



Drone Photography

An Introduction



Plan for this Evening

- Types of Drones
- Flying in the UK - the Rules!
- Why?
- Taking Pictures
- On the ground to in the air, some tips for a smooth flight
- Demo Flight and Pictures
- Back to the Hall, Q&A and refreshments



Types of Drone

- FPV (First Person View)
- Non FPV/Everything Else



FPV Drones

(First Person View)

- Camera relays video feed to pilot
- Built for speed and agility
- World Championships! (Drone Racing League)
- Can be built from scratch
- Unstable so generally unsuitable for photography



Non FPV Drones

- Supplied ready to fly
- Controlled by line of sight
- Slower than FPV and more stable
- Camera usually mounted on a gimbal
- Emphasis on photo and movie use





Types of Non FPV Drone

PRO/Commercial - DJI INSPIRE



Credit: DJI



PRO/Commercial - SONY AIRPEAK



Credit: Sony





Consumer Drones

Consumer Photography Drones

- DJI Mini



Consumer Photography Drones

- DJI MAVIC Series



Consumer Photography Drones

- DJI Phantom



Credit: DJI



Consumer Photography Drones

- AUTEL Drones



THE RULES!

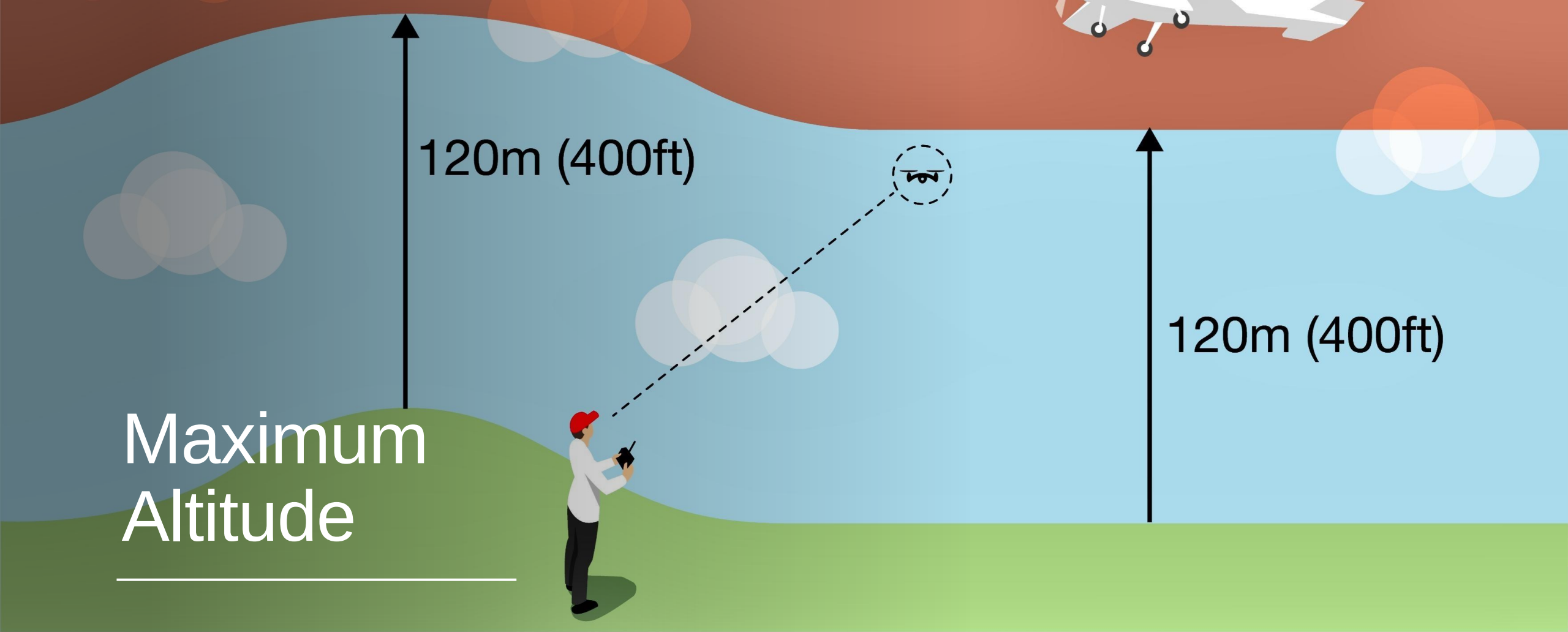
- Current rules came into effect 31st December 2020, adopting the EASA rules for UAS
- No distinction between commercial and hobbyist
- Now based on Risk
- Full guidance is contained in [CAP 722](#)



General Rules

- Maximum Altitude
- No fly zones
- Visual line of sight (VLOS)
- Registration





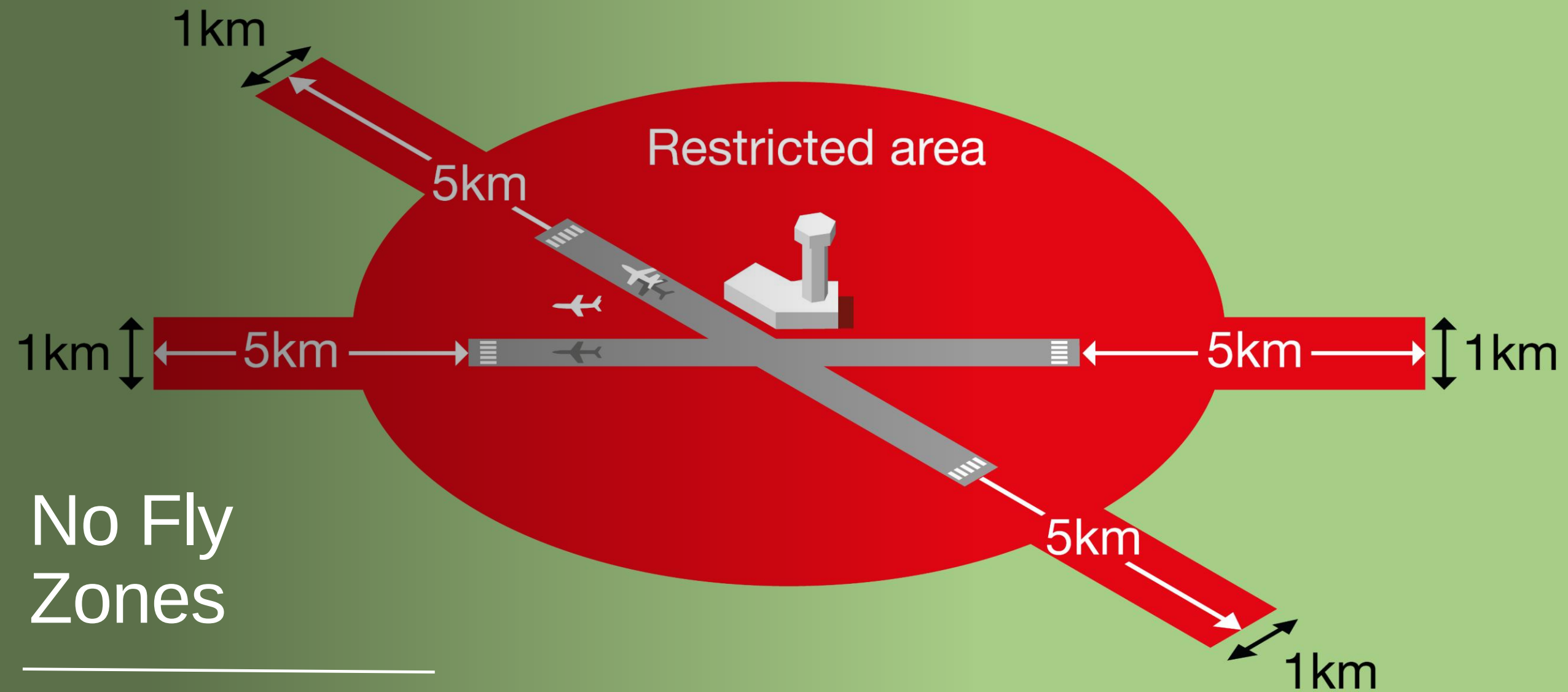
Never fly more than 120m (400ft) above the earth's surface.



Shot at 120m for context



Shot at 120m for context



Visual Line of Sight (VLOS)



Registration

- Operator ID
- Flyer ID



So where can you fly?

- 3 categories of flight
- 5 classes of drone based on weight and other design parameters (safety equipment etc)



Flight Categories

- Open
- Specific
- Certified



Open Category

- Flying 'over' people (A1);
- Flying 'close to' people (A2);
- Flying 'far from' people (A3)



Open Category A1

- Flying 'over' people;
- Those people not involved with you in any way;
- Excludes crowds of people – imprecisely defined as the number of people that couldn't reasonably disperse if the drone were to fall from the sky
- Restrictions on the type of drones permitted to fly in this category



Open Category A2

- Flying 'close to' people;
- Flying no closer than 30 meters horizontally;
- You cannot intentionally fly over people
- Restrictions on the type of drones permitted to fly in this category



Open Category A3

- Flying 'far from' people;
- You must stay at least 150m away from people;
- You must stay away from areas used for residential, commercial, industrial or recreational purposes.



Examples of residential, recreational, commercial and industrial areas

Cities and towns

Villages

Housing estates

Schools

Tourist attractions

Sports facilities

Beaches and parks

Theme parks

Shopping centres

Warehouses

Business parks

Factories

Docks

Rail and transport hubs



Which drone can you fly under each category?

- New rules introduced a class mark (C0, C1, C2, C3, C4)
- 2 year transition period until 31st December 2022 – classing drones by Maximum Take Off Mass (MTOM)
- There are still no drones sold in the UK has one of these class marks!
- Transition period has now been extended indefinitely!



MTOM 2-25kg

Can only be flown under the A3 category (far away from people)



Credit: DJI



MTOM 500g-2kg

- Can only be flown under the A3 category (far away from people)...
- Unless you pass the A2CofC...
- Allowing you to fly in the A2 category
- Scheduled to be relegated to A3 at the end of the transition period



Credit: DJI/Autel/Yuneec



MTOM 250g-500g

- Can only be flown under the A3 category (far away from people)...
- Unless you pass the A2CofC...
- Allowing you to fly in the A1 category (not intentionally over people)
- Scheduled to be relegated to A3 at the end of the transition period



Credit: Parrot/DJI



MTOM <250g

- Can be flown in A1!
- No need to take the A2 CofC
- No transition Period
- You can take off from your back garden!



Credit:DJI/Parrot



Taking off and Privacy Concerns

- Common Sense!
- Don't trespass when taking off or landing
- Seek permission if in doubt
- Don't take off in a no fly zone!



Privacy Concerns

- More common sense!
- Be a good human



Why on earth should you want to fly a drone?!

• It's fun

- A different perspective
- Get to a location faster
- Access
- Not actually that hard
- Commercial Potential
- Other Utility



Credit: Adobe Stock





Drone Photography

It's a camera. That can fly!

Drone Photography

A photography Drone is The flying camera that lets you control:

- ISO
- Shutter Speed
- Aperture (some models)
- Some even have mechanical shutters to avoid rolling shutter!



Credit: Sony



Drone Photography

Same rules of composition can apply!

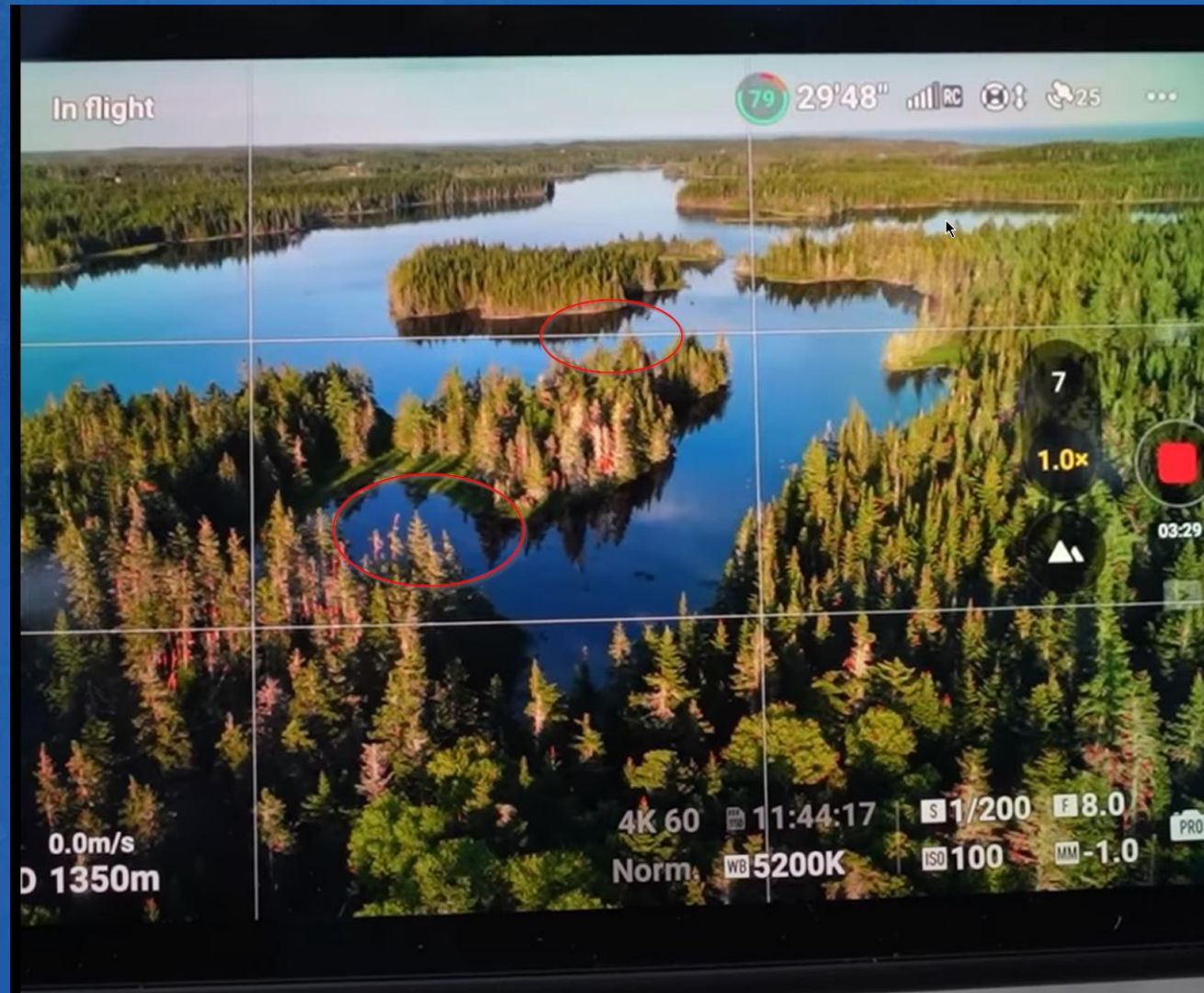
- Leading lines
- Rule of thirds
- Object separation
- etc



Subject Separation



Subject Separation



Subject Separation





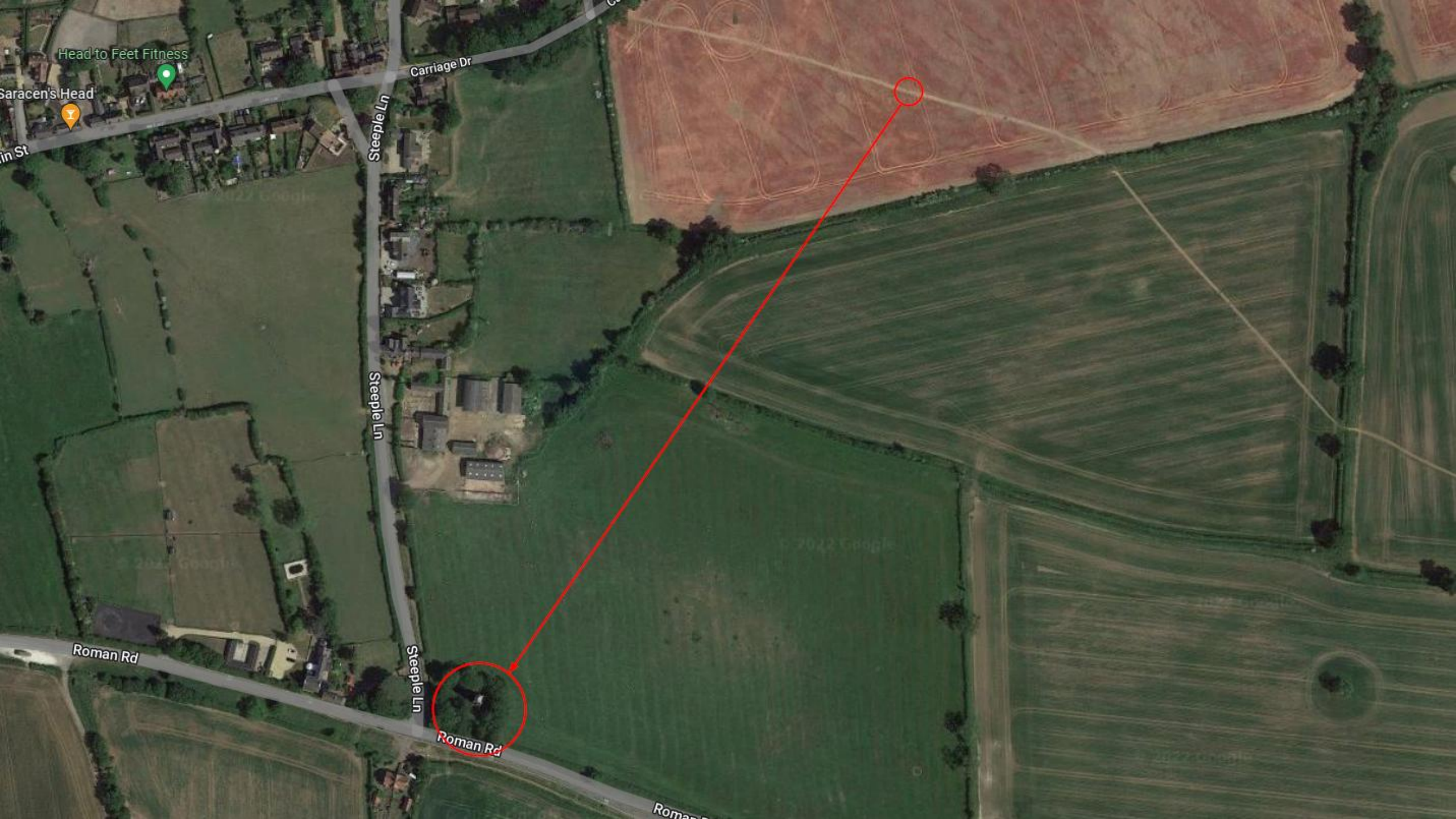












Head to Feet Fitness

Saracen's Head

in St

Carriage Dr

Steeple Ln

Steeple Ln

Roman Rd

Steeple Ln

Roman Rd

Roman Rd



Drone Photography

- Guaranteed Level Horizons!
- Take advantage of the in built modes
- Shoot Raw
- Get it right in camera
- But don't waste time!
- Remember it's in your bag!
- Plan



Drone Photography

- Think about diagonals
- Include props for scale
- Sometimes you don't have to fly far!
- Visualise before take off

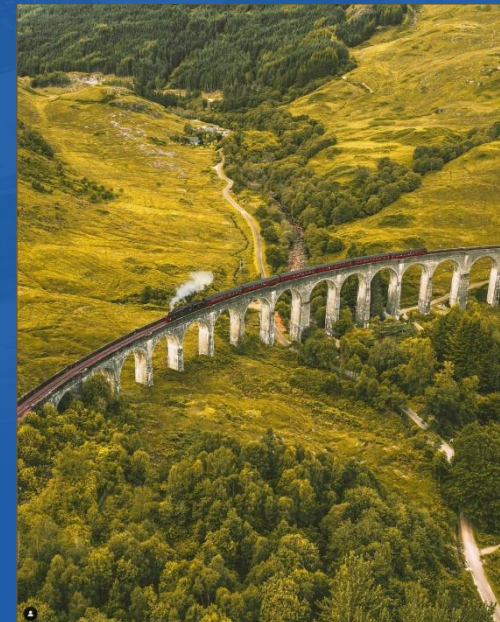
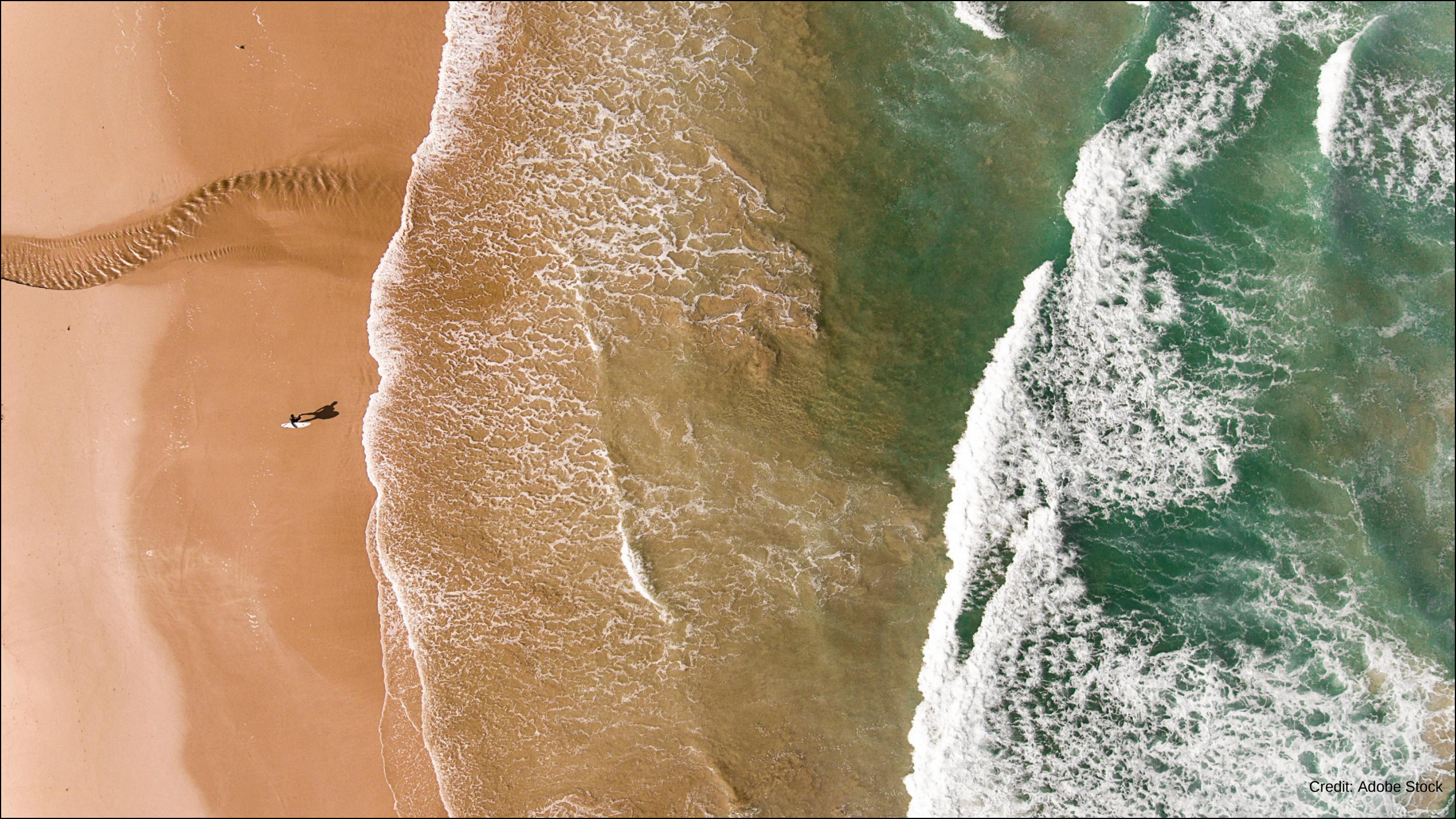


Image credit: @boyanoo (Instagram)

Drone Photography Settings

- Set ISO to 100 (and avoid higher than 400)
- Shutter Speed 1/50
- Use Auto Focus
- Tap to focus on your subject
- Use AEB – get as much data as you can!
- Fix White Balance

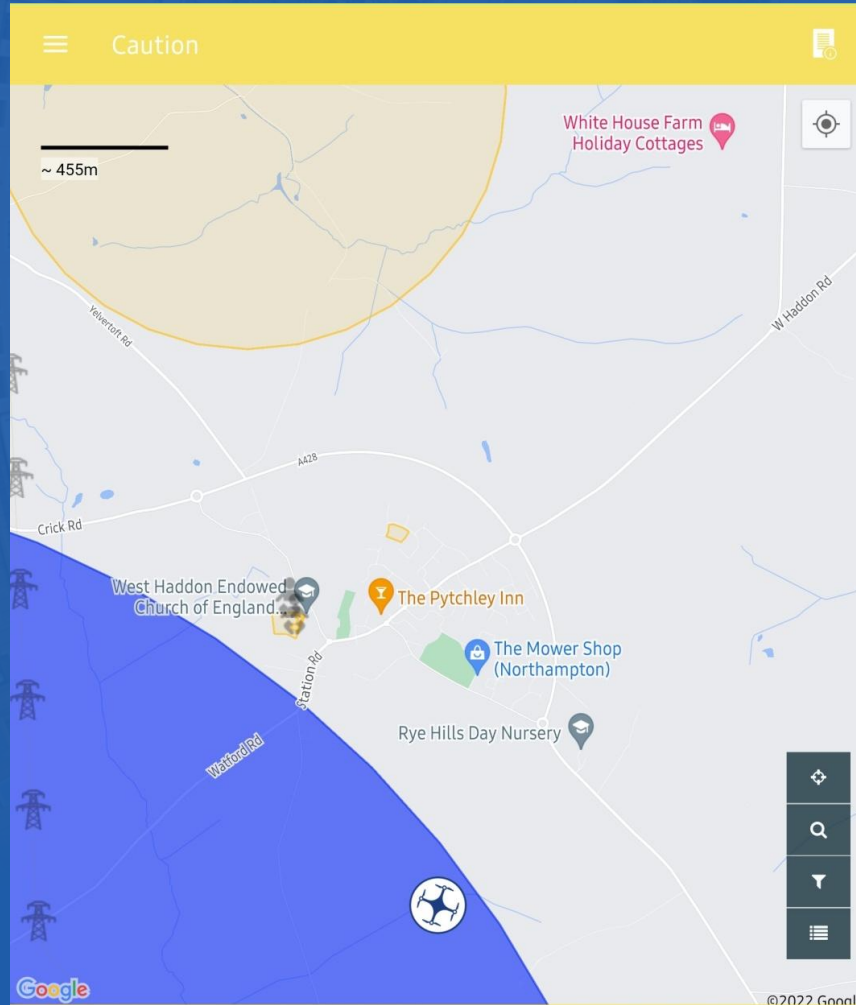






On the Ground to In the Air – tips for a smooth flight

- Make sure it's safe and legal to fly!



It's going to be another great day

Once again we are looking to have an exciting range of vehicles on display at the event. Over the last 3 shows, we have been amazed at the diverse exhibits that have been displayed. All our visitors comment on the number of beautiful cars, over 100, from those of the rich and famous to the cars we all owned in our youth.

Who can forget the fabulous 100-year-old who won the Car Of The Show last year?

In addition to the cars, of course, we have a brilliant range of other vehicles on display. Vintage busses provide rides around the local villages to the joy of all the 'kids' attending and many of the parents, historic tractors, fire engines and steam engines. Plus some of the very latest commercial vehicles.

Of course, we will have many foods, drink, craft and market stalls together with activities and entertainment to keep you and your family entertained throughout the day.

RAF Battle Of Britain Memorial Flight.....

Hopefully, this year, we will also see the long-awaited flypast by the Battle Of Britain Memorial Flight which was sadly cancelled last year due to poor weather at their home base. The RAF has confirmed that, all being well the Avro Lancaster bomber will be conducting a flypast at this year's Classics event. More details and timings will be announced nearer the time



On the Ground to In the Air – tips for a smooth flight

- Make sure it's safe and legal to fly!
- Check the weather
- Begin your flight flying IN to the wind.
- Use a Take Off Pad
- Hi Vis/Cones
- Zoom with your drone!
- HAVE FUN!

