Government of India
Ministry of Civil Aviation
Aircraft Accident Investigation Bureau

Interim Report: Accident involving M/s Aryan Aviation Pvt. Ltd.'s BELL 407 helicopter, bearing registration VT-BKA near Gaurikund, Uttarakhand, India on 15 June 2025.

1. General Information

1.	Helicopter	Type	Bell 407
		Nationality	Indian
		Registration	VT- BKA
2.	Owner and Operator		M/s Aryan Aviation Pvt Ltd.
3.	Pilot License Type		CPL(H) [Commercial Pilot's License (Helicopters)]
	Extent of Injuries		Fatally injured
4.	No. of Passengers		06
	Extent of Injuries		All Fatally injured
6.	Date & Time of Accident		15 June 2025, 05:35 Hrs IST (0005 UTC)
7.	Place of Accident		Near Gaurikund, Uttarakhand, India
8.	Co-ordinates of Accident Site		Latitude: 30° 38' 59.0" N, Longitude: 79° 00' 35.0" E
9.	Last point of Departure		Kedarnath Helipad
10.	Intended landing place		Guptkashi Helipad
11.	Type of Operation		Non-Scheduled Operations (Kedarnath Shuttle Service)

2. Helicopter Information

The BELL 407 helicopter bearing registration VT-BKA and Serial No. 53832 was manufactured in the year 2008. The helicopter VT-BKA was owned and operated by M/s Aryan Aviation Private Limited under the DGCA Non-Scheduled Operator permit (AOP NO. #13/2009, valid up to 07.04.2029). The helicopter's Certificate of Registration and Certificate of Airworthiness were valid as on date of accident. The last Airworthiness Review Certificate (ARC) was issued on 09 Oct 2024 at 4202:36 airframe hours and was valid up to 10 Oct 2025. The helicopter's Maximum All-Up-weight is 2381 Kg. The helicopter was equipped with a Rolls-Royce engine (Model: RR M250 C47B, Serial No. CAE-848116). Before operating the flight on 15 June 2025, the helicopter had accumulated a total of 4548:16 hrs (Time Since New) and the engine had accumulated 4087:44 Hrs (Time Since New).

The last major airframe inspection carried out was 300 Hrs/12 Months at 4347:42 airframe hours on 30 Apr 2025. The last major engine inspection carried out was 150 Hrs /12 Months engine inspection at 3984:27 engine hours on 29 May 2025.

Scrutiny of the technical logbook revealed that there was no defect pending on the helicopter before operating the flight and the helicopter was not released under MEL on 15 June 2025.

3. Crew information

Pilot Information	
Date of Birth	11 April 1986
License	CPL (H)
Date of Issue	29 Oct 2024
Valid up to	28 Oct 2034
Date of Class I Medical Exam.	18 Dec 2024
Class I Medical Valid up to	17 Jan 2026
Date of issue of Flight Radio Telephone Operator's Licence (FRTOL)	22 Apr 2024
FRTOL Valid up to	21 Apr 2034
Endorsements as Pilot-In-Command (PIC)	Bell 407, DHRUV
Total flying experience	2086:37 Hrs
Total flying experience on type (Bell 407)	144:57 Hrs
Last Flown on type	14 June 2025
Total flying experience during last 1 year	173:07 Hrs
Total flying experience during last 6 Months	150:37 Hrs
Total flying experience during last 90 Days	142:55 Hrs
Total flying experience during last 30 days	71:05 Hrs
Total flying experience during last 07 Days	12:25 Hrs
Total flying experience during last 24 Hours	03:25 Hrs
Rest period before flight	16:35 Hrs
Whether involved in Accident/Incident earlier	No
Date of latest Flight Checks and Ground Classes	29 Apr 2025 & 04 Apr 2025

The pilot was not having any previous experience of flying in the Kedarnath Valley. The pilot started flying in the Kedarnath valley since the start of the Chardham Operations this year i.e. from 02 May 2025. The high altitude (above 10,000 feet) release check for the pilot was carried out on 29 April 2025 with a DGCA approved type rated examiner.

4. Weather Information

4.1 MET Information

There is no MET facility available in the Kedarnath Valley, however, there is an Automated Weather Instrument (AWI) installed at Shri Kedarnath Ji Helipad which provides live weather information and is connected to a computer. The weather information is not recorded by any means; however, the

screenshot of this computer is shared periodically in the common WhatsApp group of the operators by one of the security personnel of UCADA. The instrument provides information about winds, visibility, temperature, pressure, humidity, dew point, etc., however, it does not provide any information about clouds. Scrutiny of the WhatsApp group messages revealed that on the day of accident, the weather information at the time of operating the first flight was not shared in the WhatsApp group. On enquiring about the same it was informed that this information is usually provided later in the day.

The METAR issued for VIBY (Bareilly Airport) for 0400 IST on 15 June 2025 is as given below: -

Time (IST)	Wind (^{O}/Kts)	Visibility	Cloud	Temperature/ Dew Point	QNH	Trend
0400	060/03 KT	6000 M	SCT030/SCT100	31°C / 26°C	0997	NOSIG

4.2 Assessment of local weather through CCTV footage

In addition to the Automated Weather Instrument available at Kedarnath Helipad, the local weather i.e. visibility/cloud cover for shuttle operations in Kedarnath Valley is determined by CCTV footages being installed in various locations in the valley. The operators observe the weather through three live camera feeds which shows the weather at Valley Entry Point, Rudra Point (Lincholi) and Shri Kedarnathji (near helipad). The live feeds from these three cameras are available with the operator and accordingly the pilots decide on the viability of the shuttle sorties. To assess the local weather during the time of accident, the CCTV footages of these three cameras for 15 June 2025 was recovered by the investigation team. The CCTV footages gave valuable input for determining the prevailing visibility in the valley during the time of accident. Scrutiny of the CCTV footages revealed that during the return leg of these helicopters, the valley exit point was covered with clouds. The other two helicopters which were behind VT-BKA exited the valley at a lower altitude by avoiding the clouds.

5. Wreckage and Impact Information

5.1 Helicopter Wreckage

The helicopter was maintaining an altitude of approximately 9000 feet altitude (as required by the SOP) and crashed into the mountain on the right side of its flight path near the Kedarnath valley exit point. The accident site was at an ariel distance of about 5.65 Nm from the Kedarnath helipad on radial 32.1^{o}. The co-ordinates of the accident site were 30° 38' 59.0" N, 79° 00' 35.0" E with elevation of 9051 feet. The helicopter impacted the terrain and caught fire. The wreckage parts were found scattered but were confined to the main wreckage area.

Most of the helicopter wreckage parts such as cockpit, cabin section, main rotor blades, etc were destroyed and found burnt. Some of the airframe parts such as cockpit doors, cabin doors and the tail boom were recovered from the accident site and shifted to Dehradun for further examination.

PIC 1: AERIAL VIEW OF THE ACCIDENT SITE AND ITS LOCATION IN RESPECT OF KEDARNATH HELIPAD.

5.2 Damage to the Helicopter

Some of the recovered helicopter wreckage parts were visually examined with the assistance of Technical Advisor from the OEM i.e. Bell Helicopters. Some of the salient observations during the visual examination of these components are appended below.

Airframe

- The cockpit doors and cabin doors recovered from the site were found fractured in multiple locations.
- The tail boom was the major part recovered and suffered major impact damages on its right side.
- The tail boom was found fractured at mid-point aft of the tail boom attachment and the horizontal stabilizer.
- The tail rotor gearbox support casting fractured at the tail boom joint attachment.
- The tail boom had an impact damage to the right side behind the horizontal stabilizers.
- The left stabilizer and the finlets were found intact.

- The right stabilizer had a large impact damage on its leading edge. The finlet fractured horizontally about mid-point from the bottom and was twisted/delaminated.
- The vertical fin had a large impact damage on its lower leading edge with deformation of the shape towards the right.
- The stinger was intact and no damage was found.

Tail rotor and drive system

- The tail boom tail rotor driveshaft was mostly present with its driveshaft cover. The mid driveshaft had some impact marks and was deformed.
- The hanger bearings were rotating so was the tail rotor gearbox.
- The tail rotor gearbox chip detector didn't reveal any presence of metal and was clean.
- The oil color was normal.
- The tail rotor gearbox separated at the disc attachment (input quill) and at the gearbox support casting due to impact forces.
- The aft fuselage driveshaft separated at the oil cooler blower and was fractured on its aft end. No pre-impact anomalies were found with the portion that was assessed.

Flight Controls

- The pilot's tail rotor control pedals separated from the airframe.
- The control tube connecting horizontally from the pedals to the 1st bellcrank fractured about 4-5 inch from the rod end connection due to overload.
- The pilot cyclic was twisted to the left and fractured at the base.
- The collective control fractured at the base and was on bare metal without the throttle control present.
- The tail boom tail rotor control tube had fractured both forward and aft at corresponding tail boom fractures location.
- The control tube had a deformation, similar to the tail boom shape to the right of the aircraft.
- The tail rotor pitch change mechanism operated normally with corresponding movement of the tail rotor.
- One tail rotor pitch link was deformed but was otherwise connected to the tail rotor.

PIC 2: TAIL SECTION RECOVERED FROM THE ACCIDENT SITE

6. DGCA Operations Circular 02 of 2023

DGCA has issued an operations circular 02 of 2023 regarding "Conduct of Helicopter Pilgrimage Operations" dated 24th February 2023 which was applicable as on date of the accident.

The circular has been issued keeping in view that most of the pilgrimage shrines are located in the hills where the weather conditions change rapidly including sudden clouding and/or precipitation. These operations are undertaken from various Govt owned/privately owned helipads to shrine helipads owned or managed by the respective Shrine Board/District Administration. The circular lays down the responsibilities of the helicopter operators and certain guidance/guidelines to respective Shrine Boards/District Administration to ensure safe and smooth operations. The said circular is applicable to all Helicopter Operators and State Administration/Shrine Boards involved with the conduct of helicopter operations for the purpose of various pilgrimages/seasonal operations in India.

Appendix B of the said circular provides SOP for shuttle flying operations for Kedarnathji. The Salient procedures laid down in the appendix are provided below: -

- All flying is to be conducted on standard altimeter setting of 1013.25 HPa.
- Operator Helipad to Kedarnath: After takeoff from respective helipad the helicopter is to climb so as to reach 8500 ft by valley entry. The helicopters shall maintain right side of the valley and give standard calls at reporting points. There are few helipads / open spaces enroute to make emergency landing in case of an exigency. On reaching Sonprayag the helicopter will turn to the right and follow the valley past Gaurikund till it reaches Shri Kedarnath helipad. The helicopter is to positively achieve 9000 Feet by Gaurikund and 10000 Feet by Bhimballi. The helicopter will then continue climb towards Lincholi and thereafter make a visual approach and land at Shri Kedarnath helipad.
- Kedarnath to Operator Helipad: The return path is through the same valley ensuring a comfortable speed during descent and maintain minimum 10500 Feet at Bhimballi and 9500 Feet at Gaurikund and vacating the valley at 9000 Feet. Thereafter turn left and maintain on right side of valley, the helicopter shall not descend below 7500 Feet till it has positively crossed Mike. This is to ensure separation from inbound traffic airborne from Sersi and Sitapur.
- Number of Helicopters: There shall not be more than 04 helicopters at any given time flying within the Kedarnath Valley. A maximum of 06 helicopters may be airborne provided spacing is ensured in a manner so as to have only 04 helicopters in the Kedarnath Valley.
- Stagger Plan: UCADA shall provide to operators block operating hours, extending from sunrise to half an hour before sunset, to ensure only six helicopters are operating within the block for Kedarnath operations. The stagger plan shall ensure equitable distribution of operators from each cluster / location. Stagger will be followed by operators to ensure only four helicopters (2 inbound and 2 outbound) are operating within the Kedarnath valley at any one time.
- R/T Calls: All helicopters operating in the valley shall operate on 122.9 MHz (Main) and 122.7 MHz (Stby) frequency, and give the following mandatory R/T calls (Informatory blind transmissions): -

  - Before Start Up – For e.g "VT-XYZ Starting Up at xxxx Helipad Gupkashi for Kedarnath".
  - Before Take-Off – For e.g "VT- XYZ taking off from xxxx Helipad Gupkashi for Kedarnath".
  - Abeam Pinnacle Helipad – For e.g "VT- XYZ abeam Pinnacle, xxxx ft Climbing" (give current flight altitude passing through)

- Abeam UT/Prabhatam Helipad Phata – For e.g. “VT- XYZ abeam Phata, xxxx ft Climbing”.
- Abeam Himalayan Helipad Sersi – For e.g. “VT- XYZ abeam Mike, xxxx ft Climbing”.
- Before commencing reciprocal turn at 7000 Feet (This call is only for helicopter airborne from Sitapur / Sersi Helipad) – For e.g. “VT- XYZ carrying out reciprocal turn and joining climbing route pattern, 7000 Feet”.
- Abeam Entry to Kedarnath Valley – For e.g. “VT- XYZ entering Valley, 8500 ft”.
- At Gaurikund – For e.g. “VT- XYZ abeam Gaurikund, 9000 ft Climbing”.
- At Bhimballi – For e.g. “VT- XYZ abeam Bhimballi, 10000 ft Climbing”.
- At Lincholi – For e.g. “VT- XYZ abeam Lincholi, xxxx ft Climbing”.
- On Finals at Kedarnath – For e.g. “VT- XYZ Finals for Kedarnath”.
- Before Take-Off from Kedarnath – For e.g. “VT-XYZ taking off Kedarnath”.
- At Garudchatti – For e.g. “VT-XYZ abeam Garudchatti, xxxx ft Descending”.
- At Bhimballi – For e.g. “VT-XYZ abeam Bhimballi, 10500 ft Descending”.
- At Gaurikund – For e.g. “VT-XYZ abeam Gaurikund, 9500 ft Descending”.
- At Exit from Valley – For e.g. “VT- XYZ Exiting Valley, 9000 Feet”.
- Abeam Himalayan Helipad Sersi – For e.g. “VT- XYZ abeam Mike, 7500 ft Descending”.
- Abeam UT/Prabhatam Helipad Phata – For e.g. “VT- XYZ abeam Phata, xxxx ft Descending”.
- Abeam Pinnacle Helipad – For e.g. “VT-XYZ abeam Pinnacle, xxxx ft Descending”.
- On Finals - For e.g. “VT- XYZ on finals for xxxx Helipad, Guptkashi”

Apart from above mentioned circular, DGCA had issued additional safety measures for helicopter Operations in Char Dham yatra on 09.06.2025 owing to series of accidents (total three) within a period of one month in the Char Dham sector.

7. Brief Description of the Accident Flight

On 15th June 2025, a Bell 407 helicopter bearing registration VT-BKA belonging to M/s Aryan Aviation Pvt Ltd. was planned to operate shuttle sorties from Guptkashi to Kedarnathji as the operator carries out the shuttle sorties from Guptkashi.

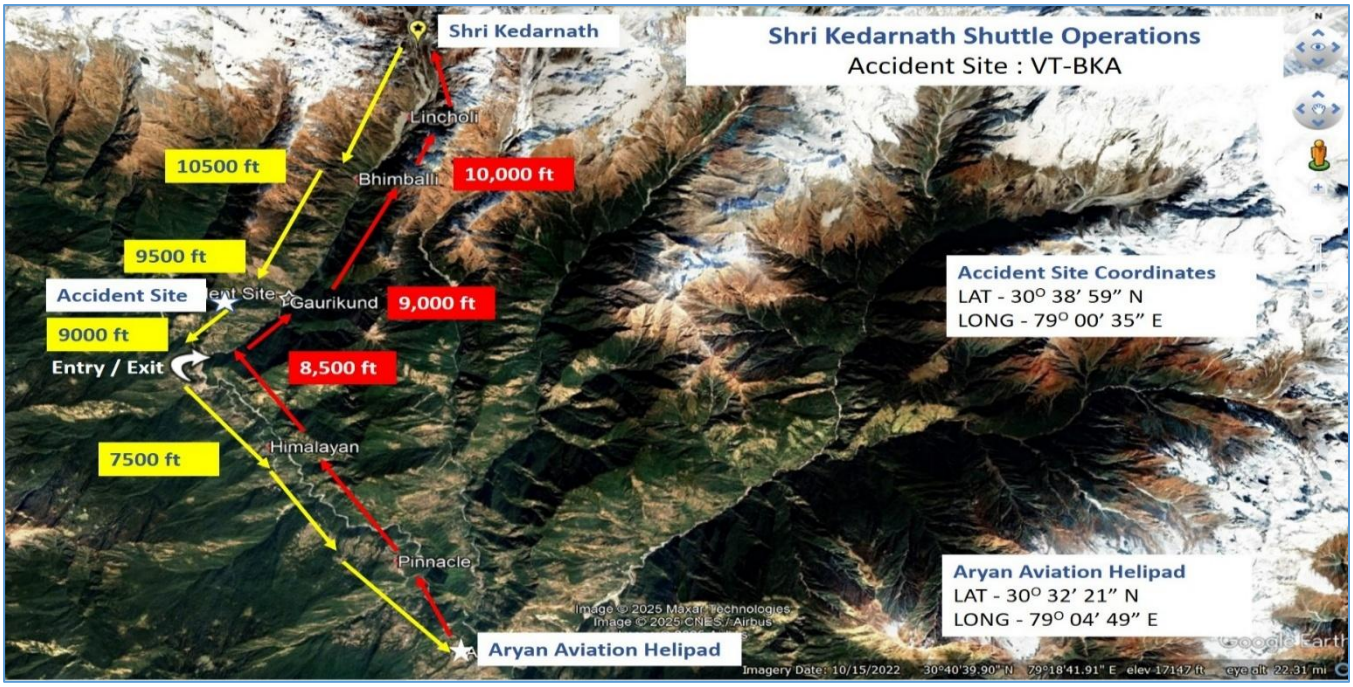
As per the requirement, the Uttarakhand Civil Aviation Development Authority (UCADA) publishes time slot allotment for all operators conducting shuttle operations for Shri Kedarnath Shrine. Accordingly, on 15 June 2025, the operator was given the first slot in the morning i.e. between 0600 Hrs to 0700 Hrs IST. The operators who are given the first slot in the morning (starting from 0600 Hrs IST) are allowed to start the shuttle operations from the sunrise as documented in the time slot allotment sheet provided to the operators by UCADA. Accordingly, on 15 June 2025, the operator planned to start the shuttle operations from sunrise and as per the practice being followed by the operator, the sunrise timings were obtained from online websites which on that day was reported to be 0510 Hrs IST. The shuttle operations carried out at Kedarnath are generally single pilot operations.

The investigation team interacted with operations team of the operator who were managing the shuttle operations from Guptkashi. As per the statements given by them, the pilot arrived at the helipad at around 0430 hrs IST and did BA test. The pilot then checked the CCTV footages of the valley to analyse the weather conditions in the valley which they found conducive to operate the shuttle flights. The pilot then carried out pre-flight checks on the helicopter VT-BKA, and no abnormality was reported. The helicopter then took-off from Guptkashi helipad at around 0510 Hrs (time as per CCTV footage) for Shri

Kedarnathji. The helicopter landed uneventfully at Kedarnath helipad at around 0520 Hrs IST (time as per CCTV footage). No abnormality was reported.

VT-BKA was the first helicopter to operate the shuttle flight to Kedarnath in the morning followed by two other helicopters bearing registration VT-TBF and VT-TBC operated by M/s Trans Bharat Aviation Pvt. Ltd. The helicopter VT-TBC took-off from another helipad in Guptkashi and helicopter VT-TBF took-off from Phata. The helicopter VT-BKA was the first in sequence followed by VT-TBF from Phata and then by VT-TBC from Guptkashi. After disembarking the passengers carried from Guptkashi, the helicopter VT-BKA then took-off from Kedarnath with 06 passengers who boarded from Kedarnath. No abnormality was observed while the helicopter took-off and subsequently entered the valley as seen in the CCTV footage. As per the procedures, the helicopters are supposed to maintain 8500 feet altitude while entering the Kedarnath Valley entry point and while returning they are supposed to maintain 9000 feet altitude while exiting the Kedarnath Valley exit point. Accordingly, the pilot of VT-BKA was maintaining 9000 feet altitude while approaching the valley exit point.

The operations team of the operator further stated that after the accident they interacted with the pilot of VT-TBC which operated from Guptkashi and was third in sequence. During the interaction the pilot of VT-TBC informed the operations team that during the return leg while enroute to Guptkashi and when the helicopter VT-BKA reached near the valley exit point the pilot of VT-BKA made a callout on RT that he can see clouds at the exit point. The pilot of VT-BKA subsequently called out “cannot see anything, turning…”. Thereafter there was no RT call made by the pilot of VT-BKA and there was no distress call made by the helicopter VT-BKA. The helicopter VT-TBC which was third in sequence landed back at Guptkashi, however, the helicopter VT-BKA which was first in sequence did not arrive at Guptkashi as scheduled. On observing this, the operations team informed the same to the pilot of VT-TBC. The helicopter VT-TBC got airborne again in search of VT-BKA and tried to establish contact with it, however, there was no response from VT-BKA. The helicopter VT-TBC after an unsuccessful attempt landed back at Guptkashi. Later, the operations manager of the operator received call from local authorities that the helicopter VT-BKA has crashed into the nearby hills of Gaurikund. State Disaster Response Force (SDRF) team reached the accident site and recovered the dead bodies. All the 07 occupants on board received fatal injuries. The aircraft caught fire and was destroyed during the accident.



PIC 3: FLIGHT ROUTE FOR SHUTTLE OPERATIONS IN KEDARNATH VALLEY AS PER SOP

On analysing the footage of the CCTV camera facing the valley entry/exit point, during the time of accident, it was observed that the valley exit point was covered with clouds and were moving down into the valley. The other two helicopters which were behind the accident helicopter VT-BKA were observed to have exited the valley at a lower altitude by avoiding the clouds.

PIC 4: ACCIDENT SITE

7. Progress of the Investigation

i The accident site was not easily accessible as the terrain is very hostile and there was continuous rain during that time making it difficult to reach the site. Hence, to record the location of the accident site, topography of the site, route followed by the helicopter, etc a recce of the accident

site area and the valley was carried out on 16th June 2025. Relevant information was recorded for further analysis.

ii Some of the helicopter parts were recovered from the site with the assistance of local authorities.

iii Wreckage examination of the recovered parts was carried out, and the findings have been recorded for further analysis.

iv Statements of the operator personnel have been collected and is being corroborated with other available evidence.

v The NTSB, USA & the TSB, Canada have appointed Accredited Representative & Technical Advisors for this investigation. The technical advisor from Bell Helicopters visited Dehradun and visual examination of the recovered parts of the wreckage were carried out. Most of the damages sustained by these parts were identified to be consequential in nature due to heavy impact with the terrain.

vi The investigation team is in co-ordination with Accredited Representatives & Technical Advisors for further course of action to identify the root cause(s).

vii Maintenance and operational records pertaining to the helicopter VT-BKA were obtained from the operator and are being analysed.

viii Records obtained from various stakeholders are currently being scrutinized.

8. Preventive actions taken after the accident

The DGCA circular 02 of 2023 was amended dated 11 September 2025 to include various safety measures for Char Dham Operations including the Kedarnath Shuttle flights. Some of the salient safety measures introduced for Kedarnath Shuttle operations are appended below: -

- To establish a Control Center at Sitapur area by UCADA for the safe and efficient control of shuttle flying.
- The Control Center to be manned during the conduct of flying operations by a suitably qualified Control Center In-Charge (to be deputed by UCADA) who shall be responsible for the safe conduct of flying operations.
- The Control Center In-Charge shall be assisted by an Air Traffic Controller (to be deputed by AAI) and a Meteorological Officer (to be deputed by IMD).
- The PIC shall ensure a minimum logging time of 18 mins/shuttle from Guptkashi, 16 mins/shuttle from Phata and 14 mins/shuttle from Sersi clusters respectively, to ensure safety of operations and safe conduct of the disembarkation/ embarkation of passengers with rotors running.