Waltham Chase Aeromodellers

Newsletter 22-03-2017

1. Introduction

The bad weather continues so this month the build reports continue rather than flying reports plus a great piece from Steve on glider flying in California. Also some important notices. Many thanks to Steve, Pete and Ian Mathews. If you have anything on your building board or anything to report please take a couple of photos and drop me an email.

2. Message from the Chairman

With the unfortunate deterioration in the weather over the last few weeks, there has been little flying at the Tangier View Farm strip. On the up side, Ernie has given the patch it's first cut of the year, the new wind sock has been put up and all the chairs are back in position, so we are ready for full flying activities when we get some decent flying weather.
Can I point out that FPV pilots must have an observer, when flying. This is a serious club rule and a statutory requirement from the CAA.

Pete Sanders March 2017

3. Summer Flying Hours

British summer time starts on Sunday the 26th March and so we will adopt our summer flying hours.

Saturday 1300 to 1800 Silent/Electric only

Sunday 1000 to 1300 All models, 1300 to 1600 Silent/Electric only

Tuesday 1300 to dusk, All models

Friday 1300 to dusk, All models

Please do not arrive more than 15mins before flying starts

Please no monster, screaming EDF models in the Silent/elec slots.

4. Lawn Mower Man. Help Needed

What's the most important item of our equipment? TX? Field Box? Winger Joiner (I've left those at home before). No, it's the mower. Without a working mower in spring our strip becomes unusable in less than a week.
For many years Ernie and Steve have serviced and maintained the mower with additional help from Jim. These gentlemen would now like to stand down from this task. We are all extremely grateful to them.
The mower has had its winter service and is ready for action when it stops raining but we need volunteers to carry on its maintenance. It doesn't normally need much attention during the season with depth maintenance taking place over the winter.
If you are handy with the spanners please get in touch. Ernie and Jim are happy to remain as technical consultants but it is time to share the work.

5. WCA Web Site

If you haven't already seen it, Tony Heeley has completely revamped our web site. Many thanks Tony.
http://www.wcaero.co.uk/site/index.php
Your user name will be your email address. You can then request a password from the site. The site contains upcoming events, a page for classified ads, a new forum and the newsletters.

6. Facebook???

At the last committee meeting discussion turned to something called a Facebook. Now, as it turns out practically none of the committee members do the Facebook. At least two insist on writing all their communication in quill pen on parchment and I prefer to be in the shed. Or Pub.
Do you think the WCA would benefit from a Facebook page? Would you be willing to set one up

and look after it? Please let me know. If there was a WCA Facebook page I may even join. Obviously, I would have to get a passing 16 year old to help me.

7. Tangier View Housing Development

The development proposal both sides of Tangier Lane remains 'Awaiting planning decision' as of 17th March. The western development contains a substantial recreational area with pond and a tree-lined boundary which will allow the new residents access closer to our flying field than the houses. The nearest houses themselves are just about 500m from the strip, which is the DoE recommended minimum.
Mark Gregory believes the building work will start mid-year. You may already have notice the vin yard has been cleared.

When these houses are occupied it will be vital to respect the DoE noise guide lines which are set out in the BMFA hand book (82db(A) at 7m). Please speak to me or any committee member if you have any questions on this. We can check your model if required.

8. Bent Wing Warbird (Corsair F4u – Topflite ARTF kit)

By Ian Mathews

As many of you may have established by now, I have a small obsession with the F4u Corsair! As yet, I have failed to fly a scale model of one, successfully. I embarked on the build of a Top Flite kit about 2 years ago and made reasonable progress, up until the build got very challenging (I have a fully assembled fuselage and wing that needs finishing if anyone fancies a paid challenge!). In the end I sourced a RTF version of the same kit, because I had a suitable engine, undercarriage and other expensive parts needed for completion and I was desperate to actually fly one.
I embarked on the assembly in December 2016 and my very understanding wife allowed me permission to use the dining room table. For an ARF the build was extremely challenging and definitely pushed me to my limits. The undercarriage in particular tested my patience! I was using the specified air operated Robart retracts that I already had, from the kit build. I installed as per instructions, but to my dismay, only one of the units would retract and extend satisfactorily, mainly due to the uneven mounting blocks provided in the model. I spent a significant number of hours attempting to rectify this, by shimming the mounts, but was unable to achieve what I thought was an acceptable smooth operation. Finally I reverted to purchasing a set of Eflite electric rotating retracts, which were simpler, cheaper (much) and far more solid than the Robarts. These required slight modification to the wing to install, but resulted in a far more satisfactory result and far more robust solution.

The Big Wardbird Comes Together

I still need to modify the scale oleos to mate with the Eflite units, but in the meantime, these work perfectly.

Twist and Turn Retracts

The control surfaces were reasonably easy to install, requiring me to learn new skills, including silver soldering. I have opted to use individual channels for each flap and aileron allowing fine tuning from the transmitter.

The fuselage assembly was decidedly easier than the bent wing. I decided mid-way through the build, to use the OS 95V engine that this model was designed around, instead of the Saito 100 I was going to fit to the kit version. This was due to the fact that spare parts are no longer available and I only had one cowl to work with. The instructions provided all the templates for cutting the cowl. I am really happy with the results achieved with the engine installation, and I made a decent effort to ensure that the dummy radial was well assembled.

Accommodating Cowl

As you can see, the OS engine fits beautifully and apart from the rocker covers protruding from the cowl, it's almost totally hidden. I have fitted a suitable "Just Engines" supplied Turbo Header, which also ensures that the exhaust fits within the cowl, with only the matching grey silicon exhaust stub visible at the bottom of the cowl.
All that is now left to do is complete the cockpit, fit the pilot and canopy, attach the decals and fly… I have run a couple of tanks of fuel through the engine and its performed flawlessly so far.
The only problem I have is that I suspect I may have nabbed the last RTF Topflite corsair available in Europe… which means that its irreplaceable… so I may have to leave it in the dining room, so that I can drool over it some more!!!
Ian Mathews

9. California Dreaming

By Steve Warren

During the early 1980's I was seconded to work on an air pollution reduction research project at Highgrove Power Station in Southern California near Riverside LA. During that time I made contact with the local aeromodelling club and became a "Courtesy Overseas Member" or otherwise known as the 'Alien'. The section of this club that most interested me was the pure towline glider group. Electro-glide had just been thought of but out-runner motors and LiPo batteries were invisible. Brushed motors and NiCads were the motive power. Luckily for me the main venue for the glider flying and competitions was one of the huge playing fields belonging to the campus of the Riverside section of UCLA. This was only 3 miles down the road from my hotel and the facilities were wonderful. Sun shelters, benches, loos nearby. It was very difficult not to make comparisons with what is made publicly available in the UK to groups such as ours. The weather of course was fantastic, hot and sunny every day. You could actually plan outdoor activities without having to think, what happens if it rains?????

Acquila and Acquila Grande

Riverside is situated on the edge of the desert 50 miles east of LA and the air is normally dead or almost dead calm during the morning as the desert heats up. A breeze normally starts about 12 to 1300hrs and it can get quite windy by late afternoon. The club flying times were generally confined to the mornings and early afternoons and as I had to work a lot of week ends (Big AHHH) I would often see flyers at the field from 0800hrs as I drove past on my way to the Power Station.
The models tended to be kit built with very few scratch built models on show. Models such as Carl Goldberg Gentle Ladies or Sophisticated Ladies (2.0m), Bird of Time (3.0m), Acquila, Acquila Grande, Sagitta (100 inch class), and latterly the

Airtronics Legend (3.0m). There were many more of course and the ARTF models were just starting to make their appearance, certainly in the USA if not the UK.

Sophisticated Lady

One of the club members that did design and build from scratch was the local Hobby Shack manager John Lupperger. This guy was a natural pilot and built models to an incredible standard. On many a competition day I have seen him pick up a thermal at less than 10ft. altitude, milk it all the way back to launch height and win the slot. I became close friends with John and his wife Mary and he stayed with me at Shedfield whilst reporting an article for the USA magazine "Model Airplane News" about the world model gliding championships which were being held in the UK that year. We kept in touch for a long time but eventually he and Mary divorced, and they moved away from Riverside without further contact.

Bird of Time

Most of the models flown were what I would call the calm weather type, i.e. Gentle Lady & Bird of Time. These suited the local conditions perfectly, most of the time, but if the wind got up earlier than usual they suffered with lack of penetration especially as they were generally set up with the C of G as far aft as it would go for dead calm 'floater' conditions. In addition local club members were totally loathed to add ballast or shift the CofG as we would do in the UK to suit the wind conditions. There were quite a few occasions when these floater models would go behind the flight line over the downwind adjacent hills looking for thermals and not be able to get back against the wind that had sprung up ahead of forecast. In the same way that I have climbed a lot of trees at TVF, (for other people I might add), I climbed a lot of hills (mini mountains really) at Riverside looking for lost models, for other people of course. Amazingly the Americans actually believe their weather forecasts!
Initially I flew with borrowed models (Gently Ladys & Birds of Time), but eventually I was able to buy a second-hand Sagitta from one of the club members who was moving East with a job relocation. What a revelation this was. Very aerodynamic with an Eppler 205 airfoil plus very effective air brakes when you wanted to come down in a hurry. With the correct CofG it would float but if you put the nose down a tad it would pick up speed immediately and penetrate any breeze that materialised. The trick was not to fly it too slowly, the Eppler 205 section worked best when it was moving at a reasonable speed and not floating. A lot of the guys in the club bought a Sagitta but tried to fly them like a Gently Lady and didn't get the performance of which the Sagitta capable.

Sagitta 100inch

The Sagitta's performance was then out classed by the 3.0 m Airtronics 'Legend' with an even more aerodynamic profile and the then new Selig Donovan 3021 airfoil plus huge flaps which could be

utilised to modify the airfoil camber for increased penetration or extra lift on the towline. They could also be used as spoilers or in conjunction with the large ailerons for 'crow braking'. I had been very much into competition glider guiding in the UK before I went to California so I bought a kit ready for my return home when the work project was completed. That was in 1982, my Legend was finally completed in 2016 after modification to 'electro-glide' from a pure towline machine. It is still a lovely aircraft to fly. The electric conversion hasn't been at all detrimental to its flight characteristics but if I was doing it again I would make the nose a little longer to allow for changing battery configurations and delete the current nose weight.
The Legend outclassed anything else at Riverside and were flown in a class of their own or in an 'open' competition where you could fly any type of model. The classes flown were78 inch (2.0M), 100inch with RES (Rudder + elevator + spoilers this was by far the most popular) and 'open'. They were starting to fly the 3.0 machines regularly as I returned to the UK and I did see a couple of the 14.5foot span Sagitta XC(s). The XC apparently stands for 'Cross Country' and I am told that there were competitions organised for long distance "there and back" events employing these machines. I never saw one of these XC competitions. I have since bequeathed my B of T to Jim Hall who has converted it to electro-glide and the Sagitta to Kevin McGhee, who I believe is gong to keep it as a pure towline machine.

The model in frame is a Sagitta XC (Cross Country). It is 14.5 span and is a superb flier. It only has rudder, elevator and spoilers as the primary controls but doesn't lack maneuverability.

The competition format used at Riverside was very similar to our own with 10 minute slots and landing points but using powerful electric winches and 150 / 200lb braking strain nylon fishing line as the towline material instead of a propeller, electric motor, ESC and battery. The winches were of the un-geared and brake less "go or stop" type so you had to get used to 'blipping' the foot operated on / off switch to get a good steady launch with a 'ping' at the end to gain you that extra 50 or more feet of altitude. You also had to ensure that you didn't fold the wings if you got too enthusiastic with the winch power. Unlike our "all up together' launch they tended to keep the number of flyers in a slot down due to the possibility of getting the towlines tangled but it still happened. Reducing the numbers flying at once certainly calmed a slot down but I believe it was a system only used locally, I prefer the all up at once scenario. As an aside, there is one of these winches plus a 1000m of new towline at TVF if anyone wants to try pure towline gliding. You will need to provide a 12vdc circa 80Ah car battery to make it all work. It is entirely different to 'electro-gliding'. I do have photographs of the Riverside site and the local models but where did I put them? It was a long time ago and long before I possessed a digital camera and laptop. I have put in a photo of the "mini-mountains". You will just have to imagine the flying site rather than the vine yard in the foreground.

The 'mini-mountains'. If you can imagine acres of flat playing fields in place of the orange groves / grapevines in the photo. This is very typical of the flying site downwind terrain.

Occasionally we would go slope soaring and combine it with a trip over the border into Mexico to watch the Jai Alai games (a very fast game similar to squash but using a long curved arm extension instead of a racquet). As you can imagine there were no shortage of slope soaring sites around Riverside but the best of all was at a place called Torrey Pines just north of San Diego and on the coastal cliffs. The next bit of land is at least 3000 miles west so the wind coming in from the sea

is very smooth as it turns through 90 degrees at the beach and sweeps up the 300 ft vertical cliff face. You could fly a house brick in the upcoming lift generated. The site stretched quite a way along the coast and was shared by full size hang gliders, conventional gliders and models. The site was split into zones and it all seemed to work without problems. After we had had our fill of slope soaring we would climb down the cliffs and enjoy a few hours of nude sunbathing and surfing plus a picnic or barbeque on the beach. Yes that is right, the beach at the bottom of the cliff, known as 'Blacks Beach' was an official nudist beach. It used to get very crowded and there would be games of handball and soft ball being played all the time. You had to be very careful not to get sunburnt especially on the bits not normally exposed to the sun's rays. In the late afternoon / early evening we would go across the border into Mexico, have a beer and a meal, watch a Hai Alai game or two and then sleep the sleep of the dead. We would often stop off and have another sloping session at Torrey Pines on the way back to Riverside on the Sunday but sometimes we were just too tired.

Gentle Lady on the tow line

An interesting point: It was very easy going over the border into Mexico but a different matter getting back into the USA on our return. It was only by pure luck that the first time I did this trip I was taken in my friend's car(s) with their wives. They picked me up from the power station and I had my passport plus USA visa with me in my brief case. If I had not I could still be in Mexico now. Going into Mexico, you were ignored by the USA border guards and waved in to Mexico with a big smile by the Mexicans. On the way out of Mexico you were ignored by the Mexicans but stopped by the USA guards. We generally had two cars, open topped, with 5 or 6 of us in a car. One English man and the rest Americans. The border guards just gave a cursory glance at the Americans in the cars but on every trip they always picked me out as an 'Alien'. I don't know how they did it. We were all very fair and white, equally dusty and dressed similarly but each time they would insist on seeing my passport and visa. I never had a problem 'getting back in' but how did they pick me out? I asked but they wouldn't tell me.

Legend 3.0m

I had my longest glider flight ever in California. We had been invited down to Palm Springs and naturally we took the gliders. Off a normal electric winch launch of 150m I went straight into everlasting lift and stayed there for nearly two hours. I only came down because every bit of me ached. It didn't matter whether I stood, sat, knelt or laid down, eventually every bit of me ached. If I had been made of sterner stuff I could have stayed up until it got dark.

I was out in California twice on this exercise and really enjoyed it, both the job and the leisure time.

Steve Warren

10. Building A Ben Buckle Slickermite

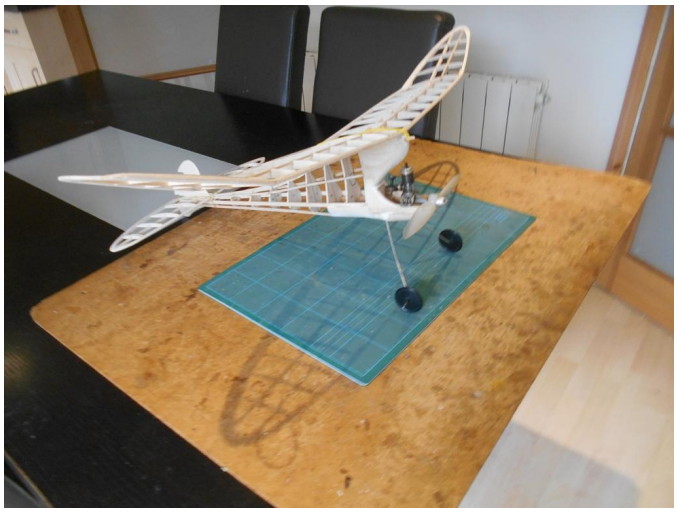
By Pete Sanders

As mentioned in the December 2016 Newsletter, I have been constructing a Ben Buckle Slicker-Mite from an old printed kit I purchased from Steve Warren. The original kits manufactured by Keil Kraft, first appeared in 1948, following the successful Slicker 42 competition free flight endurance model. I also purchased, more recently, Steve's AMCO .87 diesel engine, so it will be as

authentic a vintage model possible, as this motor appears on the original plan.

I was warned by Alan Wallington, who has the same kit, that the wing ribs are printed short and do not fit without packing, so when cutting out, I cut them long and tailored to fit each one, saving the need to pack. Many thanks to Alan for the tip. The wings are built on a pre made main polyhedral spar, then each of the four panels are put together one by one, propping up with some heavy books as you progress. A bit old fashioned but it works.
The tail plane is built flat on the board and the fin is from 1.5 mm sheet, with a cut out trim tab.

The fuselage is built around a "crutch" , shaped like an old fashioned window cleaner's ladder. The first job is to slide the front three formers over the beech engine bearers, carefully marked over the plan, then gluing with epoxy, ensuring everything is dead square, to fit neatly into the crutch assembly. Once the motor assembly is glued to the crutch, all the other formers are glued into position, the spine added, followed by several stringers. I haven't built a model like this since my early teens; a very enjoyable experience. The u/c wire is bound to the engine bearers, mounting bolts installed and the blocks fitted and carved.
The Slicker-Mite is a quick and simple build, which could easily, with care, be constructed by a beginner. The plan is clear and the instructions are easy to follow.
I now just need a couple of days to cover with Solarfilm Airspan and she will be ready for flight testing, hopefully in late spring.



I had a few reservations with this kit. Firstly, the print wood was quite hard and therefore heavy, secondly all the blocks had to be laminated from hard and heavy sheet, which proved to be very difficult to carve, once glued to the air frame. I had to put the model away a few times as I was getting angry and frustrated over what should have been a very simple job. The blocks resisted even a brand new carving blade. All character building stuff but really, kit manufacturers should not let this happen and should do better. With hindsight, I wish I had picked better wood from my scrap box!
Pete Sanders

11. It's The Pitts

With electric Saturday's back I decided a new electric model was in order. I had picked up a un built Eflite Pitts 15 ARTF kit at a swap meet a while back and so decided it was time to assemble it. Not much building is required but I decided to beef up the fire wall having seen Jim's Eflite Beaver fire wall fail. A circle of 2mm ply was cut and glued in place. Otherwise the assembly was straight forward. I

used slightly larger wheels to improve handling on grass, budget metal gear 12gram servos, a 3554 1100kV motor, 3200mAh 3 cell battery and 60Amp ESC. When it stops raining I'll maiden it.

Eflite Pitts

12. Airsail Chipmunk Progress

The bad weather has meant ever so slightly accelerated work on my Airsail Chipmunk Build. After months the wings are about finished bar hinging the surfaces and I'm on to the fuselage. When assembling an ARTF there is always part of the design which I don't like either due to penny pinching or just far Eastern insanity. With traditional build you can build things as you see fit. The Chipmunk wing now has flaps and 4 servos in place of bell cranks.

The Underside of The Wing

And Work Starts on The Fus

Pete Sanders & Richard Bristow 22-03-2017