



Interagency Aviation SAFETY ALERT



No. IASA 21-02, Revision 1

Date: March 1, 2021

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Subject: Revision to IASA 21-02 Unmanned Aircraft Systems (UAS) DJI M600 Mishaps.
(Revisions to Interagency Safety Alert 21-02 are in red).

Area of Concern: Airworthiness Inspection.

Distribution: All DJI M600 UAS Operations

Discussion: On October 15, 2020, [Safety Alert 21-01 Unmanned Aircraft Systems \(UAS\) DJI M600 Mishaps](#), was released. The Safety Alert discussed two DJI M600 unmanned aircraft mishaps that occurred while conducting aerial ignition missions during October, 2020. In both cases, the aircraft began an uncommanded yaw that resulted in loss of control and impact with terrain. Initial post-crash inspection revealed that both aircraft were missing one of the motors at the 9 o'clock position. Additional evidence of small fractures on one of the motor housings strongly suggests that the motor broke free of the motor housing during flight. It is suspected that metal fatigue played an integral role as the small fractures propagated over time until the motor finally broke free. Both mishap aircraft had experienced extensive use over the past two years.



On January 29, 2021, during UAS PSD operations on the Rifle Range RX unit on the Andrew Pickens Ranger District, Sumter NF, South Carolina, another M600 UAV began an un-commanded yaw that resulted in loss of control and impact with terrain.

The aircraft was located and the motor was found dangling from the motor mount via wires. It was evident that motor mount separation had occurred and strongly indicated that the motor broke free of the motor housing during flight.

As a result of this UAS mishap, the following mitigations, in addition to the M600 Motor Mount Inspection Procedures detailed in Safety Alert 21-01, should be put in place for **all M600** operations:

- Reduce the payload weight. **For example, for PSD operations, reduce** the number of balls to 250 and the amount of glycol to 3/4 full when able.
- PPE will be used by ground crews during **all M600** operations.
- No flights over people.

- Minimize aggressive throttle and/or pitch/roll maneuvers.
- If an uncontrolled descent occurs, immediately lower the landing gear and go to max climb rate to slow the descent rate.
- Be overly vigilant with pre-flight inspections.

For any questions or reports of cracks, please contact:

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