



Republic of the Philippines  
DEPARTMENT OF TRANSPORTATION  
**CIVIL AVIATION AUTHORITY OF THE PHILIPPINES**  
MIA Road, Pasay City 1300

## AIRCRAFT ACCIDENT INVESTIGATION AND INQUIRY BOARD

### **FINAL REPORT**

**RP-R5788**  
**AGCAT G-164A**

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***OPERATOR: AEROWURKZ AERIAL SPRAYING SERVICES***

***TYPE OF OPERATION: AGRICULTURAL SPRAYING***

***DATE OF OCCURRENCE : OCTOBER 14, 2017***

***PLACE OF OCCURRENCE: BRGY. TAGPURI, PUROK 6, PANABO CITY  
DAYAO DEL NORTE, PHILIPPINES***



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**BASIC INFORMATION**

Aircraft Registration No. : RP-R5788

Aircraft Type/Model : Agcat G-164A

Operator : Aerowurkz Aerial Spraying Services

Address of Operator : Old International Airport Sasa, Davao City

Place of Occurrence : Barangay Tagpuri, Purok 6 Panabo City, Davao Del Norte, Philippines

Date/Time of Occurrence : October 14, 2017/ 0938H

Type of Operation : Agricultural Spraying

Phase of Flight : Cruise

Type of Occurrence : Forced Landing Due to Engine Failure

**EXECUTIVE SUMMARY**

On October 14, 2017, about 0938H, an Allied Ag Cat Productions, Inc G-164A agricultural aircraft with registration no. RP-R5788, sustained substantial damage following a forced landing due to loss of engine power while on a swath run at Milagros farm, San Nicolas, Panabo City Davao Del Norte. The aircraft is registered and being operated by Davao Aerowurkz Inc. holder of Agricultural Aircraft Certificate (AAC) authorized to perform aerial work agricultural operations. The pilot who was the sole occupant did not sustain any injuries. Visual Meteorological Conditions (VMC) prevailed at the time of the accident.

The pilot was on the middle of his 9th load about 300 liters of chemicals remaining when he experienced engine vibration followed by loss of engine power. The pilot immediately dumps the remaining chemicals and elected to force land the aircraft in an open field. The aircraft came to complete stop in an inverted position with last heading of 250 degrees and with coordinates of 7 17.109 N, 125 37.639 E.

## **PROBABLE CAUSE**

- **Primary Cause**

- a. Presence of water in the left-hand engine fuel system that resulted to engine failure (Fuel Contamination). Separation of cylinder head from cylinder barrel (cylinder head no. 3) that subsequently resulted to loss of engine power.

- **Contributory Cause**

- a. Non-adherence to General Operating Instructions (GOI) for R985 engines on specific temperature limitations.
- b. No CHT gauge installed in the aircraft to monitor the cylinder head temperature during aircraft operations.

## **SAFETY RECOMMENDATIONS**

- For **CAAP-FSIS** to ensure that the Operator adhere to CAAP Memorandum Circular (MC) No. 28-18 dated October 1, 2018 to:
  - a. Comply with the General Operating Instructions (GOI) for R985 engines on specific temperature limitations.
  - b. Included in their pre-flight checklist and post-flight checklist visual inspection on the area of the cylinder head cooling fins for exhaust emission stains and exhaust carbon deposits.
- For **CAAP-FSIS** to ensure that the Operator install CHT gauge to all their aircraft equipped with R985 engines to monitor the cylinder head temperature during aircraft operations.

**-END-**