



Preliminary Report: Serious Incident to M/s Alliance Air ATR 72 Aircraft VT-RKF at Bhubaneswar on 08.10.2024

1. General Information

1.	Aircraft	Type	ATR 72
		Nationality	Indian
		Registration	VT-RKF
2.	Operator	M/s Alliance Air	
3.	Pilot in Command	Valid ATPL holder	
	Extent of Injuries	Nil	
	First Officer	Valid CPL holder	
	Extent of Injuries	Nil	
4.	No. Of Persons onboard	43 Pax & 4 Crew	
5.	Date & Time of Occurrence	08.10.2024 & 0850 UTC	
6.	Place of Occurrence	Bhubaneswar Airport	
7.	Co-ordinates of Serious Incident Site	Lat: 20° 14' 40" N, Long: 85° 49' 4" E	
8.	Last point of Departure	Rourkela	
9.	Intended landing place	Bhubaneswar	
10.	Type of Operation	Scheduled	
11.	Phase of operation	Landing	

2. Aircraft Information.

M/s Alliance Air's aircraft, registration no. VT-RKF is an ATR 72-212 aircraft with Serial Number 1423, manufactured in 1993. It is equipped with high wing with 27 meters span, twin turbo prop engine configuration with Pratt & Whitney engine (S.No. PW 127 M) and four propellers made by Hamilton Sundstrand. The aircraft is configured with 72 seats. The aircraft features a tricycle landing gear configuration with two main landing gears on the right and left sides, as well as a nose landing gear. The landing gear system is retractable. During the time of occurrence, all necessary certifications for this aircraft have been obtained from DGCA and other agencies and validated.

3. Crew information.

The crew held valid licenses with all necessary certifications were up to date to operate this flight

		PIC	FO
1	Age/ Gender	44 YEARS/ Male	55 YEARS/ Male
2	License details	ATPL	CPL
3	Date of Issue	08-04-2022	03-04-2007
4	License valid Up to	07-04-2027	02-04-2027
5	License Category	AEROPLANE	AEROPLANE



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6	Aircraft Rating on license	PIC :- ATR 42/72-600	CO:- ATR 42/72-600
7	Date of Endorsement	13-04-2023	03-04-2007

4. Aerodrome Information

The Aerodrome information as provided in the eAIP is given below:

AIRPORT	LAT/LONG	DIMENSION	ORIENTATION
Bhubaneswar	Lat: 20° 14' 40" N, Long:85° 49' 4" E	2743 x 45 M	14 / 32
Slope	+0.11% on both orientation of the runway.		
Elevation	138 ft		
Approach and Runway Lighting	RWY 14 CAT-I/778M PAPI Left / 3° 15.103M RWY 32 SALS/240 M PAPI Left / 3° 15.103M		
Types of traffic permitted	IFR/VFR		
Radio navigation and landing aids	Bhubaneswar Airport is equipped with LLZ, DME (ILS) and GP at RWY 14 side and NDB, DVOR (DME) at RWY 32 side.		
AD category for Fire fighting	CAT:6		
ATS Communication	APPROACH TOWER ATIS	125.15 MHz 128.15 MHz 126.8 MHz	
MET Office	Indian Meteorological Department, Bhubaneswar		
Facilitation	Adequate infrastructure for handling of arrival/departure. Security and frisking of passengers is available.		



5. Weather Information

The AAI Bhubaneswar receives METAR information from the IMD MET Centre Bhubaneswar.

The METAR of Bhubaneswar Airport which was captured at the time of occurrence on 08.10.2024 is given below:

Time UTC HH:MM	Winds degree /Knots	Visibility meters	QNH HPa/ In hg	Temp °C	DP°C	Weather/ cloud
08:50	220/04 KT	150	1019	27	26	Heavy Rain

6. Brief description of Serious Incident.

On October 8, 2024, aircraft VT-RKF operated a sector from Rourkela to Bhubaneswar with 43 passengers and 4 crew members on board. Prior to this flight, VT-RKF had completed four uneventful sorties. During the initial approach, at 10 DME ILS, Bhubaneswar ATC instructed the aircraft to hold due to adverse weather conditions and traffic congestion at the Bhubaneswar airport. After briefing the crew on the weather conditions, which included heavy rain and a visibility of 800 meters, the aircraft was cleared to continue the approach on the ILS at 10 DME. Additionally, ATC instructed the crew to report the aircraft's position at 5 DME and then again at 4.8 DME.

At 4.8 DME, aircraft VT-RKF cleared up for landing on runway 14. ATC also advised the crew that, in case of a go-around, shall execute a left turn towards a heading of 120°, and the crew acknowledged the same and up to 1,000 feet, no rain was observed by the Crew.

However, as the aircraft neared the minimums, the crew encountered heavy rain, but the approach lights became visible. The crew requested ATC to increase the intensity of the approach lights for runway 14, and this request was promptly done by ATC. The aircraft continued to approach and was at the final approach at 08:50 UTC. The crew felt the aircraft sink and experienced unusual vibrations inside the cockpit, just as it was approaching the runway 14 threshold.

At this point, the aircraft hits one CAT I approach light and four CAT II approach lights before making its touchdown 43.5 meters short of the edge of runway 14. After landing, the aircraft cleared up to park at stand 2. Meanwhile, an outbound flight, AXB 1327 (a Boeing 737-800), which was holding at the holding point for runway 14 at taxiway J, reported FOD on the runway 14. This led to the cancellation of the outbound flight's takeoff clearance.

At 09:07, the pilot-in-command (PIC) of VT-RKF reported to ATC via landline that there was a suspected tail strike during the landing. There were no injuries to any occupants on board and no fire occurred.



Figure1. Aircraft VT-RKF Touchdown point.

6. a. Wreckage and Impact information

Engine:

- No Damage was observed in both the engines and propellers.

Airframe:

- A perforating hole was observed in the bottom skin panel between FR28D and FR29, and stringers 19L and 20L.
- The LH landing gear door, along with the folding door at its forward mounting was severely damaged.
- Two panels of the LH air-conditioning bays were found to be damaged.
- Perforation damage was observed in the honeycomb core of the LH inboard flap.
- The LH landing gear sensor cables were torn out at multiple locations on the LH landing gear.
- The electrical harnesses of 51GB & 50GB, along with the anti-skid speed sensor harness and brake temperature harness, were completely sheared.
- Belly area lower fuselage panel between FR19 & FR21 (STR 21 R) were ruptured.
- A supporting strip in the LH landing gear bay at the aft frame (FR27) was cracked.



Other damages:

4 CAT II ILS Approach lights and 01 CAT I ILS Approach light were damaged at RWY 14 side



Figure 2. Damaged Belly portion of VT-RKF

7. Progress of the Investigation

1. Initial Statements of the involved Crew and other concerned personnel were obtained.
2. Tech-log, engine logbooks, task cards/work orders, component history cards and on-board documents related to VT-RKF have been gathered from the operator and are being analysed.
3. The CVR data has been downloaded and analysed.
4. The raw data from the DFDR unit has been downloaded and forwarded to the OEM for further analysis.
5. The Accredited Representatives of BEA, France (Bureau of Enquiry and Analysis for Civil Aviation Safety) and technical advisor from ATR (France) are providing the assistance in this investigation.

8. Interim Recommendation:

NIL.