



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 **GRUMMAN AGCAT G164**

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,
DAVAO 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. 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

As a result of this investigation, the Aircraft Accident Investigation and Inquiry Board made the following 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.

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