

DUASXX13

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Report Title Obstacle Collision

Initial Report

Following their GVC (General Visual Line of Sight Certificate) training, a newly qualified Remote Pilot (RP) experienced a minor accident whilst conducting the 6 hours of non-operational mandatory flight training that precedes the [XXXXX] flight assessment. On Sunday 7th May, the pilot was flying a DJI M30T in a field >50m away from a railway. The flight was taking place at night, which appears to have been a contributing factor in the accident.

The RP was practicing a rapid descent deconfliction manoeuvre using a DJI M30T, and had rapidly descended the aircraft from an altitude of approximately 80m to 3m. The RP simultaneously reduced the lateral distance of the aircraft from approximately 390m to 3m. At the end of the descent manoeuvre, the RP accidentally pushed forward on the right control stick, instead of the left (throttle) and the aircraft collided with a nearby palisade fence. The aircraft experienced minor damage, albeit adequate to necessitate repair by an external service provider.

Whilst it is generally considered positive that the RP was practicing an avoiding manoeuvre in a rural location, the RP descended the drone at excessive speed, leading to confusion regarding the control stick inputs. The RP pushed his flying skills too far, too fast during training and should have avoided such actions during a night flight.

The RP was undertaking a training flight at night – for this reason, the lighting conditions were insufficient for the obstacle avoidance sensors to function and, as a failsafe, avert the collision. The RP was also alone during the training flight – whilst this is permitted, it is advised that training flights should be conducted with an experienced colleague where possible and available for support.

Operator's internal recommendations:

- Only conduct simple flights at night and be aware that obstacle avoidance sensors will not work unless there is sufficient lighting.
- You are obligated to read your aircraft manuals and must understand how the aircraft will behave under different weather and lighting conditions.
- Night Operations require robust planning, risk assessments and mitigations to be in place.

- These include, but are not limited to, the use of TOAL lighting and minimising the flight distance. You are also required to observe, and risk assess the site during the day.
- It is important not to push your skills too far, too fast – particularly if you are a newly trained RP. It is advised that you should identify and contact a more experienced colleague to support you during training flights.

Comment

Our initial observation here is that a trainee pilot accumulating currency on their own and at night, before reaching a target number of currency hours, may not be the ideal situation. We would suggest that learning in daylight first before flying at night is a lower risk strategy. The Operator seems to suggest the same, so we agree with their analysis.

The other point that occurs to us is that choosing a training area that is near a fence may not be the best choice. When training, the pilot can choose where they want to be, which is different to being at a location that is part-and-parcel of the object of the mission. Choose a training location that has the minimum number of hazards possible.

Practising an avoidance manoeuvre with the Matrice 30T is good. The only suggestion we have for when doing so, is that it may be wise for an inexperienced pilot to do so in F mode “Tripod” or slow speed mode first, and then after several exercises switching into P mode and then when familiarity has built up, doing so in N mode and then S mode.



