Flightlines

Inside this edition;

Corfu - Again
Airopult
Waterford Fun-Fly

June 2012

Spiros and Adonis fettling and flying the SkyVan in Corfu.

Contents

On the Cover: Taking off at the Munster Champs

The next MACI Council meeting will take place on Tuesday July 17th 2012 in the Maldron Hotel, Portlaoise, at 8:00pm. PLEASE NOTE NEW VENUE, Directions can be found at;
http://www.maldronhotelportlaoise.com/hotel-portlaoise/upload/docs/Portlaoise_car_park.pdf

The views expressed within are those of the individual contributors, and not necessarily those of the MACI Committee.

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Editorial

Yet again the weather is dictating to us how much flying we can do. If the gales aren't blowing then the rain seems to be stopping us. Let's hope that we will see some sort of Summer develop, but don't hold your breath.

On a recent visit to the UK I spent some time with my good friend and fellow RC Hotel visitor, John Lewnes. While there I visited his Club site to do a bit of flying, I had taken my Raptor 50 and Wot 4 over with me. I had flown the Wot 4 back home without any problems but on the first flight I lost control and only got it back by holding the tranny over my head. On landing a range test was done….no problem there, so a fresh battery was installed and off we go again with the same result. I was using a brand new synthesized receiver, which I have 5 of, and it seemed that this was the problem. Back at Johns' workshop a different receiver was installed which cured the problem. Just goes to show that even some of the latest equipment can sometimes let you down.

Martin Briggs' Vario

While I was at the site, that well known helicopterist Martin Briggs arrived with the largest model heli I have seen, I believe it's a Vario?

The deadline for the August edition is July 30th.

Chris Clarke

Heli F3N Round 1

The Athlone Model Flying Club (AMFC) hosted the first F3N Competition of the year at their site in Castlesampson, Athlone on Saturday 14th of April. A great team effort from the AMFC club members ensured the flying site was in great condition with runways well mown and in excellent condition.

Pilot Briefing

The competition is held over a number of rounds during the flying season with two flying classes, novice and sportsman with pilots performing a sequence of fixed manoeuvres and a sequence of freestyle manoeuvres. Pilots entering this round competed to generate points that are accumulated over the season.

The AMFC flying site is a grass site situated in bogland. The weather on the day was better than forecasted (bless Met Eireann for getting it wrong). Conditions were flyable with a stiff south westerly breeze, typical of raised bogland in the midlands. Pilot competency shone through as they coped very well with their Heli engines tuned and trimmed to contend with the stiff breeze.

Francis Duignan stepped up to the plate and was Competition Director for the day and carried out the task with great enthusiasm. With registration completed, the entry level was 1 pilot flying novice class and 7 pilots flying sportsman class. The F3N fixed manoeuvres were first and all pilots gave a good performance considering the breezy conditions.

As an onlooker of competition flying for the first time, I have to say the standard of flying was very impressive.

A break was called for lunch to give sustenance in the form of Supermacs and to give the Judges a chance to get out of their chairs and shelter in the clubhouse of the breeze and warm up their hands and avail of a much needed hot drink.

After lunch the freestyle flight round was underway with pilots getting to grips with performing manoeuvres while contending with the breeze.

A wide variety of manoeuvres such as tic-tocs, backwards 4 point rolls, backwards knife edge pirouettes ,outside loop with half rolls, four pushed half flips and sideways loops were executed with great skill with pilots competing against each other and the breeze.

When the freestyle round was completed and the scorekeepers tallied the scores in the relative warmth of the clubhouse. With the competition results in, a very nervous Francis Duignan stepped into the limelight and did a very competent job awarding the trophies for the Novice and F3N competitions.

This concluded the first round of the F3N competition and the flight line was opened for anyone who wished to get some flying time before the weather turned.

A big thank you to the judges and scorekeepers and to our three young runners on the day who got the Judges score sheets to the scorekeepers in a very efficient manner. Not forgetting the AMFC club committee and members did a great job getting the site ready for the competition.

The next event at the AMFC flying site is a Fun Fly on June 9th & 10th so come along for the flying and after flight fun and craic with a guarantee of a delicious home cooked meal for the pilots.

See you there

Results:
Novice:

1st place; David Higgins

Sportsman:
1st place; Noel Campion
2nd place; William Gaule
3rd place; Barry Kennedy

Heli F3N Round 2

Shannon Model Flying Club (SMFC) hosted the 2"" round of the Heli F3N Competition on Saturday the 12* May. The weather held off with only a few small showers early on in the morning. Apart from a moderate wind to challenge us, we enjoyed sunny spells throughout the day with jackets even coming off occasionally.

Entry's consisted of 4 in Novice and 5 in F3N. Throughout the day there also was a good turnout of Spectators especially amongst the Shannon Club members.

Pilots briefing was given at 10am by CD George Ryan. The Pilot flight orders were also decided at this stage for both Novice and F3N. Judges for the day were Liam Broderick, PJ Browne, Derek Considine and Ger Hunston. Our own club secretary Richard O'Neill had the job of master scorekeeper.

The F3N round consisted of Compulsory Set Manoeuvres (8 in total), Freestyle flight (3-4 minutes in duration) and finally a Freestyle flight to music. The Novice round consisted of Set Manoeuvres and a Freestyle flight.

Set Manoeuvre flights were undertaken first. It is clear that since the start of the F3N competitions that standards have risen as pilots have chosen manoeuvres towards the more difficuk end of the spectrum. Noel Campion won the sets in F3N while Dave Higgins won the sets in Novice.

Next was the F3N & Novice Freestyle. Always an interesting round especially when Joe (Assassin) Burke takes to the flight line to excite. Dave Higgins and Kieran Fitzgerald gave solid performances in Novice. Jamie Hourigan a newcomer who has only being flying heli's a short while will be one to watch out for in the Novice class over the next few competitions. Barry Kennedy and Noel Campion who are our pilots representing Ireland in the European F3N Championships in July impressed with their performances.

Music freestyle was last on the agenda. Our overseas competitor from the UK Pete (Squeaky) Bedborough topped this round showing us how a helicopter can actually Wiggle Wiggle Wiggle to the tune of LMFAO. Andy Cambell also excited in this round.

Prizes were then handed out and a gallon of fuel was given to each competitor who did not receive a trophy courtesy of Model Heli Services.

This concluded the 2nd Round of the F3N championship and many stayed on afterwards tocontinue flying.

I would like to thank all the Shannon Club members who helped in organising this event especially Kevin who helped set up the field on the day, Philip who had prepared the grounds for us which were immaculate, Richard for the scorekeeping, George for CD & all the Judges.

William Gaule
SMFC Heli Sec

Results:

Sportsman

Name	Round 1	Round 2	Round 3	Total	Place
William Gaulle	982	1000	960	2942	1st
Noel Campion	1000	991	907	2898	2nd
Pete Bedborough	768	924	1000	2692	3rd
Barry Kennedy	923	877	795	2595	4th
Andy Cambell	540	796	753	2089	5th

Novice

Name	Round 1	Round 2	Total	Place
Dave Higgins	1000	1000	2000	1st
Kieran Fitzgerald	982	867	1849	2nd
Joe Burke	786	930	1716	3rd
Jamie Hourigan	862	724	1586	4th

THE FEENEY FILES

RADIO ACTIVE

GERARD FEENEY SUFFERS A DODGY TRANSMISSION!

It's been a while since I tapped the keys. What's been happening since? Not a lot! But, this incident merits a mention…

ALARMING SITUATION!

Gerard's now-almost-vintage MPX transmitter has behaved strangely. Is there a ghost in the machine, or is it something more mundane?

There I was, lurching through yet another Freudian dreamscape, when I heard something. It sounded like an alarm going off, but where was it? Then, I woke up. Speaking as a former insomniac, and someone who finds it difficult to sleep at the best of times, I don't like being woken up in the small hours of the morning as I may not drop off again for hours, or not at all. But, that shrill insistent chirping persisted! As I tuned in on the source, I realised it was my transmitter low-battery alarm.

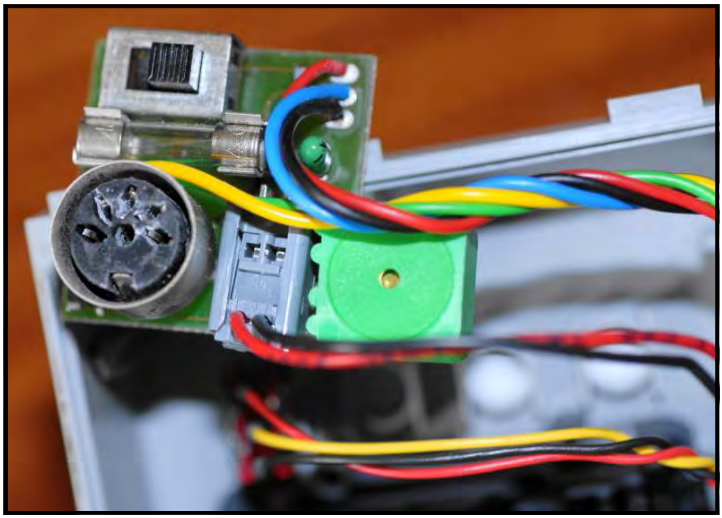
This was just too weird, for one major reason – the transmitter was switched off! Even in my semi-drowsy state, I knew I'd not left it switched on (unless I sleep-twiddle on/off switches). Had my transmitter become possessed by the freaky but familiar nocturnal demons that assail me with predictable regularity at around 1 a.m.? Or, could there be another explanation?

Having awkwardly stumbled over to the table, I was perplexed to see the transmitter's LCD readout indicated just one bar of battery power remaining. It certainly looked as if it had been switched on for hours. Surely I couldn't have suffered amnesia and totally forgotten I'd left it on? As my grey cell fully re-booted, I knew that was definitely not the case. I was absolutely sure of that.

The plot thickened when I checked the on/off switch – it was still switched off! Perhaps I was still buried in my own psyche? I pinched myself and checked out the Jedward action figures, lovingly arranged on a doily on the nearby locker-top. Everything appeared to be 'normal' and in its place. I seemed to be really awake. If so, what could be wrong with the transmitter?

The weirdness continued. The LCD readout returned to fully-charged status and the low-battery alarm stopped when I switched the transmitter on. Then, it reverted to its previous inexplicable behaviour when I switched off again.

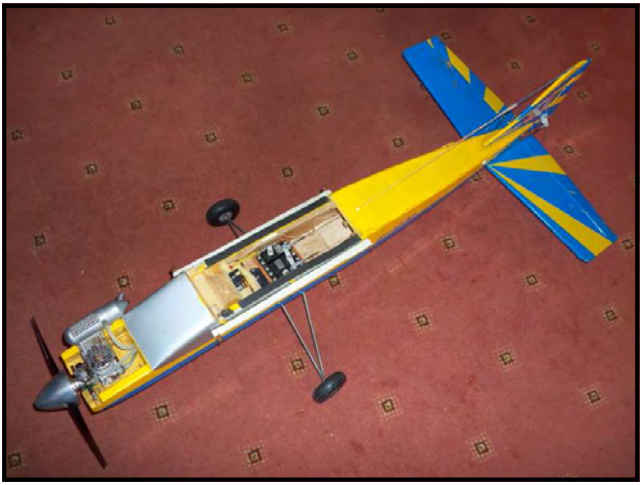
I became aggravated and removed the transmitter's back cover. Something strange lurked within. When switched off, apart from the low-battery alarm, I heard a noticeable sizzling sound coming from the switch circuit board. This could be interpreted in two ways: atom-sized entities having a fry-up or, more likely, a possible short-circuit. Placing more faith in the latter diagnosis, and fearing that the battery might explode, I quickly unplugged the power-pack completely and tried to get back to sleep. Incredibly, I actually slept again, and the dream content has already been noted for my next therapy session.



The sizzling transmitter switch circuit board. Could condensation have caused the sleep-disturbing outburst?

A possible explanation has been found for the strange shenanigans. My 1995-vintage Multiplex 'Europa MC 1020' transmitter had, up to a few months ago, always resided in my relatively warm bedroom and had never given any trouble. Last Autumn, in an attempt to create more space in my room, I moved both the transmitter and the two flyable models ('Calypso' and 'Bushwhacker') next door to where my late aunt Bridget lived. This house has no central-heating and gets cold and damp without the fire on. Recently, I brought the transmitter back to my bedroom, and just a day or so later weirdness ensued.

Perhaps the temperature difference between the old house and the new cottage caused condensation to form in the switch circuit board and maybe a short-circuit tried to develop. I don't know if this is really the case, but it seems plausible. If anyone reading this knows about such matters, please advise further.



At last the Calypso fuselage and tail have been reunited. The model is due to fly again soon, when the joint-lines have been concealed.

When last I tried it, the low-battery alarm had shut up with the switch in its off position, but still slight circuit board sizzling could be heard. Though less audible than before, it was still worrying and I have disconnected the battery again. I have been advised by another modeller to leave the transmitter in a warm place with its back cover off to 'dry out,' and I will do this before trying again.

I am now paranoid about my transmitter's future reliability and think that even charging may be adversely affected. Added to this, there is the worry that the since-retrieved models' airborne batteries and/or wiring may also be compromised. Not a reassuring thought! Time, as always, will tell.

I disagree with modellers who leave their equipment and planes out in chilly, damp sheds and garages and I never did such a thing myself. They sometimes seemed to pay the price for their actions with 'black-wire corrosion syndrome' while I never did – so far. I honestly never considered the adjacent house to be cold and damp enough to induce these 'current problems' but perhaps I was mistaken. I certainly won't be storing any other radio equipment or models next door again any time soon.

I think a new transmitter or complete radio outfit may be on the cards. Pity, as the now apparently dodgy control box served its purpose admirably and had much life left in it, as far as I could glean. But, I shall see how it behaves after a while again and go from there.

TAIL ENDING…

I've finally glued back on the detached Calypso horizontal stabiliser. Having been in a semi-derelict state since January 2011, I mustered the drive at last to reunite the model's fuselage and tail once more. Though a bit tricky to align the splintered fuselage bits, everything eventually meshed in a reasonably pleasing manner. Cyano initially held the shattered fuselage fragments in place, while PVA and modelling pins/rubber bands did the main joining job. The joins now need disguising with Solarfilm, which I hope to attend to when I get time.

Any comments to: feeneyzone@eircom.net

Gerard Feeney

Munster Champs, 19th/20th May, Brinny Site, Cork Model Aero Club

The second aerobatics competition of the calendar was held on the Saturday and Sunday, 19th and 20th of May with an entry of five competitors in Tier 1 and threecompetitors in Tier 2. The weather looked promising for the weekend in particular the Sunday so the competition was to go ahead as advertised as a two day event. The pilots briefing was called at 9:30 where the flight order was determined. As a first for aerobatics, it was announced at the briefing that the failsafe for each model was to be tested. Failsafe is a standard function of most 2.4ghz transmitters and should be tested on every model prior to first flight. All models performed correctly and with that the first flight was in the air by 10:15.

Brian Carolans' Model

Tier 1 flew their first round with a 15mph crosswind blowing in at the pilots. With the current judging scheme the three pilots from Tier 2 judged round 1 of Tier 1, which sounds like a mouth full but simply it means pilots judging pilots from different tiers. A break was then called for 20 minutes between the end of Tier 1 and the start of Tier 2 to ensure the next pilot to fly had enough time to prepare for his flight after judging.

Prize Giving

When the first round of Tier 2 was completed it was decided that only one round would be flown on the day as the forecasted weather for the Sunday was far superior. The following day the skies were blue and the wind sock was lifeless which was appreciated by all of the competitors. Two rounds of each tier was flown before lunch was called where hot food and refreshments were served similar to the previous day.

A new scoring system, MultiRes F4A used for this season proved to be very user friendly and had a quick turn-around of round result. It is worth noting that this system could easily be adapted for use in other disciplines such as scale, heli and control-line. Organiser of the control-line nationals expressed their interest in the program and indicated that it would be used this year.

After lunch the final rounds of both tiers were flown in quick succession. The prize giving followed soon after where perpetual cups for the winners of each tier were presented along with trophies for 1st 2nd and 3rd. Gordon James saw off all the competition in tier 2 with a score of 3,000/3,000 followed by David King and Noel Barrett. Tier 1 saw a much tighter competition with only 28 points separating the 2nd, 3rd and 4th. Shane Robbinson took first place with a score of 3,000 followed by Niall O'Sullivan with 2,728 and Paul Houlihan with 2,719.

All of the pilots praised the event held at the club's Brinny site, in particular the manicured patch, toilets and kitchen facilities and they expressed their interest in returning for the AAA team trials in August. The Cork Model Aero Club would like to thank all those competitors that travelled and congratulate all of the winners. The club would also like to thank Noel Barrett and Richard O'Brien as C.D.'s, Matt Quin for all the hard work before and during the competition, Shaun and Jamie Hourigan for the food on the day and Fred Gilroy for scorekeeping. All of the pictures taken of the event, taken by Matt Quin are available on the Cork Model Aero Club's website, www.corkmodelaeroclub.net for anyone to view.

Results F3A Tier 1

Pilot	**Round1**	**Round 2**	**Round 3**	**Round 4**	**Total**
Shane Robbinson	1000	1000	1000	1000	3000
Niall O'Sullivan	763	953	827	948	2728
Paul Houlihan	873	910	863	935	2719
Ray Keane	878	862	890	933	2700
Brian Carolan	719	911	752	913	2576

Results F3A Tier 2

Pilot	**Round1**	**Round 2**	**Round 3**	**Round 4**	**Total**
Gordon James	1000	1000	1000	1000	3000
Dave King	846	751	917	843	2605
Noel Barrett	800	847	818	834	2499

Airopult.

Don't be maimed, be restrained.

Looking through the June edition of RC Model World I came across an article on the Airopult. As RC Scale secretary for the Cork Model Aero Club I instantly thought this is a must have safety item for our two, often quite busy sites. I went online and ordered one straight away. Within a matter of days, it arrived.

With anticipation I opened the box. Initially I thought it was nicely packed and everything there. Only to find that with the way the unit was packed the adjustment screws were facing downwards, the weight during transit fractured one of the plastic topped screws. A quick email to Keeley had one in the post. Excellent customer service.

The weekend came and Saturday was a washout, On Sunday, the sun came out and up to the flying field I went. My fellow pilots where very curious to see this very modern looking contraption being laid out in the pits. I used 160mm brass hook ended screws as ground pegs as it allowed easy installation and removal placed through the holes and automatically looped over the rear of the Airopult. See photo.

I had practiced setting it up on the living room floor so the initial setup was no problem. I selected the tricycle under carriage option as the Spitfire has a near vertical under carriage and low wing height. I filled her up, connected the glow plug battery, held the starter with both hands and fired her up. It was very strange as it is your impulse to grab onto the plane, after a short time you become confident that the restraint will hold. I checked the rpm of the engine and ran her up to full throttle. It did not move an inch. Wonderful.

By this point I was gathering an audience. I stood back, tapped the safety catch, pressed the pad and taxied her forward. I love the way everything falls flat and there is no obstructions to catch on.

The pros speak for themselves but there is only ONE con. As our club is very sociable and your fellow pilots always lend a hand I found it hard to say to them that I no longer need a helping hand. My son who often accompanies me as my wingman suddenly said “Dad you’ve made me redundant!” He will still help me take the planes to the strip though.

I look forward to trying it out on my other models as the need requires.

David Reid
RC Scale Sec.
Cork Model Aero Club

Waterford Fun-Fly

Organisation & preparation for this event started almost a year before it was scheduled to go ahead, however on the Tuesday before the event and after agonizing over 4 very different weather forecasts and several weather charts, we decided to go ahead and run the event.

The grounds were organised, fences put up, signs made, chip van ordered & toilets delivered. Only one last thing for us to do - Wait for our guests to arrive after a lengthy drive from the UK.

Pretty in Pink—Ali's Spitfire

Despite the weather forecasts, the weather changed yet again the day before the event! This time for the worst - more rain & wind. Additional gazebo's were ordered to provide shelter for models and people alike.

Some of Ali's Models

Finally Ali Machinchy & his team, (Simon & Stevo), from Als Hobbies arrived looking well rested and excited to fly in Ireland for their first time. Setup & flying commenced at a civilized time on Friday morning after a good breakfast, Ali had managed to pack no less than 12 big models into his van with space to spare - watching the van being unpacked seemed like watching a magician pull rabbit after rabbit from a hat that clearly had no room for any more rabbits! He had packed a number of petrol models, with engine sizes ranging from 85cc up to 200cc! A few turbine powered models including an Ultra Flash & a large Futura were also in the arsenal of models that were brought over - These made my own "little" Boomerang Sprint look rather small, slow & aged.

With the weather holding up well, several flights of all the models were performed, each being more impressive than the last. As the evening drew to a close, I managed to do the long overdue maiden flight of my own Viperjet with Ali at my side giving me his expert guidance. The maiden flight went without any major incident, and will see many more flights as she flew beautifully in the sky.

Saturday had a great turnout, with pilots & spectators arriving from all parts of the country. The crowds waited patiently as Ali & Stevo attempted to start a small turbine engine attached to a little glider, finally success came as the turbine fired up! After putting the small glider onto a steerable trolley, the throttle engaged and the glider took off from it's trolley after only a few metres! The little glider was fast, but as the crowds watched the model gathering speed, they did not know where to look after the model changed direction without warning and disappeared from sight.

Ali explains things to the media.

Unbelievably, this model could perform a hairpin turn while travelling at nearly 200mph, within 1 length of itself. A couple of short minutes later, the fuel in the model ran out, leaving the model high in the sky, making it a glider once again. Unfortunately the wind speed & direction on the day meant that landings had to be towards the pits area, making some nervous of flying their own models, this did however mean there was more time for watching the impressive display put on by Ali & his team.

With the weather conditions deteriorating further and coupled with the after affects of Sambuca on Saturday night, Sunday had a later than usual start, but no less impressive - even though some models had been retired from the day before due to minor damage, including a very unfortunate loss of the turbine from the glider mid-flight. Sunday also had it's own challenges with several vehicles getting stuck in the fields - the crowds pulled through and helped the stranded vehicles out of the mud.

This thing was 'proper fast'.

Thank you to all who attended the event, without who we would not have been able to create the exciting atmosphere of a community with the same interests. I would like to thank my own team who put many hours into the organisation of the site & event, without them the event could not have been the success that it was. We would like to thank our own club members & Model Heli Services for sponsoring the fantastic raffle prizes on Saturday & Sunday - This again demonstrates the dedication & generosity of both individuals & businesses involved in our sport.

A huge thank you to Ali, Simon & Stevo for agreeing to visit our club, we hope that they had a thoroughly enjoyable time here. Finally, last but not least, thank you to all the wives & girlfriends for putting up with us for the six months preceding the event with countless meetings, phone calls and travelling!

Thank you.

Rob Norton
IRL 4792

Instruments In Use In Aircraft of the 1918 Era Part 2

The Fore-and-Aft Level.

The fore-and-aft spirit level consists of a triangular tube with a bulb in the apex of the triangle, which is set at the back of the instrument board. The front of the level is graded in degrees and lies flush in the dashboard, the liquid being arranged to register 0° in the half-way position when the machine is flying level. When the machine is climbing, the liquid rises in the glass, and when the machine descends it recedes. This level is only useful in so far that it tells the pilot the degree of- climbing angle of which his machine is capable under any particular set of conditions of engine power or load. Unlike the air speed indicator, which will always allow him to know if he is flying within safe limits (it does not matter whether his engine is on or off, or what the load is), the fore-and-aft level cannot be used for this purpose, as a machine might be able to climb at a certain angle with the engine running all out or with a light load, but it could not reproduce this performance with a failing engine or full load. Thus the pupil should not depend upon the fore-and-aft level too much as a means for telling him his position in the air, i.e., if he is climbing, flying level, or descending. If he noticed that he was flying level under any particular set of conditions with the fore-and-aft level registering at a certain mark, he might attempt to keep the level at the same mark if he ran into a big cloud unexpectedly. Even then his air speed indicator would probably give him a better idea of his fore-and-aft position than the fore-and-aft level itself.

The Engine Revolution Counter.

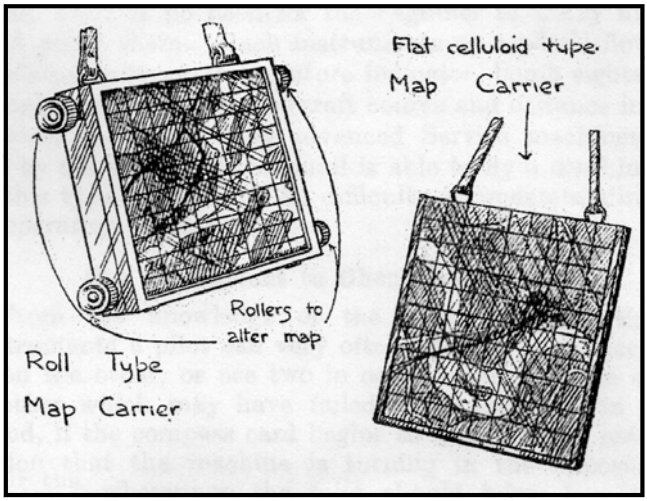
The engine revolution counter can be driven off the crankshaft, the camshaft, or the pump shaft of the engine. Providing that a correct gear ratio is interposed between the shaft on the engine and the flexible shaft of the indicator, it will indicate the actual number of revolutions of the engine per minute. Like other instruments, the needle and figures on the dial are often treated with luminous paint so that they can be read in the dark. The dial is arranged according to the speed at which the engine runs. It may be graduated from 500 r.p.m. to 1500 r.p.m., or up to 2000 or more r.p.m. if the engine is a high-speed one. The chief troubles with revolution counters occur owing to the breakage of the flexible shaft, or the pin coupling at the engine, pump or countershaft connection breaking or coming adrift. Sometimes oil will work its way up the flexible shaft and cable and enter the instrument, where it will cause the hand to stick. The cure is to clean both the flexible shaft, the cable and the instrument with petrol. Revolution counters work either by centrifugal force or electrically.

If the internal mechanism breaks down, the instrument must be returned to an expert for repair. In the event of any of these instruments failing in the air, there is no immediate need for the pupil to land.

The Watch.

A watch is always a useful instrument in an aeroplane. It should have illuminated ringers and figures and be well insulated from vibration. This is done by placing it in a felt-lined case. A watch being valuable not only to aviators, it is advisable for it to be secured to the machine, or else to remove it when not required, as in the case of a machine being left out in a field all night, for otherwise, when the pilot returns, he may discover that someone had appreciated the value of the instrument and appropriated it for his own use.

A map carrier can consist either of a leather case with **a** celluloid cover through which the map can be read, or else of a flat tin or sheet aluminum box with a roller at each side. In the latter case, clips are arranged to grip the map in each roller. The map must be cut to the correct width so that the carrier can accommodate it, and is then wound on to one roller and secured to the other. By turning the roller, the map is gradually unwound underneath the celluloid cover, which has to be removed to fit the map into the case, and stretch by stretch becomes visible to the pilot's eye. The principle on which this type of map carrier works is similar to the mechanism for winding up a Kodak film. It is chiefly useful when a long stretch of country has to be flown over where the course to be travelled is too great to be viewed easily on one map, and the one sheet may not cover the one journey. Several map sheets can then be gummed together and cut so as to form one continuous stretch. The map case is carried slung round the neck by a piece of tape, but the pupil must be careful to see that it does not foul his controls, as it may do if it were left to dangle freely, or if it were hung up on the machine.



Two kinds of map carrier used for cross-country flying.

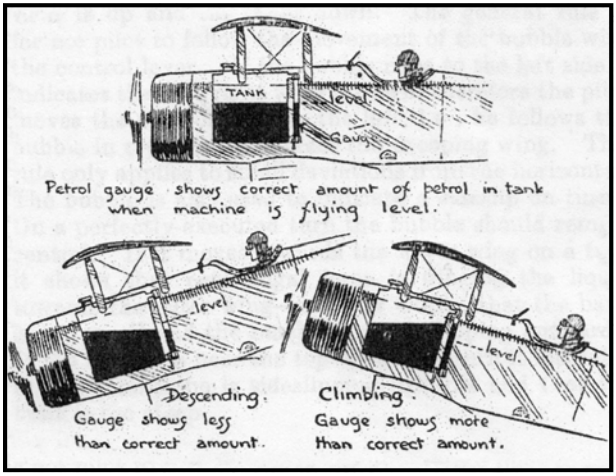
Petrol and Oil Gauges.

The petrol gauge consists of a vertical glass tube connected to the petrol tank by short lengths of pipe at the top and bottom. A tap can be fitted between the gauge and the tank, in which case the gauge will only register when the tap is turned on. The petrol takes up the same level in the gauge as in the tank, so that the pilot can see exactly how much petrol remains! He should remember, however, that, as the gauge will probably be fitted in the back of the tank, the reading will only be accurate when the machine is flying level. When the machine is climbing steeply the petrol will mount up at the back of the tank and in the petrol gauge, giving a reading in excess of the amount carried. When the machine is descending the reverse occurs.

Fitting Nuts and Bolts.

A point in connection with the arrangements of taps worth noting here is that they, should always be designed to hang down in their running position. There will then be no chance of them closing themselves unexpectedly owing to vibration in the air. In the same way, the bolts should always be put in with their securing nut underneath, so that, in the event of the nut falling off, the bolt will still remain in position. In cases where bolts are put in horizontally, and not vertically, the head should always face the direction of flight where possible, so that, should the nut come off, the tendency of the bolt will be to remain in its socket.

The sight-feed oil pulsator domes, used on most rotary engines of the Gnome type, are connected to the oil pipe between the pump and the crankshaft. As the pump discharges a small amount of oil at each stroke of the engine, the force of the pulsation is also transferred to the oil in the oil pulsator dome. The oil rises slightly and then falls again.



Petrol and oil levels, showing why the petrol and oil gauge fitted to the back of the tank may mislead the pilot as to the amount of fuel remaining, unless he is flying level when he reads the gauge.

If the gear ratio between the pump and the engine is known, it is possible to calculate the number of engine revolutions by timing the number of pulsations per minute in the glass dome. In the Gnome engine the pump shaft turns at 7/4 of the speed of the engine, while in the Renault engine the pump shaft turns at 2/7 of the speed of the crankshaft. There is no pulsator gauge in the Renault or E.A.F. engines, which are commonly used in school machines. An ordinary pressure gauge is often fitted instead. When, the oil is cold and the engine just started up the pressure will be seen to rise, but after the engine has been running for seven or eight minutes it will drop gradually to its normal mark.

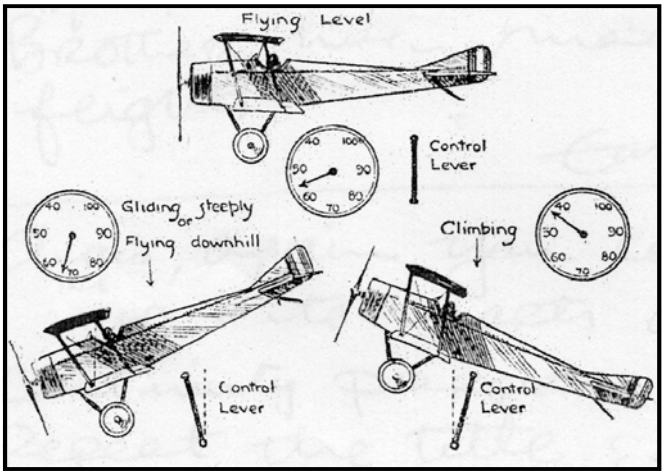
Pressure Feed.

A similar gauge is used in connection with pressure fed petrol tanks, into which air is pumped, either by a hand pump or else mechanically by the engine, or, again, by a fan operated by the passage of the machine through the air. Generally a pressure of 2 lb. or 3 lb. per square inch is sufficient, and should the pressure increase beyond normal, some kind of adjustable safety valve or tap should come into action to prevent the tank being unduly strained. Pupils are often liable to forget the necessity for keeping pressure in the petrol tank by hand pumping from time to time, and have, suffered forced landings in consequence. The best type is that in which the hand pump is only used as a standby or for starting up, the pressure being mechanically maintained as soon as the engine is running. Leakage of pressure may be due to the petrol filler cap not being properly screwed down, or to taps or safety valves not seating properly, in which case they must be ground in until an airtight joint is obtained. Failure to hold pressure may even be due to a careless mechanic fitting the oil tank filler cap, which generally has a hole in it, to the petrol tank and vice versa when last replenishing the machine.

There are many other kinds of instruments to be found on Service machines, but, beyond mentioning these, there is no need for the beginner to worry his head about them. Such instruments as a petrol flow indicator, radiator temperature indicator, bomb sights, aeroplane cameras, and aircraft course and distance indicator, are all used on advanced Service machines; but by the time that the pupil is able to fly a machine of this type he will find no difficulty in understanding or operating these fittings.

One Instrument to Check Another.

From the knowledge of the possibilities of the instruments a pilot can very often use one as a check upon the other, or use two in conjunction in place of another which may have failed. For instance, in a cloud, if the compass card begins to spin, it is an indication that the machine is turning in the opposite direction, whereupon the pilot should know how to counteract it. By watching the compass card dip or rise, fore and aft or sideways, the pilot knows that his machine is doing just the opposite, and, accordingly, counteracts the movement with his controls. By observing the height indicator he knows if his engine is pulling properly, for if he were to keep the machine at its normal flying speed and it were to drop, as shown on the height indicator, this would be direct evidence that the engine was not giving its full power. The air speed indicator tells the pilot when he is climbing or descending, and also, when used in conjunction with the height indicator, it keeps him informed as to how the engine is running. The engine revolution counter, in addition to indicating the revolutions of the engine, can be used to show whether the machine is climbing or descending as the revolutions slow down or increase accordingly, within certain narrow limits.



One instrument to check another. Showing how the air speed indicator can be used as a fore-and-aft level. If the machine flies level at 57mph it must be descending at all speeds above that, and climbing at all speeds below until the stalling speed is reached.

The sideslip indicator may either be an instrument based on the principle of having an air speed indicator at each wing tip to register the difference in speed between the two wings, or it may take the simpler form of a piece of string allowed to trail backwards in the view of the pilot. In a cloud the cross level may be used to some extent to maintain the lateral level, the pilot following the bubble with the stick.

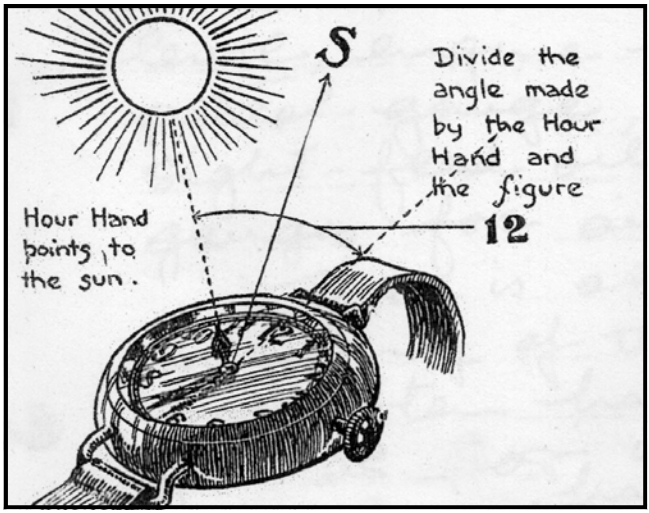
Watching the Bubble.

The fore-and-aft level could be used if the air speed indicator failed, as it might do through intense cold of condensation and frost. Assuming that a pilot knows at what number of degrees it is safe to climb the machine, a fore-and-aft level can be used successfully for flying, so long as the engine gives its normal power. The side-to-side level indicator shows, within limits, when one wing is up and the other down. The general rule is for the pilot to follow the movement of the bubble with the control lever. If the bubble rises to the left side it indicates that the right wing is down, therefore the pilot moves the control lever to the left, i.e., he follows the bubble in order to counteract the drooping wing. This rule only applies to small deviations from the horizontal. The bubble is also used to indicate a sideslip on turns. On a perfectly-executed turn the bubble should remain central. If it moves towards the lower wing on a turn it shows that centrifugal force is flinging the liquid towards the outer wing—in other words, that the bank is too small and the machine is sideslipping outwards. If the bubble is near the top wing on a turn it indicates that the machine is sideslipping inwards and that the bank is too steep.

The Importance of the Watch.

The watch serves more than one purpose. With it a pupil can tell, more or less, his whereabouts, i.e., providing he has calculated his speed correctly. He can easily verify this by timing himself over the first division of the course which he has marked out on his map. He knows, too, when his petrol and oil supply may be expected to run out, how much daylight he has (an important factor if he starts on a cross-country flight on a winter's afternoon), and in an emergency he can often use his watch to tell him the north, hi the case of his compass failing. This is done by pointing the hour hand to the sun, and by dividing the angle between it and 12 o'clock, the result, in the northern hemisphere, being that the dividing line points to the south. If he lost himself and his compass were to fail, he would come down to find his whereabouts on the map with the aid of his watch, and then note some visible and prominent landmark on his right course. He would then fly to it by sight; but, before reaching it, he should pick up two other objects on his correct line of flight, which will help him to keep his course when he has left his first, landmark behind. By repeating this process it is possible for him to arrive at his destination without the use of a compass.

Testing the Speed Indicator.



Importance of a watch. How to tell the north or south in the northern hemisphere by using the watch.

The object of describing how one or two instruments can be combined to make a substitute for another is that, when one fails, the pilot need not feel lost. The air speed indicator may fail through a rubber joint breaking or a leak occurring, or even through it being frozen up. This can be tested by blowing down the tube until the pointer shows 70 or 80 miles per hour the tube is then sealed up by holding the tongue over it, and if there are no leaks the pointer will remain at the set mark, falling back to zero when the pressure is released. The engine revolution counter may suffer defect either through the oil being frozen or the drive breaking, while the height indicator sometimes fails or sticks.

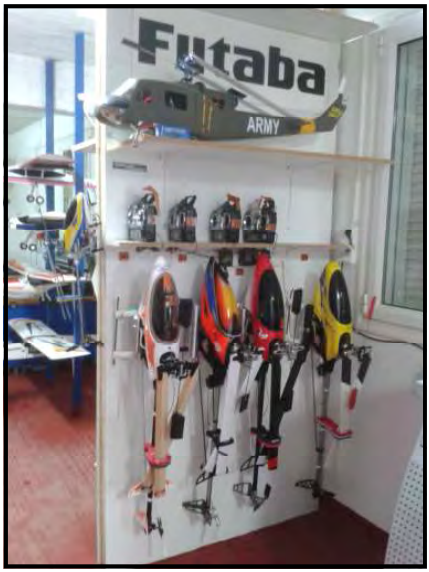
I hope readers have found these articles as interesting and fascinating as I have, and that we can appreciate the degree of sophistication of the aircraft and their equipment only a decade after the Wright Brothers had made their first powered flights.

Eamonn Keenan

Corfu - Again!

As I promised in the last edition, here is a report of my most recent visit to the RC Hotel in Corfu. This is the fifth time in the last six years that I have, with friends, visited Spiros and his crew. Having always in the past gone out in September, we decided to go early this year and duly booked for June.

Some of the models you can 'play' with.



Prefer heli's? There's everything from electric to scale.

Having placed our trust in the ferry from Rosslare, we arrived at Bristol Airport two hours before the flight.....result! Thirty five minutes after landing in Corfu our taxi driver got us to the hotel at around 11:00pm where we re-acquainted ourselves with Spiros, his partner Julie and, of course, the local Alpha beer.

The next morning, after a hearty 8:00am breakfast, we made our way to the flying area to see what models were available. At this juncture I should point out that it was in the mid twenties with clear blue skies and a very light breeze.....model flying heaven.

The first plane that caught my eye was the Wot 4 Foam-E. I had had a three minute flight with one of these back home and was keen to have another go.

With a freshly charged LiPo and the correct transmitter, it was off to the flight-line. To say that I fell for this plane would be an understatement, I flew the socks off it for the next week, including an arrival in the trees, luckily without any damage. I flew a number of the other planes but kept coming back to the 'Wotty'.

By lunchtime on the second day the temperature had reached the mid thirties, way past the melting point of an Irishman! As flying stops between 1:00pm and 5:00pm, this was a welcome break. During these breaks, the hotel organises sightseeing trips to various parts of Corfu, or you can do as we did and hire a car to do your own exploring. We did have a couple of thunderstorms, but we still managed to fly every day.

You have to smile with weather like this and quality models to fly.

The hotel caters for all types of modellers from raw beginners to display pilots, and, mostly, those in-between. The fixed wing and heli training is excellent for those who either want to learn from scratch, or improve their existing flying skills. This diversity of levels makes for an interesting week of mixing with, and observing, fellow modellers.

On our journey back to the ferry we decided to call in to West Wales Models to get a few bits and pieces, and guess what I bought……..yes, I'm now the proud owner of an electric Wot 4.

If anyone would like any further information on the RC Hotel, please feel free to contact me. Will I be going back again? You betcha, I'm just waiting for the flights to be available for next year.

Chris Clarke

2012 Contest Calendar

For Up-To-Date details visit

www.maci.ie

Scale

Please note

All Scale Championships, except the Scale Nationals, will be held on a Saturday. In the event of a large number of competitors or bad weather on the Saturday, then the Sunday will be utilised. Please check with the contact below, or visit the MACI web-site, on the Friday that the competition is going ahead.

14th July	East Coast Scale Champs *Contact Liam Jackson 087 2562293*	Roundwood
11/12 August	Scale Gala (competition) *Declan Henegan 087 2625868 declan.h@unison.ie*	Midland MFC
August 25th/26th	Scale Nationals *Contact Andy Ryan rinomodels@gmail.com*	Model County FC
2nd September	Scale Fly-In *Contact Melvin Inwood 045 433050*	Newbridge
16 September	Scale Fly In *Declan Henegan 087 2625868 declan.h@unison.ie*	Midland MFC

F3A

14th/15th July	South Leinster Champs *Brian Carolan 087 6509848 brian@emeraldhobby.com*	Model County MFC
Jul 26 - Aug 5	F3A European Champs *Pierre Pignot +33 5 49235532 pierre.pignot@orange.fr*	Chateauroux, France

18th/19th August	F3A Nationals &Team Trials *Gordon James 086 8269840*	Carron MFC
25th/26th August	Backup for Nationals *Gordon James 086 8269840*	
15th/16th September	AAA & Team Trials *Noel Barrett 021 2475971 nbarrett@indigo.ie*	Cork MFC
22nd/23rd September	Backup for Team Trials *Noel Barrett 021 2475971 nbarrett@indigo.ie*	
6th/7th October	Back up date for first event cancelled. *Angus Balfour 086 0407648 aerobatics@maci.ie*	

Helicopter

1st/2nd September	Heli Nationals *Noel Campion 087 9670668 helicopter@maci.ie*	Carron Tipperary

Control Line

12th August	Control Line Nationals *Ralph McCarthy 087 8322791 ralph.mccarthy@cit.ie*	Cork MFC	Brinny

Gliding

TBA	Gliding Nationals	Tountilla

July 21/22	Bandon MFC Fly In All welcome All Models	**Clashafree, Bandon, Co Cork** Flying Site Coordinates 51^0 44' 23.40" N 8^0 41' 40.15" W Contact Jackie Kelleher 021 4506757

Two more shots from the Waterford Fly-In

Smoke On! From the F3N Competition.