



Meeting with Yves Morier
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EASA & Model Flying

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The Current Status of Model Flying



- Model aircraft activity clearly defined within the National Laws in most Member States. However, lack of harmonisation.
- Regulated by the NAA's – current regulations largely fit for purpose and simple (1 page in the UK!)
- Problems have arisen due to ignorance or disregard of regulations, primarily by users of 'FPV camera drones' operating unlawfully beyond VLOS and outside of model flying Associations
- Administered by the model flying Associations - established track record of safe operation and effective management internationally with very few reported problems
- Associations currently represent very significant numbers of members (500,000 + in Europe)
- 'Drones' flown can be flown within model aircraft regulations

Summary of our presentation in June



- Model flying has a long and excellent safety record internationally
- Geofencing would not be appropriate for application in model aircraft
- Existing expertise within model flying Associations for education, training, awareness and even registration
- 'Drones' flown as model aircraft should be treated as model aircraft
- No distinct definition for model aircraft, but we would argue that model flying is a distinct activity
- Any new regulations must be proportionate and enforceable
- With a 'lighter touch' being applied to other air sports, why apply an unnecessary sledgehammer to model flying?

EASA and Model Flying – Technical Opinion



- Technical Opinion recognised the good safety record for model flying
- Technical Opinion stated that the intent was not to create rules which would be detrimental to established model flying
- Technical Opinion recognised the positive role of model flying Associations in terms of education
- With the publication of the Prototype Rules, many within the Model flying community feel 'let down' by EASA

Prototype Rules – Model flyers perceptions



- EASA have not given adequate regard to the largest SUA stakeholder group!
- Written for multi-rotor camera platforms, then tried to fit model flying in
- Requirements for inappropriate functionality and unnecessary age restrictions for model aircraft
- Some model flying activities don't seem to fit at all
- Too complicated, difficult to extract intent and meaning (will all NAA's interpret it the same way?)
- Concessions for model flyers lack clarity
- Product standards not appropriate or necessary for 'model aircraft'
- Rules not considered proportionate or enforceable for model flying
- However - model flying community does share some 'common goals' with EASA

The cause of the problems EASA is trying to address



- Problems giving rise to need for regulation caused mainly by ‘paranoia’ surrounding ‘recreational users of multi-rotor camera platforms’ operating unlawfully
- manufacturers building in too much performance and capability into their ‘camera drones’ encouraging a minority of users to operate unlawfully in inappropriate locations and at heights and distances way beyond those used for ‘model flying’ or normal VLOS
- Perception of potential risk to the public and manned aviation. But what is the genuine risk?
- Sensationalised media coverage & other lobbying groups
- ‘Knee jerk’ reaction from politicians
- None of the issues have resulted from established forms of ‘model flying’ or from members of model flying organisations flying ‘camera drones’ lawfully!

Capability of RC Model Aircraft vs RC Camera ‘Drones’



EUROPEAIRSPORTS

RC Model Aircraft	RC Camera Drone
Flown well within VLOS in order to retain orientation and control (and enjoyment)	Can be flown at the extremity of VLOS and beyond. No need to retain orientation!
Requires ‘piloting’ skills which must be learned	May require little or no skill to operate
<u>No</u> flight controller functionality for stability/GPS positioning/geofencing/return to home/autonomous flight etc	Flight controller may provide functionality for stability/GPS positioning/geofencing/return to home/autonomous flight etc
Flown as an ‘aircraft’ to enjoy the pleasure of flight	Flown as a ‘flying camera’ to capture images/video or as FPV
Built or manufactured as an ‘aircraft’	Often mass produced as a ‘flying camera’ or ‘gadget’
Usually flown in appropriate locations	Easier to operate from inappropriate locations
Established community – awareness of regulations!	Some operators ignorant of the rules (or disregard them) required for legal operation
Established community – self policing/use legal equipment conforming to standards	Many individuals operating in isolation – some use of illegal equipment not conforming to standards
No problem if flown in accordance with existing model flying regulations	No problem if flown in accordance with existing model flying regulations

The scope of model flying (FAI):



FREE FLIGHT

Class F1A -	Gliders	Class F1K -	Co2 Engines
Class F1B -	Extensible Motors	Class F1L -	Indoor EZB
Class F1C -	Power	Class F1M -	Indoor
Class F1D -	Indoor	Class F1N -	Indoor Hand Launch
Class F1E -	Gliders with Automatic Steering	Class F1P -	Power
Class F1G -	Extensible Motors	Class F1Q -	Electric Power
Class F1H -	Gliders	Class F1R -	Indoor Micro35
Class F1J -	Power		

CONTROL LINE

Class F2A -	Speed Models	Class F2E -	Combat with Compression
Class F2B -	Aerobatics Models	Class F2F -	Diesel Profile Racing
Class F2C -	Team Racing Models	Class F2G -	Electric Speed
Class F2D -	Combat Models		

RADIO CONTROLLED

Class F3A -	Aerobatics Power Models	Class F3J -	Thermal Duration Gliders
Class F3B -	Thermal Soaring Models	Class F3K -	Hand Launch Gliders
Class F3C -	Helicopters	Class F3M -	Large Aerobatics Power
Class F3D -	Pylon Racing Models	Class F3N -	Helicopter Freestyle
Class F3F -	Slope Soaring Gliders	Class F3P -	Indoor Aerobic Power
Class F3G -	Powered Gliders	Class F3Q -	Aero-Tow Gliders
Class F3H -	R/C Soaring Cross Country Racing		

SCALE

Class F4A -	Free Flight	Class F4E -	Indoor F/F Co2 Powered
Class F4B -	Control Line	Class F4F -	Peanut F/F
Class F4C -	Radio Controlled	Class F4G -	Radio Control -Large
Class F4D -	Indoor F/F Rubber Powered	Class F4H -	Radio Control – Stand Off

RADIO CONTROLLED ELECTRIC

Class F5A -	Aerobatics Models	Class F5E -	Solar
Class F5B -	Motor Gliders	Class F5F -	10 Cell Motor Gliders
Class F5C -	Helicopters	Class F5G -	Big Gliders
Class F5D -	Pylon		

SPACE MODELS

Class S1 -	Altitude	Class S7 -	Scale
Class S2 -	Payload	Class S8 -	Rocket Glider Duration
Class S3 -	Parachute Duration	Class S9 -	Gyrocopter Duration
Class S4 -	Boost/Glider Duration	Class S10 -	Flex - Wing Duration
Class S5 -	Scale Altitude	Class S11/P	Rocket Powered/Spaceship
Class S6 -	Streamer Duration	Class S12/P	Time Duration Triathlon Tournament

AEROSTATS

Class F7A -	Hot Air Balloons
Class F7B -	Airships

FPV RACING

There are additional model flying activities outside the scope of FAI, including large models (over 20-25Kg)

EASA and model flying:

- EASA seeking competence for regulation of aircraft below 150Kg
- The Prototype Rules are focussed on ‘drones’ and don’t easily account for other activities currently classed as model flying
- How will EASA deal with:
 - Amateur Built Aircraft above 250g
 - Control line aircraft?
 - Free Flight Aircraft?
 - Model rockets?
 - Model Hot Air Balloons?
 - Models over 20 / 25Kg?
- Do you really want to get involved in all of this in the absence of the required expertise?



Product Specifications



- Principally written for multi-rotor camera platforms!



- May work for mass produced SUA but only those sold as a 'whole package'
- Less suitable for model aircraft – negative impact on small manufacturers/inappropriate functionality requirements for models etc
- No provision for home-built aircraft over 250g
- Equipment standards already exist – largely unenforceable (other than voluntarily by the model flying organisations)
- If they cannot be policed or enforced, then what value do they add?

Common Ground



- Maintaining safety
- The requirement for regulation of SUA operations
- The requirement for 'light touch' regulation of established model flying
- The requirement to regulate operation of 'commercial drones' seeking lawful BVLOS interaction with manned aviation
- The requirement to 'educate' pilots
- The benefit of some form of registration system for pilots, but...

The Way Forward



- The Prototype Rules appear to be written principally to regulate the recent increase in unlawful ‘drone’ flying, principally using multi-rotor camera platforms.
- Reconsider a definition for model flying or model aircraft?
- Perhaps the division between model flying/drone flying is the camera?
- As written, the rules would be better described as Prototype Rules on Unmanned Aircraft Operations (for SUA fitted with cameras, used for Data Acquisition or for Commercial Purposes)
- If ‘model flying’ is to be included, it has to be done in a much clearer way and stay true to the stated intent of the Technical Opinion
- Maybe a dedicated section for ‘Model Flying’ rather than trying to fit it into inappropriate rules written for a narrow area of activity would make more sense?
- Perhaps align with the FAA position?

The Way Forward



BE SAFE - BE LAWFUL - BE DRONE AWARE

 <p>You are responsible for each flight</p> <p>You are legally responsible for the safe conduct of each flight. Take time to understand the rules - failure to comply could lead to a criminal prosecution.</p>	 <p>Keep your distance</p> <p>It is illegal to fly your unmanned aircraft over a congested area (streets, towns and cities). Also, stay well clear of airports and airfields.</p>
 <p>BEFORE each flight, check drone for damage</p> <p>Before each flight check that your unmanned aircraft is not damaged, and that all components are working in accordance with the Supplier's User Manual.</p>	 <p>Keep your distance 50 metres</p> <p>Don't fly your unmanned aircraft within 50m of a person, vehicle, building or structure, or overhead groups of people at any height.</p>
 <p>Drone is in sight at all times</p> <p>You must keep the unmanned aircraft within your sight at all times.</p>	 <p>Consider rights of privacy</p> <p>Think about what you do with any images you obtain as you may breach privacy laws. Details are available from the Information Commissioner's Office.</p>
 <p>YOU are responsible for avoiding collisions</p> <p>You are responsible for avoiding collisions with other people or objects - including aircraft. Do not fly your unmanned aircraft in any way that could endanger people or property.</p>	 <p>Permission to use drones for paid work</p> <p>If you intend to use an unmanned aircraft for any kind of commercial activity, you must get a 'Permission' from the Civil Aviation Authority, or you could face prosecution. For more details, visit www.caa.co.uk/uas</p>

Simple but effective regulations that all operators are made aware of!

The benefits of Model Flying Associations



- Thousands of recreational flyers already ‘registered’ through existing Associations
- Existing infrastructure already in place for registration of significant numbers of members – could form the basis of a registration system dependent upon the intended purpose of registration
- Most provide pilots with insurance cover for lawful activity
- Provide flying training and awareness of the regulations required for lawful operation

Summary



- Many within the model flying community are unhappy with Prototype Rules as written
- The model flying community would like to work with EASA
- The model flying community appreciates that EASA has a difficult job to do
- Co-operation preferable to 500K model flyers going to war with EASA! (A lesson learned by the FAA!)