

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

<u>RP-C8229</u> <u>COSTRUZIONI AERONAUTICHE TECNAM S.P.A.,</u> <u>TECNAM P2006T</u>

OPERATOR: FIRST AVIATION ACADEMY, INC.

TYPE OF OPERATION: FLIGHT TRAINING (PCAR PART 3)

DATE OF OCCURRENCE: MAY 12, 2023

PLACE OF OCCURRENCE: SUBIC BAY INTERNATIONAL AIRPORT, SUBIC BAY FREEPORT ZONE, ZAMBALES, PHILIPPINES



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BASIC INFORMATION

Aircraft Registration No.	:	RP-C8229
Aircraft Type/Model	:	Costruzioni Aeronautiche Tecnam P2006T
Operator	:	First Aviation Academy, Inc.
Address of Operator	:	Bldg. 8303S Southwest Apron B, Subic Bay International Airport, Subic Bay Freeport Zone, Zambales, Philippines
Place of Occurrence	:	Subic Bay International Airport (RPLB), Subic Bay Freeport Zone, Zambales, Philippines
Date/Time of Occurrence	:	May 12, 2023 at about 0844H/0044 UTC
Type of Operation	:	Flight Training (PCAR Part 3)
Phase of Flight	:	Landing
Type of Occurrence	:	Gear-up Landing

EXECUTIVE SUMMARY

On or about 1637H of May 12, 2023, a Tecnam P2006T type of aircraft with registry number RP-C8229 was on routine flight training at Subic Bay International Airport (SBIA/RPLB) when it was involved in a landing incident (landing with undeployed landing gear) at runway 07. The aircraft was reported to have experienced a series of malfunctions on its primary and emergency landing gear extension systems. The aircraft is being operated by First Aviation Academy, Inc.

The flight took off from RPLB at about 1415H for a local training flight within the traffic area of the airport. The Pilot Trainee (PT) was seated on the left, and the Flight Instructor (FI) was in the right seat. The training was uneventful throughout the flight until the time that the PT was about to perform the third (3rd) touch-and-go landing. ATC communicated a change in runway in-use (from RWY 25 to RWY 07) during this period. The FI requested to proceed and orbit over Grande Island to have ample time to prepare for the landing. After receiving the cue from the tower regarding the landing sequence, the PT performed landing gear extension and set the flaps to 20 degrees. The propeller lever was moved to a full forward position, and flaps were set to a landing position (approximately 40°). Subsequently, both pilots noticed that the three (3) landing gear (LG) indicator lights were not illuminating on the "green.". The FI immediately took over the controls and initiated a go-around procedure. The FI requested that the tower

visually verify the deployment of the landing gear. The ATC on-duty replied with "negative landing gears".

The FI then performed troubleshooting while on the downwind leg and noticed that the circuit breaker (CB) for the landing gears had popped out. He pushed the CB back once, and the "Landing Gear Pump—On" annunciated. Following this, they made another pass to the tower to verify the status of its landing gear. Once again, the crew received confirmation that the landing gear had not deployed. Thereafter, the FI requested to proceed again over Grande Island to perform "Emergency Landing Gear Extension". While completing the actions based on the checklist, the Pilots noticed that the right-hand (RH) emergency landing gear valve lever extension was missing and could not be functional. After making another pass with the tower, the FI received confirmation that their landing gears remained unextended. The FI decided to proceed back again over Grande Island to perform a series of G-maneuvers in order to aid in the extension of its gears, but to no avail. The FI advised ATC that they would perform circling for thirty (30) minutes to burn fuel and reduce the aircraft weight. The FI then requested to perform three (3) low passes to simulate the gear-up landing. On its fourth (4th) and last approach, the FI committed to performing the landing without landing gear. The aircraft touched down abeam marker 7 of runway 07 and continued skidding forward for approximately 700 feet from its touched-down point until it finally stopped at approximately 300 feet before marker 6 of runway 07. The aircraft finally settled at grid coordinates of 14°47'33.162"N, 120°16'0.12"E, and a heading of 068°. ATC immediately dispatched the ARFF, together with FAA's maintenance personnel. They responded immediately to the incident site to assist the pilots and secure the aircraft. No fire ensued, and the pilots safely deplaned the aircraft.

PROBABLE CAUSE

• Primary Cause Factor

a. Faulty landing gear extension electric motor that resulted to gear-up landing.

• Contributory Cause Factor

a. Missing alternate landing gear extension valve lever.

SAFETY ACTIONS

Following the occurrence, First Aviation Academy, Inc. initiated the following safety corrective action:

- a. Reduction of hydraulic periodic inspection from 100 hours to 50 hours.
- b. Provision of multi-function tool to each aircraft.
- c. Included in their training procedures the landing gear retraction and extension provisions.
- d. Performed landing gear maintenance as per aircraft manufacturer safety bulletin before the aircraft was released back to service.