if you decide to go round by the time the thrust has come on and the plane starts climbing the model is getting a long way off and hard to see. You are pretty busy maintaining the attitude and I find switching the flap up once the climb has established is easier.

Spinning with flap makes a difference, usually the spin is more developed so be careful on the pullout. Keep the nose down a bit longer because it takes longer to gain speed and remember the nose can pop up when the speed increases so stalling back into an incipient spin is quite possible.

Any doubts you may have about flaps being useful can be quickly dealt with. Learn these procedures then pick a spot to land on. After shooting a few landings go back to flapless and see if you can hit the mark as easily. Have a go and if you do get in a flap, lower the nose, add power and go round. Stephen Green.



25 years of development have proven our products to be of the finest standard in construction and performance.

Of the last 10 years in the annual Tournament Of Champions, our props have towed models to winning in all but one event.

Our product range covers our original high performance carbon composite propellers, injection moulded Clubman Series propellers, CNC machined wood propellers, heli rotor blades, landing gear components, GRP moulding supplies, and now taking our quality process into the ultralight market.

Our products are still...
**PRICED TO PLEASE...
 PRODUCED TO PERFORM**

Send large SSAE for full Price List, or visit the website

www.bolly.com.au

Unit 8, 100 Hewitson Rd, Elizabeth West, SA, 5113
 Ph (08) 8255 9688
 Fax (08) 8255 9666

TOTAL CONTROL!

Fly what you see on overcast days.
 European development, ultimate contrast enhancing spectacle. Developed to have the model stand out against the sky and bring it visually closer for better control.
 No prescription \$139.50 inc P&P
 Prescription from: \$149.40 inc p&p

Transmitter Tray
 Leave your hands free and supported to manage the sticks. Its made from tough durable plastic, washable and professional.
 \$149.50 inc p&p

Christian Traders
 BOX 3219 Post Shop Westfields
 LIVERPOOL NSW 2170. AUSTRALIA
 Phone: 02 9755-7179. Fax: 02 9755-7173
 manager@christiantraders.com.au