



U.S. Department
of Transportation
**Federal Aviation
Administration**

Forrest G. Dodd
Aviation Safety Inspector

South Florida Flight Standards District Office 19
[REDACTED]
Miramar, FL 33027

Juan C. Garcia FAA, IIC
Inspectors Statement/Accident Investigation

Registration: N5631E
Make: 1979 Cessna
Model: CE-172N
Serial Number: 17271906
SAS Activity Code: T-SO19-FY21-0517
SAS Task Activity Code: T-SO19-FY21-0517
ATQA No.: ASO1921030
NTSB No.: ERA21LA144
AFTT: 15947
Tach: 1820
100 Hour/Annual Inspection: 02/13/2021

When: 02/27/2021 1410 EST

Where: 26°30'18"N 80°11'44"W (Whitworth Farm, Lantana FL farm land access road)

What: Part 141 Operator Certificate No. 9PTS035L, Pilot Training Center, performing instruction operating Cessna CE-172N, Registration N5631E, SN: 17271906 after loss of engine power, emergency landed on the Whitworth Farm access road. Aircraft right wing impacted wooden pole tearing right wing and right main gear from aircraft, aircraft turned 180° degrees in the opposite direction coming to a stop in a shallow ditch. No injuries to the CFI or student pilot. Cessna CE-172N owner by N141NS LLC [REDACTED], Lantana Florida and operated by a certificate holder Part 141 Operator Certificate No. [REDACTED], Pilot Training Center, Satellite Base located at [REDACTED], Lake Worth, FL. 33462.

Who:

PIC CFI Pilot:

Zargar Amini, Amir Hossein
[REDACTED]

Wellington, FL [REDACTED]

FAA Private Pilots Certificate Number: [REDACTED]

Last FAA Medical Examination: 11/11/2020

CFI Pilot Zargar Amini, Amir Hossein E-mailed Statement:

February 26, 2021

On Friday, February 26, 2021, I left Lantana Airport in a C-172 at around 2:10pm with a student for an instructional flight. About ten minutes into the flight we started some ground

reference maneuvers at 1000 feet. I instructed my student to hold the altitude and he followed instructions. Shortly afterwards I noticed that he had lost about 100 feet in altitude. I asked him to apply more power to climb to assigned altitude, which he did, but we did not climb.

I took over the controls as the engine had lost power and it was not responding. I immediately went through emergency procedures but was not able to restore power to the engine. At that point we were descending at gliding speed and I looked for and found a suitable strip to land. As we were about to touch down, unfortunately, the right wheel hit a small post on the ground, and as result, the airplane spun.

Fortunately, we made a safe landing, but there was damage to the right wheel, right wing, and right tail, as far as I could see. The FAA was notified and is investigating the cause of the engine failure.

Amir Hossein Zargar Amini

Student Pilot:

Murali, Balaji

[REDACTED]

Lake Worth, FL 33462-2400

Student Pilot Certificate Number: [REDACTED]

Last FAA Medical Examination: 01/04/2021

Student Pilot Murali, Balaji Statement:

Dear Mr. Garcia,

As requested, below is my statement regarding the incident involving N5631E on 26th Feb 2021 near KLNA.

On 26th Feb 2021, I departed KLNA runway 10 at around 1410 hrs ET with my instructor on a Cessna 172 (N5631E). Around 10 mins after takeoff we started performing ground reference maneuver at an altitude of 1000ft. My instructor noticed I had lost about 100 ft and instructed to add power to regain altitude. I added power but we were not gaining altitude.

My instructor immediately took control of flight, established gliding speed and ran through procedures to restore power. Unfortunately we couldn't restore power. Instructor found a suitable place to land and glided down. When we touched down, the aircraft unfortunately clipped a pole on the ground and spun. Starboard wing, wheel and horizontal stabilizer were damaged but both of us were safe. The damage to starboard wing had caused fuel to leak which was collected in cans and kept aside for safety.

I will be glad to answer any further queries or help in anyway required to bring this to a logical conclusion. My license and contact details are below

First Name: Balaji

Last Name: Murali

FTN : [REDACTED]

Student Pilot certificate number: [REDACTED]

Mobile number: [REDACTED]

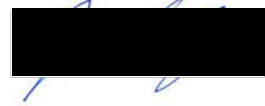
Regards,
Balaji Murali

Inspector Summary of Aircraft Damage Analysis:

After loss of engine power, emergency landed on the Whitworth Farm access road. Aircraft right wing impacted wooden pole tearing right wing and right main gear from aircraft, aircraft turned 180° degrees in the opposite direction coming to a stop in a shallow ditch. Aircraft right horizontal stabilizer and right rudder was damaged from impacting ground once aircraft came to a rest on its right side. Aircraft came to a rest on its right side with the left wing at a 90° degree angle upward. Right wing strut was torn from aircraft on impact. The right wing was almost torn from upper fuselage attachment sections and found leaking fuel from internal torn fuel lines. Front cockpit right section cracked with some sections missing.

Engine was inspected found no issues, one propeller had a slight bend. Engine was started and allowed to operate to normal running engine temperature. Engine oil pressure was found to be operating in normal operating green range at around 70 psi with engine operating at constant 925 rpm for 15 minutes. Magneto testing found left magneto with a 95 rpm drop and right magneto with a 75 rpm drop. Alternator found to be operating with no issues. The engine air box was inspected found no blockage or obstruction inside the air box and carb heat lever found to be operating in a smooth and normal operating function. Engine tested to only normal operating idle speed due to safety issues with aircraft stability and bended propeller from accident. No issue found during engine test.

Carburetor Icing-Probability calculation was preformed using historical West Palm Beach weather from the day and time of the accident. The indicated temperature at 81° F = 27° C, dew-point at 69° F = 20° C with relative humidity at 65%. The Carburetor Icing-Probability Chart data indicates N5631E was operating in Serious Icing conditions with descent power settings.

A black rectangular redaction box covering a signature. There are faint blue handwritten marks above and below the box.

Juan C. Garcia
Aviation Safety Inspector

New Carburettor icing-probability chart

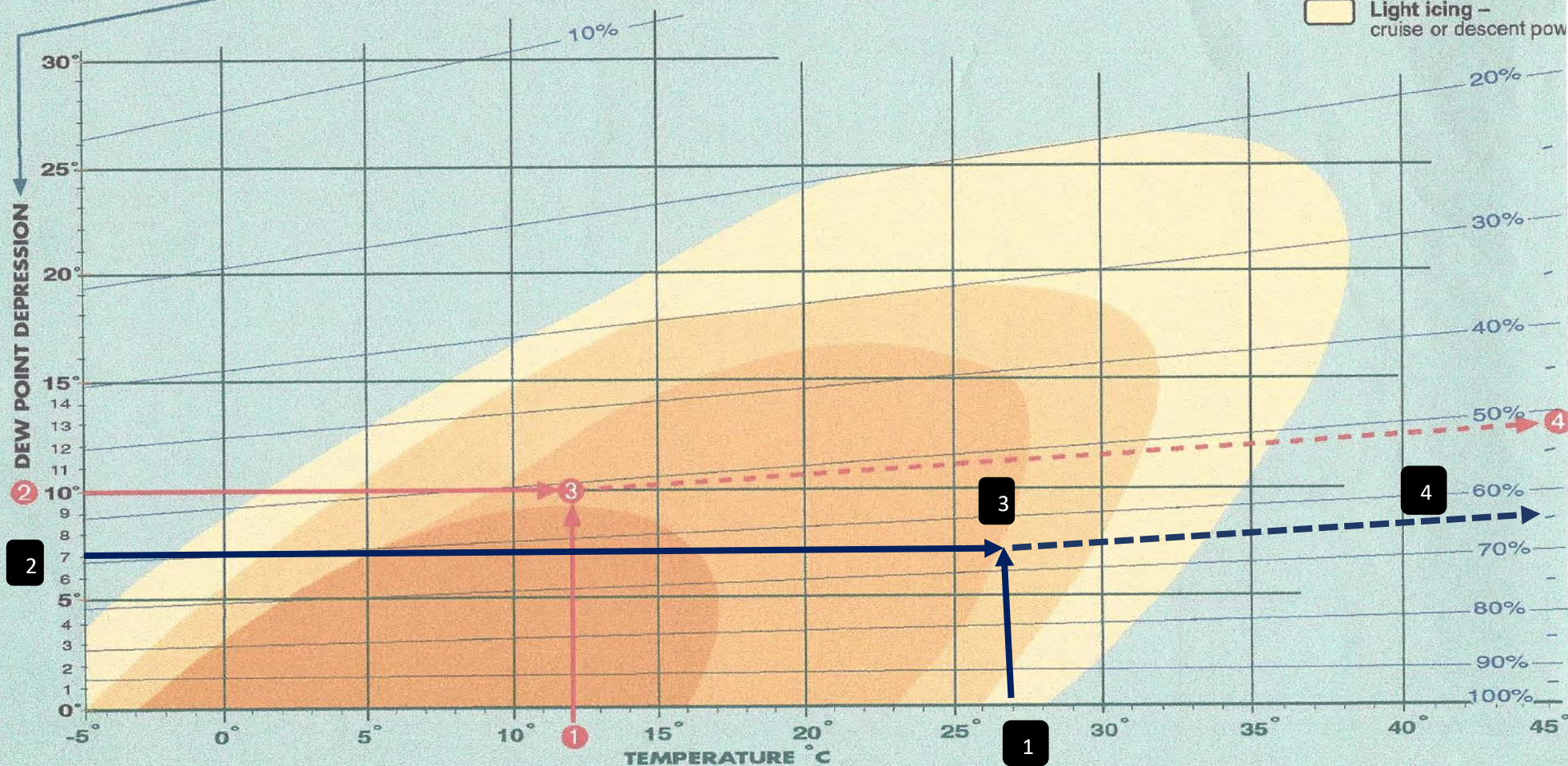
To work out dew point depression:

$$\text{Temp} \text{ Minus } \text{Dew Pt.} = \text{Dew Pt. Depression}$$

To use this chart:

- obtain the temperature and dew point
- calculate the difference between the two. This is the 'dew point depression'
- for example, if the temperature is 12° C **1** and the dew point is 2° the dew point depression will be 10° **2**
- for icing probability, refer to the shading legend appropriate to the intersection of the lines **3**
- for relative humidity, refer to the right hand scale **4**

- Serious icing** – any power
- Moderate icing** – cruise power; **Serious icing** – descent power
- Serious icing** – descent power
- Light icing** – cruise or descent power



Data used:
Temperature: 81° F = 27°C
Dew point: 69° F = 20°C
Relative Humidity - 65%