



# Oman Transport Safety Bureau

## Preliminary Report

**OTSB Case File No: AIFN-001/03/2025**

### TCAS Resolution between Fly Vaayu - Airbus 320-232 and Qatar Airways - Airbus A330-302 in the Muscat FIR

Operator: Fly Vaayu

Make and Model: Airbus 320-232 (P2F)

Nationality and Registration Marks: United Arab Emirates, A6 - MVA

Operator: Qatar Airways

Make and Model: Airbus A330-302

Nationality and Registration Marks: Qatar, A7- AEJ

Location of the Occurrence: Muscat FIR, 23°10'16.30"N062°46'09.65E

State of Occurrence: Sultanate of Oman

Date of Occurrence: 24<sup>th</sup> March 2025, 16:47 UTC

Date of Publication: 24<sup>th</sup> April 2025

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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, 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 this 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.

This report is publicly available at: <http://www.mtcit.gov.om>.

## Abbreviations

<b>ABC</b>	Alpha and Bravo ATC Sectors Combined
<b>ACC</b>	Area Control Center
<b>AAI</b>	Air Accident Investigation
<b>AAIS</b>	Air Accident Investigation Section
<b>ALT</b>	Altitude
<b>AFL</b>	Actual Flight Level
<b>AAI</b>	Air Accident Investigations
<b>AIP</b>	Aeronautical Information Publication
<b>ANSIC</b>	Air Navigation Service Incident Coordination
<b>ATC</b>	Air Traffic Control
<b>ATCO</b>	Air Traffic Controller
<b>AWY</b>	ATC Airway
<b>BEA</b>	Bureau d'enquêtes et d'analyses pour la sécurité de l'aviation civile
<b>CAA</b>	Civil Aviation Authority
<b>CAL</b>	Civil Aviation Law
<b>CFL</b>	Cleared Flight Level
<b>CSN</b>	Cycles Since New
<b>CR</b>	Central Radar
<b>CVR</b>	Cockpit Voice Recorder
<b>FCU</b>	Flight Control Unit
<b>FDA</b>	Flight Data Analysis
<b>FIR</b>	Flight information Region
<b>FL</b>	Flight level
<b>FMA</b>	Flight Mode Annunciator
<b>FMS</b>	Flight Management System
<b>FO</b>	First Officer
<b>FPL</b>	Flight Plan
<b>FPM</b>	Feet Per Minute Feet
<b>FT</b>	Feet
<b>GCAA</b>	General Civil Aviation Authority
<b>ICAO</b>	International Civil Aviation Organization



<b>IIC</b>	Investigator-in-Charge
<b>LB</b>	Level Bust
<b>LPC</b>	License Proficiency Check
<b>MC</b>	Medium Term Conflict Detection
<b>MCT</b>	Muscat
<b>NM</b>	Nautical Mile
<b>OPC</b>	Operator Proficiency Check
<b>OTSB</b>	Oman Transport Safety Bureau
<b>PF</b>	Pilot Flying
<b>PCMIA</b>	Personal Computer Memory Card International Association
<b>PM</b>	Pilot Monitoring
<b>QAAI</b>	Qatar Aircraft Accident and Incident Investigation Unit
<b>RA</b>	Resolution Advisory
<b>RDR</b>	Radar
<b>ROC</b>	Rate of Climb
<b>ROD</b>	Rate of Descent
<b>RA</b>	Resolution Advisory
<b>R/T</b>	Radiotelephony
<b>SDD</b>	Surveillance Data Display
<b>SIC</b>	Specific medical examination
<b>TBA</b>	To Be Advised
<b>TCAS</b>	Traffic Collision Avoidance System
<b>UTC</b>	Universal Time Coordinate
<b>VLD</b>	Valid only with correction for defective distant vision
<b>VML</b>	Valid only with correction for defective distant, intermediate a near vision

Indra System Safety net Alert Abbreviation		
STCA	Short Term Conflict Alert	"Yellow" Prediction "Red" Violation
AW	Minimum Safe Altitude Warning (MSAW)	
W	RVSM	
LB	Level Burst	"Yellow" CFL not matching AFL "Red" CFL not matching Mode-S flight level
HG	Heading conformance	
MC	Medium Term Conflict Detection	
RO	Route off	
SQ	SSR Code Conformance alert	

## Synopsis

Oman Transport Safety Bureau (OTSB) was notified of the occurrence by the Sultanate of Oman Civil Aviation Authority (CAA) -Directorate General of Air Navigation (DGAN) Air Navigation Service Incident Coordination (ANSIC) through OTSB email on 25<sup>th</sup> March 2025 at 08:23 Local Time. OTSB received Air Safety Report of aircraft VYU122 TCAS RA occurrence over MCT FIR from U.A.E (GCAA-AAI) on 26<sup>th</sup> April 2025.

The serious incident involved Fly Vaayu VYU122 aircraft with registration marks A6-MVA, Airbus 320-232 (P2F) and Qatar Airways QTR4Y aircraft with Registration Marks A7-AEJ, Airbus A330-302. Aircraft VYU122 entered MCT FIR at RASKI maintaining FL340 destination Ras Al Khaimah International Airport (OMRK), United Arab Emirates, while aircraft QTR4Y was flying on the same Airway (AWY) L301 bidirectional route and maintaining Flight Level (FL) 350 destination Hazrat Shahjalal International Airport (VGHS), Bangladesh.

Air Traffic Controller (ATCO) radar identified aircraft VYU122 and asked the flight crew of VYU122 to maintain FL 340 as per the Flight Plan (FPL) route to Ras Al Khaimah. The ATCO asked the flight crew of aircraft VYU122 if they are able to climb FL360. The flight crew of VYU122 read back clarifying the flight level. ATCO replied 360 which the flight crew of aircraft VYU122 acknowledged. The Flight Crew of aircraft VYU122 can't remember what was the acknowledgment phrase used as they stated in the interview.

Shortly, Level Bust (LB) warning was activated for aircraft VYU122 indicating LB. The LB was immediately noticed by the ATCO and no action was taken since the aircraft was still maintaining FL340. Soon, Radar showed VYU122 leaving FL340, climbing through FL341 at a Rate of Climb (ROC) of 600 Feet Per Minute (FPM) while opposite direction traffic, QTR4Y, was flying on the same AWY, maintaining FL350. The flight crew of aircraft VYU122 climbed to FL360 without clearance from Air Traffic Control (ATC). Loss of radar separation occurred between aircraft VYU122 and aircraft QTR4Y, as both aircraft were flying in opposite direction along the same AWY L301. Traffic Collision Avoidance System (TCAS) resolution advisory (RA) was reported by QTR4Y.

OTSB instituted and decided to conduct an investigation and classified the occurrence as a serious incident requiring investigation. The following parties were notified:

- State of Operator and Registry United Arab Emirates General Civil Aviation Authority- Air Accident Investigations (GCAA-AAI)
- State of Operator and Registry Qatar Air Accident Investigation (QAAI)
- State of Design and Manufacturer of Airbus France-Bureau d'enquêtes et d'analyses pour la sécurité de l'aviation civile French Safety Investigation Authority (BEA)
- International Civil Aviation Organization (ICAO)
- 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 parties are involved in the investigation by appointing accredited representatives to the investigation:

- State of Operator, and Registry United Arab Emirates General Civil Aviation Authority Air Accident Investigations (GCAA-AAI)
- State of Operator and Registry Qatar Air Accident Investigation (QAAI)

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 24<sup>th</sup> of March 2025, Fly Vaayu aircraft VYU122 with registration marks A6-MVA, an Airbus 320-232 (P2F) departed from Nashik International Airport (VAOZ), India on an international scheduled flight with intended destination Ras Al Khaimah International Airport (OMRK). While Qatar Airways aircraft QTR4Y with registration marks A7- AEJ an Airbus 330-302 on the same day departed from Hamad International Airport (OTTH), Qatar on an international scheduled flight with intended destination Hazrat Shahjalal International Airport (VGHS), Bangladesh.
- 1.1.2. Both aircraft had a flight plan to fly over Muscat FIR on a bidirectional AWY L301, Alpha and Bravo Sectors (ABC) were combined and Air Traffic Controller (ATCO) was very busy handling more than 25 aircraft in both Sectors. Aircraft were clearly displayed on the Surveillance Data Display (SDD) with no label overlapping. The Radar (RDR) and communication Radiotelephony (R/T) was in normal operation.
- 1.1.3. At the time 16:35:20, the flight crew of aircraft VYU122 contacted MCT control advising that aircraft VYU122 will be over waypoint (WPT)RASKI at time 16:39.
- 1.1.4. At the time 16:36:08, aircraft VYU122 was instructed by the ATCO to SQK 4062 and was radar identified at WPT RASKI by the ATCO and instructed the crew of aircraft VYU122 to maintain FL340 Flight Plan (FPL) route to Ras Al Khaimah.
- 1.1.5. At the time 16:38:00, the flight crew of aircraft VYU122 readback by stating “VYU122 maintaining 340 FPL route to RAS ALKAHIMA”
- 1.1.6. At the time 16:38:48, aircraft VYU122 entered Muscat Flight Information Region (MCT FIR) at RASKI maintaining FL340 west-bound direction to exit WPT MENSA.
- 1.1.7. At the time 16:46:35, ATCO called the flight crew of aircraft VYU122 if they are able to climb to FL360, by stating “Are you able to climb 360”. The flight crew of aircraft VYU122 responded “Say again level”. ATCO replied “360”. Then the flight crew of aircraft VYU122 readback by stating “Affirm VYU122”.
- 1.1.8. At the time of 16:46:49, the ATCO responded “Roger call you back shortly”. (As per the audio playback, the flight crew of aircraft VYU122 readback was unclear due to unclear transmission and the crew was speaking quickly). During the interview the Flight Crew of aircraft VYU122 stated that their call was to acknowledged ATC clearance but can't remember what was the acknowledgment phrase used.
- 1.1.9. At 16:46:54, “LB radar warning (indicating a level bust) was activated on aircraft VYU122, although the radar display screen was indicating aircraft VYU122 maintaining FL340 as shown below in figure 1.



Figure. 1 ATC radar indicating Level Burst (LB) activated on aircraft VYU122

- 1.1.10. At 16:46:56, ATCO noticed the LB warning, but since the aircraft was still maintaining FL340, the ATCO did not take any action.
- 1.1.11. There was a loss of separation between aircraft VYU122 and aircraft QTR4Y, as both aircraft were travelling in opposite directions along the same air route (L301).
- 1.1.12. At the time 16:47:06, aircraft VYU122 observed on the RDR leaving FL340, climbing at a rate of 600 FPM, while opposite direction traffic, QTR4Y, was flying on the same route (L301) and maintaining FL350).

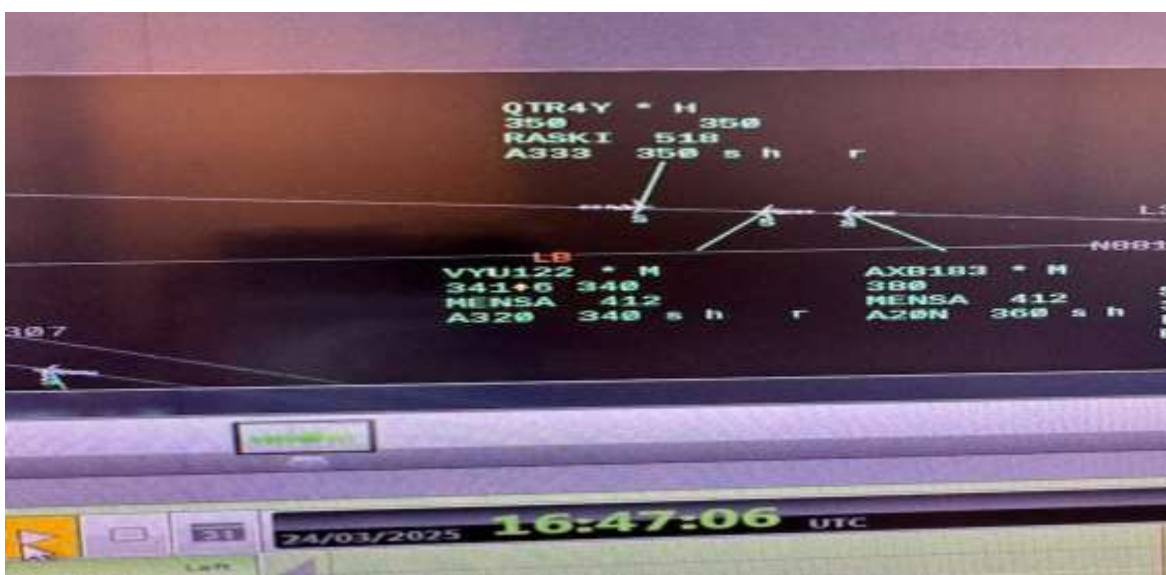


Figure. 2 ATC radar indicating aircraft VYU122 climbing through FL341 at a ROC of 600 Feet Per Minute (FPM)

- 1.1.13. At 16:47:11 ATCO instructed the flight crew of aircraft VYU122 to maintain FL340 by stating “Maintain 340 VYU122” and asked them “Why are you climbing I told you call you back for higher”. At the time 16:47:19 The flight crew of aircraft VYU122 apologized by stating “Sorry for that VYU122”
- 1.1.14. At 16:47:18, the SHORT TERM CONFLICT ALERT (STCA) triggered a RED warning between aircraft VYU122 on climb passing through FL343, ROC 900FPM and aircraft QTR4Y maintaining FL350 with a separation distance of 4.66 NM between the two aircraft as shown in figure 3.

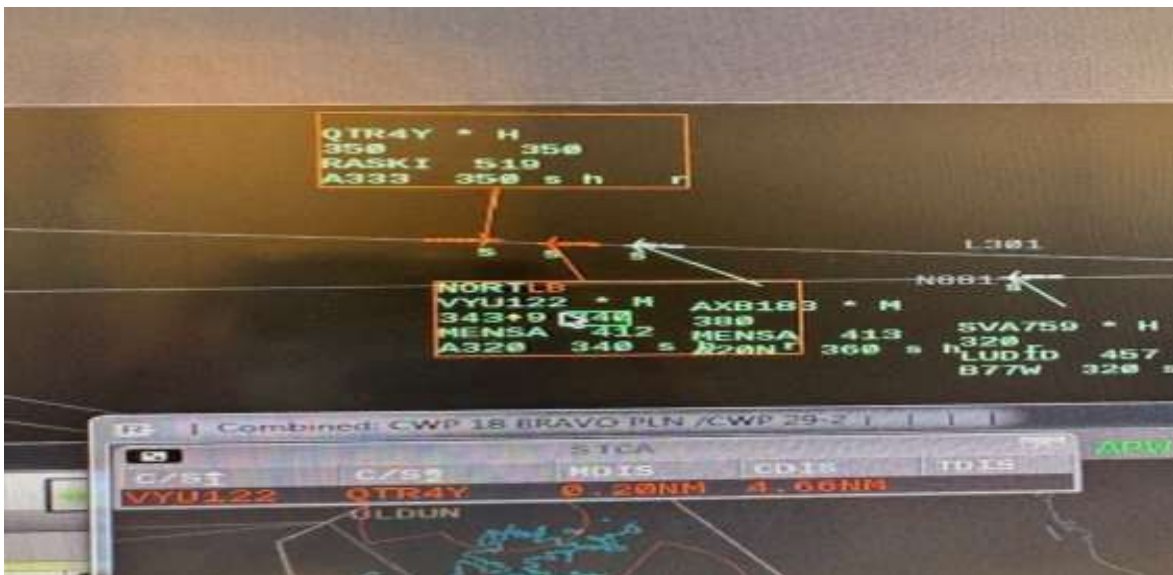


Figure. 3 ATC radar indicating RED warning between aircraft VYU122 climbing through FL343, ROC of 900FPM and aircraft QTR4Y maintaining FL350

- 1.1.15. At the time 16:47:24, ATCO informed the flight crew of aircraft QTR4Y “the traffic is descending now”. At the time 16:47:27, the flight crew of aircraft QTR4Y reported “QTR4Y TCAS RA”
- 1.1.16. At the time 16:47:31, during radar playback aircraft VYU122 was observed on climb passing through FL343 and QTR4Y was observed on opposite direction maintaining FL350 with a separation distance of 1.53 NM between the two aircraft.



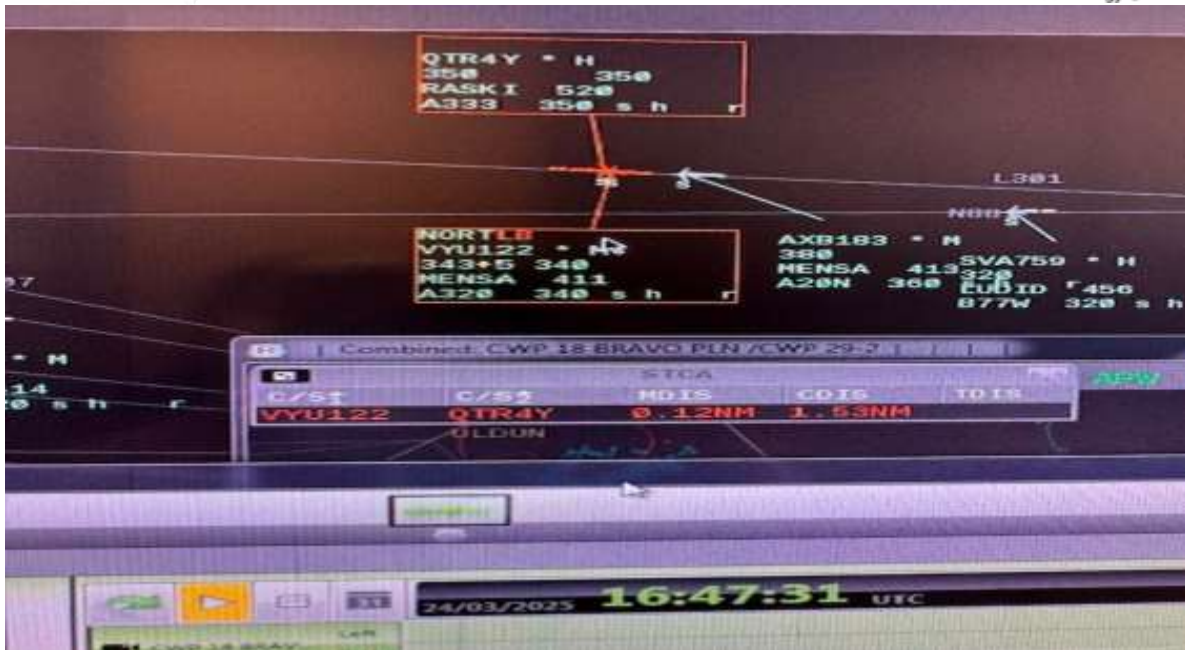


Figure. 4 Aircraft VYU122 observed on ATC radar on climb passing through FL343 ROC of 500FPM and QTR4Y on opposite direction maintaining FL350 with a separation distance of 1.53 NM between the two aircraft

1.1.17. At the time 16:47:34, radar showed QTR4Y leaving FL350 climbing through FL351 at a ROC of 700FPM, while aircraft VYU122 was maintaining FL343. The distance between the two aircraft was 0.39 NM as shown in figure 5.

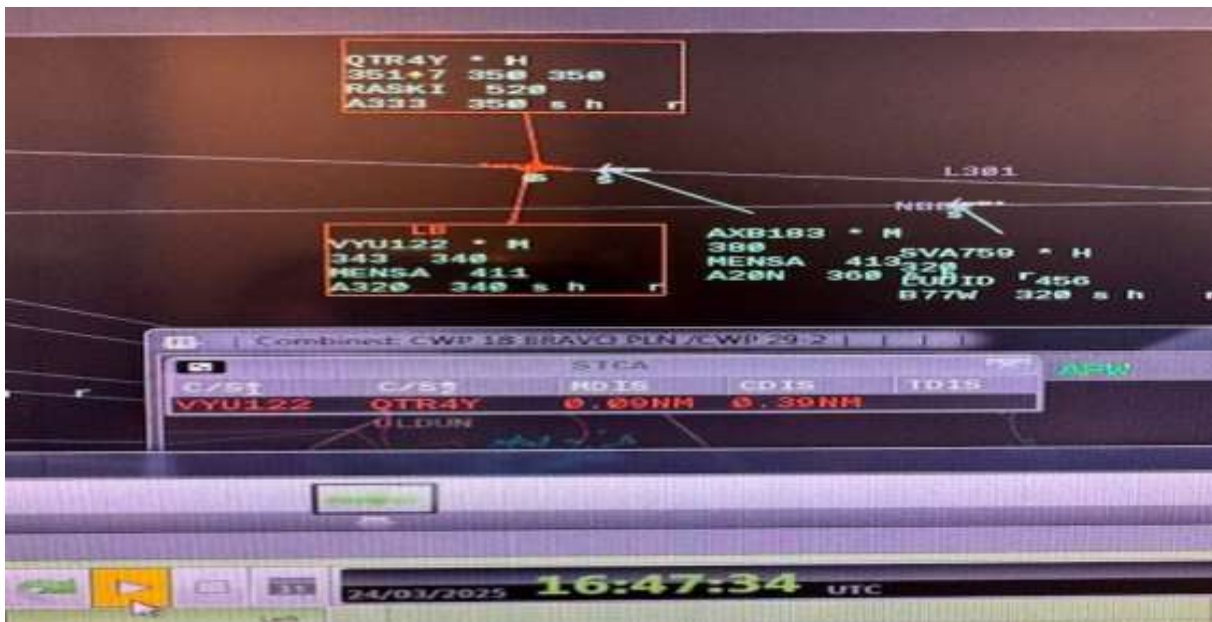


Figure.5 ATC radar indicating aircraft QTR4Y on climb passing through FL351 at ROC of 700FPM and aircraft VYU122 was maintaining FL343

- 1.1.18. At the time 16:47:39, 1,000 feet separation was attained between aircraft VYU122 and aircraft QTR4Y whilst aircraft QTR4Y was on climb passing through FL353 at ROC of 1700FPM, and aircraft VYU122 on descent passing through FL343 ROD of 400FPM. The distance between the two aircraft was 0.66NM as shown in figure 6.

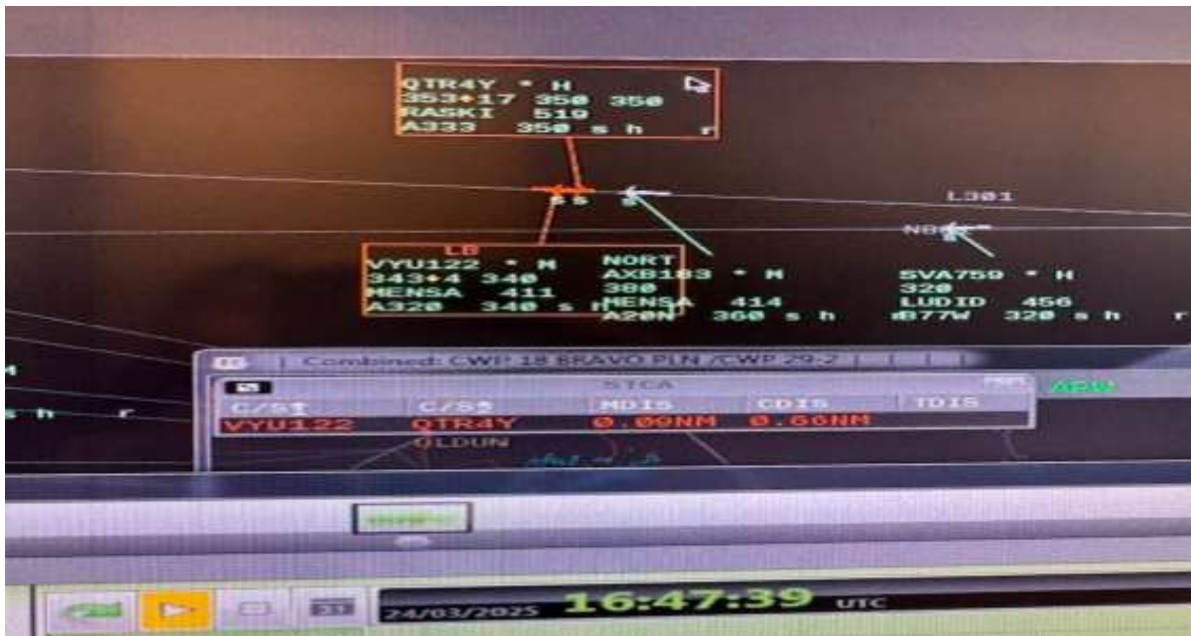


Figure.6 ATC radar aircraft QTR4Y climbing through FL353 at ROC of 1700FPM and aircraft VYU122 was still maintaining FL343

- 1.1.19. At the time 16:47:46, the RED STCA on the radar screen was deactivated between aircraft VYU122 still maintaining FL343 and opposite traffic aircraft QTR4Y climbing through FL354 with ROC of 800. The distance between both traffic was 1.67 NM.
- 1.1.20. At the time 16:48:03, the flight crew of aircraft QTR4Y reported clear of the conflict by stating "QTR4Y is clear of conflict. We are at FL353 now we are descending back to FL350". ATCO replied by stating "QTR4Y roger will file a report". The flight crew of aircraft QTR4Y thanked the ATCO and stated that they will do the same. TCAS RA was not reported to ATCO by the flight crew of aircraft VYU122.
- 1.1.21. At the time 16:48:18, aircraft VYU122 was observed leaving FL343 on descend. Aircraft QTR4Y was descending through FL351 with a ROD of 600FPM.
- 1.1.22. At the time 16:48:21, ATCO informed the flight crew of aircraft VYU122 that the ATCO will file a report as no clearance by the ATCO was given to them to climb. The flight crew of aircraft VYU122 responded "Apologies for the same VYU122 we will be filing a report on landing".

OTSB received Air Safety Report of aircraft VYU122 TCAS RA occurrence over MCT FIR from U.A.E (GCAA-AAI) on 26<sup>th</sup> April 2025.

- 1.1.23. At the time 16:48:30, aircraft QTR4Y reached FL350 and aircraft VYU122 reached FL340.
- 1.1.24. At the time 16:48:38, ATCO cleared the flight crew of aircraft VYU122 to descend FL320 as the previous flight level that ATCO have asked the flight crew if they were able to climb to, is not available any more. At the time 16:48:45, the flight crew of aircraft VYU122 readback” Copied descend level 320 leaving 340”.
- 1.1.25. During the interview, ATCO stated that aircraft VYU122 was noticed on the radar screen with a red LB, but ATCO did not expect the flight crew of aircraft VYU122 to climb. So, ATCO first thought it was the Flight Management System (FMS) of the aircraft VYU122 showing a future climb instruction, without execution. But as ATCO continued working on other situations, ATCO observed the flight crew of aircraft VYU122 climbing and immediately instructed them to maintain FL340.
- 1.1.26. During the interview, the PF of aircraft VYU122 stated that when the ATCO asked them if they can climb FL360, the PF understood the call is for climb - misinterpretation of phraseology- the PM of aircraft VYU122 replied “able climb FL360”. The flight crew of aircraft VYU122 both cross checked the cruise performance data. PF set Flight Control Unit (FCU) Altitude (ALT) to FL360 and called out the Flight Mode Annunciator (FMA) and climbed. The PM stated that the call out was not heard.

## 1.2. Injuries to Persons (VYU122).

Injuries	Pilot	Cabin Crew	Passengers	Total on Board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
No Injuries	3	-	1	4	-
Total	3	-	1	4	-

Note: Other, means people on ground.

## Injuries to Persons (QTR4Y)

Injuries	Pilot	Cabin Crew	Passengers	Total on Board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
No Injuries	2	10	279	291	-
Total	2	10	279	291	-

Note: Other, means people on ground.

## 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 Captain (VYU122) Pilot Flying (PF)

Rank	Captain		
Nationality	Malaysian		
Medical validity	28 <sup>th</sup> OCT 2025	Licence type	ATPL
Licence validity	20 <sup>th</sup> FEB 2033	Type endorsed	A320
Ratings	A320		
English Language Proficiency	Level 4 Exp: 18 <sup>th</sup> February 2028		
Latest LPC Issue and Expiry Date	06 <sup>th</sup> MAR 2025 Exp: Not Available	Latest OPC Issue and Expiry Date	16 <sup>th</sup> FEB 2025 Exp: 31 <sup>st</sup> AUG 2025
Restrictions	SIC, VML		
Previous Incidents/Accidents	NIL		

Note: Previous accidents/incidents refer to past accidents/incidents the pilot was involved in, when relevant.

### Flying experience:

Rank	Captain
Total hours	15600
Total Flying Hours on Type	4565
Last 24 Flying Hours	0
Last 7 days Flying Hours	27:18
Last 30 days Flying Hours	60:23
Last 90 days Flying Hours	60:23

1.5.1.1 The Captain was issued an Airline Transport Pilot license (ATPL) by the United Arab Emirates DGCAA and rated for A320. The license was valid at the time of the serious incident with an expiry date of 20<sup>th</sup> February 2033. The Captain is holding level 4 English Language proficiency with an expiry date of 18<sup>th</sup> February 2028.

1.5.1.2 The Captain was issued a Class (one) 1 medical certificate with an expiry date of 28<sup>th</sup> October 2025. The last medical assessment date was conducted with Specific medical examination (SIC) limitation and Valid only with correction for defective distant, intermediate a near vision (VML) limitations.



### 1.5.2 First Officer (FO) (VYU122) - Pilot Monitoring (PM)

Rank	First Officer		
Nationality	India		
Medical validity	22 <sup>nd</sup> OCT 2025	Licence type	ATPL - A
Licence validity	20 <sup>th</sup> MAR 2033	Type endorsed	A320
Ratings	A320/IR/MPA		
English Language Proficiency	Level 4 Expiry: 17 <sup>th</sup> MAR 2028		
Latest LPC Issue and Expiry Date	16 <sup>th</sup> FEB 2025, EXP: 28 <sup>th</sup> FEB 2026	Latest OPC Issue and Expiry Date	16 <sup>th</sup> FEB 2025, EXP: 31 <sup>st</sup> AUG 2025
Restrictions	Nil		
Previous Incidents/Accidents	Nil		

Note: Previous accidents/incidents refer to past accidents/incidents the pilot was involved in, when relevant.

#### Flying experience:

Rank	First Officer
Total hours	9177
Total Flying Hours on Type	8859
Last 24 Flying Hours	0
Last 7 days Flying Hours	22:20
Last 30 days Flying Hours	59:03
Last 90 days Flying Hours	161:25

1.5.2.1 The FO is holding an ATPL - A issued by U.A.E - GCAA and rated A320. The Licence was valid at the time of the serious incident with an expiry date of 20<sup>th</sup> March 2033. The FO has level 4 English Language proficiency with an expiry date of 17<sup>th</sup> March 2028.

1.5.2.2 The FO was issued a Class 1 medical certificate with no limitations and with expiry date of 22<sup>nd</sup> October 2025.

### 1.5.3 Captain – (QTR4Y) Pilot Flying (PF)

Rank	Captain		
Nationality	Canadian		
Medical validity	30 <sup>th</sup> NOV 2025	Licence type	ATPL (A)
Licence validity	Life Time	Type endorsed	A 330/350
Ratings	A 330/350 IR (ME)		
English Language Proficiency	Proficiency		
Latest LPC Issue and Expiry Date	20 <sup>th</sup> OCT 2024 20 <sup>th</sup> April 2025	Latest OPC	20 <sup>th</sup> April 2025
Restrictions	VLD		
Previous Incidents/Accidents	NIL		

Note: Previous accidents/incidents refer to past accidents/incidents the pilot was involved in, when relevant.

#### Flying experience:

Total hours	15198:22
Total Flying Hours on Type	667:41
Last 24 Flying Hours	04:53
Last 72 Flying Hours	11:25
Last 7 days Flying Hours	TBA
Last 30 days Flying Hours	94:37
Last 90 days Flying Hours	232:09

1.5.3.1 The Captain is holding an Airline Transport Pilot license (ATPL) issued by Qatar CAA 16<sup>th</sup> February 2025 and rated for A330 and A350. The license was valid at the time of the serious incident.

1.5.3.2 The Captain was issued a Class (one) 1 medical certificate with an expiry date of 30<sup>th</sup> November 2025. The last medical assessment was conducted with Valid only with correction for defective distant vision (VLD) limitations. Must carry spare set of spectacles.

#### 1.5.4 First Officer (FO) – (QTR4Y) Pilot Monitoring (PM)

Rank	First Officer		
Nationality	British		
Medical validity	24 <sup>th</sup> Sept 2025	License type	ATPL (A)
License validity	Life Time	Type endorsed	A330/350
Ratings	A 330/350 IR (ME)		
Eng Lang. Proficiency	Proficiency		
Latest LPC Issue and Expiry Date	Issue date: 18 <sup>th</sup> DEC 2024 Expiry Date: 18 <sup>th</sup> JUN 2025	Latest OPC	18 <sup>th</sup> DEC 2024
Restrictions	Nil		
Previous Incidents/Accidents	Nil		

#### Flying experience:

Total hours	6723:33
Total Flying Hours on Type	6723:33
Last 24 Flying Hours	04:53
Last 7 days Flying Hours	TBA
Last 30 days Flying Hours	93:03
Last 90 days Flying Hours	241:50

1.5.4.1 The FO is holding an Airline Transport Pilot license (ATPL- A) issued by Qatar CAA on 16<sup>th</sup> February 2025 and rated for A330 and A350. The license was valid at the time of the serious incident.

1.5.4.2 The FO is issued a Class 1 medical certificate with no limitations and expiry date of 24<sup>th</sup> September 2025.

### 1.5.5 Air Traffic Controller in MCT FIR Alpha and Bravo Combined (ABC) Sector:

Nationality	Panamanian		
Medical valid	10 <sup>th</sup> Jun 2025	Licence type	Area - ATC
Licence valid	30 <sup>th</sup> JUN 2026	Type endorsed	YES
Ratings	ACC ACC RDR	LPR	LEVEL 6
Restrictions	VML		
Previous Incidents/Accidents	Nil		

Note: Previous accidents/incidents refer to past accidents/incidents the pilot was involved in, when relevant.

- 1.5.5.1 The ATCO license was issued on 28<sup>th</sup> June 2010 with an expiry date of 30<sup>th</sup> June 2026. The License Proficiency Check (LPC) was conducted on 12<sup>th</sup> November 2024 with an expiry date of 11<sup>th</sup> November 2025.
- 1.5.5.2 The ATCO was issued with English language proficiency rating LEVEL 6 and renewed on 09<sup>th</sup> March 2025.
- 1.5.5.3 The ATCO medical was assessed on 30<sup>th</sup> May 2024 and issued a Class one (1) medical certificate with expiry date of 10<sup>th</sup> June 2025 with “Valid only with correction for defective distant, intermediate a near vision (VML) limitation.

## 1.6 Aircraft Information:

### 1.6.1 Airframe Information (VYU122)

Manufacturer/Model	AIRBUS (A320-232 P2F)	
Serial Number	2164	
Year of Manufacture	2004	
Total Airframe Hours (At Time of Incident)	46642:36	
Last Inspection (Date & Hours (TSN))	10 <sup>th</sup> JAN 2025	46547:56
Last Inspection Airframe Cycles (CSN)	29814	
Hours Since Last Inspection	105:15	
Type of inspection performed	6 Years Check	
CRS Issue Date	10 <sup>th</sup> JAN 2025	
C of A (First/initial Issue Date)	01 <sup>st</sup> MARCH 2025	
C of A (Expiry Date)	28 FEB 2026 (ARC EXPIRY DATE)	
C of R (Issue Date) (Present Owner)	26 FEB 2025 (BANK OF UTAH)	
Type of Fuel Used	Jet A1	
Operating Category	TRANSPORT CARGO	
Previous Accidents	Nil	

### Engine 1:

Manufacturer/Model	IAE INTERNATIONAL AERO ENGINES AG (IAE V2500)
Serial Number	V11621
Part Number	V2527-A5
Hours Since New	43026:32
Hours Since Overhaul	N/A
Hours since last shop visit	137:32
Cycles Available Before Next Shop Visit	13798
Oil type	EASTMAN TURBO OIL 2197

## Engine 2:

Manufacturer/Model	IAE INTERNATIONAL AERO ENGINES AG (IAE V2500)
Serial Number	V11610
Part Number	V2527-A5
Hours Since New	47953:10
Hours Since Overhaul	N/A
Hours since last shop visit	157:10
Cycles Available Before Next Shop Visit	13688
Oil type	EASTMAN TURBO OIL 2197

## 1.6.2 Aircraft Information QTR4Y

Manufacturer/Model	AIRBUS - A330-300	
Serial Number	826	
Year of Manufacture	2007	
Total Airframe Hours (At Time of Serious Incident)	81051	
Last Inspection (Date & Hours (TSN))	11 <sup>th</sup> FEB 2025	TSN: 81051
Last Inspection Airframe Cycles (CSN)	16901	
Hours Since Last Inspection	80533	
Type of inspection performed	A- Check	
CRS Issue Date	Not Available	
C of A (First/initial Issue Date)	(22 <sup>nd</sup> March 2007) (10 <sup>th</sup> April 2022)	
C of A (Expiry Date)	Last ARC inspection 26-Feb-2025	
C of R (Issue Date) (Present Owner)	08 <sup>th</sup> March 2019 (JPA No.144.,Ltd).	
Type of Fuel Used	Jet A1	
Operating Category	Transport Passenger	
Previous Accidents	NIL	

#### Engine 1:

Manufacturer/Model	GE Aerospace
Serial Number	811272
Part Number	CF6-80E1A4B
Hours Since New	68563:7
Hours Since Overhaul	TBA
Hours since last shop visit	724:14
Cycles Available Before Next Shop Visit	TBA
Oil type	TBA

#### Engine 2:

Manufacturer/Model	GE Aerospace
Serial Number	811418
Part Number	CF6-80E1A4B
Hours Since New	50467:57
Hours Since Overhaul	3028:36
Hours since last shop visit	3028:36
Cycles Available Before Next Shop Visit	TBA
Oil type	TBA

### 1.7 Meteorological Information:

- 1.7.1 According to Oman Directorate General of Meteorology (DGMET) office, satellite image was observed with no Significant weather condition over Oman FIR. A medium and high clouds was observed during the time (1645UTC), close to the time of the serious incident. As shown in figure (7) below, strong wind was expected southwest to west (25055kt to 27065kt) from FL320 to FL360 in the upper air, maybe Jetstream was associated as it indicated in Figure



(7). Also, forecasting, no weather condition as shown in the Muscat TAF and no pilot reports were received. Therefore, no warning was issued over the area of the serious incident.

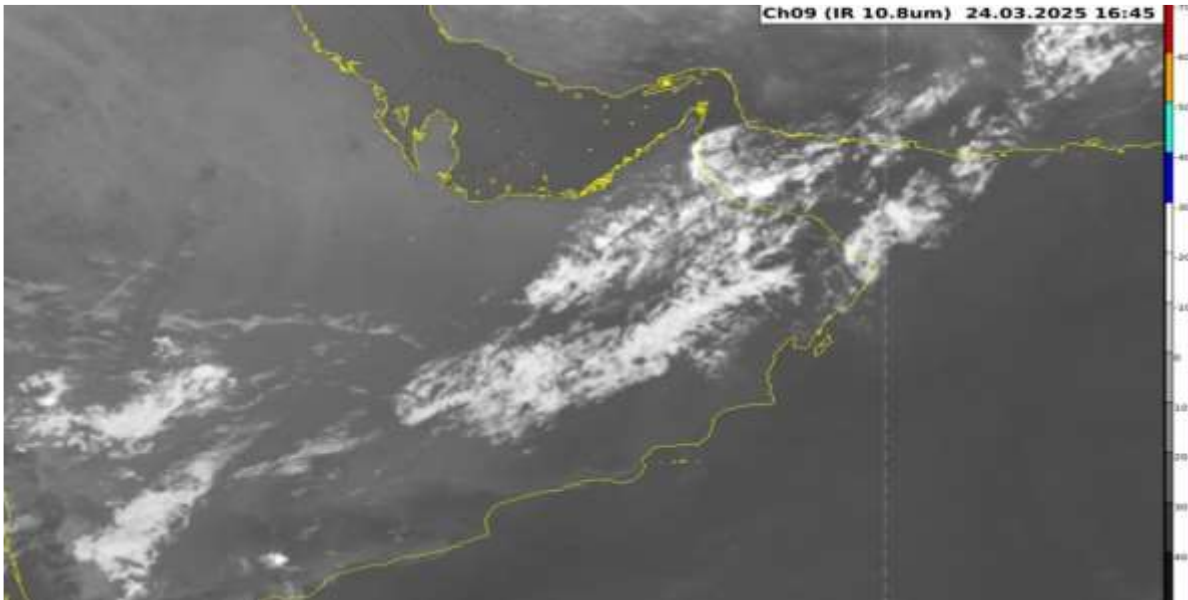


Figure. 7 Showing cloud conditions at the time and date of the serious incident

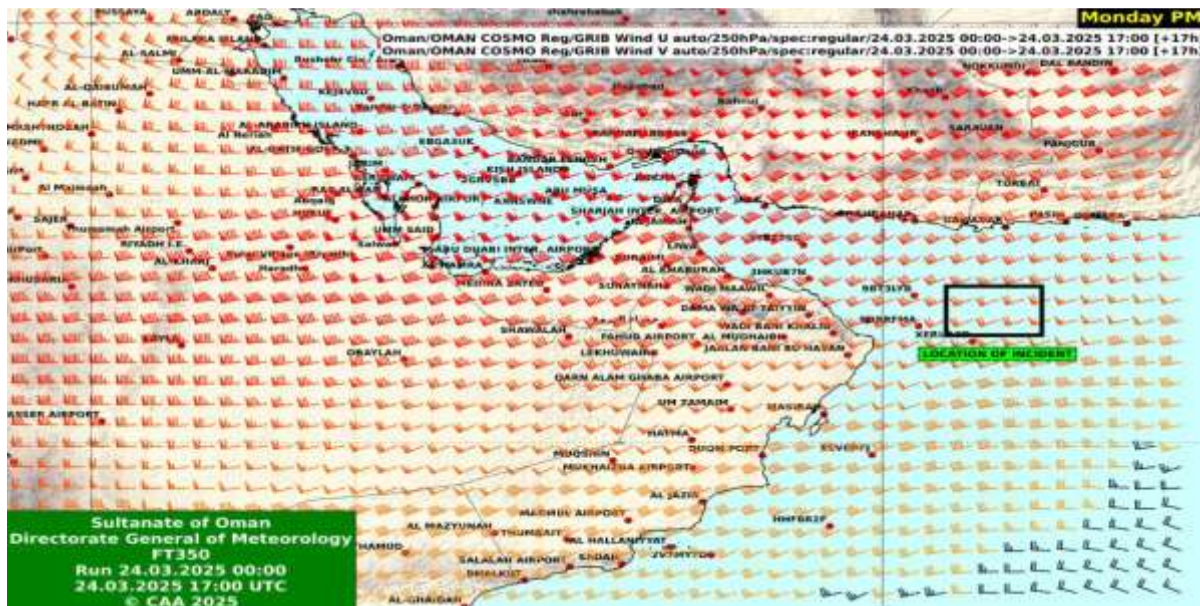


Figure. 8 showing the weather conditions at the time and date of the serious incident



## 1.8 Aids to Navigation.

1.8.1 Both aircraft were equipped with standard navigational equipment as approved by the U.A.E GCAA and Qatar 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 U.A.E GCAA and Qatar CAA. No defects that could render the communication systems unserviceable were recorded before the flight.

1.9.2 The flight crew of aircraft VYU122 and the flight crew of aircraft QTR4Y did not report any communications or frequency issues.

## 1.10 Aerodrome Information.

1.10.1 Departure Aerodrome (VYU122):

ICAO designation	VAOZ (Nashik International Airport, India)
Aerodrome co-ordinates	N200712 E0735448
Aerodrome elevation	1995 ft MSL
Runway designations	RWY 09/27
Runway dimensions	3000m / 45m
Runway used	27
Category for Rescue Fire Fighting	9
Approach facilities	ILS RWY 27
Aerodrome status	Domestic – (Military)

Destination Aerodrome:

ICAO designation	OMRK (Ras Al-Khaimah international airport)
Aerodrome co-ordinates	N25348 E0555620
Aerodrome elevation	94 ft MSL
Runway designations	16/34
Runway dimensions	3760m / 45m
Runway used	34
Category for Rescue Fire Fighting	CAT-7 (CAT-9 available with 60minutes prior request)
Approach facilities	VOR RWY 16, ILS RWY 34, RNP RWY 16, RNP RWY 34
Aerodrome status	Licensed – (Operational)

1.10.2 Aerodrome Information QTR4Y

Departure Aerodrome:

ICAO designation	Hamad International Airport (OTHH)	
Aerodrome co-ordinates	25°16'23"N 51°36'29"E	
Aerodrome elevation	13 FT	
Runway designations	16L / 34R	16R / 34L
Runway dimensions	4850 X 60	4250 X 60
Runway used	N/A	
Category for Rescue Fire Fighting	CAT 10	
Approach facilities	ILS, RNP, GVA, Runway Lights, PAPI's	
Aerodrome status	Licensed (Operational)	

Destination Aerodrome:

ICAO designation	VGHS- Hazrat Shahjalal International Airport
Aerodrome co-ordinates	23°50'34"N 090°24'02"E
Aerodrome elevation	27 FT
Runway designations	14/32
Runway dimensions	3200 x 45 M
Runway used	N/A
Category for Rescue Fire Fighting	CAT 9
Approach facilities	ILS, DVOR, NDB, Runway Lights, PAPI's
Aerodrome status	Licensed (Operational)

### 1.11 Flight Recorders.

1.11.1 Both aircraft were fitted with both the Digital Flight Data Recorder (DFDR) and the Cockpit Voice Recorder (CVR). OTSB will be relying on flight information data such as Flight Data Management (FDM), Air Traffic Services (ATS) communication and Radar recordings to assist in the investigation. Aircraft VYU122 DFDR- FV-PCMICA -12 was removed by the Operator on 25<sup>th</sup> March 2025 for investigation. The data from this recording will be used to assist on the investigation.

### 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 Aircraft VYU122 was scheduled as international cargo flight and aircraft QTR4Y (QTR638) was scheduled as international passenger flight.

1.17.2 The operator (Fly Vaayu) was issued an Air Operating Certificate (AOC) by the State of Registry and State of Operator, UAE-GCAA on 21<sup>st</sup> October 2024 with an expiry date of 21<sup>st</sup> October 2026. The certificate authorized the operator to perform Air cargo operations as specified in the operator's operations specifications, in accordance with the operations manual and UAE GCAA.

1.17.3 The operator (Fly Vaayu) aircraft bearing registration A6 - MVA was operating under sub - lease agreement with Vaayu FZ LLC.

1.17.4 The operator (QATAR Airways Group Q.C.S.C) was issued an Air Operating Certificate (AOC) by the State of Registry and State of Operator, Qatar - CAA on 25<sup>th</sup> December 2023 and it is valid until suspended or revoked. The certificate authorized the operator to perform commercial air operations as defined in the operations specifications, in accordance with the operations manual, Law No.15 of 2002, as amended and its ensuing Regulations.

1.17.5 The operator (QATAR Airways Group Q.C.S.C) aircraft bearing registration A7 - AEJ was operating under lease agreement.

## 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. Analysis

2.1 To be discussed in the final report.

## 3 Conclusions

### 3.1 General

The investigation is on-going and will be looking into other aspects of this serious incident which may or may not have safety implications.

## 3.2 Findings

3.2.1 To be discussed in the final report.

## 3.3 Causes and Contributing Factors

3.3.1 To be discussed in the final report.

## 4 Safety Recommendations

The Investigation is on-going and should at any stage OTSB identify any safety issues, OTSB will issue safety recommendations to address any safety concerns or risk identified.