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

BASIC INFORMATION

Aircraft Registration	:	RP-R1420
Aircraft Type/Model	:	Piper Aircraft Inc./PA 36-375 Pawnee Brave
Owner/Operator	:	Lapanday Food Corporation
Address of Operator	:	Ladeco, Maryknoll Drive, Bo. Pampanga Davao City
Date/Time of Accident	:	March 04, 2014 on or about 0605H (Local Time)
Type of Operation	:	Agricultural Spraying
Phase of Operation	:	Swathing operation at Cruising flight
Type of Occurrence	:	In-flight Fire
Place of Accident	:	Farming Town Aerodrome (FADI Airstrip), Santo Tomas, Davao Del Norte

EXECUTIVE SUMMARY

The weather was calm with ceiling and visibility unlimited on the early morning of 04 March 2014, favorable for aerial spraying operations. A Piper aircraft model Pawnee Brave PA 36-375 with Registry No. RP-R1420, owned and operated by Lapanday Food Corporation took off from Farming Town Aerodrome (FADI), Santo Tomas, Davao Del Norte for Aerial Spraying Operations with one (1) Pilot-In-Command (PIC) on board. All events were conducted normally except that on the 2nd sortie of swathing operation, the pilot felt and experienced a heat sensation inside the cockpit. The pilot scanned the instrument panel and found that all indication readings were on the green or within normal limits. In just a few seconds, the pilot noticed smoke below the rudder pedals and orange flames coming out of the inspection holes on both sides of the cockpit flooring of the aircraft. At that instance, the pilot sensing danger, maintained aircraft control and climb to a safe altitude of 300 feet and at once dumped the remaining chemical load before joining the left downwind of RWY 36 for emergency landing. Calmly, the pilot continued his final approach and performed the pre-landing procedures normally towards RWY 36. With presence of mind, the pilot made a smooth touchdown at 250 feet from the threshold of the runway and subsequently pulled the mixture control to cut off fuel in order to shut down the engine. At this juncture, the pilot safely secured the aircraft by switching the fuel selector and other switches to off position. The Pilot immediately disembarked the aircraft safely without injury. As a consequence, the members of Emergency Rescue team of the Aerodrome were at hand to provide the necessary assistance to the pilot and immediately extinguished the fire of the aircraft cockpit and fuselage sections. However, the aircraft sustained damage as a result of the fire which totally destroyed the fuselage down to the empennage up to the tail section. In addition, the Main Landing Gears (MLG) were deemed unserviceable due to exposure to excessive heat caused by fire as both wings drooped down due to the melt down of the center wing box. Likewise, the cockpit panel and the agricultural equipment were totally burned.

PROBABLE CAUSE

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

- **Primary Factor: Human Factor**

  Improper installation of GPS Intel-flow cable that made constant contact with other aircraft metal part and the mechanical motion or vibration developed has worn out the insulation cover resulted to short circuit or wire chaffing.

- **Contributory Factor: Maintenance Standards and Procedures**

  No company maintenance schedule program for the inspection GPS equipment system installed at the aircraft.

- **Underlying Factor: Documentation**

  No technical data regarding installation of GPS equipment was submitted by the Operator and approved by Engineers/ Inspectors of Airworthiness Department, FSIS.

SAFETY RECOMMENDATIONS

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

- CAAP-FSIS thru Airworthiness Department shall conduct thorough inspection on GPS equipment installed on all agricultural spraying aircraft and review the Installation procedures as per technical data and must be approved by CAAP.

- CAAP-FSIS shall require all agricultural aerial spraying company to establish maintenance schedule not less than 25hours to perform inspection/preventive maintenance to Avionics Instrument and Electrical components of the aircraft.

- CAAP-FSIS shall require Lapanday Company to designate a Quality and Flight Safety Officer to be responsible in the conduct of flight and maintenance rules and regulations as well as to formulate and enforce annual safety programs for their respective operations.