

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Aircraft Accident Investigation and Inquiry Board
Aircraft Accident Report

BASIC INFORMATION

Aircraft Registration	:	RP-R5388
Aircraft Type/Model	:	Agcat G164B
Owner/Operator	:	Aerowurkz Aerial Spraying Services
Address of Owner	:	Gen-Av Area, Bangoy Airport, Sasa Davao City
Date/Time of Accident	:	February 6, 2014 / 0605h/0195Z UTC
Type of Operation	:	Agricultural Spraying
Phase of Operation	:	Cruising
Type of Occurrence	:	Collision with an electric post during flight
Place of Accident	:	Panabo, Davao Del Norte

EXECUTIVE SUMMARY

Just like any other early morning flight mission, the spraying flight operations by at least ten (10) Agricultural Aerial Spraying Companies over the vast thousands of hectares of banana plantation in Panabo, Davao Del Norte were daily routine activities in the area. Thus, on or about 0605h/0195Z UTC, 06 February 2014, a Grumman Agcat G164B, an Agricultural Sprayer Aircraft, RP-R5388, with one (1) Pilot-in-Command (PIC) on board, took-off 0550h/0250Z UTC from Kasilak Airstrip, Panabo, Davao Del Norte for an aerial spraying operation. On or about 0605h/0195Z UTC, RP-R5388 while on the first sortie halfway, heading West (270°) to East (090°) at 90 Knots Airspeed aligning with the 12th swath line in the conduct of aerial spraying, at an altitude 30 feet AGL or 4-5 meters above the banana plantation leaves and as the early sun had just risen, collided with an electrical post and power lines, approximately 50 feet high. Upon impact with the electrical post, the PIC noticed a bright lighting spark at the right side of the cockpit window and initially pulling the control stick and climbing gradually to a stable and safe altitude of 500 ft AGL. After attaining a stabilized attitude and simultaneously observing the normal indication on the engine instruments, the PIC received a radio call from the people on the ground, informing the PIC that the right main landing gear of RP-P5388 had been detached from the impact. This unfortunate event was confirmed by a radio call from the Chief Pilot of RP-R5838 who was then also flying at that time, which prompted the PIC to decide an emergency procedure by dumping the chemical load at a river bank two (2) Nautical Miles (NM) north of Tadeco 2 Airstrip. Furthermore, the PIC performed holding approximately 20 minutes loiter time with the primary intention of burning the remaining fuel on board in order to avoid engine/aircraft fire as well as incurring burn injuries to the PIC. Hence, when the PIC after making a series of six (6) low passes, simulating landing in Tadeco 2 Airstrip and sensing that the degree of risk is within safety level, the PIC decided to eventually make the final approach for landing at 75 mph and made a touchdown 200 meters from the threshold of RWY 36. At this juncture, the PIC leveled off the touchdown on the left main landing gear holding the balance until the right wing had lost its lift and slowly the aircraft swerved

approximately 30 m to the right side of the runway. Subsequently, the nose dropped to the ground, which caused it to grind to a halt on the soft unpaved surface of the airstrip even as the propeller struck the ground, the disabled aircraft rested inverted approximately 5 meters from the right side of the active runway. (Appendix 3) The aircraft incurred substantial major damage, while the PIC after shutting down the engine, deplaned unhurt. Information of the accident was relayed to the CAAP Operations and Rescue Command Center (ORCC) on or about 0830h or 0195Z UTC February 6, 2014 through a call to OIC, AAIIB by the Operations Officer of AEROWURKZ Aerial Spraying Services.

PROBABLE CAUSE

The Aircraft Accident Investigation and Inquiry Board determined that the probable cause of this accident was:

- **Primary Cause Factor**

The pilot, during a low level spraying maneuver failed to maintain aircraft control and collided with an electrical post and power lines due to limited line of sight or obstruction to one's vision. (Human Factor)

- **Contributory Factors**

- a. During the low level spraying maneuver, the PIC flew directly or facing the sun, a clear safety hazard in basic flight rules. The pilot failed to recognize and anticipate the danger when confronted with a glaring light that obstructs the normal line of sight. (Human Factor)
- b. Accumulation of liquid spray and undetermined number of dead insects that partially covered and created a hazy surface of the windshield were contributory factors to the obstruction of the PIC's vision. This condition was again not anticipated by the PIC to make the necessary precautionary safety measures. (Human Factor)

- **Underlying Factor:**

There was a supervisory lapse on the part of Aerowurkz Aerial Spraying Services, as it overlooked an apparent oversight on the qualification of the PIC whose aggregate total flying time of only 316+41 hours and an inadequate 52+18 hours flying time for the Agcat G164B sprayer aircraft. Apparently, the pilot is considered ill-equipped to handle and fly maximum performance maneuvers during low level spraying operations which obviously require a highly qualified, high timer, skilled and experienced pilots. (Human Factor)

SAFETY RECOMMENDATIONS

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

- CAAP-FSIS shall ensure the strict implementation of regular proficiency in training and check-rides especially maximum performance maneuvers as well as psychomotor skills focused on critical conditions to fully grasp and experience all emergency events for all pilots of agricultural sprayer aircraft.
- CAAP-FSIS shall require through a directive for all agricultural aerial sprayer companies to designate a flight safety officer who would be responsible in the conduct of flight safety rules and regulations as well as formulate and enforce annual safety programs for their respective companies.
- CAAP-FSIS shall require all sprayer aircraft companies to designate a duty ground traffic controller that would strictly supervise and oversee flight operations in their area that would guarantee flight safety and enhance accident prevention.
- CAAP-FSIS shall direct and require all agricultural aerial sprayer companies to install warning signages or markers in their area of operation for pilots to safely anticipate obstructions and hazards in conducting swathing maneuvers.
- CAAP-FSIS shall conduct review/update of the existing procedures for the Tadeco Group of Companies overseeing flight missions involved in agricultural spraying operations in the entire Banana Plantation Area in order to ensure that the highest level in safety of flight conditions are considered.