

CIVIL AVIATION AIRCRAFT ACCIDENT SUMMARY **FOR THE YEAR 1997**

1. INTRODUCTION

The information contained in the publication is 48th in the series. "Notifiable accidents", which took place in India during the year 1997 have been listed in a classified chronological order along with the summary and the cause of the accidents.

There have been 3 accidents during the year. All the 3 accidents have been investigated by the Inspector of Accidents. All the three accidents proved fatal resulting in death of 6 persons, all crew members.

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.

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

2. DEFINATIONS

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's 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 than 48 hours, commencing within seven days from the date the injury was received; or
- b) Results in a fracture of any bone (except 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 percent 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, by 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 Investigations :

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 accessory 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, Alliance Air, SHOD (Indian Airlines), Jet Airways, Sahara Air and Air Taxi Operators.

ii) **Non-Scheduled Operations :**

The operation include all non-scheduled ferry, non-revenue, charter and test flying by other operators holding non-scheduled operators 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 licence 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 OPERATIONS- 1

1. AIRCRAFT
Type : F-27
Registration : VT-SSA
2. DATE AND TIME : 03-7-1997 03:49 Hrs. IST
3. LOCATION : Arabian Sea of Mumbai Coast
4. TYPE OF OPERATION : Cargo Flight
5. PERSONS ON BOARD : Crew : 2 ; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
Crew 2 Nil Nil
PAX Nil Nil Nil
Others Nil Nil -
7. DAMAGE TO AIRCRAFT : Destroyed
8. PILOT-IN-COMMAND : Licence : ALTP NO. 1430
Age : 53 years approx.
Total Hrs. : 9322:50 Hrs.

SUMMARY

F-27 aircraft VT-SSA of M/s Elbee Airlines was scheduled to operate cargo flight for sector Mumbai-Bangalore on 03-7-97. The aircraft took off from runway 27 of Mumbai airport at 0347 IST. After take off the pilot reported to ATC Tower, "VSA is turning left Sir, thousand two hundred, we are entering weather otherwise", to which the ATC Tower acknowledged and asked to contact radar. The aircraft on contacting radar controller was asked to establish radial 146, climb level 170 and report passing FL-80. The transmission was acknowledged by the aircraft. Thereafter the aircraft plunged into the Arabian Sea of Mumbai Coast at about 03:49 Hrs. IST. The aircraft got destroyed on impact with Sea and both occupants on board the aircraft died. There was no evidence of fire.

The probable cause of accident is :

"Pilot possibly lost control when encountered severe weather conditions soon after take-off and crashed into the Sea."

Factor : Weather,

Contributory Factors : Non availability of the latest weather report to the pilot.

NON - SCHEDULED OPERATIONS - 1

1. AIRCRAFT
Type : Dauphin
Registration : VT-ELC
2. DATE AND TIME : 25-5-97; 22:47 Hrs. IST
3. LOCATION : Near Sagar Jyoti Rig at Mumbai High
4. TYPE OF OPERATION : Rescue Operation
5. PERSONS ON BOARD : Crew : 2 ; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
Crew 2 Nil Nil
PAX Nil Nil Nil
Others Nil Nil -
7. DAMAGE TO AIRCRAFT : Completely destroyed
8. PILOT-IN-COMMAND : Licence : CHPL 152
Age : 43" Yrs approx
Total Hrs. : 8426:34 Hrs.

SUMMARY

Pawan Hans Helicopters Limited Dauphin Helicopter VT-ELC was involved in an accident while operating casualty evacuation flight during night of 25-5-97 at Mumbai High. The helicopter took off from a night halted station ICW Rig and after dropping the technician at WIS platform, set course for Sagar Jyoti Rig. The helicopter established contact with a Radio Officer at Sagar Jyoti Rig and obtained deck clearance for landing. When the helicopter was about one Km. from the helideck, it took a sudden left turn and crashed into the Sea with forward motion. The Helicopter got destroyed and both the crew members received fatal injuries. There was no fire.

The probable cause of accident is :

"The accident occurred due pilot getting disoriented in the prevailing night conditions. The disorientation took place as the pilot continued to fly on an unstablised approach till close proximity of the rig at low height, and while attempting to regain the approach profile, the helicopter deflected to the left resulting into loss of the visual clues and crashing into Sea."

Factor : Pilot - Disregard of Standard Operating Procedures, night flying.

FLYING TRAINING- 1

1. AIRCRAFT
Type : Cessna FA 152 (Aerobat)
Model : FA-152-0407
Engine : Lycoming O-235
Registration : VT-ENB
2. DATE AND TIME : 22-2-1997 at 16:35 Hrs. IST
3. LOCATION : Jakkur Aerodrome, Bangalore
4. TYPE OF OPERATION : Demonstration Flight
5. PERSONS ON BOARD : Crew : 2 ; Passengers : Nil
6. INJURY INDEX : Fatal Serious Minor/None
Crew : 2 Nil Nil
PAX : Nil Nil Nil
Others : Nil Nil -
7. DAMAGE TO AIRCRAFT : Destroyed
8. PILOT-IN-COMMAND : Licence : CPL No. 834
Age : 47 Yrs. approx.
Total Hrs. : 4564:10 Hrs.

SUMMARY

Kerala Aviation Training Centre Cessna FA 152 VT-ENB was involved in an accident at Jakkur Aerodrome, Bangalore on 22.2.97. The aircraft was taking part in "fly in '97" convention an airshow organised jointly by Govt. Flying Training School, Bangalore and M/s Agni Aerosports Adventures Pvt. Ltd. The pilot initially made a circuit and did a loop over the runway. The aircraft thereafter flew towards the Northern side of the runway for carrying out another aerobatic manoeuvre. The aircraft manoeuvred to the left during which the pilot firstly pulled up the aircraft and turned to the left steeply at a very low altitude with a steep left bank. The aircraft hit the ground vertically on its nose and in a left bank attitude. Both the occupants on board the aircraft received fatal injuries. Aircraft was completely destroyed due to post impact fire.

The probable cause of accident is :

"While executing an aerobatic manoeuvre at low height the pilot failed to recover due to which the aircraft impacted the ground resulting in fatal injuries to both the pilots on board".

Factor : Pilot - Disregard to Standard Operating Procedures.

TABLE- 2
ACCIDENT STATISTICS AND FATALITY RATE OF AIR INDIA FOR THE YEAR 1997

| Type of Operation | Scheduled Domestic / International |
|--|---|
| Hours Flown (No.) | 11960/68491 |
| Passengers carried (No.) | 605917 / 2332611 |
| Kilometers flown (in thousand) | 6938 / 49231 |
| Passenger Kilometers flown (in thousand) | 615914 / 10916732 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. Flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accident rate per 100,000 Hours flown | Nil |

TABLE - 3
ACCIDENT STATISTICS AND FATALITY RATE OF INDIAN AIRLINES FOR THE YEAR 1997

| Type of Operation | Scheduled Domestic / International |
|--|---|
| Hours Flown (No.) | 75535 / 29113 |
| Passengers carried (No.) | 5397797 / 1114677 |
| Kilometers flown (in thousand) | 44402 / 16387 |
| Passenger Kilometers flown (in thousand) | 5286381 / 1783323 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. Flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accident rate per 100,000 Hours flown | Nil |

TABLE - 4
ACCIDENT STATISTICS AND FATALITY RATE OF ALLIANCE AIR FOR THE YEAR
1997

| Type of Operation | Scheduled Domestic |
|--|---------------------------|
| Hours Flown (No.) | 31333 |
| Passengers carried (No.) | 1979865 |
| Kilometers flown (in thousand) | 16686 |
| Passenger Kilometers flown (in thousand) | 1381416 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. Flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accident per 100,000 Hours flown | Nil |

TABLE - 5
ACCIDENT STATISTICS AND FATALITY RATE OF JET AIR FOR THE YEAR 1997

| Type of Operation | Scheduled Domestic |
|--|---------------------------|
| Hours Flown (No.) | 51123 |
| Passengers carried (No.) | 2926753 |
| Kilometers flown (in thousand) | 27660 |
| Passenger Kilometers flown (in thousand) | 2631379 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. Flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accidents rate per 100,000 Hours flown | Nil |

TABLE - 6
ACCIDENT STATISTICS AND FATALITY RATE OF SAHARA AIRLINES FOR THE YEAR 1997

| Type of Operation | Scheduled Domestic |
|--|---------------------------|
| Hours Flown (No.) | 15085 |
| Passengers carried (No.) | 456993 |
| Kilometers flown (in thousand) | 8829 |
| Passenger Kilometers flown (in thousand) | 567764 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. Flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accidents per 100,000 Hours flown | Nil |

TABLE - 7
ACCIDENT STATISTICS AND FATALITY RATE OF ARCHANA AIRWAYS FOR THE YEAR 1997

| Type of Operation | Scheduled Domestic |
|--|---------------------------|
| Hours Flown (No.) | 4190 |
| Passengers carried (No.) | 30063 |
| Kilometers flown (in thousand) | 1020 |
| Passenger Kilometers flown (in thousand) | 9663 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accidents rate per 100,000 Hours flown | Nil |

TABLE - 8
ACCIDENT STATISTICS AND FATALITY RATE OF AIR INDIA, INDIAN AIRLINES,
ALLIANCE AIR, JET AIRWAYS, SAHARA AIRLINES, AND ARCHANA AIRWAYS
FOR THE YEAR 1997

| Type of Operation | Scheduled International and Domestic |
|--|---|
| Hours Flown (No.) | 286830 |
| Passengers carried (No.) | 14844676 |
| Kilometers flown (in thousand) | 171153 |
| Passenger Kilometers flown (in thousand) | 23192572 |
| Total Number of Accidents | Nil |
| Number of Fatal Accidents | Nil |
| Crew fatalities | Nil |
| Passenger fatalities | Nil |
| Fatality rate per 100 million passenger Km (crew) | Nil |
| Fatality rate per 100 million passenger Km (passenger) | Nil |
| Accident rate per 100 million Km. flown | Nil |
| Fatal Accident per 100 million passenger Km flown | Nil |
| Accident rate per 100,000 Hours flown | Nil |
| Fatal Accidents per 100,000 Hours flown | Nil |