الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

United Arab Emirates

Air Accident Investigation Sector

Accident

- Preliminary Report -

AAIS Case Nº: AIFN/0014/2024

Cessna 172R Crash During Training Flight

Operator:	Fujairah Aviation Academy (FUJAA)
Make and Model:	Textron Aviation – Cessna 172R
Nationality and Registration:	The United Arab Emirates, A6-HSS
Place of Occurrence:	Offshore Al Badyah, Fujairah
State of Occurrence:	The United Arab Emirates
Date of Occurrence:	11 November 2024

Occurrence Brief

Occurrence Reference:	AIFN/0014/2024
Occurrence Classification:	Accident
Name of the Operator:	Fujairah Aviation Academy (FUJAA)
Manufacturer:	Textron Aviation
Aircraft Model:	Cessna 172R
Engines:	Single, Lycoming IO-360-L2A
Propeller:	Single, McCauley
Nationality:	The United Arab Emirates
Registration Marks:	A6-HSS
Manufacturer Serial Number:	17281521
Year of Manufacture:	2008
Flight Hours Since New:	1,2731:50
Type of Flight:	Training flight
State of Occurrence:	The United Arab Emirates
Place of Occurrence:	Fujairah
Date and Time:	11 November 2024, 0850 LT (0450 UTC)
Total Crewmembers:	Two pilots
Total Passengers:	None
Injuries to Passengers and Crew:	2 fatalities
Other Injuries:	None
Nature of Damage:	Destroyed

Investigation Objective

This Investigation is conducted pursuant to the United Arab Emirates (UAE) *Federal Act No. 20 of 1991*, promulgating the *Civil Aviation Law, Chapter VII- Aircraft Accidents,* Article 48*.* It is in compliance with the *Air Accident and Incident Investigation Regulation (AAIR),* and in conformity with *Annex 13* to the Convention on International Civil Aviation.

The sole objective of this Investigation is to prevent aircraft accidents and incidents. It is not the purpose of this activity to apportion blame or liability.

The information contained in this Preliminary Report is derived from the data collected during the ongoing investigation of the Accident. Later Interim Statements, if any, or the Final Report may contain altered information in case of appearance of new evidence during the ongoing investigation.

Investigation Process

The Air Accident Investigation Sector (AAIS) of the United Arab Emirates was notified about the Accident at 0932 LT of the United Arab Emirates. The Occurrence was notified by the Safety Manager of Fujairah Aviation Academy (FUJAA), to the AAIS Duty Investigator (DI) hotline number +971506414667.

The occurrence was classified as 'Accident' and the AAIS assigned an Accident Investigation File Number AIFN/0014/2024 for the case.

The AAIS formed the Investigation team led by the investigator-in-charge (IIC) and Deputy IIC from the AAIS. The National Transportation Safety Board (NTSB) of the United States, being the State of the Manufacture and Design, was notified of the Accident and assigned an accredited representative. The AAIS is leading the Investigation and will issue a Final Report.

This Preliminary Report is publicly available at:

https://www.gcaa.gov.ae/en/departments/airaccidentinvestigation/Pages/InvestigationReports.aspx

Notes:

1. Whenever the following words are mentioned in this Report with first Capital letter, they shall mean the following:
   - (Accident) – this investigated accident
   - (Aircraft)– the aircraft involved in this accident
   - (Instructor) – the instructor pilot of this accident flight
   - (Investigation) – the investigation into the circumstances of this accident
   - (Operator) – Fujairah Aviation Academy
   - (Report) – this Preliminary Report
   - (Student) – the student pilot of this accident flight.
2. Unless otherwise mentioned, all times in this Report are local times (LT) of the United Arab Emirates (UTC plus 4 hours).
3. Photos and figures used in this Report are taken from different sources and are adjusted from the original for the sole purpose to improve the clarity of the Report. Modifications to images used in this Report are limited to cropping, magnification, file compression, or enhancement of color, brightness, contrast, or addition of text boxes, arrows or lines.

Abbreviations

ATC	Air traffic control
AAIR	Air Accident and Incident Investigation Regulation of the United Arab Emirates
AAIS	The Air Accident Investigation Sector of the United Arab Emirates
AIFN	Accident Investigation File Number
CAVOK	Cloud and visibility OK
CPL	Commercial pilot license
CSN	Cycles since new
CVR	Cockpit voice recorder
DI	AAIS Duty Investigator
FDR	Flight data recorder
FUJAA	Fujairah Aviation Academy
GCAA	The General Civil Aviation Authority of the United Arab Emirates
ICAO	The International Civil Aviation Organization
IIC	Investigator-in-charge
LT	Local time of the United Arab Emirates
METAR	Meteorological aerodrome report
MSN	Manufacturer serial number
NTA	North Training Area
NTSB	National Transportation Safety Board of the United States
OMFJ	Fujairah International Airport
SAR	Search and rescue
UAE	United Arab Emirates
UTC	Coordinated universal time

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1. Factual Information

1.1 History of the Flight

On 11 November 2024, a Cessna 172R, registration marks A6-HSS, callsign FUJ08, was scheduled for a training flight from Fujairah International Airport (OMFJ), to North Training Area (NTA) and back to OMFJ, United Arab Emirates. The flight was occupied by a Student and an Instructor.

Before departure, at about 0821 LT, the Student contacted Fujairah Tower for take-off clearance, provided the Aircraft's squawk code, and informed Tower controller that the purpose of the flight a training flight in NTA 1 and 2. In response, Tower controller instructed to line up for takeoff from Runway 29R at 0826, and the Aircraft took off at about 0829.

At about 0831, while climbing through 1,500 feet, the flight crew switched to Approach control on frequency 129.4 MHz, as instructed by Tower controller.

At about 0844, Approach controller instructed the Instructor to report when ready to return to OMFJ from the training area, and the Instructor acknowledged the instructions. Then, at 0848, the radar recording indicated a sudden drop in speed and a loss of altitude from 3,000 to 2,000 feet. Subsequently, at 0850, the Aircraft disappeared from the radar and Approach controller made multiple attempts to contact the pilots, but no communication was established.

At about 0855, Approach controller asked Tower controller whether another company aircraft, FUJ06, could attempt to establish communication with FUJ08 on the company frequency. At 08:58, Tower controller advised that FUJ06 had tried to contact FUJ08, but there was no response.

About one hour later, at 0956, the search and rescue (SAR) command center contacted the Approach controller, informing that a search operation had started in the Madhah area, departing the search helicopter at 1,500 feet and below.

At about 1120, a fisherman reported to Fujairah Coast Guard that he had found an identified human body offshore, about five nautical miles from North Khorfakkan, which was later confirmed to be the body of the Instructor pilot. The Student pilot remained missing for two days until the Investigation team, along with SAR, located the wreckage and the body underwater. The Student's body was found on 14 of November at 0848, and part of the Aircraft wreckage was recovered.

1.2 Injuries to Persons

The Instructor and the Student were fatally injured.

1.3 Damage to the Aircraft

The Aircraft was destroyed.

1.4 Other Damage

No environmental damage was reported.

1.5 Personnel Information

The qualifications and experience data of the Instructor and Student are shown in table 1.

Table 1. Instructor and Student data		
	Instructor	Student
Age	50	24
Type of license	CPL-A	Student
Valid to	17 September 2032	NIL
Rating	SEP Land, IR/SEP/SPA Instructor: FI(A)	NIL
Total flying time (hours)	2,715:30:00	7:05
Total command on this type (hours)	2,519:09:00	7:05
Total last 12 months (hours)	415:33:00	7:05
Total last 90 days (hours)	145:05:00	7:05
Total last 28 days (hours)	61:15:00	7:05
Total last 7 days (hours)	9:55	1:10
Total last 24 hours (hours)	0:55	0
Last recurrent training	11 September 2024	11 April 2024
Last proficiency check	11 September 2024	N/A
Medical class, validity	Class 1, 12 February 2025	Class 2, 10 June 2029
Medical limitation	RXO[1]	NIL
English language proficiency (ELP)	Level 4	NIL

1.6 Aircraft Information

1.6.1 General data

The Aircraft was a Cessna 172R Skyhawk which was a variant of the basic Cessna 172. It was delivered from the manufacturer in July 2008.

The Aircraft was a four-seats, single-engine, upper-wing, with a tricycle landing gear. The basic Cessna 172 aircraft was first flown in 1955. Cessna 172R Skyhawk was first introduced in 1996. This variant is powered by a derated Lycoming IO-360-L2A engine producing a maximum of 160 horsepower (120 kW) at 2,400 revolution per minute (RPM).

Table 2 illustrates the Aircraft data.

Table 2. Aircraft data	
Manufacturer	Textron Aviation
Model	Cessna 172R
MSN	17281521
Date of manufacture	July 2008
Nationality and registration marks	United Arab Emirates, A6-HSS
Name of the Operator	Fujairah Aviation Academy
Certificate of registration	
Number	76/09
Issuing authority	General Civil Aviation Authority
Issuance date	9 September 2009

[1] **Renew by Examiner Only** is a limitation that is often placed on a pilot's medical certificate by an aviation medical examiner (AME) when a specific medical condition requires closer monitoring or periodic review by an examiner during medical recertification.

Certificate of airworthiness	
Number	FAC/16
Issuing authority:	General Civil Aviation Authority
Issuance date	15 August 2013
General maintenance records	
Time since new (hours)	12731:50
Cycles since new	28604 Landings
Last major inspection check, type, date and hours/cycles	Ops 4/13/22/23/24/Eng. 50 H/Eng. 100 H/Eng. 400 H/ELT Annual/F.A.K Annual etc. @ 12696:55 A/F Hrs. on 05/Nov/2024.
Time since last major inspection	34:55 Hours
Cycles since last major inspection	79 Landings
Last inspection, type, date and hours/cycles:	Unscheduled Maintenance on 07/Nov/2024 @ 12703:25 A/F Hrs.
Maximum take-off weight (kg)	1,111.30 kg
Maximum zero fuel weight (kg)	1,048.71 kg
Take-off weight (kg)	1,048.43 kg
Take-off fuel weight (kg) (for the Accident flight)	111.59 kg
Landing fuel weight (kg) (for the Accident flight)	1,021.22 kg

1.6.2 Engine data

Table 3 illustrates the engine data.

Table 3. Engine data	
Engine manufacturer	Lycoming
	Engine
Model	Lycoming IO-360 -L2A
Serial number	L-37523-51E
Date installed	12 October 2023
Time since installation hours)	1,532:00
Time since last inspection (hours)	34:55

1.6.3 Propeller data

Table 4 illustrates the propeller data.

Table 4. Propeller data	
Propeller manufacturer	Textron Aviation
	Propeller
Model	McCauley Fixed Pitch Propeller
Serial number	ABJ48004
Date installed	30 July 2023
Time since installation (hours)	1,768:35
Time since last inspection (hours)	34.55

1.7 Meteorological Information

1.7.1 OMFJ weather report

Table 5 describes the METAR for OMFJ on 11 November 2024, at 0450 UTC (0850 LT) as shown below.

METAR OMFJ 110450Z 31002KT CAVOK 32/10 Q1017 RMK A3004

Table 5. Description of METAR

Wind	Direction 310 degrees/speed 2 knots
Visibility	10 kilometers or more, no clouds
OAT	32°C
Dew point	10°C
Pressure (Altimeter)	1017 mbar
Remark	30.04 in of mercury

1.8 Aids to Navigation

At the time of the Accident, the ground navigation aids were out of service because they had not undergone the scheduled flight calibration due to ongoing maintenance work. However, these ground navigation aids did not contribute to the Accident, as it occurred during flight.

1.9 Communications

The communication between the Aircraft and Fujairah ATC was clear and normal until the Aircraft disappeared from radar. No emergency distress call was made prior to the sudden disappearance.

Additionally, multiple attempts to re-establish communication from another aircraft (FUJ06) were unsuccessful.

The ground communication equipment was fully serviceable.

1.10 Aerodrome Information

OMFJ, located 1.9 km south of central Fujairah City, the United Arab Emirates, is equipped with one asphalt runway (RWY11/29) (figure 1). The airport lies close to the coastline of Fujairah facing Gulf of Oman, and it is surrounded by mountains of a height of approximately 1,500 meters. These mountains are part of Al Hajar mountains that extends through the United Arab Emirates and Oman.

Figure 1. OMFJ runway

1.10.1 Training Area

Fujairah Aviation Academy (FUJAA) had two designated training areas: North and South Training Areas (NTA and STA, respectively) (figure 2). The Accident training flight was conducted in NTA.

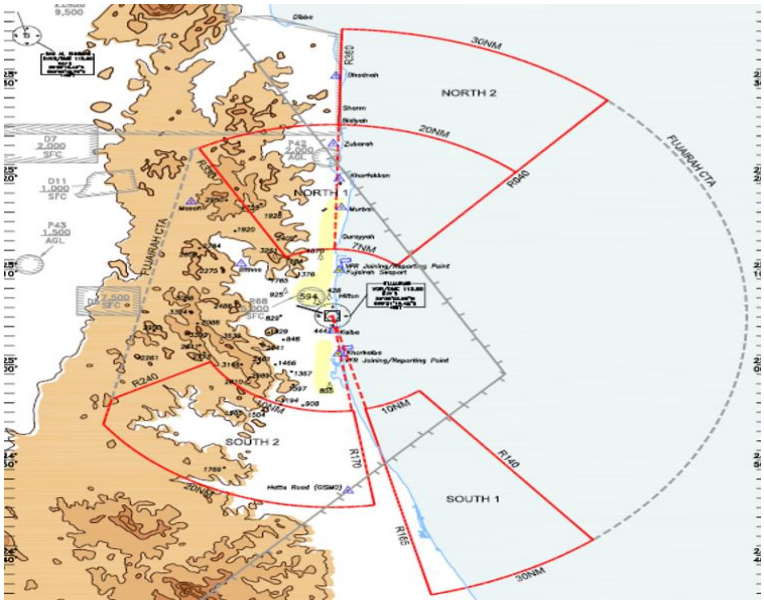

Figure 2. Training areas (within the red boundaries)

1.11 Flight Recorders

The Aircraft was not equipped with a flight data recorder (FDR) or cockpit voice recorder (CVR), and it was not required to be equipped with these recorders according to the relevant *Civil Aviation Regulation* of the United Arab Emirates.

1.12 Wreckage and Impact Information

The Aircraft was destroyed because of the impact forces with the sea. Part of the wreckage on the seabed at a depth of about 50 metres, about 5 nautical miles north Khorfakkan. Th located wreckage was recovered and transported to FUJAA facilities (figure 3).

Figure 3. Recovered wreckage

The locations of the wreckage, as well as the bodies of the Instructor and Student, are shown in Figure 4. However, the engine and the cockpit remain on the seabed, with their estimated positions indicated in figure 4.

Detailed information will be incorporated in the Final Report.

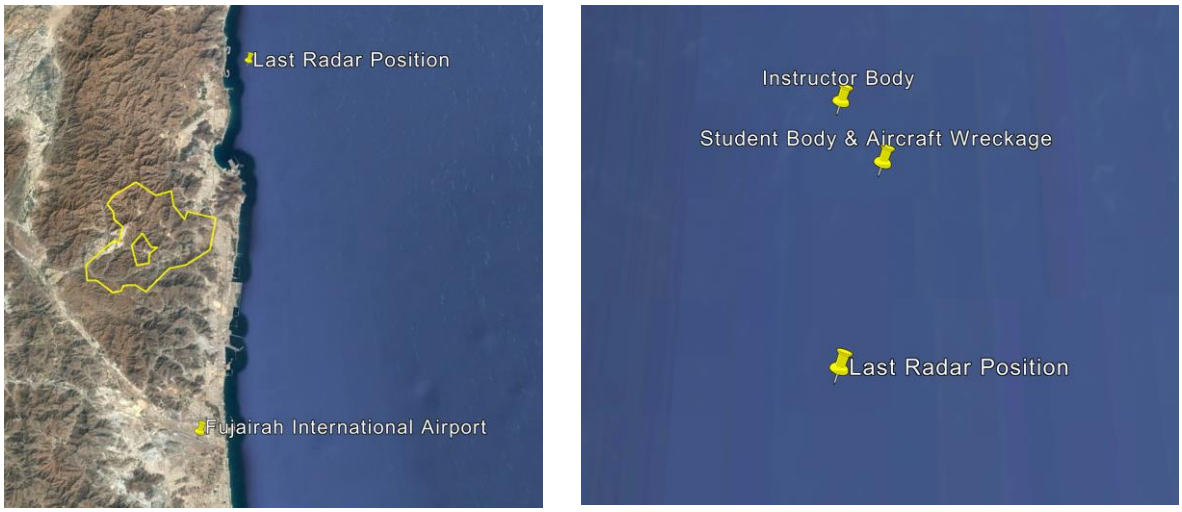

Figure 4. Bodies and wreckage distribution

1.13 Medical and Pathological Information

The Aviation Pathology Protocol was activated, and autopsies were performed on the bodies of the Instructor and Student. The results of the autopsies, along with the related tests and examinations, will be detailed in the Final Report.

1.14 Fire

There were no signs of fire found on the recovered wreckage.

1.15 Survival Aspects

To be discussed in the Final Report.

1.16 Tests and Research

To be discussed in the Final Report.

1.17 Organizational and Management Information

To be discussed in the Final Report.

1.18 Additional Information

To be discussed in the Final Report.

1.19 Useful or Effective Investigation Techniques

The new techniques employed during this Investigation will be discussed in the Final Report.

2. Ongoing Investigation Activities

The Investigation is ongoing and will include further examination and analysis of:

- Aircraft performance.
- Aircraft technical and engineering, including history of the maintenance.
- Human factors aspects.
- Operator's policy, procedure, and management, including organizational factors.
- Any other safety aspects that may arise during the course of this Investigation.

All relevant factual information and its associated analysis, conclusions, and safety recommendations will be included in the Final Report.

3. Safety Concerns and Actions

To date, the Investigation has not yet identified safety issues that necessitate prompt rectifications.

This Report is issued by:

The Air Accident Investigation Sector
The United Arab Emirates

P.O. Box 6558
Abu Dhabi, United Arab Emirates
E-mail: aai@gcaa.gov.ae
Website: www.gcaa.gov.ae