



Interim Report: Accident involving M/s Pinnacle Air Pvt Ltd. Helicopter, Type- AS350B2 bearing registration VT-KBS near Kedarnath ji Helipad, Uttarakhand, India on 17 May 2025.

1. General information:

1.	Aircraft		Airbus Helicopter
		Type	AS 350 B2
		Nationality	Indian
		Registration	VT-KBS
2.	Operator		M/s Pinnacle Air Pvt Ltd
3	Pilot – In – Command		CPL (H)
	Extent of Injuries		Nil
4.	Co-pilot		Nil
	Extent of Injuries		Nil
5	Number of persons on board		Pilot in Command and 02 Medical personnel (one doctor and one nurse)
6	Date & Time of Incident		17.05.2025, 11:49 IST
7	Place of Incident		40 meters short of Kedarnath Ji Helipad
8	Coordinates of the accident site		30°44'17.5"N 79°04'04.7"E
9	Last point of Departure		AIIMS Rishikesh Helipad
10.	Intended landing place		Kedarnath Ji Helipad
11.	Phase of operation		Landing
12.	Type of Operation		Aero Medical Mission – Non-Schedule

2. Aircraft Information:

The Airbus AS350B2 helicopter is powered by a single Turboshaft ARRIEL 1D1 engine. The helicopter had a valid Certificate of Registration and Airworthiness Review Certificate. It had an All-Up Weight of 2,250 kg. The minimum crew required to operate the flight was one, and the Certificate of Release to Service was issued on 17 May 2025. There was no open Minimum Equipment List, and no snags were reported before the accident flight. The aircraft was not equipped with a Cockpit Voice Recorder or a Digital Flight Data Recorder but was fitted with an airborne image recorder.

The helicopter was operated as an air ambulance under an agreement between Party A (Ministry of Civil Aviation, Ministry of Health and Family Welfare, and Government of Uttarakhand) and Party B (M/s Pinnacle Air Pvt. Ltd.). Under the terms of this agreement, M/s Pinnacle was responsible for maintaining the helicopter's airworthiness and providing a suitably qualified crew with experience in hill operations.

3. Personnel information

3.1 Flight Crew Information:

The flight was a single pilot operation. Some of the salient information as per the available records of the pilot is appended below: -

Age	58
License	CHPL
Date of issue	05.05.2008
Valid up to	28.11.2033
Date of class 1 medical Exam	03.03.2025
Class I Medical Valid up to	02.09.2025
Date of issue FRTOL License	05.05.2008
FRTOL License Valid up to	10.05.2031
Ratings	PIC:AS350/ EC 130, BELL 206, SA 316/315
Endorsements as PIC on AS350	09.05.2024
Total flying experience	4319:20:00
Total PIC flying experience on type	102:30
Whether involved in Accident/Incident earlier	Yes. Involved in the accident of VT-TBA on 29.08.2012 at Godhra, Gujarat.

3.2 Flying and training history of pilot

3.2.1 The pilot is an ex-navy pilot. After retiring from Indian Navy, the pilot continued flying in civil aviation with different NSOPs by utilizing the privileges of DGCA issued Commercial Pilot License (Helicopter). In June 2018, the pilot joined Pawan Hans Limited and was deputed to fly Bell 206 helicopter in Gangtok, Sikkim.

The scrutiny of the available records revealed that, the pilot underwent seat specific Line Check as Co-pilot on 02 June 2018 as per the requirement specified in Para 9.2.3 of CAR Section 8 Series H Part II. However, as per the entries made in the logbook of the pilot it was observed that the pilot started flying as PIC for Hill/Mountain operations in Gangtok immediately after the Line Check.

Scrutiny of the pilot logbook further revealed that prior to joining PHL, the pilot did not have previous experience of flying in Hill/Mountain terrain above 4000 feet AMSL. Although the pilot had flown in hilly areas in Rajasthan, South India, and the Eastern/Western Ghats of the southern peninsula, but the operating helipads in these regions are mostly below 4000 feet

AMSL. The operating conditions/weather in these regions do not have the same phenomenon which is encountered in high altitude regions. Also, prior to joining PHL, the pilot did not had required clearances to operate as PIC in Hill/Mountain Flying Operations as no check in this regard was carried out for the pilot.

As per the requirement specified in Para 11.1.1 of CAR Section 8 Series H Part II, the pilot was required to undergo “*Ground Training + 15 hrs Flying training with TRE/TRI + Hill Ops Release Check 0:45 hrs*” and thereafter fly for one year and 100 hrs as co-pilot before being upgraded as PIC for Hill Flying.

No record of the pilot having undergone above stated training or gaining above stated experience is recorded in the logbook.

The Pilot resigned from PHL after flying for about a month and thereafter flew for other NSOPs. In September 2023, the pilot operated for PHL for a brief period, during which the pilot was utilized for ferrying a helicopter from Gangtok to Bagdogra under Special Flight Permit issued by DGCA.

3.2.2 The Pilot joined Pinnacle Aviation and underwent Type Training on AS350B2 in March 2024. After type training there was a gap of more than 90 days in flying. As per the requirement laid down in para 10.3 of CAR Section 8 Series H Part II, the pilot was required to undertake three Take-off/Landing on type with an experienced co-pilot without passenger on-board for a duration of 00:45 hrs. However, as per the entries made in the pilot log book, it is observed that on 06.07.2024 the pilot had operated for 00:55 hrs at Meerut Airstrip carrying out three take-off/landings, but there was no mention of any co-pilot on board. Further on examination of entries in both the aircraft logbook and the tech log of VT-KBS, it was found that only two take-offs and landings were recorded for the date 02.07.2024.

3.2.3 The operator did not have any TRI/TRE on AS350B2, but TRE/TRI on AS350B3 was available with another operator. Therefore, the operator submitted request to DGCA seeking permission to undergo difference training for AS350B3 and following training for Hill/Mountain Flying.

Ground Refresher 2:00 hrs + 1 hr flying training with TRI/TRE + Hill Ops Release Check 0:45 hr.

Above training was requested considering the pilot already has Hill/Mountain flying experience of 1 year and 100 hrs, which as per the pilot logbook was not the case. The compliance of above was also submitted to DGCA with a statement that VEMD training which is part of Difference Training was not done as pilot is familiar with its functions.

Following the submission of this compliance report, the pilot was deployed on AS350B2 (VT-KBS) for hill operations.

3.2.4 It has been observed that the pilot was deployed on single-pilot operations on AS350 B2 without meeting the minimum Pilot-in-Command (PIC) experience requirement on type as specified in Para 14.1.2.2 and 14.1.3 of CAR Section 8, Series H, Part II which says “*a pilot with 2000 hours or more helicopter experience and prior SPO qualification is required to complete a minimum of 25 hours PIC on the new type to qualify for SPO*”.

3.3 Medical personal:

The accident flight was a medical flight and accordingly one doctor and one nurse were on board as medical personnel for the air ambulance operation.

Scrutiny of the records indicate that M/s Pinnacle has provided general orientation about the helicopter and patient loading to the medical personal. However, the medical personal on board were not provided training as per the DGCA accepted Initial and recurrent training program for the medical personal as mentioned in the operations manual of the M/s Pinnacle as these training requirements were not communicated to the AIIMS, Rishikesh.

4. Aerodrome Information

The helipad at Kedarnath is located about 700 meters from the temple at approximately 11500 feet AMSL with approximate co-ordinates 30° 43' 53" N and 079° 04' 00" E. It is maintained by the Uttarakhand Civil Aviation Development Authority (UCADA). There are four landing Pad available at this Helipad. There is a wind sock available at the helipad.

5. Weather Information

There is no MET facility available in the Kedarnath Valley. However, the Automated Weather Instrument installed at Shri Kedarnath Ji Helipad provides live weather information, which is connected to a computer. The screen of this computer is shared in the WhatsApp group of the operators by one of the security personnel of UCADA.

Scrutiny of the WhatsApp group messages revealed that, on the day of the accident, the weather information was shared as follows:

Time IST	Wind	Visibility	QNH	Temperature °C	Humidity (%)	Dew point °C
08:54 Hrs	170/05 Knots	7000	1022.7	11	52	1
12:53 hrs	190/5 knots	7000	1023	12	59	4

It was reported that weather information was not shared between 08:54 hrs and 12:53 hrs due to a power cut and the unavailability of an alternative power backup for the computer. The

same was also observed during the investigation team's visit to the site after the accident, that the monitor screen went blank whenever there was a power cut.

Further, the operators assess the visibility conditions in the valley through live footages of CCTV cameras installed at various locations in the valley. However, there is no SOP available with UCADA to share the weather information with the operator.

According to the statement of the company's operations personnel, on the day of the occurrence, he initially contacted multiple sources to obtain weather information for Kedarnath and en-route locations. He also asked for the video from Kedarnath to assess the visibility conditions. He was informed that the weather was bad and cloudy, and then he asked other personnel at Kedarnath, Phata, and Srinagar to update him whenever the weather conditions improved. Subsequently, at around 09:30 hrs, he received information that the weather was clear at Kedarnath, Phata, and en-route. He informed the same to the flight crew. However, the helicopter took off at about 11:00 hrs.

The pilot also stated that the weather information for the flight was obtained through the operational personnel.

Hence, the crew operated the flight without having the real-time meteorological information from the Kedarnath valley. There was no alternate arrangement made either to ascertain the weather conditions before proceeding for destination by the crew or the operator.

6. Brief description of accident flight

On 17 May 2025, AS 350 B2 helicopter (registration VT-KBS), operated by M/s Pinnacle Air Pvt. Ltd., operated a non-scheduled VFR flight as a aero-ambulance mission to pick up a casualty requiring urgent medical evacuation.

At 1100 IST it took off from AIIMS Rishikesh Helipad, and was to land at Kedarnath Ji Helipad, situated at an elevation of approximately 11,500 feet AMSL. The flight was operated by single-pilot and carried one doctor and one nurse as medical crew along with medical equipment.

At 11:49 IST, when the Helicopter was on final approach, the helicopter suddenly started losing altitude and descended approximately 40 meters short of the designated landing pad at Kedarnath. During this descent, the aircraft yawed approximately 90 degrees to the left and made a hard landing on terrain in a damp unpaved area. The surface was in wet mud conditions that adversely affected landing.

Following the initial landing, the pilot tried to take-off again. During this second attempt, the left-hand side skid lifted off first, and the helicopter tilted towards right. Thereafter, once the right-hand side skid lifted off, the helicopter's lower vertical fin struck the ground, and made a counterclockwise spin while gaining some altitude before crash-landing at the same location. Upon second impact the tail boom broke from the junction and was severely damaged (Fig 01). After that the pilot made another unsuccessful attempt to take-off before switching off the

rotors. There were no injuries to the pilot or onboard medical personnel, and no post-crash fire reported.



Fig 01: Final resting position of the helicopter with broken tail boom.

7. Progress of the Investigation

1. The site inspection was carried out, and photographic evidence of the wreckage and crash site were collected and are being corroborated with other available evidences.
2. The airborne image recorder from the helicopter was secured, and the data was downloaded with the assistance of BEA, France. The data is being analyzed.
3. The Techlog, engine logbooks, work orders, on-board documents related to VT-KBS gathered from the operator are being scrutinized.
4. Fuel and oil samples from the accident helicopter were collected. The analysis was carried out, and no abnormality was observed in the samples collected.
5. Documents/files related to the operating crew were gathered from DGCA are being scrutinized.

6. Statements collected from witnesses and personnel concerned are being analyzed to corroborate with other evidences.
7. BEA, France, has appointed an Accredited Representative to participate and provide support in the investigation.

8. Interim recommendation:

In view of the findings brought out so far it is considered necessary to issue following interim safety recommendations so that preventive actions can be taken promptly to enhance aviation safety.

1. In view of the factual finding at para 3.2.1, 3.2.2, 3.2.3 and 3.2.4 it is recommended that: -
 - a. DGCA may formulate appropriate additional measures to ensure that pilots operating in hilly/mountain terrain meet the prescribed requirements, as hill/mountain flying demands specialized skills. Consequently, this may be checked thoroughly during audits/surveillance.
 - b. DGCA should conduct a one-time audit of all helicopter operators on pilot's hill operation qualifications to check if such practices exist in other operators also and take corrective actions accordingly.
2. In view of the factual finding at para 5, it is recommended that DGCA should issue directions as deemed fit to UCADA
 - a. To establish SOP consistent with the prevailing regulations to ensure timely dissemination of weather information to all the operators for safe conduct of helicopter operations in Chardham Sector.
 - b. To make sufficient arrangements like back-up power supply for critical systems, etc. to ensure that the weather information is disseminated without any delay/interruption.