

B-AAA01408 Drone Occurrence Investigation

Executive Summary

At 0910 on March 9, 2021, an AXH-E230RS drone, owned by the Northern Branch of Coast Guard Administration, crashed into the sea while operating at the estuary of the Tamsui River in New Taipei City. There were no casualties.

Conclusion

1. The occurrence happened in automatic mode, no manual intervention was involved, and it had nothing to do with the operation of the operator.
2. The power output and main rotor speed of the drone were normal before it fell into the sea, indicating that the power system and transmission system were normal. According to the attitude of the drone, the flight control computer outputted correct command signals to make corrections, and the damage to the main rotor assembly was caused by the drone hitting the sea surface when it fell.
3. The possible cause of the occurrence was the failure of the left or right servo electrical system of the main rotor, causing the drone to lose control and crash.

Safety Recommendations

To: **AVIX Technology Inc.**

1. Review the manufacturing quality control of the servo to improve the reliability of the servo operation.
2. Evaluate to add the function of feedback and recording of the rotation signal of the servo motor in future products to monitor the operation status of the servo.

To: **Civil Aeronautics Administration, Taiwan**

1. Supervise AVIX Technology Inc. to review the manufacturing quality control of the servo to improve the reliability of the servo operation.

2. Supervise AVIX Technology Inc. to evaluate adding the function of feedback and recording of the rotation signal of the servo motor in future products to monitor the operation status of the servo.

The final report is in Chinese only and available for download at <https://www.ttsb.gov.tw>