

**Here comes the
drones.**

LESSON TIME
WHAT CAN WE LEARN
FROM THE SPORTS
QUAD HOBBY?



GUARANTEES
CLEVER MARKETING
PLOYS OR



#RUININGTHEHOBBY
DON'T GET SUCKED IN
TO THE BLAME GAME



Q & A
WHAT TO BUY, WHAT TO
FLY, WHAT TO KNOW

FGA PATREON NEWS

Who's really ruining the hobby?

Even if there was never any drone involved in the Gatwick airport fiasco let me say this. I don't blame commercial operators. I don't blame DJI Pilots. I don't blame hobbyists. I don't blame anyone flying in this industry and that is because NO ONE has shown they are a danger to society. No one has killed anyone, no one has been seriously injured. No aircraft has been put in great danger, no common issue of invasion of privacy has shown up. Right now with current data there is next to no chance of any real danger for people with regards to drones and that includes all the idiots. If the actual risk is so low then what is the issue? The issue is fear. The fear is stemmed from media hyping things up. Fear sells, factual information doesn't. This is perfectly normal and seen with any new intrusive technology and eventually subsides as the mainstream becomes more comfortable about how much of an overreaction the fear was. Just like cameras in mobile phones the fear will subside.

The real issue is the big companies that have previously ignored the 0-500ft airspace but now want it all for their own use as it is quickly becoming a bigger business area than above 500ft. The only issue is that regulation has made the 0-500ft airspace open to all and this greatly limits their ability to be free there. Hence the lobbying to have much of the regulation changed.



So who do I blame? None of those flying the drones. What has happened is perfectly normal and would have always happened due to it being a new intrusive technology regardless of



how well we flew or not. I blame the media for pouncing on the fear to make money, I blame the big companies using their power to keep the fear going so it can help with their lobbying to the government to change the regulations so they can be free to own the airspace and I blame the government for not working for the people by actually looking at the facts but instead lining their pockets like they do most of the time.

General Observations

It's great to receive feedback from my Patreons about the summary points I made recently about the parlous state of the recreational FPV hobby. Here's 3 more that I believe apply:

1. **Lessons self build recreational quad enthusiasts can teach their commercial counterparts.**

When you build your own quad from scratch you learn so many different things. Important things. Most self built quad pilots will tell you that the building process is as exciting (and difficult) as developing flying skills or "muscle memory". Self built quad aficionados like most of my Patreons want to know how a quad is put together because eventually it's going to crash and need to be repaired. Maintenance know-how and tuning knowledge only come through experience. No matter how you look at it the majority of the nerdy self build pilots frown upon people who buy a ready built consumer quadcopter. Those things literally fly themselves but everything is great until it crashes or malfunctions.

Part of my work at the moment is to teach commercial operators how to maintain their equipment. The complex aspects of a working quad are not what the majority of commercial pilots want to know about. But as we all know it takes lots of skill to appreciate the inner workings of a quad, something that is vital if you are using a quad in your work. As time goes on and into the future, just like in the computer world today, there will be a bevy of repair agents who have the skills to analyse and repair quads that exhibit problems. So what can commercial quad pilots learn from us nerds?

It's not just flying skills that are important. Its everything you need to know to make your quad fly and function efficiently. And not many people know how to do that. Expand this further and you will fully appreciate why pilots like us are so protective of this hobby. We are not simply outsiders but we are fully invested in something that we are totally passionate about. And that includes making sure that our community continues to enjoy the right to fly. It's also the reason why we as a community are so critical of commercial interests coming in to pontificate about safety and security. I know, as an FPV nerd, we need to fight for our rights. The sad part is that commercialism is getting in the way and hurting us all. Instead of clubbing together globally and working seriously on debunking the negative and scary sensationalist views continually raised by the media, we are inclined to throw mud at one another and at other fanboys. The FPV self-built community has so much to teach the general drone world but we keep missing the point.



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2. A commercial drone pilot's licence - what exactly does that mean?

I have a son who will soon be going through the same process as I did at age 16 - learning to drive a car. After a bit of practice he will eventually pass his licence test and hit the road with minimal practical experience - something you only get driving over the years. As a licence tester for commercial drone qualifications (and a senior glider instructor a few years ago) I can tell you that just because you pass a test to fly a quad does not mean you are suddenly a skilled pilot. My point is this. Self build drone pilots work closely in small groups where they get informal training to fly (and build, and repair). This does not necessarily happen when people get their commercial licences. I have found the pilots who have the more amazing skills are those who fly for fun. They fly fast and they fly in many different locations. Unlike self built drones many pilots of the large commercial drones rely on the drones "flying themselves" - until they crash or fly away. The issue I have is that the majority of unlicensed pilots who have self built their own quads are far more experienced pilots than those who pass a commercial pilot test. In Australia you may get your drone licence OK but that does not mean you can suddenly do business. You have to have a drone business licence which is sanctioned by the federal authority to allow you to apply to fly a project.

3. Is there a typical FPV pilot?

It seems to me that the FPV community could be categorised into a number of different groups. Firstly there is the group who have identified FPV as just another emerging market opportunity and are hell bent on using their entrepreneurial prowess that this market provides them to make money. These people don't necessarily fly but can "talk the talk and walk the walk" to fool others into believing they are simply "one of the boys". Whilst I have no issue with this what does annoy me is when these people are not transparent or up front about their vested interest. The quad community

continues to call out fanboys and people who exhibit a conflict of interest.

The next group are the people are those who have stumbled into this hobby simply because they have purchased an off-the-shelf drone to play with and then got hooked. Some of these pilots graduate to building their own but the majority simply fly for fun and annoy some of the die-hard nerdy types. These pilots (the majority own DJIs) see drones as simply one more area of recreational activity.

Lastly there are the pilots who have had an FPV "experience" that has literally changed their world. An epiphany. Many of these people find solace in the hobby because they have had issues to deal with and FPV drones have become a release from their stressed world. Flying is very liberating - likened to a drug. Building a quad requires lots of quiet time solving issues, so the complexities of building, tuning and testing appeal to many. A number find the frustrations too daunting and fall by the wayside but the vast majority (and this is what has been keeping this hobby going for the last 2 years) keep adding to their fleet whenever they see something new come onto the scene. It is not unusual to see pilots with a variety of quads, nor is it unusual to see pilots with multiples of the same quad. Building and tinkering are as therapeutic as flying. Some of these people end up keen to explore commercial opportunities that would enable them to become full time professionals doing the thing they love more than anything. They will do "anything" to build a reputation that will get them notoriety and fame and hopefully, a fortune. Many soon realise this dream will never become a reality. Thankfully the majority of FPV pilots just go out and fly and gain huge social and mental benefit from hanging out with like-minded mates. A small sub-section within this same group get seduced by competition and spend time competing with other like minded souls in official races (or practicing and timing against themselves). Ever wondered what sort of a pilot you might be?

One Year On

One year ago around this time, after 6 long months of design and testing in a wide variety of conditions around the globe, the Reverb was released to the marketplace. I get a small commission from each and every sale of this frame. Its worldwide success has been wonderful for everyone - pilots and the manufacturer and reseller businesses alike.

I want to thank Sean Blakemore and the boys at ImpulseRC for offering me the opportunity to work with them to help refresh the freestyle quad frame market. Over the last 12 months I watched them work hard to get the Reverb out into the global marketplace and grow a reputable and responsive customer support system second to none. Unlike many other FPV related businesses who call themselves “manufacturers” (mainly of rebranded products), ImpulseRC is one of a very small number of businesses that specialises in ONLY offering quad frames (and has done so for over 3 years)!!!

Like most products, a quad frame is primarily a collaboration between a group of skilled people, not just a **designer** (with practical flying skills who understands the competing needs of good balance, simplicity, performance, weight and durability; but just as importantly - a **materials** expert, a **CAD specialist**; and an astute **marketer**.

Interesting to note that the Reverb has never been discounted, is the sole recommended frame in the major on-line quad stores, is the most cost effective of all “original or branded” frames on the market and has been purchased and flown by literally all the well know celebrities. Their evaluations have been glowing and I am delighted. It is somewhat easy these days to draw up your own personal design on personal 3D printers, cut it out of some cheap carbon off-cuts and offer a small run of frames to a market looking for something new. It’s a different thing altogether to sell thousands of frames and be able to support the customers who make the investment.

I am proud that the Reverb has now joined the Alien as an innovative standalone freestyle product. Each of these frames have their own distinct characteristics, each have their own specific advantages. So much for the Reverb being an “upgraded Alien” as some detractors would have it. The Reverb, and the Alien before it, continue to set the standards for frames even after all this time. A big thank you if you have purchased a Reverb. I know you have not been disappointed. Just know that part it’s the frame I choose to fly after trying hundreds of others. The Reverb does exactly what I designed it to do. No fancy gimmicks or ridiculous flamboyance - just an elegant, easy-to-build, great to fly, freestyle machine. Just like so many hundreds of pilots including every day pilots (all unsponsored) the Reverb is so much fun to fly.



Questions - Answers

PETER

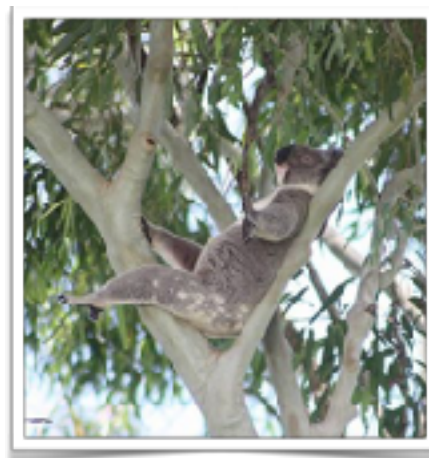
You get to test lots of different quads and their components. I already purchased my Fat Shark goggles so what other helpful advice would you give someone who is about to build a quad? There is so much choice - what's the best or perfect solution in your opinion?

ANSWER

Mate, the magic bullet you seek is just not there. There is no and will never be a "perfect" solution. Although I get sent lots of different frames, motors, props and firmware by companies to test the reality is very stark. There is not that much difference between components - not enough to believe the hype and misinformation continually being peddled around by the marketeers or sponsored fanboys. During the last 3 years in this hobby I have ever only relied on TWO (2) basic frames. TWO FRAMES!! If there was a distinct advantage in another frame don't you think I would be flying it? Same with motors. 43 different motor manufacturers (99.9% located in China and most using exactly the same base component manufacturers) - all of them making motors the same way. All checking out competitor's latest advancements and literally copying anything new the next day. Apart from using inferior materials when building to a cost, motors continue to exhibit little difference. I remember writing the specs for the Hypetrain motors and watched as the "look was prettied" and a manufacturer was selected based on the best possible profit margin deal that could be negotiated. I have learned that it's not necessarily the "best motors," it's what makes the most MARGIN. As for flight controllers well there are literally hundreds of them, all designed to make building a quad simpler. Each one claims top billing. Believe me when I tell you there is still no clear winner except that I like how KISS started the whole SIMPLICITY thing off in the first place. As for frames well its the Reverb right now but it was the Alien before that for me. Today there are literally thousands of frames, all claiming they are the best - yet to be proven that any of

them is perfect because there is no such thing as "perfect".

So my advice? Stop assuming there is something better out there. There isn't. Buy the parts you can afford (after doing due diligence and seeking out a local retailer who can provide you with backup support). My advice is to build your quad with help from local drone friends, take the time to tune it carefully and then don't keep hankering - just go out and spend time enjoying your quad. Oh, and don't bash it too much until you get comfortable with your flying skills.



DAVID

What do you think about a Replacement Guarantee policy?

ANSWER

Replacement guarantee certainly sucks people in. Some are looking for added confidence to know that if they break something it will be replaced for free, or in some cases, a small fee. No-one can argue with that, or can they? If a customer is prepared to pay more then why should we be concerned? Right? Really?

If you pay a premium for a frame in order to get a free replacement then you have paid more up front - even if you never break the frame. If you have the money then who cares? But does this really mean you will automatically have that extra confidence to crash your frame? Seems just as strange to me to pay extra for a frame "just in case it breaks" as to pay for a mystery quad box each month in the hope that what's inside it is something that you can use. Not sure about either of these two strange notions. I spend my hard

earned money on a cost effective frame that I believe will endure. Why spend extra cash believing that I can now go out and crash it with confidence. WTF?

What about replacement motors? Yes, I agree, motors are more likely to get smashed (apart from props). So here's how an entrepreneur thinks. How do I bind customers to my product? Firstly its important to negotiate a motor from a manufacturer at the lowest buy price. You can then market your motor as "high quality" using a "replacement guarantee." What a great hook. Now offer the motor to the market for a premium (well above the average price) and if it breaks for whatever reason promise to replace it for a "small fee" (which, importantly, still gives you a small profit). As a business you get to win on both counts - you make handsome money first up and then continue to make money on replacements. Work it out for yourself. It's all about clever marketing techniques and customers believing they are getting not just value for money but quality as well because the motor comes with "a guaranteed replacement".

David

Could you talk about how to get into full scale gliding?

ANSWER

I have to laugh when I hear some people carry on how expensive FPV mini quads are to build, fly and maintain. Wait till they get into full size sail planes!!! The costs are so much higher. I have said that I will be putting together some videos eventually on how to get into gliding and how to enjoy flying like a bird in a machine that does not have a propellor and, unlike a quad, if you crash there will be serious consequences for your life. When I get more financially stable and afford to do some gliding I will definitely be creating some videos.

But before any of this, can I suggest a first step - find a gliding club and book yourself in for a first joy flight. That's how I got started. If you enjoy that experience (as I did) then you will soon take it from there. See how you go. You might have to sell one of your quads to do this though. Lol.

Have a great new year everyone. Forget about the shit you hear, and read, and concentrate instead on your family, good food, happy low maintenance friends and all those other important things in life.

Thank you for your continued patronage.

Go fly a pack for me. Cheers Chad.

