



Flight Desk

February 2020

The official newsletter of Chesham Model Flying Club Ltd

Volume 32

Issue 1

February 18th Club Night

White Hill Centre

20:00

"Winter Projects"

Editors Ramblings



We have been having some fun at Newground adding some winterisation to the shelter. Member Pete Hodge led the project to fit opening windows into the 4 apertures. They have polycarbonate panes which are fairly clear to see through and thick enough to resist any weather thrown at them. Please be careful cleaning them as the polycarbonate will scratch. The plan is to keep the windows closed until such time as the weather improves (significantly). Once it has warmed up they will be opened by securing them to the roof support timbers. The next step is to find a way to fit a door to the entrance so that in the depths of winter the worst of the cold can be kept at bay. Much discussion is starting to bring forth some good suggestions which we hope to act upon.

The weather does severely impact flying and this year, so far, has seen it quite windy if not too cold (warmest January so they say). There are always some hardy souls prepared to give it a try, though. The most recent sightings of a new model have been of the Bangood Skylark, an electric foamy. It is so good (and cheap at £40 shipped) that we have seen or heard of no less than 8 in the club. Time for a formation team?



Finally, a reminder that we have the February "Winter Projects" evening at the White Hill centre on Tuesday 18th. We have the ground floor hall available from 7:30 for model assembly. Please bring along anything that you have finished or is still in build. This is always a popular evening so do come along.

As always, you can contact me, Colin Hooper. (cmfc.colin@gmail.com)

Club Matters

We have had most of the club renewals in by the end of January. There have been some changes as we have lost 10 members. A couple were lifeboat members who moved from High Wycombe club when they lost their flying fields (happily now resolved as they have negotiated a new field). We understand that they would want to go back to their original club. Some are calling it a day for health and age reasons. One is returning to his home country. Whatever the reason for leaving we have been happy to know you and wish you safe landings for the future.

One of the critical problems with some members leaving the club has been the near impossible task of recovering the keys. Some choose to just ignore all requests despite the offer of a full refund. This puts the club at risk of the keys falling into the wrong hands. In a previous break in at Newground we lost the generator with no sign of forced entry which could only mean that a key was used. We are therefore going to add a different lock to the Newground container which is a high security combination lock. You will be notified by email that it has been fitted along with the combination to open it. In future years the combination will change and on renewing your membership the code will be supplied. We are sorry to have to do this but there are far too many high security keys floating around out there.

On the subject of the container. The rubbish bin just inside the door is being scrapped. There is no reason to have it as you should be taking your rubbish home with you. So, please, if you generate any rubbish whilst at the field (Newground or Pednor) let it leave with you. If necessary there are black bin liners in the grey cupboard (NG model recovery bags!!).

Summary of Club Events in the next quarter

February 18 th	Club Night “Winter Projects” @ WHC, 20:00 (Tuesday)
March 17 th	Committee meeting @ WHC, 20:00 (Tuesday)

Member's Ramblings



Hi everyone,

In this article I'll share my Multicopter B test build gone wrong, the opportunity that came from it and the status of the 3D printed plane.....

The B test build gone wrong :- With my A test completed in October (many thanks to Simon Adams as examiner), I started reviewing the B test task list and although the quadcopter I used to complete the A test was up for the task I felt that it might not be able to perform some of the tasks with the accuracy that the B test demands. Also, it gives me an excuse for a new build. With that in mind I knew what I wanted out of the B test build but needed to find the right parts, which starts off with the frame. The frame I needed was one where I could attach different coloured LED strips to each side of the quad so it would give me the ability to know which side I'm facing, although when you build up the hours with the same quad you have an idea on which direction it's heading which I can imagine is very similar to anything that you spend enough time with. I also believe that with having LED strips on each side it would allow me to get the precise angle for the manoeuvres required or



could just end up looking like a really rubbish light show....I guess time will tell. Next the frame needed to be crash resistant and have motor protection as one of the



manoeuvres is to complete a power loop. Now I can complete a power loop using my first person gear but trying to complete it line of sight is another thing that will take time. I think I would end up sticking it into the ground, with the motors probably taking most of the brunt, so these really need to be protected.

So with those requirements in hand I found the TBS Oblivion frame. The frame is not the traditional carbon construction. It is injection moulded plastic which should offer a little flexibility when hitting the ground head on and the frame design should add the firmness required.

As you can see in the picture, the frame is a square frame which will cater for the LEDs and the motors will sit recessed in the motor bays that will help protect them.

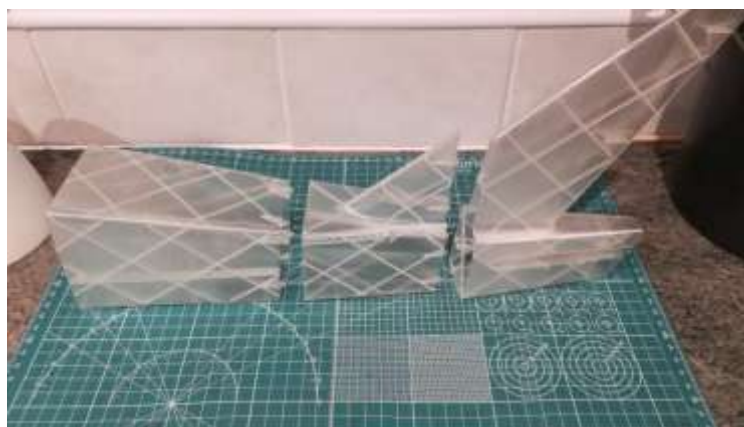
I was planning to create an article/articles on how I would build this quad but to cut a long story short I cut the motor wires too small and couldn't recover from it so I had to order new motors and put a hold on this build.....

The opportunity:so with 4 brand new motors that had short wires I scratched my head to figure out what I could do. During my search for the B test frame I came across a frame where the arms are vertical and not horizontal and thought that it would be suitable for the B test build but there was no motor protection as you will see. I had a spare 6s flight stack (ESC and controller), receiver, a camera



and now, 4 new motors. All I needed was a video transmitter (VTX) and I set about this new build. In hindsight I should have documented the build because it was just as challenging as the B test build will be. It took about a week to finish and once completed I decided to add a GPS and 3d printed a holder for it. The camera has the ability to record 1080p HD video and has a micro SD card slot for the recording of video.

The maiden was carried out the second half in January and felt it could do with what quad pilots call a “tune”. A tune relates to the configuration of the quad by changing parameters of the quad components such as the filtering out of gyro noises. With the latest software version (Betaflight 4.1.3) of flight controller board and configuration software there are additional tuning techniques such as RPM filters which relates to bi-directional communication of the motors via the ESC's. I would say I'm very much a novice in tuning, but the global quad community has very good guides and information on how to tune with the I hope I will be able to find a good tune. You



can find a edited maiden flight of the HD flight footage here :- <https://youtu.be/zkpDd8fYKns> - If you have watched the video you would be probably thinking that the propellers are in the way for a clean video. I would agree with you, but this was an experimental build to see what I could achieve being the 5th quad I've build.

The 3D printed plane:-



In all honesty I haven't really progressed much as I convinced myself I was going to upgrade my 3D printer with a more expensive one but Christmas and home improvements dashed that idea quickly so in January I researched tips on improving my prints and found some tips and started printing the

fuselage sections of the plane. These had seemed to have gone well with a couple of visible errors that I can work out and reprint. I will look to print some more sections of the plane and report my progress. Oh I also used what is known as a clear filament which means you can see the internals of the print.

Well that's it for this article. I will be at the winter project evening and plan on bringing along my gear if anyone's interested and will also bring along my 3d printer and give demonstration. Hope to see you there!

Take it easy K.

Instructors' Corner



Very little to report, I'm afraid, we have scant trainees on the books at present. Occasionally I am contacted (often via Colin and our website) by prospective members but many of these don't materialise. There are loads of "wannabees" out there who are unable to make the necessary commitment. It is increasingly rare to find decent youngsters (usually with supportive parents) who wish to take up the hobby. These things do tend to run in families and, sadly, there are far

more other attractive interests which require only limited attention spans and whose results are very often ephemeral.

The BMFA has gone very big on its promotion of the hobby after the "Countryfile" episode – a laudable concept but I do have some reservations regarding the deliberate local publication of Club details over and above what is already in the public domain on our website plus we have had a few "walk-ins" at Newground to see what is going on, the vast majority had no idea of our presence other than to see our models in the air. However, not everyone, these days, has supportive views of other peoples' leisure activities. A difficult balance indeed!

Some pilots (already cleared "solo") have asked about doing the fixed wing "A" BMFA test and I will accommodate all reasonable requests. Remember that all of you should, by now, be registered with your £9 fee and if you do not have an "A" or better you should have completed the BMFA/CAA "Competency" test online; this is a no fail gimmee (AKA a complete farce) as there is no actual flying involved.

Work on the new Zirolì Zero continues and the airframe is complete, I now have the final tissue/doping and paintwork to do. This model has (another) 60cc 3 cyl radial Saito petrol engine and I have bought the Morris Mini Motors ignition kit which comprises an adjustable hub and some test equipment. Apparently the Saito leaves the factory with

ignition timing which does not occur at 120 degree intervals and Morris recommends setting the timing at around 30 degrees BTDC on No. 1 pot and with his hub the other two cylinders will fire at precisely the right time. Most of the Saito petrols are basically a glow engine (I have a couple of the multis) and because the glowplugs are glowing all the time the ignition timing issue is not relevant. On the V2 60cc the cylinder base flanges are thicker than the earlier version and the pistons are lower compression items. I have also bought the Morris collector ring which is a darned sight easier to fit than the Keleo item.

This model will come out around 25lbs and the Zero is a delight to fly in a scale manner, it is an ideal warbird project, the ground handling is very forgiving.

I am also going to re-engine my recently acquired Flying Legends Spitfire which at 28 lbs flies very well with the powerful 3W 40 but I have absolutely nothing in hand on take off and it needs every metre of runway. Steve Bull kindly flogged me one of his spare DLE 55's (I still have to sort out the bits, thanks for your patience!) which will just go in the cowl and should give enough power – one of these flew Austen's 30lb YT Spit with authority.

Enjoy your flying - RG

Club Training

Remember that training currently takes place at Newground with either Dave Anderson, Simon Adams Austen Pearce or Richard Ginger. You will need to contact the designated trainer by the Thursday to confirm your interest. If the weather is looking poor for the Saturday, a call will save you travelling to find training has been cancelled.

Month	Date	Trainer
February	1	Richard Ginger
	8	Dave Anderson
	15	Simon Adams
	22	Austen Pearce
	29	Richard Ginger
March	7	Dave Anderson
	14	Simon Adams
	21	Austen Pearce
	28	Richard Ginger
April	4	Dave Anderson
	11	Simon Adams
	18	Austen Pearce
	25	Richard Ginger

Committee

Chairman	Dave Humphrey	07855 181230	davedesign@btinternet.com
Secretary	Kevin Lambi	07769 341229	secretary@chmfc.co.uk
Treasurer	Steve Langbridge	01494 863949	treasurer@chmfc.co.uk
Membership	Colin Hooper	07749 891465	membership@chmfc.co.uk
NG Groundsman	Pete Hodge	01494 785143	brendahodge@talktalk.net
Pednor Groundsman	Geoff Wyrill	07748 145779	g.wyrill@gmail.com
Safety	Steve Bull	07801 966612	flysteve12@gmail.com

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Dave Anderson	01494 583127
Simon Adams	07970 409831
Austen Pearce	07842 149855

Newsletter Editor

Colin Hooper	07749 891465	cmfc.colin@gmail.com
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NEWGROUND & PEDNOR STATS 2019				
NAME	TOTAL VISITS	TOTAL FLIGHT MINUTES	Total Flight Hours	AVERAGE FLIGHT TIME (Minutes) PER VISIT
Steve Langbridge	121	5283	88.1	45
Richard Ginger	104	3370	56.2	32
Austen Pearce	98	3409	56.8	35
Colin Hooper	94	2444	40.7	26
Steve Bull	74	1318	22.0	18
Tracy Smart	64	2892	48.2	45
Emil Smit	55	2473	41.2	45
Barry Thorp	50	1572	26.2	30
Geoff Wyrill	50	1316	22.0	27
Mark Honman	44	1290	21.5	30
Malcolm Emms	41	1761	29.4	43
Kevin Lambi	39	2368	39.5	62
Michael O'Neill	38	1871	31.2	49
Con Lehane	37	218	3.6	20
Steve Edwards	37	810	13.5	22
Brian Sandy	35	1201	20.0	34
Trevor Brunt	34	451	7.5	13
Steve Triggs	33	1874	31.2	57

Mike Kitchen	29	683	11.4	24
John Barber	26	319	5.3	12
Bill Hofmann	25	764	12.7	31
Luke Lane	25	767	12.8	31
Mike Martin	22	233	3.9	11
Dave Anderson	21	477	8.0	23
Lionel King	20	454	7.6	23
Leon Coward	19	1363	22.7	72
Malcolm Saville	17	318	5.4	20
P J Hodge	17	281	4.7	17
Miguel Graca	16	392	6.5	25
Robin Thwaites	15	455	7.6	30
Charles Parkins	13	100	1.7	8
Robert Clark	13	305	5.1	23
Jon Sandler	12	175	2.9	15
Trevor Mines	11	257	4.3	23
Alfie Williams	9	96	1.6	11
Ben Martin	9	263	4.4	30
Keith Vickers	8	115	1.9	14
Robin Hodge	8	157	2.6	20
Andrew Rimmer	7	187	3.1	27
Hunter Adair	7	285	4.8	41
Phil Camp	7	72	1.2	10
Simon Adams	7	326	5.4	47
Daniel Honman	6	223	3.7	37
Dave Boddy	6	155	2.6	26
Stuart Smith	6	170	2.8	28
Dempster Hamilton	5	204	3.4	41
Ian Scottow	5	136	2.3	27
Ray Hogarth	5	135	2.3	27
Cuneyt Seckin	4	171	2.9	40
David Evans	4	38	0.7	10
Doug Brittain	4	56	0.9	14
Graham Best	4	74	1.2	19
Keith Brown	4	56	0.9	14
Mervyn Dry	4	85	1.4	21
Paul Baker	4	133	2.2	33
Pete Le Blond	4	78	1.3	20
Steven Atherton	4	91	1.5	23
Tim Copley	4	141	2.4	35
Jeff Denty	3	40	0.7	13
Oswald Marsh	3	113	1.9	38
David Baverstock	2	90	1.5	45
John Kitchenside	2	60	1.0	30
Mark Welland	2	64	1.1	32
Nick Hartgroves	2	63	1.1	32

Oliver Williams	2	15	0.3	8
Peter Tilbury	2	39	0.7	20
Adrian Jack	1	60	1.0	60
Charles Angell	1	16	0.3	16
Dan Crisu	1	50	0.8	50
Frank Dalby-Smith	1	14	0.2	14
Gary King	1	12	0.2	12
Jack Boddy	1	12	0.2	12
Jim Wilson (G)	1	12	0.2	12
Julian Clements	1	21	0.4	21
Julian Mcmorine (G)	1	25	0.4	25
Reynold Thomas	1	35	0.6	35
Richard Dawson	1	0	0.0	0
Richard Johnson	1	21	0.4	21
TOTALS	1,514	47,473	792	