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DRONE

MAGAZINE



ON THE EDGE

Pushing the limits of the law to get some amazing photos



GOLD STANDARDS

How a new code of conduct can shape the future of UAVs



FLIGHT, CAMERA, ACTION

A pro pilot talks about working with the BBC and the new X7 camera

EYE IN THE SKY

HOW TO GET A NEW PERSPECTIVE WITH FIRST-PERSON FLYING

VIFLY X150

A GIANT AMONG MINI-QUADS?

DJI MAVIC AIR

TESTED TO THE LIMIT



BIRD IN HAND

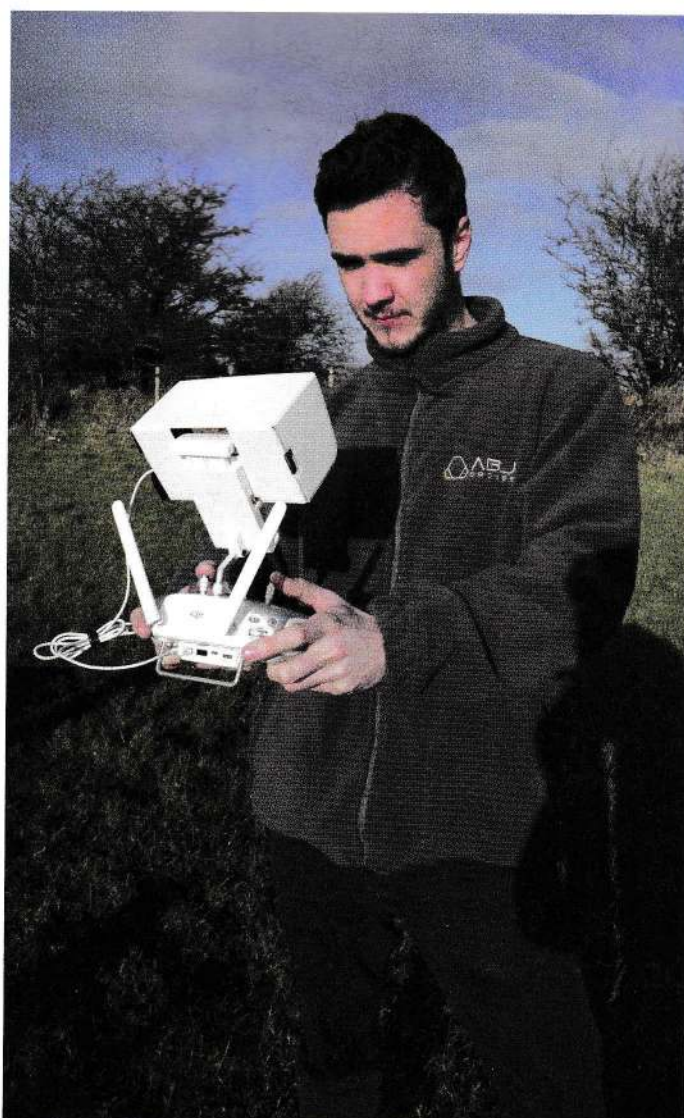
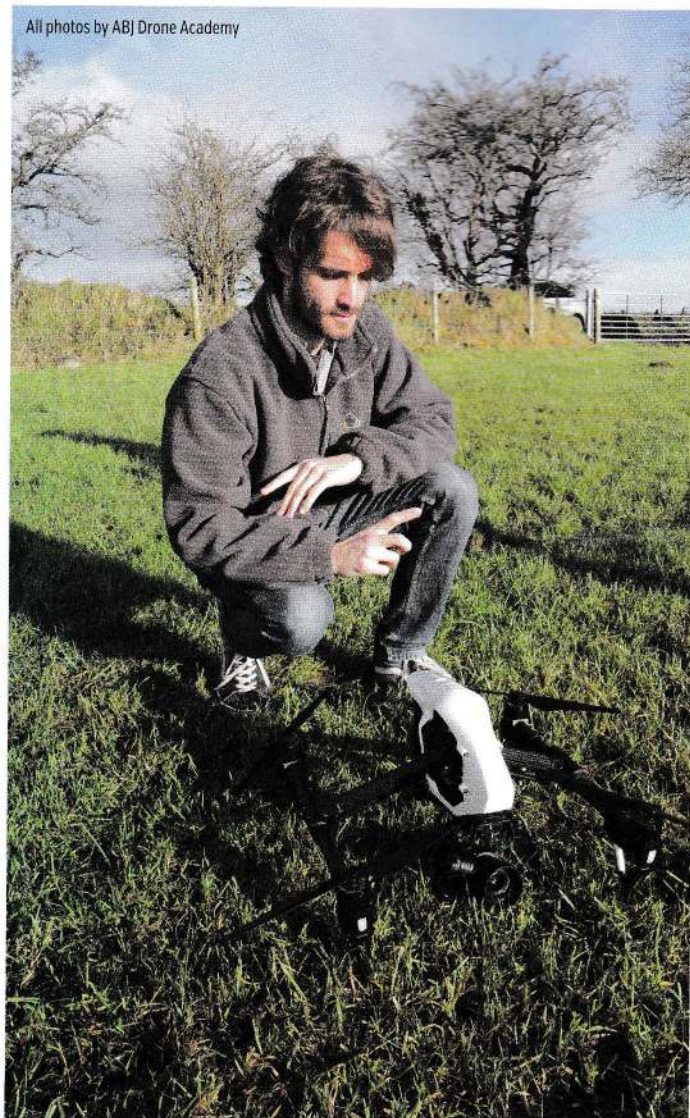
105MPH! HOW SWIFT IS THE GEPRC MX3 SPARROW?

DRONE SHOW IS BACK!

FIRST INFO ON THE NEW AND IMPROVED UK SHOWCASE



All photos by ABJ Drone Academy



HIGHER EDUCATION

Having previously developed training courses for beginners, ABJ Drone Academy managing director Mark Caney is ready to help pilots take their skillset to the next level. Ian Collen gets all the details...

HOW HAS YOUR PREVIOUS WORK EVOLVED INTO THIS NEW PROJECT?

Our motivation for starting the ABJ Drone Academy was the recognition of the fact that there is a huge potential marketplace for the industrial use of drones. I'm sure you've seen all of the numbers and projections as to how far this industry can go and the technology is all moving in the right direction, in terms of not only the drones themselves but also the payloads they can carry. But what is not really keeping pace with that is the training of the operators.

In the UK you have a process in place for training somebody for their initial qualification, the PfCO, but there's very limited information and support available for what to do next. So you've got a lot of people out there who know how to fly a drone, but they have no real training

on how to use the various payloads – and that is what the industry needs.

For the drone industry to be as successful as all of the predictions say it should be, people need to know how to deliver the data that industry needs. And that's what drones are all about; they are taking an instrument into the sky, recording the data the customer needs and then giving that data to them in a meaningful way. So that's the skill gap, and unless that is properly filled drones are never going to reach their potential.

SO THESE NEW COURSES ARE MAINLY ABOUT OFFERING UP SPECIALITIES FOR PEOPLE TO EXPAND INTO?

Basically the bulk of what you're going to see come up are

specialist skill courses, which give an existing UAS pilot a specialist skill which will enable them to go and work in a particular industry and be equipped to fulfil what that industry needs. For example, we've got UAS Photography which will give people an in-depth knowledge of how to use the camera, which is the most basic tool for a drone.

Then we'll have an advanced UAS Videography course, so people can actually put together a complete movie for a client based on what the client needs. We also have UAS Surveying, which tells them how to use photogrammetry techniques, 3D mapping and how to assemble a 3D model of a building or something else.

We have two closely linked courses planned for the telecommunications industry; so one is RF Awareness, which is essentially about showing people how to operate in the presence of cell towers and understanding the safety regulations that they need in order to safely fly their drones around an object that might be transmitting. Following on from that we have Telecommunications Inspections that will cover everything they need to inspect something like a cell tower.

We're also going to have a range of thermography courses, basically on how to use an infrared camera. And we've also got one coming up which will be UAS Multispectral Imaging. As the name implies, that's using multispectral cameras which are widely used in things like precision agriculture.

IS THIS TRAINING DONE ONLINE, ON-SITE OR A COMBINATION OF THE TWO?

For all of our courses there's a standard style; there's an online course and then there's a practical component – which is not required as you can just do the online part but we would always recommend people do both. So they do the online course and that gives them the bulk of the knowledge they need to get involved in that specialist area. It includes different modules and a theory review at the end. In order to get an indication that they've achieved that level of knowledge they will have to get at least 80% in that theory review.

If they also go to the practical session, that will be run by an experienced instructor in that discipline and the instructor will take them through various ground-based exercises, showing them how to use and set up that payload, how to program it and set it up for a mission.

For example, if you were doing UAS Surveying, it'll be how to pre-program your flight plans over the area you're surveying, how to use the software that will be linked with that particular discipline and then they'll go and fly some simulated missions. So they'll go out and simulate working in that environment, gather the data and then get that information out of the payload, interpret it with the relevant software and the instructor will show them how to formulate that for a particular client's needs.

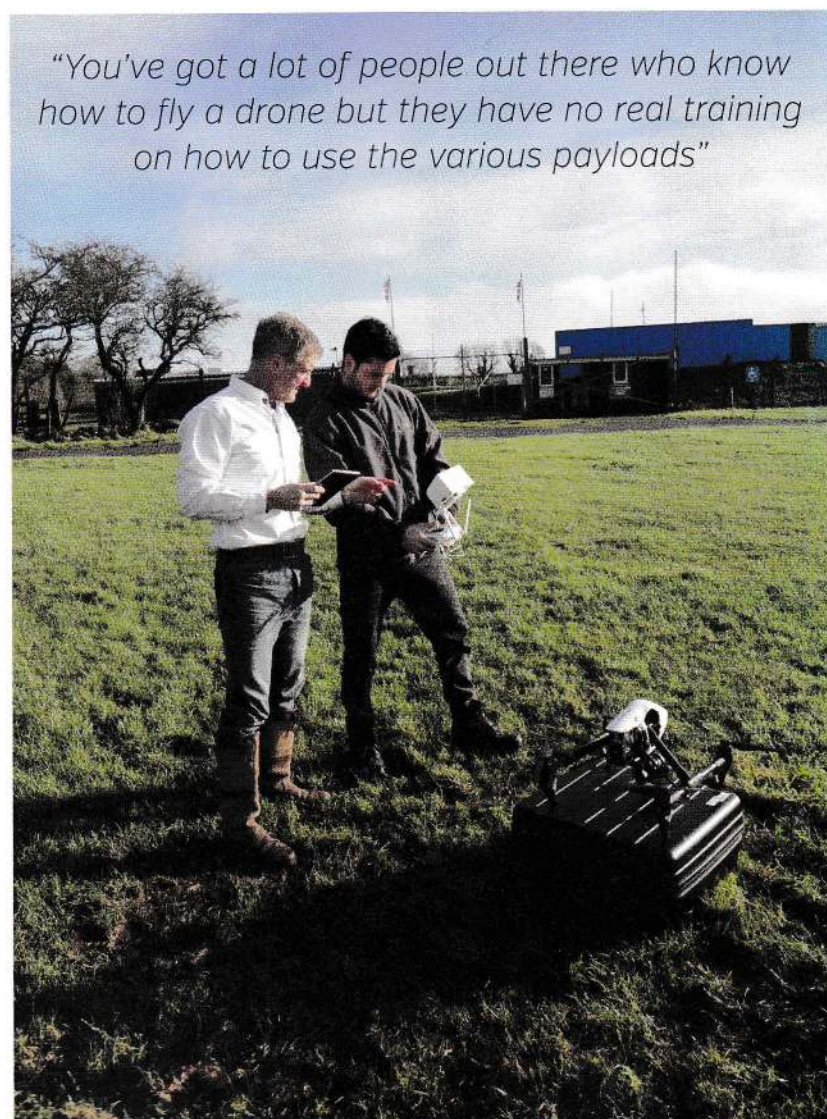
WHAT KIND OF RECOGNITION OR REWARD DO PEOPLE GET FOR PASSING THE COURSE?

If they do the theory and the practical parts they will get a wall certificate and a credit card-sized certification card. What we're going to see in the future is, I think, getting more alignment across industry for this. The idea is to get this created as a series of courses with international recognition which will then have two principal benefits. One is that it will allow someone who has the credentials as a drone pilot to find work across borders and be recognised.

Secondly, and perhaps more importantly, it will give industry confidence in getting involved with this



technology. At the moment someone who, for example, has got a solar farm will probably have someone knocking on their door with a Phantom 3 saying 'why don't you let me come and survey your panels?' The person running that company has no real idea what that person's competency is or what their credentials are, so there's a real need for this creation of standards.





"I can see in the future that all engineers, architects and surveyors would know how to fly a drone as part of their training"



SO THE LONGER TERM GOAL WOULD BE THAT ALL PILOTS WOULD BE TAUGHT TO THOSE SAME STANDARDS YOU'VE HELPED TO ESTABLISH?

Yes. Inevitably more people will get involved in the integration of these courses – that always happens and we welcome good quality competition. But we would hope to get our programmes as well established as possible in the near future so that they can become the model for other people to follow.

YOU'LL HAVE THE CAPACITY TO ADD NEW COURSES AND AMEND EXISTING ONES, SO DO YOU SEE THIS AS SOMETHING THAT CAN CONTINUE TO GROW?

It's going to grow exponentially because if you look at all of the various predictions on how many billions of dollars the drone industry is going to create – that's because drones are going to be used in many, many different industries. Somebody's got to fly those things, and they've got to know how to use the specialist payloads that are going to be hanging underneath them. There's going to be more and more demand for this kind of thing so, yes, I do see it growing hugely.

DOES YOUR FEEDBACK HELP TO DRIVE WHAT NEW SPECIALIST TRAINING SHOULD COME NEXT?

We're actually going to deliberately cultivate that. Our idea is not that they do the course, we give them a certificate and then wave them goodbye; they become a part of our pilot network. So we will interface with them. We get approached for jobs sometimes so we can feed that back into this network of pilots, so they could be actively getting commissions from us.



We'll be arranging webinars with them so we can interface and share information back and forth. We'll try and arrange demonstrations for them of the latest technology that might be of interest. When somebody becomes a pilot with us they can get that bond going, that communication back and forth with us. That way we make sure that the training programmes represent not only what the industry needs but also what the experienced pilots say works or doesn't work.

ARE YOU ALSO TALKING WITH THE WIDER INDUSTRY TO FIND OUT WHAT THOSE BUSINESSES MIGHT NEED?

Yes, absolutely. In the one sense that comes from, for example, requests from industry because we are involved with industry through our sister company ABJ Drones, so we know what the industry is looking for. Also we go along to various events, like trade shows and so forth where drones are applicable and we talk to the people there that are potential purchasers of this technology so we know what they're looking for.

IDEALLY THIS WOULD BE A SYMBIOTIC PARTNERSHIP SO YOU'RE TRAINING THE PILOTS THAT THEY NEED?

Exactly. Again, this is what differentiates us from everyone

else out there. We're trying to do this holistic approach, so providing the service, finding work for the pilot, training the pilot and making sure that training meets the industry's needs – and that's the missing component.

You can view the future of the drone industry as a triangle, with one side being the technology, another side being the operational processes and the third side being the training of the people involved – and we're completing that third part of the triangle.

WHAT ARE YOUR AMBITIONS FOR THE ACADEMY?

The long-term goal is to have a complete range of training solutions that meet all of the requirements of industry. That will evolve tremendously and we're looking at beyond visual line of sight, autonomous flights and that kind of thing. And then we also aim to raise the profile of drones and piloting so that they become a more recognised professional qualification.

I think we also need to respect that we will be seeing the future generation of drone pilots as not just specialist pilots but also people that will be flying drones as part of a sub-set of their primary qualifications. So I can see in the future that all engineers, architects and surveyors would know how to fly a drone as part of their training, so we see this being integrated into things like university courses for those kinds of professionals. It is clearly going to be an important industry so we need this amount of professionalism in the training of the operatives.

To find out more about the courses currently available, or to enquire about becoming an instructor yourself, head over to abjacademy.global.

