

Smoke Trails 29

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The absence of Rapiers over the last long months has not been without at least one beneficial, and unexpected, result: it has prompted not a few folk to try real Jetex propulsion; some for the second time around, but also several 'ex-Rapier' fliers for the first time. Enjoying the 'Jetex Experience' (to use modern terminology) has been made easier by the ready availability of Jetex paraphernalia on eBay, as modellers of a certain age clear out their lofts. The correspondence I have had with 'born again' Jetex fliers has been encouraging – it's not been as difficult as they thought. For example, Darren Knowles comments, "Wow, the difference using pukka jetex fuel makes is unbelievable. Rapiers are rubbish compared to jetex! My Keil Kraft Cub flew superbly – yes, a few aerobatics, but this is a new area of trimming for me".



I disagree with Daren about Rapiers, but I see what he means. What is also encouraging is that if one is going to try Jetex, there is no reason to confine yourself to a Jetex 50. For example, Geoff Kent has found good niches for the larger motors Geoff writes: "Smokey Joe' is a Laurie Barr design (*Aeromodeller Annual*, 1950) and is thus 60 years old, but still competitive. The motor, a Jetex 150 (PAA Loader), should be a 100. It is 22g covered with DT and fittings. The Starjet was built from a kit I've had for years. If I had known how much it was worth I wouldn't have built it!" But it does hand glide well."

Geoff's rueful comment refers to the fact that NIB Starjets have been fetching up to £80 on eBay! Another item that is more popular on eBay than expected is the Scorpion. These are less extravagantly priced than Starjets, and Geoff has put one in a 'Castaway', which he built from the 1956 *Frank Zaic Yearbook* (see *Smoke Trails* 16).

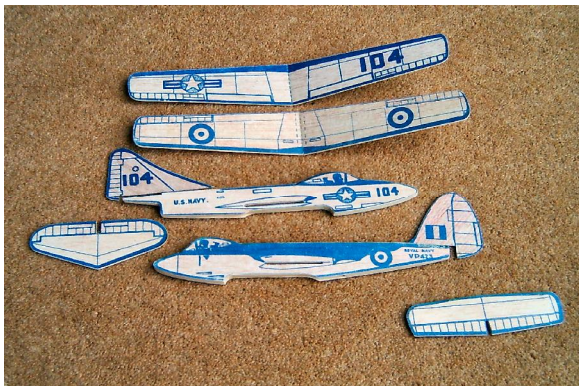
The high thrust of the Scorpion is splendidly suited to a duration model, but its short burn time is frustrating in a large scale model like a Telasco Cougar (*Smoke Trails* 9). Jay Criswell in the US has therefore made a 'Double Scorpion' which will take two pellets. The body is turned from one piece of 2" diameter aluminium. Note the fins are deeper than the original to, hopefully, improve cooling.

Top left: Geoff's 'Smokey Joe' for PAA Loader; **Next:** an expensive KK Star Jet, also fitted with the readily available PAA Loader; **Next:** Geoff's resurrection of John O'Donnell's advanced 'Castaway'. This weighs a mere 32g with a genuine Jetex Scorpion. **Bottom:** Jay's 'double Scorpion'. It weighs 61g (compared to the original's 46g.). There was some discussion on *Jetex.org* as to what it should be called!

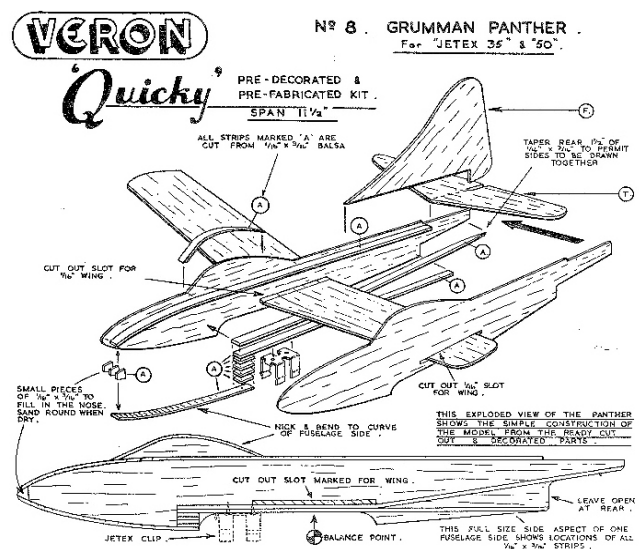
Steve Bage thought it should be called the 'Lobster' in keeping with its arthropod origins, and dismissed my 'Black Widow' as too ill-omened. Jay has fired it up a couple of times, and has lived to tell the tale: "Everything worked fine with one Sebel pellet, though it sure got hot and it didn't last very long. With two Sebel pellets, there was a slight amount of leakage around the nozzle, but as that's factory made so there's only so much I can do. There was no internal damage. The only real concern was the wooden motor mount, which started smoking and might have combusted had I not removed the motor immediately after burn out. I may have to look at an alternate material for this. Of some note is that the burn time still seems somewhat less than I'd hoped. Maybe I need to make a motor that holds three pellets!"

This is a fascinating experiment: the rate of combustion is of course dependent on the temperature and pressure, which increase as the burn continues so that the run time from two pellets is less than for two separately. Jay may well find that the heat is less and the duration longer with ICI pellets. What Jay really needs, Andy Blackwell pointed out, is an original Jetex 350 (called the 'Spacemaster' in the US), but these are now rare; nor is the 350 (by reputation a 'real man's motor') easy to operate, and pellets and accessories are very hard to come by.

At the other end of the motor spectrum, the Atom 35 also had a very short run time (about 9 seconds or so with Sebel pellets), and there is scarcely time enough for the inexperienced operator to pull out the fuse (after it has ignited the internal wick), wait for a steady hiss and launch in a dignified manner with a decent amount of burn time remaining. So the flights with my Jetex powered Wren have so far been very short compared with a Rapier L1. Recently, though, I acquired some genuine ICI Atom 35 pellets. These burn much less fiercely and for longer, with no loss of thrust, so I hope to put in some longer flights this year. This has also encouraged me to make a couple of the Veron Jetex Quickies for the coming season.



Phil Smith's 'Quicky' profile models were aimed at the younger modeller, and the kits consisted of pre-coloured, possibly silk-printed, 1/16" balsa sheets. The builder cut around the outlines and assembled as the illustration below:



There were three Jetex 'Quickys' a Thunderjet, Seahawk and Panther. As can be seen, they share the construction of their rubber-powered stable mates and make up into very attractive models.

Top left: Parts for recreated Panther and Seahawk. **Middle:** Seahawk for Rapier L1. Note thrust tab; **bottom:** Panther for Atom 35. Both are of 11½" span and weigh a little under ½ oz – quite small for their original motors.

3 FOR JETEX 50



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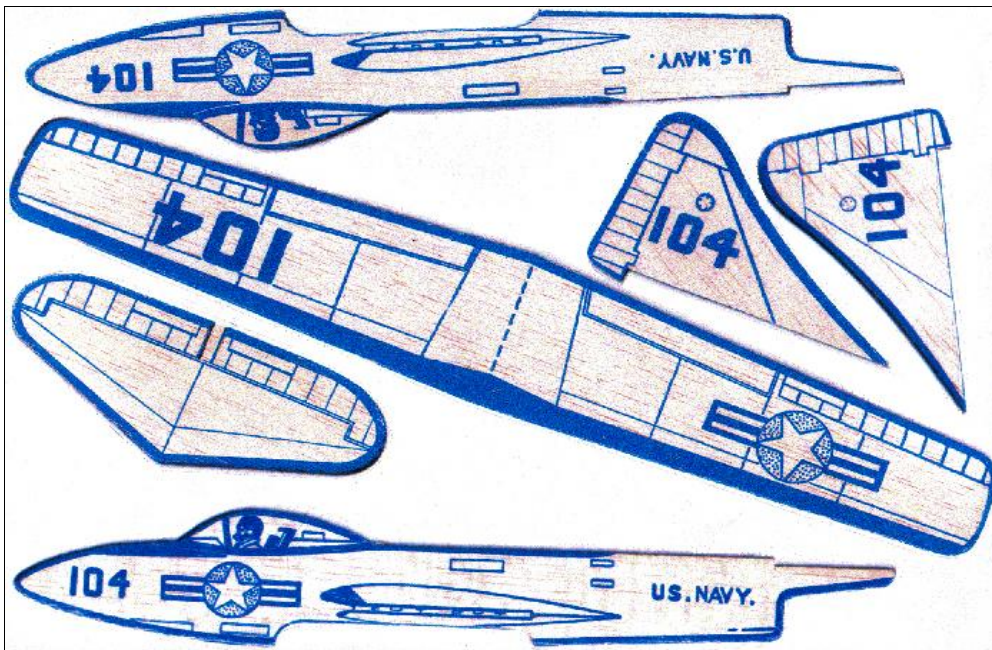


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In order to recreate these, one needs access to the original kits. Peter Williams sent me colour photocopies of wood taken from a Sea Hawk and Panther (he's still looking for his Thunderjet) that were in excellent condition.

I scanned these and restored to what I hoped was their original hue with *Paint Shop pro* and 'cut and pasted' so the outlines fitted a single sheet of A4 paper. These were then printed on either tee shirt iron-on paper or Esaki tissue lightly attached to A4 paper with 'repositional' photo mount. HP iron on decal paper goes on to plain balsa very well, but is expensive at £1.60 a sheet. Printed tissue is peeled off its backing, and the small amount of glue remaining allows it to be nicely smoothed onto doped and sanded balsa sheet. A couple of coats of thinned dope completes the job and construction can then begin! To my eyes, those made with tissue look more 'authentic', but of course, the whole process is anything but quick!

Now I think these models, in their gay blue livery, are delightful – who says nostalgia is not what it used to be? – And it is the first time either has seen the light of day for perhaps fifty years. It's such a shame I never made them all those years ago. They were originally for Jetex 50 or Atom 35. The latter is more suitable as these are quite small at 11½" span. With a 50 they will be quite lively and not perhaps the best introduction to rocketeering they were supposed to be. I expect a 60mN Rapiers L1 would be perfect. Neither the Panther nor Sea Hawk look like the 'real thing', and compared with a proper scale job they are neither a sophisticated build nor likely to win plaudits from proper modellers, but at the moment they make sense, as they are: 1. relatively immune to dodgy Rapiers bought on eBay (which one does at one's peril). 2) a good intro to genuine Jetex flying! Please tell me if you would like PDF copies of the templates.



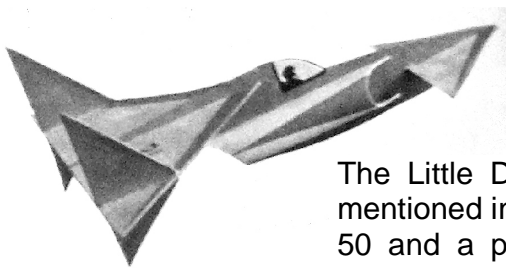
Hopefully, then, we shall see a few more models of different shapes and sizes with Jetex motors at meetings. This will of course be marvellous and will keep the flame burning until the return of Rapiers, about which I finally have some news. I had two communications from Brian Lever (who, happily, was the first recipient of my Quicky templates). The first reads: "after a most enjoyable evening's flying I counted up my dwindling stock of L1s. Things were looking bleak: only a few more sessions before Jetex 50's would have to provide for my Smoky Addiction. But the following morning a small box arrived from SAMs. Hmm ... I smelled Rapiers! Nervous hands opened the securely packed box and Yes! – beautiful green L1s, and, loosely packed around them, red L2s!"

Brian then had to wait a week before trying them out, but, returning triumphant from Ferry Meadows, he wrote: "I used my Spook [good choice].as a test bed for the new L2s, I had no idea of their rating. Motors were predrilled and ignited with Jet-X fuse.

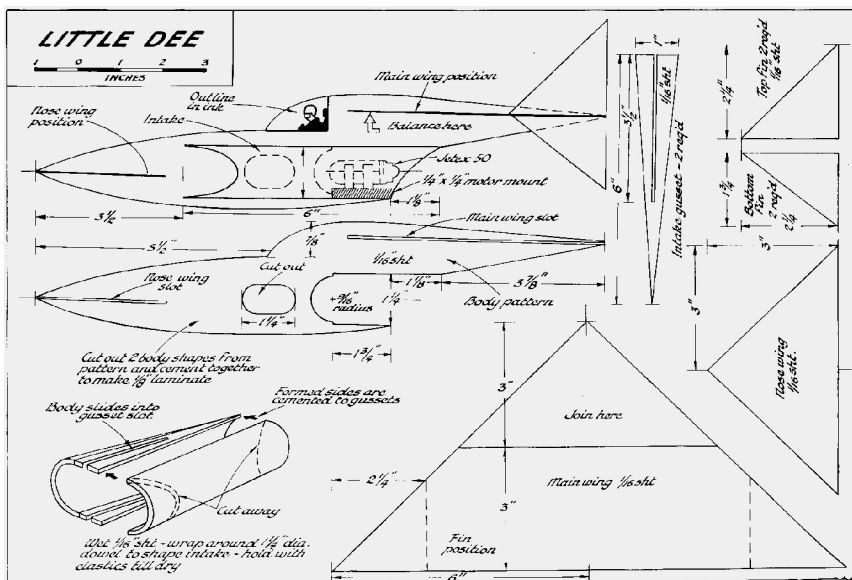
Ignition was immediate with very little spluttering before a smooth thrust was obtained. The Power was such that Spook went up into a series of spectacular loops, reaching an estimated height of 70 feet before settling down to a more sedate cruising flight, to the applause of all watching. So the red motors give the thrust of a very good L2HP with a duration of 18-20secs. All the motors were carefully examined after each flight: only one showed some slight scorching of the case, but there were no indication of imminent splitting or signs that these motors would be a danger to built up scale models. I think the cases were hotter at the end of each flight compared to old L2 L2HP, but in every case they were giving a lot more smooth thrust with a nice light smoke trail to delight all. On the strength of these tests the BAC P1B Lightning, which has been on hold, can now go back to the building board.

This is good news indeed. The bad news is that SAMS consignment of 2000 motors has been rationed out to those on George's waiting list, and that a new batch may be some time coming. Steve Bage is not yet convinced of the performance of the new L2, pointing out that the Spook is easy to overpower. Ben Nead is also very interested in the new L1 motors, writing: "Though new red-bodied L2 series is going to get the lion's share of attention, I'm very curious to know how well the newly produced L1s perform. If the thrust got any lower than some of the last batches, they would be sucking in air through the nozzle and flying backwards! We never had casing burn-through problems on the old L1s, but they seemed to get more and more feeble as the years went by. Here's hoping that the truly peppy motors of 70 to 80mN thrust have returned. Even a true 60mN motor would be welcome". What Ben says about L1s – and some I bought last year scarcely kept a Wren in the air – is also true of the L4. Whilst it's not quite time for universal rejoicing, we can at least begin to live in hope, and, like Brian, start building something sensible again.

I don't know if the 'Little Dee' canard, (left) which Stephen Herbert found in *Flying Models*, February 1959, (wherein it was called, 'A ship that looks like a Space Vehicle') could be called sensible, but looks fun to me, perfect for fliers of the André Bird persuasion



The Little Dee, which was new to me, and whose designer is not mentioned in the *Flying Models* article, could be built initially for a Jetex 50 and a potent new red L2 substituted when (not if, let's remain positive) when they become generally available



The all-sheet semi-profile 'Little Dee', (apparently short for 'little delta', was originally for Jetex 50. But is an unusual and robust design suitable, for the 'beta testing' of all those new red Rapier motors we hope to be getting soon.

I have my doubts about the 'decalage' and aerofoil, and I would build in elevons just in case.