



# Newsletter

No5 2020 May

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## Coronavirus.

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As everyone is aware, we are in lockdown. The committee has decided however that to preserve future use of the field and for the shaky health of our mower, the grass needs to be cut. Tom W and Billy D have volunteered for this on strict condition that no flying is to be done. This is allowed under government rules on the lockdown as essential maintenance of a site. Many thanks for everyone's understanding and continued support by staying away from the site during this time.

***Remember. Lockdown rules in England and Scotland are different. Currently there is no change in Scotland. The Scottish Government's message is still "Stay at Home".***

Unfortunately some rather sad news today. It appears that Geoff Stevens treasurer of the SAA has passed away with Covid 19. I don't know if anyone knew him? The following message was taken from the Scottish Aeromodellers Facebook page dated 7<sup>th</sup> May 2020.

*Dear all,*

*It is with great regret and sadness the council have to inform you that Geoff Stevens our treasurer passed away on Monday morning after a 3 week battle against Covid 19. He had rallied around a bit on Friday but the virus eventually took its toll on him. He was a good man and had the SAA's finances in great order and had taken us through the rocky road to becoming a Ltd company. His loss is a great loss to the council and the association, and also to myself as a member and a friend of my own club.*

*Yours Jim McGlynn.*

## **Mower fund target £6000**

The mower fund is still ongoing and stands at £497.51 Any committee member would be happy to take your donation. You can make a donation through [gofundme.com](https://www.gofundme.com/f/KRMFC-raising-funds-for-a-new-grass-mower?sharetype=teams&member=2955562&utm_medium=social&utm_source=whatsapp&utm_campaign=pna) at

[https://www.gofundme.com/f/KRMFC-raising-funds-for-a-new-grass-mower?sharetype=teams&member=2955562&utm\\_medium=social&utm\\_source=whatsapp&utm\\_campaign=pna](https://www.gofundme.com/f/KRMFC-raising-funds-for-a-new-grass-mower?sharetype=teams&member=2955562&utm_medium=social&utm_source=whatsapp&utm_campaign=pna)

## **Change of Editorship**

Due to Alan V having an issue with his hands, and ongoing issues with slow broadband, Neil Grayson is taking over editorial duties on the Newsletter. Alan will become the deputy editor temporarily. The email address for articles remains the same - [alnvkrmfc@gmail.com](mailto:alnvkrmfc@gmail.com).

Please be patient if your article doesn't appear in the next Newsletter after you submit it. It will appear eventually but I am pleased to say this is because I now have a few articles building up.

Please let Alan know of anything you think should be included in the Newsletter, things you like or dislike. Any feedback would be much appreciated.

## **Sales**

It is intended to introduce a Sales/Wants section into the Newsletter. Any member who has any items they want to get rid of or want please email the usual address.

The following article is from AC 90-89. Contributed by Alan Veitch

## POST LOCKDOWN MAIDENS

I know that we are all desperate to get our shining new creations up to the field and take to the air, BUT beware. I know that I am not the best RC pilot, and I wouldn't dare give many of you advice on your pilot skills. That's why I have extracted this information from AC 90-89. Which as you all know is the FAA advisory circular "Amateur-built Aircraft Flight Testing Handbook ". Well you do now! The advice here is just as relevant with a model plane. Before you fly, test run the engine and get it running right, check and double check the C of G, make certain everything works as it should do.



### PILOT PREPERATIONS

The aeroplane's ready. Is the pilot?

All too often homebuilders stop flying during the construction process. And far, far too often the aircraft's first flight is the builder's first flight in months - if not years!

### WHO YA GONNA CALL?

Who do you trust to make the first flight of your pride and joy? Or perhaps more to the point, who trusts you enough to make the first flight in your homemade aeroplane? Your preferred choice would be someone who has a lot of hours in the same type of aircraft. Experienced flight instructors are another good source.

### DOING IT YOURSELF

In most cases, builders decide to make the first flight themselves. Get some time in flying what you know, hone your skills and relax.

### THE DAY

Don't tell anyone. Stand next to your flight advisor, call in someone else to record the great event in pictures if you like.

But don't invite the world. The problem is the space shuttle Challenger syndrome, the feeling you must fly, why? because everyone is expecting you to fly, so you ignore the crosswind, shrug off the rough idling engine, and decide to fly a high-speed pass to show off the plane.

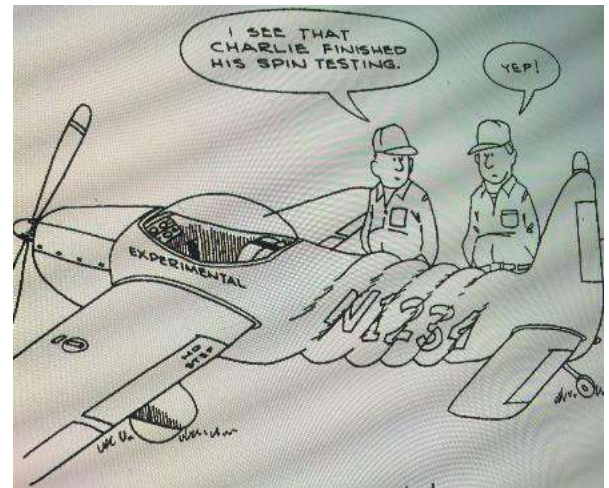
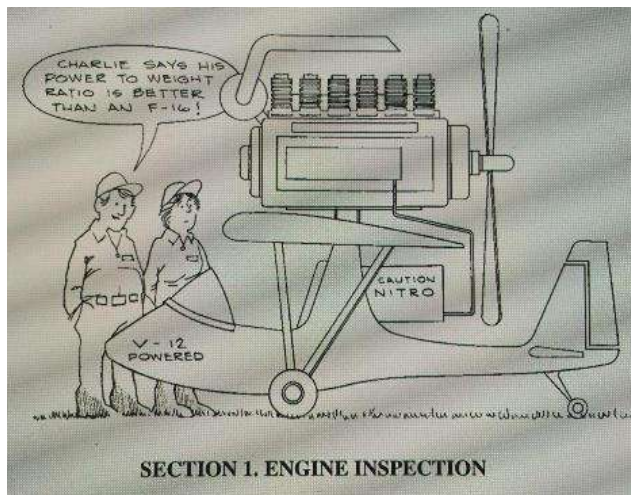
You must be willing to scrub the flight for any deficiency. A crowd of kitbitzers, (people who offer unwanted or meddlesome advice), complicates matters. There's the human tendency to please the crowd, and the 10-year old inside you doesn't want to be called chicken.

So do yourself a favour and keep the flight time secret. Inspect the plane carefully, carry enough fuel, work the controls and make sure that they are not binding, set the flaps and trim to the take-off position. Have a trusted person duplicate your inspection. Try to have the C of G at the forward limit. Feed the power slowly, keep to the centre line. Abort at the first sign of trouble. Over controlling is common so move the controls deliberately to prevent pilot induced oscillation (PIO). This is the fancy name for over controlling. If the nose is too high you shove it down hard, then the nose is too low and you pull back even harder, eventually

you're a half cycle behind the aeroplane. Make all inputs gentle and gradual. Fly to the test area and execute the test plan. Basically the first flight consists of controllability, trim, and engine checks. Don't plan on staying up all day, your adrenaline will be pumping, and fatigue sets in quickly. Any aircraft problems, start heading back.

All you have to do is one good landing approach, go around if necessary, more than once if required. It's not necessary to do a perfect landing so don't get into trying to grease it in.

Shut down your engine. Have your picture taken. Congratulations. You no longer have a kit, you have an aeroplane.



Alan Veitch



## Man Cave Caravan by Alan Jamieson

I was approached by Alan V and asked to write an article on my scratch build of my DHC6 Twin Otter model. Given that I am building it in my man cave caravan, I was also asked to write about this. So, I will begin there.

Every man needs an escape pod, from modern life as well as the wife, and I'm no different. I sold the idea to the good lady because I was getting complaints about the office for my driving school being in a room otherwise wanted as a sewing room. The opportunity was created. I had liked the idea of getting hold of an old caravan and adapting it to my needs and I found mine locally in Perth. It is a 1984 CI Eccles Amethyst; the deal was done and I towed it about 8 miles home. So glad it was a short journey, but more on that later.

So, what to do with this caravan. It sat beside the modern one we holiday in for, perhaps a year, while I processed options. You can't



rush these things! Following the demolition of a very rotten large wooden building, the caravan was moved to a corner in the back garden and set level. I removed the normal caravan equipment, including the Porta Potty which, I quickly learned, had been left full. It remained full and was later taken to the local Recycling Centre. So, the work began by removing bunk beds and learning that the internal walls were thoroughly rotten, including the caravans frame – hence my relief that the journey home

was short. The body could have been left sitting on the A9! It was never my intention to tow it again, so none of this mattered. Basically, I stripped all lower walls out dried out what was able to be left and clad in tongue and groove pine. The pictures will give an idea of what happened.



Some 25 years ago, I was a member of Cathkin Model Flying Club in Glasgow, my home town. I was learning to fly then and was able to take off, fly a circuit and land – just. Given the time and financial pressures of raising children, I left and didn't return to the hobby until October 2019, when I visited KRMFC and was welcomed by Billy. Quickly, I met Alan, Neil, Trevor, Tom and John and was encouraged to join. I bought my Cessna 182, Billy maiden it, trimmed it out and I got back to where I had been all those years ago. Then my son, Craig showed an interest in our hobby, so he has his own Cessna now and is at the very beginning of learning to fly. All those years ago, I had a Precedent Hi Boy and another trainer I can't recall the name of. I had also mostly scratch built a Cessna 172 but, it never flew and got scrapped at some stage.

My interest in flight began at 6 years old, when my parents took me on a DH114 Heron from



Glasgow to the Isle of Barra – the world's only scheduled service using the beach as the runway. From then, I have always been very interested in flight. In fact, one of the two Herons which were used by BEA on this route is preserved at Newark Air Museum and I managed to talk myself into getting inside on my last visit. Well, some 49 years later, I used up one of my bucket list tickets and returned to Barra, this time on the DHC6 Twin Otter. Apart from this year, I have been

back for an annual long weekend visit to this beautiful island. So, there is my motivation to build the model. I researched and found plans for sale in Seattle, so had them sent. (Note: got stung for import tax and VAT – big time). Anyway, I needed a place to build this model and looked to my man cave. I needed a bench and renovations in our hallway freed up some flush doors. This door was installed over the caravan's sink and cooker unit and covered in cork tiles.

I began the build and, while it is tricky and requires lots of attention to detail and interpretation of the plans, it's progressing slowly. I learned that it's best to only work on models when the desire is there. The 84" span is too large to build and transport in the desired one piece so I learned that it can be split, not in half as it would fold up in flight but rather, having wing tips removable. I need to study where best to do this and modify the build slightly to accommodate this.



When complete, this model will be a replica of the Twin Otter I returned to Barra on. See pic of the aeroplane on the beach at Barra. Not being one to just have the current plan in mind, I have also researched a model of the DH Heron. Again, available in America, this one has a 120" span and You Tube has a couple of videos of it flying in BEA livery. Perhaps one day!



Finally, back to reality and my need to continue learning how to fly RC. I am looking forward to being able to return to our field and to learn from the Club's experienced pilots. Hope to see you soon and I send my good wishes that everyone and their families are keeping well.

*Alan Jamieson*

The following article is from <https://www.boldmethod.com> . Contribution by *Douglas Fulton*

## Is this why some RC Pilots have trouble flying a clockwise circuit?

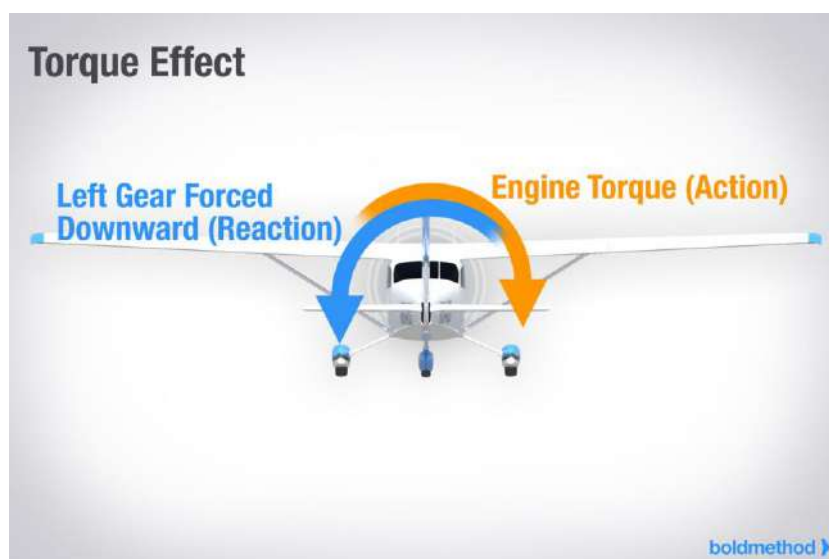


Have you ever felt like you're veering toward the left edge of the runway on take-off?

It's not because you're a bad pilot. There's a reason why your plane pulls left. Actually, there are four of them, and they're called left-turning tendencies. Here's how they work, and why you need right rudder during take-off to correct them.

### Torque

Torque, which is the first left-turning tendency, comes from Sir Isaac Newton. Newton's third law states that "for every action, there is an equal and opposite reaction".



Most western aircraft have engines that rotate clockwise when viewed from the cockpit. That's where torque comes into play.

As you throttle up your engine for take-off, the right-turning direction of your engine and propeller forces the left side of your airplane down toward the runway. When the left side of the airplane is forced down onto the runway, the left wheel has more friction with the ground than the right wheel, making your aircraft want to turn left.

## P-Factor

P-Factor, which is also called "asymmetric propeller loading", happens when the downward moving propeller blade takes a bigger "bite" of air than the upward moving blade.



This happens in two scenarios:

- Your plane is flying at a high angle-of-attack (take-off and slow-flight are good examples), and
- You're taking off in a tail wheel aeroplane.

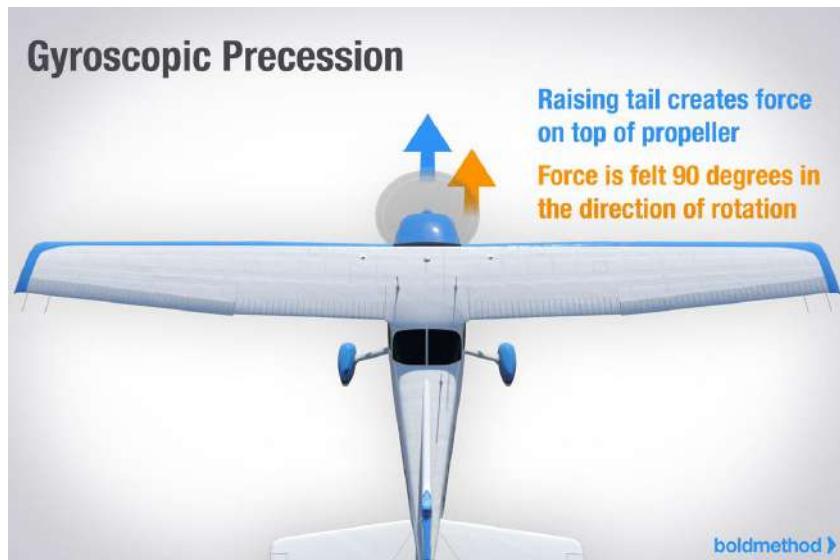
In both of these scenarios, your downward sweeping blade is at a much higher angle-of-attack than your upward sweeping blade. And with a higher AOA, the downward sweeping blade creates much more thrust (or lift), making your aeroplane want to yaw to the left.

## Gyroscopic Precession

A spinning propeller is essentially a gyroscope, which is a spinning disc. That means it has the two properties of a gyroscope: rigidity in space and precession. We won't make this next part a physics lesson, but we will quickly (and painlessly) explain precession.

Precession happens when you apply force to a spinning disc. Here's how it works: you apply a force to one point of the disc, and the effect of that force (the resultant force) is felt 90 degrees in the direction of rotation of the disc.





For the most part, this only applies to tail wheel aeroplanes when they lift their tail off the runway during take-off. As the tail comes up, a force is applied to the top of the propeller. And since the propeller is spinning clockwise, that force is felt 90 degrees to the right. That forward-moving force, on the right side of the propeller, creates a yawing motion to the left.

### Spiralling Slipstream

Spiralling slipstream is the fourth and final left-turning tendency. It happens when your prop is moving fast and your plane is moving slow. And there's no better example of this than take-off.

During take-off, air accelerated behind the prop (known as the slipstream) follows a corkscrew pattern. As it wraps itself around the fuselage of your plane, it hits the left side of your aircraft's tail, creating a yawing motion, and making the aircraft yaw left.



Spiralling slipstream is, of course, dependent on an aircraft's design, as well the phase of flight you're in, so it's hard to quantify how much effect it really has on your plane. But here are a couple great pictures to help you visualize it.



## Why You Need So Much Right Rudder

The four left-turning tendencies create the forces that make your aeroplane veer left during take-off. Step on the right rudder to cancel them out, and you'll maintain a perfect centre line throughout your take-off roll.

*Douglas Fulton*

## Articles wanted

Come on all you budding journalists. Send me your articles. Many thanks to Douglas and both Alans for their submissions. With this enforced lockdown, get typing before we all go stir crazy. The email address for articles is: [alnvkrmfc@gmail.com](mailto:alnvkrmfc@gmail.com)

## A Blast From the Past



Weekend 2<sup>nd</sup> & 3<sup>rd</sup> March 2014

A good weekend at the club with plenty of flying going on. Saturday saw our first visitor of the year, Bill Brown from the Pitlochry club paid us an early visit. This was Bill's first time at KRMFC and he brought a car full of models which included a flying Shark. Sadly it never saw much air time. Helis were out in force with Gary Lee and Tom Wilson thrashing the living daylight out of their models. The club hut has slowly begun to turn green though I think we will have to wait till things warm up to get the rest done.



Above: Tom and Gary talk tactics.



Above: Bill's Shark thingy

Sunday saw most people looking to the skies, not because Auld Jock was in the air but more so due to the weather forecast. Some sites said it would rain whilst others said it would be fine. One noticeable absence at the field was Jim "Styk" Kane where could he be???

Tom Broon of the Barley Field put on an early display with his jumper. Colin turned up with his new Boomerang but sadly it was retired due to technical difficulties. The recent article in the Kinross Newsletter has provided quite a bit of interest with 17 calls over the weekend. A gent from Milnathort paid us a visit on Sunday and seemed keen to pursue the Heli route, hope to see him back soon.

Ring Ring, Ring Ring....."Billy it's Jim" I've boug.....I've bou.....phone went dead.

Ally Grant turned up with his Beaver!! The engine however would not push over 5000rpm, later it was found that the CDI was at fault, new one ordered and on its way.

Ring Ring, Ring Ring....."Billy It's me again" im about 50 minutes away w..with....my Tur.. eh, what.....phone went dead again.

A rare photograph of Bob Gadd in his early years has now been displayed in the club hut, sadly this is slightly too explicit to put on the site, Bob + Bikini = NIGHTMARE PHOTO!

Ring Ring, Ring Ring, ..... "For F\*\*ks sake Styk what is it? "Errm well Billy.....I've bought a turbine"

Good health to you all

KEEP WELL The Committee