

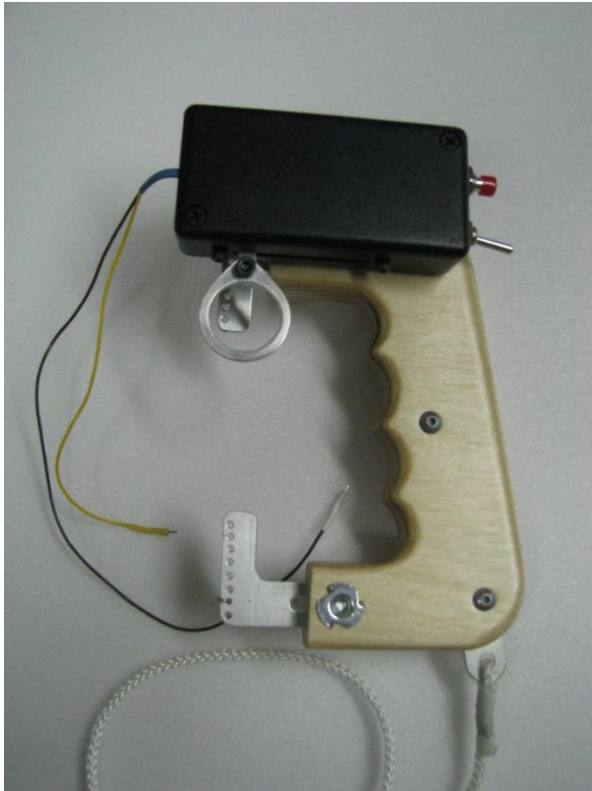
Scale Control Line



Control line model flying is a very early form of aeromodelling. Some feel it gives a more direct link between the modeller and the aircraft. This is by virtue of the fact that the lines and handle, that control the models pitch, are held by the flyer. The line tension can be felt and instantaneous elevator input applied.

There are several disciplines of control line, from stunt, to carrier, from speed to combat. We are mainly focused on the scale aspect of the genre in this instance.

For scale flying a method needed devising to control the engines throttle. This was done by utilising a third line from the handle. This is not often seen these days, as clever modellers from the USA and Europe devised a way to split the RF signal from radio TxRx output. This low frequency signal was fed down the two insulated wires from the handle to the model. The Tx part of the system, fitted to the control handle, sends the decoupled control signals down the lines.



The de-modulator equipment was fitted in the model, this is like a Rx but at low frequency, no radio frequencies involved. This de-modulator then drove servos to actuate flaps, retracts and the throttle, plus any other function you might desire, clever stuff.

Some changes to the BMFA rules in 2016 and later to the FAI rules in 2023 meant that 2.4Ghz radio equipment could be used to control the secondary controls including throttle. This made the system easier to set up and the equipment easier to obtain. A control box could be fitted to the handle, or a conventional R/C Tx hung from a strap around the neck, allowing simple control.

Here you can see me with an R/C Tx on a neck-strap to control the secondary functions, in this case throttle and flaps.

A caller is often needed to remind you of the next manoeuvre.



The variety of models at a control line event can include biplanes as well as multi engine aircraft, not just prop driven but also jets. The advent of electric propulsion has made jets easily accessible.





Mike Welch's B-17 Flying Fortress and Focke Wolf



Mike Chapman's glorious Brian Taylor Mustang P-51

There are three classes flown at a Scale control line event:

Flying only:

This class allows ARTF's to be flown, the only real stipulation is that the model must look like a full-size example.

Profile Scale:

This class is new for 2022 and is continuing this year 2023. The idea is that the model must still look scale but the fuselage (and nacelles on a multi engine aircraft) can be 2 dimensional, ie made from flat sheet material.

F4B:

This is the pinnacle of scale control line and is a hard-fought international class.

Flight Schedule:

For all the classes a set list of manoeuvres must be flown, the modeller is judged on how smoothly and precisely these are flown. Take off is optional but landing is mandatory!

In between are a set of manoeuvres that can be chosen from a list, these all add up to the final flight score. In the scale and profile class these are added to a static score to give us an overall winner. With flying only, as the name implies just the flight score is used to decide a winner.

At the British Scale Nationals held at Buckminster you will find all three classes being flown, just head over to the purpose built, tarmac, control line circle.

