

**CIVIL AVIATION AIRCRAFT ACCIDENT SUMMARY**  
**FOR THE YEAR 1992**

1. **INTRODUCTION**

The information contained in the publication is 43rd in the series. "Notifiable accidents", which took place in India during the year 1992 have been listed in a classfied chronological order along with the summary and the cause of the accidents.

There have been 11 accidents during the year including two accidents to foreign registered aircraft. One accident was investigated by a Committee of Inquiry. Remaining accidents have been investigated by Inspectors of Accidents. Three accidents proved fatal resulting in death of five persons including three crewmembers.

Incidents such as precautionary landings, forced landings, aborted take off, airmisses, bird strikes etc. are not listed in this publication, although all these have been investigated.

The recommendations emanating from all such investigations of accidents and incidents are being implemented for enhancing the level of air safety. Statistical data of accidents and fatalities in respect of airlines operations including flying/gliding clubs and aerial operations is given in tables 1.

NOTE : All timings given in this publication are in IST (Indian Standard Time).

## **2.DEFINITIONS**

### **i) Accident:**

An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:-

- a) A person is fatally or seriously injured as a result of being in the aircraft, or direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) The aircraft sustains damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and would normally require major repair or replacement of the affected components, except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin; or
- c) The aircraft is missing or is completely inaccessible.

**NOTE:** An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

### **ii) Serious Injury:**

An injury which is sustained by a person in an accident and which:

- a) Require hospitalisation for more 48 hours, commencing within seven days from the date the injury was received; or
- b) Results in a fracture of any bone(accept simple fractures of fingers, toes, or nose);or
- c) Involves lacerations which cause severe haemorrhage nerve, muscle or tendon damage; or
- d) Involves injury to any internal organ; or
- e) Involves second or third degree burns, or any burns affecting more than five per cent of the body surface; or
- f) Involves verified exposure to infectious substances or injurious radiation.

3. **INVESTIGATION OF ACCIDENTS**  
**(Aircraft Rules, 1937)**

Rule 71-Inspector's Investigation :

The Director General may order the investigation of any accident involving an aircraft whether such accident is required to be notified under Rule 68 or not and may be general or special order appoint any person(hereinafter referred to as an "Inspector of Accidents" for the purpose of carrying out such investigation.

Rule 74-Committee of Inquiry:

The Central Government may at its discretion appoint a committee of inquiry composed of two or more persons to hold an inquiry into an accident in which an aircraft is involved and such a committee shall have the same powers as an Inspector of Accidents.

Rule 75-Formal Investigation:

Where it appears to the Central Government that it is expedient to hold a formal investigation of an accident it may, whether or not an investigation or an inquiry has been made under Rule 71 or 74, by order direct a formal investigation to be held.

The Central Government shall appoint a competent person(referred as Court) to hold the investigation and may appoint one or more persons possessing legal, aeronautical engineering or other special knowledge to act as accessors to the Court.

The Court shall hold the investigation in open Court in such manner and such conditions as the Court may think fit for ascertaining the causes and circumstances of the accident and for enabling it to make the report hereinafter mentioned:

Provided that where the Court is of opinion that holding the investigation is likely-

- a)To be prejudicial to the interests of any country; or
- b)To jeopardise the personal safety of a person who is willing to make any statement or give evidence, the Court may hold in camera, the whole or part of the investigation.

#### 4. **TYPES OF FLYING**

i) Airline Operation:

The operation include all scheduled, non-scheduled and non-revenue flying by Indian Airlines, Air India, Vayudoot and Air Taxi Operators.

ii) Non-Scheduled Operations:

The operation include all scheduled, non-scheduled ferry, non-revenue, charter and test flying by other operators holding non-scheduled operator permit and engaged primarily in such operations.

iii) Flying Training:

Includes all flights for the purpose of initial issue of a flying licence, for conversion and practice flying or qualifying for renewal/endorsement of pilots license and test and ferry flying by organisation engaged primarily in flying training.

iv) Aerial Work:

Includes aerial survey, aerial, mustering on a commercial basis, aerial ambulance, aerial agricultural operations etc. and test and ferry flying by organisation engaged principally in aerial work operations.

v) Private and Business:

Includes private, pleasure and business flying and practice flying when the flying is not directly connected with the purposes of obtaining a higher licence qualifications.

## **AIRLINE OPERATION - 1**

- |    |                    |   |                                      |            |
|----|--------------------|---|--------------------------------------|------------|
| 1. | AIRCRAFT :         |   |                                      |            |
|    | Type               | : | Boeing 737                           |            |
|    | Registration       | : | 4R-ULL                               |            |
| 2. | DATE AND TIME      | : | 10 <sup>th</sup> Jan 1992, 22:57 Hrs |            |
| 3. | LOCATION           | : | Madras                               |            |
| 4. | TYPE OF OPERATION  | : | Scheduled - International            |            |
| 5. | PERSONS ON BOARD   | : | Crew : 12; Passengers : 103+1        |            |
| 6. | INJURY INDEX       | : | Fatal                                | Serious    |
|    |                    |   | Minor/None                           |            |
|    | Crew               |   | Nil                                  | Nil        |
|    | Pax                |   | Nil                                  | Nil        |
|    | Others             |   | Nil                                  | Nil        |
| 7. | DAMAGE TO AIRCRAFT | : | Substantial                          |            |
| 8. | PILOT-IN-COMMAND   | : | Licence                              | : ALTP     |
|    |                    |   | Age                                  | : 39 years |
|    |                    |   | Total Hrs                            | : 6199     |

### SUMMARY

Air Lanka B-737 aircraft was engaged in a Scheduled International Passenger flight from Colombo to Madras on 10.1.1992. During landing on Runway 07 at Madras airport, the right landing gear attachment failed and right engine bottom contacting runway surface immediately on touch down. The aircraft started swerving towards the right of runway center line as it moved forward on its wheels with right engine cowling and bottom rubbing the runway surface. The aircraft finally came to stop with its nose wheel and failed right main landing gear entering the grassy side strip soon after crossing the Delta taxiway. The fire emanating from the right engine was extinguished by the Safety Services and the crew and passengers evacuated the aircraft through the left side exit doors by means of the slide chutes.

The probable cause of accident has been attributed to:

"The accident occurred as a result of failure of the right hand main landing gear beam during the landing due to pre-existing stress corrosion cracks and pits at its inboard lug hole and higher than normal landing loads contributed to its failure".

- Factors :
- |    |          |                        |
|----|----------|------------------------|
| 1. | Aircraft |                        |
| 2. | Pilot    | - Operational Decision |

## AIRLINE OPERATION - 2

- |    |                    |   |  |     |            |       |
|----|--------------------|---|--|-----|------------|-------|
| 1. | AIRCRAFT :         |   |  |     |            |       |
|    | Type               | : | Boeing 737                             |     |            |       |
|    | Registration       | : | VT-EGJ                                 |     |            |       |
| 2. | DATE AND TIME      | : | 04 <sup>th</sup> Sept, 1992; 21:05 Hrs |     |            |       |
| 3. | LOCATION           | : | Udaipur                                |     |            |       |
| 4. | TYPE OF OPERATION  | : | Scheduled - Domestic                   |     |            |       |
| 5. | PERSONS ON BOARD   | : | Crew : 6; Passengers : 112+6           |     |            |       |
| 6. | INJURY INDEX       | : | Fatal    Serious    Minor/None         |     |            |       |
|    |                    |   | Crew                                   | Nil | Nil        | 6     |
|    |                    |   | Pax                                    | Nil | Nil        | 112+6 |
|    |                    |   | Others                                 | 1   | Nil        | -     |
| 7. | DAMAGE TO AIRCRAFT | : | None                                   |     |            |       |
| 8. | PILOT-IN-COMMAND   | : | Licence                                | :   | ALTP       |       |
|    |                    |   | Age                                    | :   | 1401 years |       |
|    |                    |   | Total Hrs                              | :   | 4420:55    |       |

### SUMMARY

Indian Airlines B-737 aircraft VT-EGJ was operating scheduled flight IC-493 (Udaipur-Bombay sector) on 4.9.92. During take-off roll, the aircraft hit an Aerodrome Attendant (Chowkidar) on the runway centerline, who received fatal injuries. The aircraft continued with the take-off roll, got airborne and subsequently landed uneventfully at its destination Bombay.

The probable cause of accident has been attributed as:

"The Chokidar on duty while attempting to cross the runway width at night time from the fire station side towards the VOR gate side at Udaipur, misjudged the proximity of the aircraft which had already commenced its take-off roll and was knocked down by the accelerating aircraft on the runway centerline".

Factors :            1.            Others -            Personnel

## NON-SCHEDULED OPERATION - 1

1. AIRCRAFT :  
Type : AN-26  
Registration : SSSR-26154
2. DATE AND TIME : 30<sup>th</sup> March,1992; 15:20 Hrs
3. LOCATION : Swarupnagar, 28 miles North-East of Calcutta Airport
4. TYPE OF OPERATION : International - Ferry Flight
5. PERSONS ON BOARD : Crew : 7; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
- |        |     |     |     |
|--------|-----|-----|-----|
| Crew   | Nil | Nil | 7   |
| Pax    | Nil | Nil | Nil |
| Others | Nil | Nil | -   |
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : N/A  
Age : N/A  
Total Hrs : 2200

### SUMMARY

Aeroflot AN-26 aircraft was engaged in an International ferry flight from Hanoi to Calcutta with a refueling stop at Rangoon. The aircraft took-off from Hanoi at 9:00 hours with estimated time of arrival Calcutta at 14:50 hours. On initial contact with Calcutta, the aircraft informed about minimum fuel on board and requested radar help for straight-in approach. However, Calcutta ATC did not pay much attention to the problems faced by the aircraft and made no serious attempt to assist the aircraft on radar. The pilot deviated from the track and lost navigation. The aircraft exhausted its fuel and force landed 28 NM North-East of Calcutta airport.

The probable cause of accident has been attributed as:

"The accident caused by forced landing due to flight crew failure by carrying marginal fuel to reach Calcutta and not making use of correct navigational facility (EA NDB at Calcutta) combined with lack of assistance from Calcutta ATC by not providing radar facilities vectoring/VDF guidance and advising the aircraft to use NDB not having adequate range".

- Factors:
1. Pilot - Failed to follow approved procedures, regulations and instructions.
  2. Others - Personnel

## NON-SCHEDULED OPERATION - 2

1. AIRCRAFT :  
Type : B-200 Super King Air  
Registration : VT-EOA
2. DATE AND TIME : 27<sup>th</sup> Aug,1992; 11:59 Hrs
3. LOCATION : Near Delhi Airport
4. TYPE OF OPERATION : Training
5. PERSONS ON BOARD : Crew : 1; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
- |        |     |     |     |
|--------|-----|-----|-----|
| Crew   | 1   | Nil | Nil |
| Pax    | Nil | Nil | Nil |
| Others | Nil | Nil | -   |
7. DAMAGE TO AIRCRAFT : Destroyed
8. PILOT-IN-COMMAND :  
Licence : ALTP  
Age : 52 Years  
Total Hrs : 2200

### SUMMARY

Border Security Force (BSF) Beechcraft B-200 Super King aircraft VT-EOA was engaged in local flying (circuits and landings) at IGI Airport, Delhi on 27.8.92. There were two persons on board the aircraft including the commander. After two circuits and landings, the commander asked for full stop landing. However, after landing the commander asked the ATC about one more circuit to which the controller gave the consent and asked him to line up on Runway 28 for take off. At this stage, the co-Pilot on board was disembarked. The aircraft took-off without ATC clearance and turned left for circuit. Thereafter, it was seen going down in a nose down attitude and impacted the ground. The aircraft impacted the ground, caught fire and was destroyed. The pilot, who was the sole occupant on board, received fatal injuries.

The probable cause of accident has been attributed as:

"The exact cause of the accident could not be confirmed. However, on the basis of evidence on record, the probability of deliberate attempt to crash the aircraft by late Capt. Dhaliwal could not be ruled out. The probability of incapacitation of Capt. Dhaliwal during the last circuit has also not been ruled out".

Factors : 1. Pilot - Medical



## FLYING TRAINING - 1

1. AIRCRAFT :  
Type : TB-20  
Registration : VT-EMH
2. DATE AND TIME : 4<sup>th</sup> Feb 1992; 15:55 Hrs
3. LOCATION : Fursatganj
4. TYPE OF OPERATION : Training
5. PERSONS ON BOARD : Crew : 1; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None  

Crew	Nil	Nil	1
Pax	Nil	Nil	Nil
Others	Nil	Nil	-
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : PPL  
Age : 24 years  
Total Hrs : 129

### SUMMARY

IGRUA TB-20 aircraft VT-EMH was engaged in a solo training flight under the command of a trainee pilot for series of landings at Fursatganj airfield. First six landings were uneventful. During approach to land for the seventh time, the pilot forgot to lower the undercarriage and thus landed on aircraft belly. Aircraft propeller and flaps were damaged. There were no injuries and no fire.

The probable cause of accident has been attributed to:

"The accident occurred due to pilots lapse in not extending the landing gears before landing resulting in aircraft landing on its belly and the consequential damage"

Factors: Pilot - Failed to follow approved procedures, regulations and instructions.

## FLYING TRAINING - 2

1.	AIRCRAFT :					
	Type	:	Pushpak			
	Registration	:	VT-DWO			
2.	DATE AND TIME	:	10 <sup>th</sup> May 1992; 12:29 Hrs			
3.	LOCATION	:	Amritsar			
4.	TYPE OF OPERATION	:	Training			
5.	PERSONS ON BOARD	:	Crew : 2, Passengers : Nil			
6.	INJURY INDEX	:	Fatal    Serious    Minor/None			
			Crew	Nil	Nil	2
			Pax	Nil	Nil	Nil
			Others	Nil	Nil	-
7.	DAMAGE TO AIRCRAFT	:	Substantial			
8.	PILOT-IN-COMMAND	:	Licence	:	CPL	
			Age	:	23 years	
			Total Hrs	:	329	

### SUMMARY

Pushpak aircraft VT-DWO was engaged in a local training sortie with Instructor and a trainee on board. After take-off, the aircraft commenced a turn at low height and stalled during the turn. The Instructor tried to recover from stall but being at low height, the aircraft contacted the ground before it could recover fully from the stall. The aircraft was substantially damaged. There was no injury to any person and no fire.

The probable cause of accident has been attributed to:

"The accident occurred because the trainee pilot attempted to execute a steep climbing turn at low height.

Contributory factors were :

- a) Lack of supervision by Instructor pilot,
- b) The trimmer having being left in the fully back position while taking off, and
- c) Gusty winds conditions".

Factors:            1.    Pilot    -    Failed to follow approved procedures, regulations and instructions.  
                         2.    Others -    Weather

### FLYING TRAINING - 3

1. AIRCRAFT :  
Type : Cessna 152A  
Registration : VT-EMY
2. DATE AND TIME : 31<sup>st</sup> July 1992; 11:35 Hrs
3. LOCATION : Jakkur Aerodrome, Bangalore
4. TYPE OF OPERATION : Training
5. PERSONS ON BOARD : Crew : 1; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
- |        |     |     |     |
|--------|-----|-----|-----|
| Crew   | Nil | Nil | 1   |
| Pax    | Nil | Nil | Nil |
| Others | Nil | Nil | -   |
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : PPL  
Age : 20 years  
Total Hrs : 63:55

### SUMMARY

Cessna 152A aircraft VT-EMY was engaged in training flights under the command of a trainee pilot at Jakkur aerodrome on 31.7.1992. After completing the circuit, when the aircraft approached for landing, it ballooned and bounced. As a result, the aircraft nose portion sustained substantial damage. There was no injury to any person and no fire.

The probable cause of accident has been attributed to:

"Failure on the part of pilot in handling the aircraft during landing and taking recovery action for ballooning and bouncing which had resulted from higher approach speed".

Factors: 1. Pilot - Aircraft handling

## FLYING TRAINING - 4

1. AIRCRAFT :  
Type : TB-20  
Registration : VT-EMD
2. DATE AND TIME : 29<sup>th</sup> Oct,1992; 19:00 Hrs
3. LOCATION : Near Trivandrum
4. TYPE OF OPERATION : Training
5. PERSONS ON BOARD : Crew : 2, Passengers : 1
6. INJURY INDEX : Fatal Serious Minor/ None  

Crew	2	Nil	Nil
Pax	1	Nil	Nil
Others	Nil	Nil	-
7. DAMAGE TO AIRCRAFT : Destroyed
8. PILOT-IN-COMMAND :  
Licence : CPL  
Age : 49 Years  
Total Hrs : 3199

### SUMMARY

IGRUA TB-20 aircraft VT-EMD along with four other similar type of aircraft was engaged in cross country flying from Rai Bareli to Trivandrum on 29.10.92. The aircraft VT-EMD was under the command of Capt. K.M. Bhargava, Asst. Flight Instructor of IGRUA. All the five aircraft were to land en-route at Nagpur, Hyderabad and Bangalore for refueling. The aircraft VT-EMD took-off from Bangalore at 16:49 hours after refueling for its last sector flight to Trivandrum. Besides the pilot-in-command, there were two more persons on board the aircraft. When the aircraft reported its altitude as 2500 feet, it lost contact with Trivandrum ATC. Both aircraft wreckage and the persons on board have not been located, despite of all search and rescue operations. All the persons on board are believed to have been killed in the accident. The aircraft is believed to have been destroyed.

The probable cause of the accident is attributed to :

"The pilot deviated right of his track avoiding enroute weather and strayed over to sea where he possibly got disoriented and went into a maneuver from where he could not recover and crashed into the sea.

The lack of competency of the pilot in his not having Instrument Rating and without adequate and recent night flying experience has contributed in the accident".

Factors : Pilot - Failed to follow approved procedures, regulations and instructions.

## FLYING TRAINING GLIDING - 1

1. AIRCRAFT :  
Type : ITG-3 Glider  
Registration : VT-GBF
2. DATE AND TIME : 27<sup>th</sup> Feb,1992; 12:59 Hrs
3. LOCATION : Ahemdabad
4. TYPE OF OPERATION : Training
5. PERSONS ON BOARD : Crew : 1; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
- |        |     |     |     |
|--------|-----|-----|-----|
| Crew   | Nil | Nil | 1   |
| Pax    | Nil | Nil | Nil |
| Others | Nil | Nil | -   |
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : GPL  
Age : 21 years  
Total Hrs : 30:20

### SUMMARY

ITG-3 glider VT-GBF was on a training sortie under the command of a trainee pilot. After the first uneventful landing, when the glider came in for second landing, it was pushed up and away by a strong gust of wind and hit the runway surface on its left wing tip as a result, the left wing broke from the middle. Subsequently, the glider nose hit the runway and was shattered. The pilot escaped unhurt. There was no other damage.

The probable cause of accident has been attributed to:

"The accident occurred as strong gusty winds suddenly displaced the glider from landing phase to the accident site. The movement of the glider during the displacement was uncontrollable".

Factors: Others - Weather

## PRIVATE - 1

1. AIRCRAFT :  
Type : Bell 47-G5 Helicopter  
Registration : VT-ECB
2. DATE AND TIME : 20<sup>th</sup> March,1992; 09:35 Hrs
3. LOCATION : Duliajan
4. TYPE OF OPERATION : Private
5. PERSONS ON BOARD : Crew : 1; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
- |        |     |     |     |
|--------|-----|-----|-----|
| Crew   | Nil | Nil | 1   |
| Pax    | Nil | Nil | Nil |
| Others | Nil | Nil | -   |
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : CPL(H)  
Age : 48 Years  
Total Hrs : 11540:20

## SUMMARY

Bell 47-G5 helicopter VT-ECB belonging to M/s Bharat Air was engaged in a local flying on 20.3.1992. The helicopter was under the command of Capt. Jacob. Soon after take-off, the helicopter violently swung to the right, went out of control and hit the ground on both skids. After hitting the ground, the helicopter ballooned up and went into spin. The helicopter finally crashed in an inverted position at a distance of 100 feet from the edge of the helipad. The helicopter sustained substantial damage. The pilot of the helicopter, who was sole occupant on board, received minor injuries. There was no fire.

The probable cause of accident has been attributed to:

"The accident was caused due to breakage of tail rotor guard just after take-off which subsequently hit the tail rotor blades, as a result of which the helicopter lost directional control, swung violently and hit the ground with consequential damage.

Non standard repair carried out on tail rotor guard by M/s Bharat Air was the contributory factor".

Factors: Aircraft - Improper maintenance

## PRIVATE - 2

1. AIRCRAFT :  
Type : Bell 206B Helicopter  
Registration : VT-ERQ
2. DATE AND TIME : 21<sup>st</sup> Dec,1992; 13:20 Hrs
3. LOCATION : 20 Kms East of Kotdwar.
4. TYPE OF OPERATION : Private
5. PERSONS ON BOARD : Crew : 1; Passengers : 3
6. INJURY INDEX : Fatal Serious Minor/None  

Crew	Nil	Nil	1
Pax	Nil	Nil	3
Others	Nil	Nil	-
7. DAMAGE TO AIRCRAFT : Substantial
8. PILOT-IN-COMMAND :  
Licence : CPL(H)  
Age : 46 Years  
Total Hrs : 4887:25

## SUMMARY

Bell 206B helicopter VT-ERQ was engaged in a charter flight from Delhi-Kotdwar-Delhi. In all there were four persons on board the helicopter including pilot-in-command. Delhi-Kotdwar sector was operated on 20.12.1992. On return flight, the helicopter departed from Kotdwar on 21.12.92 at 13:00 hours. The flight was diverted from the approved route towards Corbett Lake on the request of passengers. While flying at a height of 2500 feet AGL, the helicopter experienced sudden loss of power and force landed in the lake waters. All the occupants on board escaped unhurt. The helicopter sustained substantial damage. There was no fire.

The probable cause of accident has been attributed to:

"The exact cause of the accident could not be established. However, as per available evidences, the accident most probably occurred because the pilot descended too low over the Corbett Tiger Lake area to show wildlife to the foreign nationals. The pilot perhaps misjudged the height, resulting in contact of helicopter with lake surface and consequent crash".

Factors: Pilot - Operational decision.

