Oman Transport Safety Bureau (OTSB)

Preliminary Report

OTSB Case File No: AIFN-002/05/2025

Runway Incursion (RI) between Oman Aviation Academy (OAA) Aircraft - A4O-OAI and A4O-OAG at Sohar International Airport (OOSH), Oman.

Operator: Oman Aviation Academy (OAA)
Make and Model: Diamond DA40 NG
Nationality and Registration Marks: Sultanate of Oman, A4O-OAI

Operator: Oman Aviation Academy (OAA)
Make and Model: Diamond DA40 NG
Nationality and Registration Marks: Sultanate of Oman, A4O-OAG

Location of the Occurrence: Muscat FIR, 24°23'09.98'' N 056°37'32.23'' E
State of Occurrence: Sultanate of Oman
Date of Occurrence: 6th May 2025, 09:33 UTC

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Purpose of the Investigation

The investigation was conducted by Oman Transport Safety Bureau pursuant to Civil Aviation Law (CAL) 76/2019 Chapter 10, and in compliance with the Civil Aviation Regulation CAR-13 -, Sub Part CAR 13.070: Instituting and Conducting of Investigations as State of Occurrence of Accidents or Incidents in the Sultanate of Oman.

The sole objective of the investigation is to prevent future aircraft accidents and incidents and not to apportion blame or liability. Oman Transport Safety Bureau issue the Preliminary Report in accordance with the National and International standards, and Industry best practice.

Unless otherwise mentioned, all times in this Report are UTC time. Local Time in The Sultanate of Oman is UTC plus (+) 4 hours. Photos and figures used in this report were taken from different sources and adjusted from the original for the sole purpose of improving clarity of the report.

The Preliminary Report is publicly available at: http://www.mtcit.gov.om

Abbreviations	Description
°	Degree
AAI	Air Accident Investigation
AAIS	Air Accident Investigation Section
ALT	Altitude
AAI	Air Accident Investigations
AFIS	Aerodrome Flight Information Service
AFISO	Aerodrome Flight Information Service Operator
AIP	Aeronautical Information Publication
ATC	Air Traffic Control
ATO	Approved Training Organization
CAA	Civil Aviation Authority
CAL	Civil Aviation Law
C2	Charlie 2
C	Celsius
CPL	Commercial Pilot License
CSN	Cycles Since New
CVR	Cockpit Voice Recorder
DFDR	Digital Flight Data Recording
DGMET	Directorate General of Meteorology
EFATO	Engine Failure After Take Off
FSIA	Federal Safety Investigation
FIR	Flight information Region
FL	Flight Level
FMS	Flight Management System
FPL	Flight Plan
FT	Feet
ICAO	International Civil Aviation Organization

IR	Instrument Rating
IIC	Investigator-in-Charge
KTS	Knots
MCT	Muscat
MEP	Multi Engine Powerplant
METAR	Meteorological Routine Aerodrome Report
MSL	Mean Sea Level
NM	Nautical Mile
OAA	Oman Aviation Academy
OOSH	Sohar International Airport
OTSB	Oman Transport Safety Bureau
PF	Pilot Flying
PM	Pilot Monitoring
SEGMET	Information concerning en-route weather
SEP	Single Engine Powerplant
SOP	Standard Operating Procedures
RWY	Runway
R/T	Radiotelephony
SIC	Specific medical examination
TBA	To Be Advised
TSB	Transport Safety Board of Canada
UTC	Universal Time Coordinate
VLD	Valid only with correction for defective distant vision
VML	Valid only with correction for defective distant, intermediate a near vision

Synopsis

Oman Transport Safety Bureau (OTSB) was notified of the occurrence by the Operator, Oman Aviation Academy (OAA) through OTSB email on 08th May 2025 at 08:10AM Local Time. The serious incident occurred on 06th May 2025 at 09:33 UTC.

The serious incident involved two Oman Aviation Academy Diamond DA40 NG aircraft with registration marks A4O-OAI, and Registration Marks A4O-OAG,. Both aircraft were conducting training flights at Sohar International Airport, (OOSH) Sultanate Of Oman.
The student pilot of aircraft A4O-OAG was holding short at C2 taxiway when the aircraft with registration A4O-OAI (student pilot and instructor) was on final approach and reported that they will perform a Touch and Go. After the flight crew of aircraft A4O-OAI performed the Touch and Go, the student pilot of aircraft A4O-OAG was cleared by the Aerodrome Flight Information Service Operator (AFISO) to backtrack on the Runway 15.

Following the flight crew of aircraft A40-OAI performing Touch and Go, they transmitted that they will be performing an Engine Failure After Take-off (EFATO) exercise with full stop landing. The flight crew of aircraft A4O-OAI stated that their intension was communicated to AFISO`s frequency with no further transmissions from the AFISO.
When the student pilot transmitted to AFISO “ready for take-off”, AFISO cleared the student for take-off at the student discretion. The AFISO was under the impression that the information transmitted by aircraft A40-OAI was not for the AFISO`s action but rather for other aircraft ready for take-off A4O-OAG . As a result, the solo student pilot took off on the occupied runway resulting in the runway incursion (RI) between the two aircraft A4O-OAG and A4O-OAI.

OTSB instituted investigation and based on the information gathered and analyses, the occurrence was classified as a serious incident and decided to conduct an investigation. The following parties were notified:

- State of Design and Manufacturer of Diamond DA40 NG Canada -Transport Safety Board of Canada (TSB);
- Sultanate of Oman Civil Aviation Authority (CAA)

In line with OTSB Investigation procedures, the Director of OTSB appointed an Investigator-In-Charge (IIC) and an investigation team to assist the IIC with the investigation. The following investigation authority is involved in the investigation by appointing accredited representatives and advisor to the investigation:

- State of Design and Manufacturer of Diamond DA40 NG Canada-Transport Safety Board of Canada (TSB).

After the investigation is completed, OTSB will release and publish the Final Report. The Final Report will be made public at the below link:

http://www.mtcit.gov.om.

1. Factual Information.

1.1. History of the Flight.

1.1.1 On the 06th May 2025, Oman Aviation Academy (OAA) with registration marks A4O-OAI, a Diamond DA40 NG departed from Sohar International Airport (OOSH), Sultanate of Oman, on a training flight with intended destination OOSH. While another OAA aircraft with registration marks A40-OAG, a Diamond DA40 NG departed from Sohar International Airport, (OOSH), Sultanate of Oman on a training flight with intended destination back to OOSH.

1.1.2 Both aircraft filed a flight plan for the flight, the student pilots collected all required information meteorological information, AIPs and NOTAMs), performed all calculations (performance, weight & balance) and were briefed by the flight instructor.

1.1.3 Both aircraft were flying within OOSH circuits and were communicating with Aerodrome Flight Information Service Operators (AFISO) and with each other on Oman Aviation Academy (OAA) company operations frequency. AFISO was handling 4 aircraft at the time of the incident.

1.1.4 According to the operator, it was a busy morning with four company aircraft operating in the vicinity which were A4O-OAI, A4O-OAG, A4O-OAA, A4O-OAB. See figure 1 below.

Figure 1 - Positions of aircraft at start of taxi (Source: Operator).

1.1.5 The operator reported that the solo student pilot flying aircraft A4O-OAG at 04:15 was holding short at C2 taxiway when the aircraft with registration A4O-OAI was on final approach and reported that they will perform a Touch and Go. After the flight crew of aircraft A4O-OAI performed the touch and go, they transmitted to AFISO that they are performing EFATO with a full stop landing.

1.1.6 At 04:20The solo student pilot of aircraft A4O-OAG entered the active RWY towards the beginning of the Threshold of runway 15, made 180 degrees turn and reported ready for departure and Sohar AFISO replied (Take-off at your discretion). The solo student pilot of aircraft A4O-OAG then started his Take-Off without realizing that aircraft A4O-OAI was still on Runway 33 back tracking to vacate the runway via taxiway B4.

Figure 2 - Positions of aircraft at A4O-OAG and A4O-OAI prior to take-off (Source: Operator).

1.1.7 Flight instructor of aircraft A4O-OAA that was on late downwind turning base saw A4O-OAG rolling on the runway and advised the solo student of A4O-OAG to standby. The solo student of replied that he was already airborne and climbing. The Flight Instructor of aircraft A4O-OAI advised the solo student pilot of aircraft A4O-OAG that since he was already airborne to continue with the climb-out to avoid being too close with conflicting traffic A4O-OAI which was backtracking from Runway 33.

1.1.8 During the interview, the solo student pilot stated that he was under the impression that aircraft A4O-OAI had performed Touch and Go and already upwind and didn't hear the transmission from the flight crew of aircraft A4O-OAI that they decided to perform EFATO with full stop landing.

1.1.9 During the interview the solo student pilot stated that couldn't see the aircraft A4O-OAI ahead on the RWY and neither was able to spot it in the cockpit instruments.

1.1.10 The solo student pilot flying aircraft A4O-OAG passed behind the aircraft A4O-OAI which had started vacating the runway via taxiway B4, at 600 feet (Ft) Above Mean Sea Level (AMSL).

1.1.11 During the interview, AFISO stated that when the solo student pilot transmitted that he was ready for take-off, AFISO cleared the student pilot for take-off at his discretion. When the flight crew of aircraft A4O-OAI reported that they were going to perform EFATO with full stop

landing the AFISO did not provide the updated traffic information to either of the two aircraft. The AFISO stated that he was under the impression that the information transmitted by aircraft A40-OAI was not for his action but rather for other aircraft in the circuit.

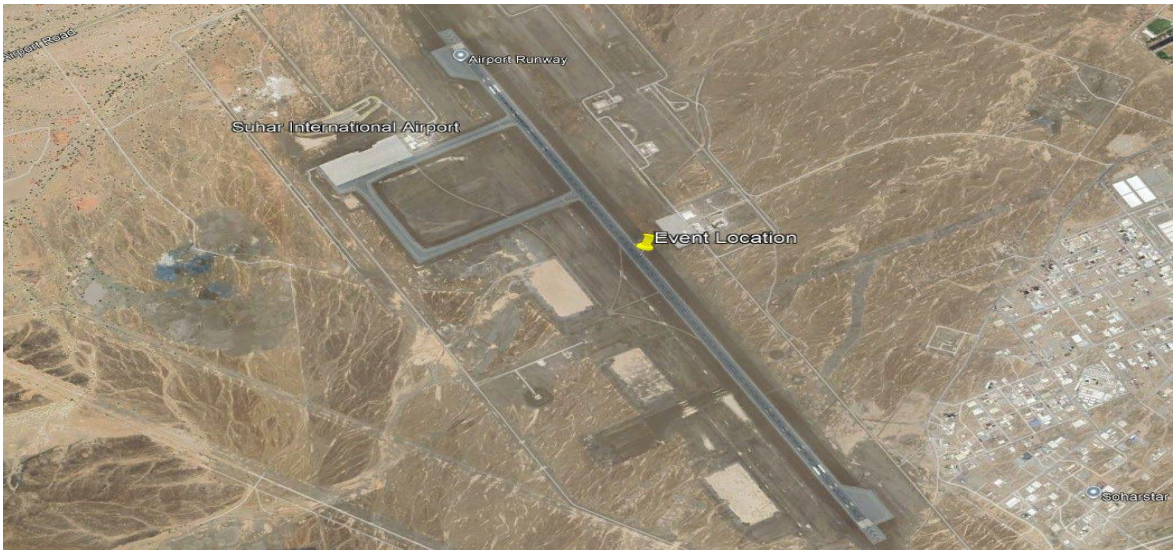

Figure 3: Shows the position where the serious incident happened (Source: Operator).

1.2 Injuries to Persons (A4O-OAG)

Injuries	Pilot	Cabin Crew	Passengers	**Total on Board**	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	**-**	-	**-**	-
No Injuries	1	-	-	**1**	-
Total	**1**	**-**	**-**	**1**	-

Note: Other, means people on ground.

Injuries to Persons (A4O-OAI)

Injuries	Pilot	Cabin Crew	Passengers	**Total on Board**	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	**-**	-	**-**	-

No Injuries	2	-	-	**2**	-
Total	**2**	**-**	**-**	**2**	-

1.3. Damage to Aircraft.

1.3.1 No damages were reported.

1.4. Other Damage.

1.4.1 No other damages were reported

1.5. Personnel Information:

1.5.1 Student Pilot (SP) – (A4O-OAG) Pilot Flying (PF):

Nationality	Omani		
Medical validity	18th Oct 2025	Licence type	N/A
Licence validity	N/A	Type endorsed	Yes
Ratings	N/A		
English Language Proficiency Level, Issue and Expiry Date	TBA		
Restrictions	Nil		
Previous Accidents	Nil		

Flying experience:

Total Flying Hours	35:26
Total Flying Hours as Captain	6:30
Last 24 hrs	TBA
Last 7 days	1:35
Last 30 days	11:29
Last 90 days	22:15

1.5.1.1 The Student Pilot was signed out on 2nd February 2025 in accordance with the OAA integrated ATPL training Manual.

1.5.1.2 The Student Pilot is issued a Class 1 medical certificate with no limitations on 20th October 2024 and expiry date of 18th October 2025.

1.5.2 Instructor – (A4O-OAI) Pilot Monitoring (PM):

Nationality	Malaysian		
Medical valid	28th AUG 2025	Licence type	Commercial Pilot License Aeroplane

Licence valid	31 OCT 2029	Type endorsed	Yes
Ratings	SEP (L), MEP (L), IR (A), Diamond DA40 NG		
English Language Proficiency	Proficiency, Level 5 Expiry date: 15th Sep 2029		
Restrictions	VLD		
Previous Accidents	Nil		

Flying experience:

Total Flying Hours	2330
Total Flying Hours as PIC	2000
Total Flying Hours on Type	1000
Last 24 hrs	TBA
Last 7 days	8:45
Last 30 days	32:20
Last 90 days	85:10

1.5.2.1 The Instructor is holding a Commercial Pilot license (A) issued by Oman CAA on 31 October 2024 and rated for Diamond DA40 NG. Instructor rating test/ check was conducted on 13 October 2024 and valid until 31 October 2027. The license was valid at the time of the serious incident.

1.5.2.2 The Instructor was issued a Class (one) 1 medical certificate with an expiry date of 27th August 2025. The last medical assessment was conducted on 28 August 2024 with Valid only with correction for defective distant vision (VLD) limitations.

1.5.3 Student Pilot (A4O-OAI) Pilot Flying (PF):

Nationality	Omani		
Medical validity	19th OCT 2025	Licence type	Nil
Licence validity	N/A	Type endorsed	N/A
Ratings	N/A		
English Language Proficiency Level, Issue and Expiry Date	TBA		
Restrictions	Nil		
Previous Accidents	Nil		

Flying experience:

Total Flying Hours	28:30
Total Flying Solo Hours	1:15
Last 24 hrs	TBA
Last 7 days	1:00
Last 30 days	9:30

Last 90 days	15:25

1.5.4 Aerodrome Flight Information Service Operator (AFISO):

Nationality	Omani		
Medical valid	10th Jun 2025	Licence type	AFISO
Licence valid	TBA	Type endorsed	TBA
Ratings	TBA	LPR	Level 4
Restrictions		Nil	

1.5.4.1 The AFISO works as operation officer and his last competency AFISO evaluation assessment was conducted on 12 August 2024. The License Proficiency Check (LPC) was conducted on 09th April 2023 with an expiry date of 09th April 2026.

1.5.4.2 The AFISO was issued with English language proficiency rating LEVEL 4 and renewed on 09th April 2023.

1.5.4.3 Aerodrome Flight Information Service (AFIS) course was conducted between the period 02nd February to 27th February 2020.

1.5.4.4 AFISO completed Human Factors course between the period 15th to17th March 2022.

1.5.4.5 AFIS Refresher Course was conducted between 09th April 2023 to 13th April 2023.

1.6 Aircraft Information:

1.6.1 The aircraft DA40 fully integrated G1000 NXi flight deck, incorporating the latest features with optional ultra-precise GFC700 Automatic Flight Control System, offers superior situational awareness, convenience and safety. Available equipment provides Traffic Advisories, Synthetic Vision Technology, Satellite WX and Entertainment, and more. For your DA40 you can choose between the 168 hp turbocharged AE300 jet fuel engine (For more information on Austro Engines please click here) or a Lycoming IO360M1A AVGAS engine (DA40 XLT version). The 3 blade MT hydraulic constant speed propeller features advanced blade geometry for efficient performance, low vibration and noise. It is automatically controlled by the engine's digital engine control through a conventional hydraulic governor.

Airframe Information: (A4O-OAI)

Manufacturer/Model	Diamond DA40 NG	
Serial Number	40.N596	
Year of Manufacture	2023	
Weight/Mass of the Aircraft	1310 kg MTOM	
Total Airframe Hours (At Time of Incident)	338:58 HRS	
Last Inspection (Date & Hours (TSN))	25 March 2025	297:15
Last Inspection Airframe Cycles (CSN)	676	

Airframe Hours Since Last Inspection	297:15
Type of inspection preformed	Scheduled (Out-of-phase)
CRS Issue Date	25/03/2025
C of A (First/initial Issue Date)	30/03/2023
C of A (Expiry Date)	29/03/2026
C of R (Issue Date) (Present Owner)	0/03/2023)
Type of Fuel Used	Jet A1
Operating Category	Training
Previous Accidents	Nil

Engine 1:

Manufacturer/Model	Austro AE300
Serial Number	E4-A-06410
Part Number	AE300 E4-A
Hours Since New	338:58
Hours Since Overhaul	N/A
Hours since last shop visit	N/A
Cycles Available Before Next Shop Visit	1461:58 HRS
Oil type	Shell 5W-40

Airframe Information (A4O-OAG)

Manufacturer/Model	Diamond DA40 NG	
Serial Number	40.N594	
Year of Manufacture	2022	
Weight/Mass of the Aircraft	1310 kg MTOM	
Total Airframe Hours (At Time of Incident)	316.03 hrs	
Last Inspection (Date & Hours (TSN))	29/04/2025	306:49
Last Inspection Airframe Cycles (CSN)	856	
Airframe Hours Since Last Inspection	306:49	
Type of inspection preformed	Scheduled (100 HRS/ 300HRS Insp)	
CRS Issue Date	29/04/2025	
C of A (First/initial Issue Date)	30/03/2023	
C of A (Expiry Date)	29/03/2026	
C of R (Issue Date) (Present Owner)	30/03/2023	
Type of Fuel Used	Jet A1	
Operating Category	Training	
Previous Accidents	NIL	

Engine 1:

Manufacturer/Model	Austro AE300
Serial Number	E4-A-06384
Part Number	AE300 E4-A
Hours Since New	316:03
Hours Since Overhaul	N/A
Hours since last shop visit	N/A
Cycles Available Before Next Shop Visit	1483:03 HRS
Oil type	Shell 5W-40

1.7 Meteorological Information:

1.7.1 The weather information below was provided by the Directorate General of Meteorology (DGMET)-Meteorological Routine Aerodrome Report (METAR) on the 6th May 2025 at 08:50 UTC).

Wind Direction	020°	Wind Speed	06 kts	Visibility	CAVOK
Temperature	45°C	Cloud Cover	Sky Clear	Cloud Base	Sky Clear
Dew Point	04°C	QNH	1002HPA		

1.7.2 The weather information below was provided by the Operator OAA - Meteorological Routine Aerodrome Report (METAR) on the 6th May 2025 at 09:50 UTC).

Wind Direction	280°	Wind Speed	10 kts	Visibility	CAVOK
Temperature	46°C	Cloud Cover	Sky Clear	Cloud Base	Sky Clear
Dew Point	04°C	QNH	1002HPA		

1.7.3 According to Directorate General of Meteorology (DGMET) office, satellite image was observed with no Significant weather condition over Oman FIR. Satellite imagery and METAR observations indicate stable atmospheric conditions over Sohar Aerodrome and across the region. Skies remain **clear**, with no significant cloud development or convective activity observed, consistent with presence of a **dominant high-pressure**

system.

1.7.4 Wind Observations:

• At 0850 UTC, surface winds were reported at 06 knots from 020°, indicating a light northeasterly breeze, Temperature: 45°C and QNH: 1002 hPa.

• By 0950 UTC, wind speeds increased slightly to 10 knots from 280°, showing a shift to a moderate westerly direction with increase in Temperature to 46°C, QNH: 1002 hPa.

• Visibility remains good, and no precipitation or significant weather phenomena were observed during the reporting period.

Conclusion: The region remains under the influence of stable weather, with clear skies, light to moderate winds, and no significant weather hazards present therefore no aerodrome warnings or SIGMETs were issued.

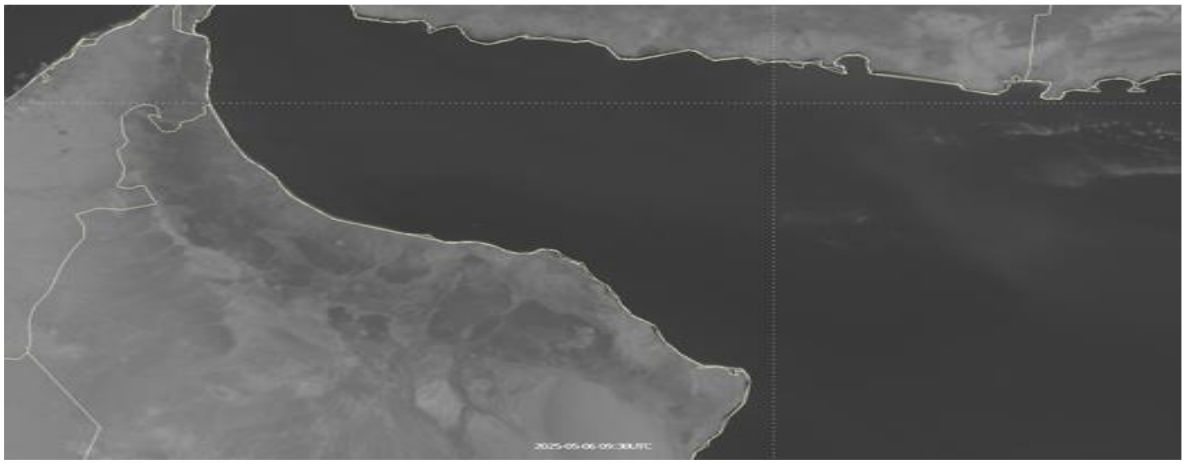

Figure 4 showing satellite image at 0930Z on 06 May 2025 (Source: DGMET)

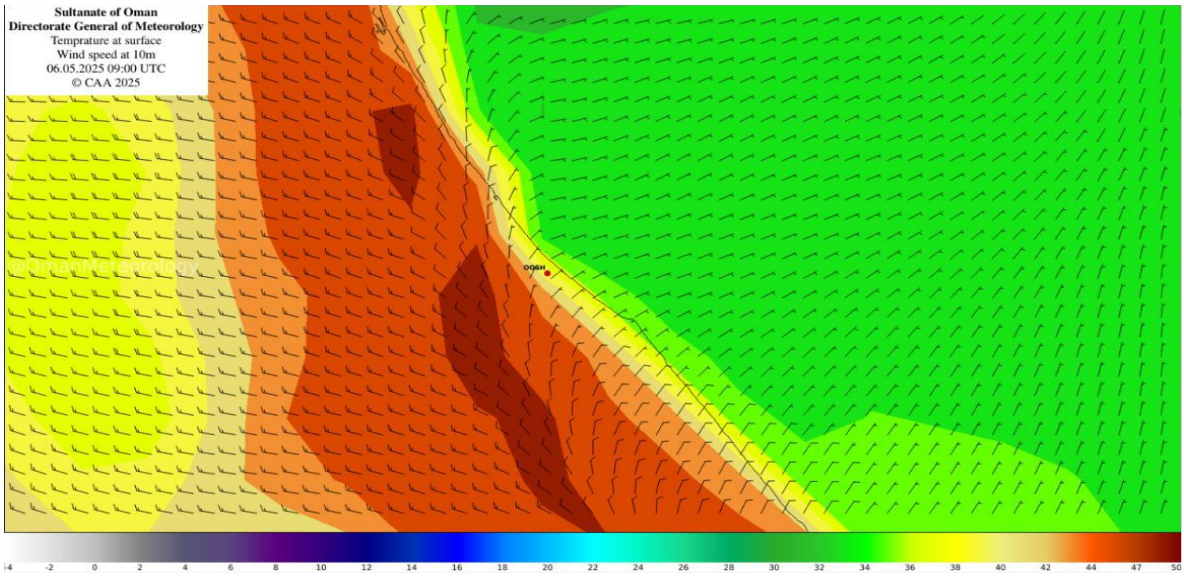

Figure 5 showing surface temperature and 10m wind data at 0900 UTC on 06 May 2 (Source: DGMET)

No significant weather was expected over OOSH during the time of the incident. Forecasts indicated clear skies with moderate northeasterly winds at 12 knots (03012KT).

1.8 Aids to Navigation.

1.8.1 Both aircraft were equipped with standard navigational equipment as approved by the Sultanate of Oman CAA. There were no records indicating that the navigation system was unserviceable prior to the serious incident.

1.9 Communications.

1.9.1 Both aircraft were equipped with standard communication systems as approved by the Sultanate of Oman CAA. No defects that could render the communication systems unserviceable were recorded before the flight.

1.9.2 The AFIS radio frequency communication recording was unserviceable at the time of the incident.

1.10 Airport Information.

1.10.1 Departure / Destination Aerodrome (Both Aircraft):

ICAO designation	OOSH (Sohar International Airport, Muscat)
Aerodrome co-ordinates	242309.98 N 0563732.23 E
Aerodrome elevation	144 feet (ft) MSL
Runway designations	RWY 15/33
Runway dimensions	4121 M / 30 M

Runway used	15
Surface of Runway Used	Asphalt
Category for Rescue Fire Fighting	7
Approach facilities	Not Applicable
Aerodrome status	03:00-13:30, 24/7 (Prior Permission Required

1.11 Flight Recorders.

1.11.1 Both the aircraft were not fitted with the Digital Flight Data Recording (DFDR), and the Cockpit Voice Recording (CVR). OTSB will be relying on flight information data provided by Flight Data Monitoring (FDM).

1.12 Wreckage and Impact Information.

1.12.1 Not relevant to the serious incident.

1.13 Medical and Pathological Information.

1.13.1 Not relevant to the serious incident.

1.14 Fire.

1.14.1 Not relevant to the serious incident.

1.15 Survival Aspects.

1.15.1 Not relevant to the serious incident.

1.16 Tests and Research.

1.16.1 To be discussed in the final report.

1.17 Organizational and Management Information.

1.17.1.1 Both aircraft A4O-OAG, A4O-OAI were operated as a training flight.

1.17.1.2 The operator, was issued with an Approved Training Organization (ATO) by the State of Registry and State of Operator, Oman Civil Aviation Authority, CAA. The certificate was issued by Oman CAA on 31st October 2022.

1.17.1.3 The Operator implemented Safety Management System (SMS), whereby occurrences are reported to the relevant authorities as and when they occur and they are reviewed, categorized, classified and investigated to identify the need for any gaps, risk assessment and risk

management, remedial action that are required to be taken by the organization.

1.17.2 Oman Airport (OA):

1.17.2.1 The service provider have implemented Safety Management System (SMS) which includes all its ATS units, whereby occurrences are reported to the relevant authorities as and when they occur and they are reviewed, categorized, classified and investigated to identify the need for any gaps, risk assessment and risk management and remedial action that are required to be taken by the organization.

1.18 Additional Information

1.18.1 To be discussed in the final report

1.19 Useful or Effective Investigation Techniques.

1.19.1 To be discussed in the final report.

2. Safety Recommendations

2.1 Although the investigation is still on going, OTSB has identified Safety Deficiencies which prompted the need to issue safety recommendations to address the safety concerns identified in the early stage of the investigation. The safety recommendations have been addressed to the affected parties and will be included in the final report.

3. APPENDIX

3.1 Not applicable.

This Preliminary Report is issued by:
Oman Transport Safety Bureau (OTSB)
The Sultanate of Oman