



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-R4416
AGCAT G-164A

OPERATOR: SOUTH PACIFIC AERIAL SPRAYING SERVICES (SPASS)

TYPE OF OPERATION: AGRICULTURAL SPRAYING

DATE OF OCCURRENCE: OCTOBER 13, 2021

***PLACE OF OCCURRENCE: PUROK AVOCADO, BRGY. PANGI, MACO,
DAVAO DE ORO***



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BASIC INFORMATION

Aircraft Registration No. : RP-R4416

Make and Model : Allied AG CAT Production Inc./ AgCat G-164A

Operator : South Pacific Aerial Spraying Services (SPASS)

Address of Operator : Old Airport Rd, Sasa, Davao City

Date/Time of Occurrence : 13 October 2021/ 0715H/2315 UTC

Type of Operation : Agricultural Spraying

Phase of Operation : Aerial Spraying

Type of Occurrence : Forced landing due to loss of engine power

Place of Occurrence : Purok Avocado, Brgy. Pangi, Maco, Davao de Oro

EXECUTIVE SUMMARY

On October 13, 2021 at about 0715H, an Allied AgCat G-164A type of aircraft, with registry number RP-R4416 sustained substantial damage due to loss of engine power while on an aerial spraying operation at Purok Avocado, Brgy. Pangi, Maco, Davao de Oro. The pilot who was the sole occupant did not sustain any injury. The aircraft is being operated by South Pacific Aerial Spraying Services.

The pilot was on pull-up maneuver to gain altitude after the third (3rd) pass of chemical spray of his fifth (5th) load, when the engine suddenly sputtered followed by loss of engine power. Immediately, the pilot checked and saw that the engine oil pressure instrument is slowly decreasing. He then dumped the remaining chemicals to gain altitude and tried to restart the engine. After the engine failed to re-start, the pilot decided to make a forced landing on the banana plantation. The aircraft landed and came to a stop with the nose in a downward position with last heading of 330 degrees and coordinates of 07°43.12" N, 125°83.40" E. The pilot egress safely after performing engine shutdown. There was no post-crash fire noted and Visual Meteorological Condition (VMC) prevailed at the time of the accident

PROBABLE CAUSE

- **Primary Cause Factor**

Separation of Cylinder head from the Cylinder barrel leading to engine low power.

- **Contributory Cause Factors:**

Non adherence to the specific temperature limitation of R985 cylinder engine.

SAFETY RECOMMENDATIONS

- **CAAP-FSIS** to ensure that the operator:

- a. Strictly complies with the CAAP issued Memorandum Circular (MC) No. 28-18 dated October 1, 2018 addressed to all Agricultural Air Operators to strictly comply with the General Operating Instructions (GOI) for R985 engines on specific temperature limitations to reduce if not eliminate the issues related to cylinder head separation.

- b. Include in the refresher training and regular safety meetings of pilots and crew on the specific temperature limitations to be observed while operating aircraft with R985 engines.

- **CAAP-FSIS** to include the engine specific temperature limitations on oral assessment of all pilots operating an aircraft with R985 engine during annual proficiency flight check.

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