

# Jet Powered Model Aircraft

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**DUE TO** their speed and performance, jet powered models are definitely not for the novice flyer. If you are not a competent pilot of such a fast and manoeuvrable model, it can all end up as matchsticks within seconds. These types of aircraft are unforgiving and you have to be an advanced flyer to enjoy this ultimate modelling adrenaline rush which isn't for the faint hearted.

Early model jets were limited due to the fact that they had to be powered by a conventional gas powered or electric engine, with a propeller. Though they did generally perform quite well, requiring a prop meant they did not have the classic sleek, aerodynamic lines of a true jet aircraft.

In the last ten years, jet powered models have enjoyed a quantum leap in technology with the development of small genuine gas turbine engines. They have it all, the heady smell of kerosene, the awesome thrust and distinctive engine roar. However, this authenticity also comes at a price. The cost of a gas turbine engine runs into the thousands, not hundreds as with glow fuel types of model engines. Then, of course, add the cost of the model itself and the electronics. Almost enough for a second mortgage on the house – better not tell the wife!

Due to the awesome power to weight ratio, a very large scale, authentic aircraft can be flown with a turbine engine. Imagine owning an F14 Tomcat to re-enact your own 'Top Gun' fantasy, creating your own Tom Cruise scenarios but avoiding the crash and burn, hopefully.

There is a less costly option with ducted fan powered aircraft. Being either electric, or gas driven, this type of engine provides a good introduction to jet flying. There are more and more composite EPP built (tough polystyrene-like material) almost-ready-to-fly kits available for this type of jet. Ducted fans generate a lot of thrust and as a result, are very fast. Ducted fans however, do not have an authentic sound (perhaps more like an electric hair dryer on steroids). Though, being electric, they can be up and running after a recharge with no messy refuelling to worry about.



Scenes from the Jet Meet at Tokoroa earlier this year. The lower picture is of an entry level ARF kit with 14 lb of thrust. All photographs by Sean Dick from Evoke photography. [www.evokestudio.co.nz](http://www.evokestudio.co.nz)

## Space and Skills

Due to the speed at which they travel, a jet powered model needs a large space to execute turns and manoeuvres. As a result, the aircraft is generally flown at a fair distance from the pilot and this can easily lead to problems with orientation and direction. A skilled pilot needs quick reflexes and the ability to anticipate their manoeuvres so they are always ahead of the aircraft and able to make corrections before a situation turns to custard. This is crucial to ensure a longer lifespan for your (expensive) jet model.

A long, smooth airstrip (preferably tarmac) with good, clear approach and overshoot areas is also essential. No slow descent for these boys – they hit the ground at speed and need a lot of runway to slow down on.

A popular destination for model jet flyers in the upper North Island is at the South Waikato Model Aero Club based at Tokoroa Aerodrome. This club is in the envious position of having the use of 850m of sealed runway, only occasionally having to share with full sized aircraft.

Tokoroa is also the base for the NZ Jet Modellers Association ([www.nzjma.com](http://www.nzjma.com)) and once a year they host the ANZAC Jet met where flyers from Australia compete with local jet flyers over a three day period in February or March. This is always a crowd pleaser and a good opportunity to view and experience a wide range of immaculate model jets and highly skilled pilots all in one place.

If you consider a jet model to be an unattainable dream there is always the option of flying one on a flight simulator. "Real Flight" and "Reflex" are two readily available examples that include jets in the aircraft options. The beauty of this approach is that you can get to experience the flying characteristics of a variety of jets and airstrips to fly from. No worries with crashes of course, just restart and you are up in the air again within seconds. These can provide a great way to sharpen your flying skills on a wet, windy and cold winter's afternoon. Although a flight sim can never fully replicate flying a real model jet, it certainly gives you a feel for the challenge and reflexes required for a successful flight. Have a go and see if you have what it takes.