



Speech delivered on 24 May 2016 at the European Parliament Transport Committee by Thomas Mildenerger

Dear Chairman, dear rapporteur, dear Members of Parliament,

I would like to thank you for the opportunity to provide you with my technical opinion. I am Captain on Airbus aircraft on a global network for a German company and the chairman of the drones working group of the European Cockpit Association (ECA). I am also a member of the RPAS panel of ICAO.

I will concentrate on 3 main points which I consider important for a safe operation of drones over our heads and in our airspace:

1. Enforcement of rules
2. Need for a Pilot drone license, and
3. Technical Performance Limitations for drones.

Drones are knocking at our doors and they are here to stay. They are already flying, often without any – or with inadequate – rules!

Safe drone operation is in the interest of everybody: of the Regulators, the Public, of manned aviation and of the drone industry itself.

There are a number of important concerns to be raised when we develop the risk-based rules in what is a completely new and untested segment of aviation – like drones.

From the pilots' perspective, our main concerns are about the so called 'Open Category' drones, as proposed by EASA. The supposedly 'low risk' drones of this Open Category will fly without aviation authorities' oversight. And it includes drones going as high as 25kg. This is equivalent to a bag of cement!

The problem is that drones in that category can meet manned aviation in big numbers. Like aircraft taking off and landing, helicopters, military aircraft, or crop dusters – and all this even below 150m.

As we have only one sky, flying together in the same area means obeying to same principles and same rules. At the same time we have to realize that most users of drones are no aviators. Some of them are not interested in aviation, using their drone merely as a 'wireless selfie stick'. The recent reports about close encounters with

manned aviation have shown, that they are not even aware of infringing airspace and of the risks they create.

Having set the scene, let's come to my 3 points:

First, a **strict enforcement of the rules** – incl. mandatory registration of the drone to allow identification of the pilot – is paramount: You can adopt the best rules in the world, if you can't enforce them, they will have no effect. The hope, that the police will do the job – and this without proper equipment and training – is mistaken. Actually, some national police forces are rather lukewarm about the perspective to get an additional area of responsibility.

Secondly, **every Drone pilot must have a license**. A license that is proportional to the risk of the drone and is issued by the authority. Only a harmless toy-category should be exempted from this requirement. But this category has to be set up in a conservative way (for example up to 250g and with limited performance capabilities, like the requirements of America's FAA). We could then relax the rules if scientific research has proven the harmlessness for heavier and more performing drones.

My third and final point is **Technical Performance Limitations**. There are specific technical features necessary to compensate for the pilot not being on board of the drone and for the lacking situational awareness that results from this.

For example, the drone should not be technically capable to leave the airspace for which it is allowed to fly within. Neither should it be capable to fly higher, nor farther than allowed. It has to stay in visual sight of the pilot at all times. And if it is allowed to fly beyond such visual sight of the pilot, it needs to be able to avoid other aircraft or obstacles by itself. This is called auto-avoidance.

Let me conclude: For everything else than the 'harmless toys' we need:

- Strict enforcement of the rules, incl. mandatory registration, a
- licensed drone pilot, and
- technical performance limitations to the drone.

The rules to achieve this have to make sure that our safe skies don't turn into a playground for drones. This is a big responsibility, which rests on you, the legislators. Thank you very much.

Capt. Thomas Mildenerger
Chairman ECA RPAS WG

To learn more about ECA's position on drones, visit www.eurocockpit.be