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भारत सरकार
GOVERNMENT OF INDIA

नागर विमानन विभाग
CIVIL AVIATION DEPARTMENT

दुर्घटना सार
ACCIDENTS SUMMARY
1982

विमान सुरक्षा निदेशालय

नागर विमानन विभाग

पर्यटन तथा नागर विमानन मंत्रालय

AIR SAFETY DIRECTORATE

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CIVIL AVIATION AIRCRAFT ACCIDENT SUMMARY FOR THE YEAR 1982

1. INTRODUCTION

The information contained in this publication is 33rd in the series. 'Notifiable accidents', which took place in India during the year 1982 have been listed in a classified chronological order alongwith the summary and the causes of the accidents.

There have been 19 accidents during the year, all to Indian registered aircraft. Three of these accidents proved fatal resulting in death of 5 crew members and 15 passengers. No Indian registered aircraft was involved in any accident abroad.

Eighteen accidents have been investigated by Inspectors of Accidents and one accident has been investigated by a Court of Inquiry.

Incidents such as precautionary landings, forced landings, aborted take offs, airmisses, bird strikes etc. 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 airline operations including gliding and flying clubs is listed in tables I to IX. An analysis has also been made in table VIII, on accidents vis-a-vis their phases of operation.

Note : All timings given in this publication are in I.S.T. (Indian Standard Time)

2. DEFINITIONS

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 been disembarked, in which :—

- (a) a person is fatally or seriously injured as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto ; or,

NOTE :—Specifically excluded are : (i) death from natural causes and fatal or serious injury to any person on board whether self-inflicted or inflicted by another person or (ii) to ground support personnel before or after flight or fatal or serious injury which is not a direct result of the operation of the aircraft, or which concerns stowaways.

- (b) the aircraft incurs damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft and which could normally require major repair or replacement of the affected component ; or

NOTE :—Specifically excluded are : engine failure; damage limited to an engine or its accessories or to propeller blades ; fairings or cowlings; small dents or puncture holes in the skin ; damage to wing tips, antennas, tyres or brakes.

- (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.

Serious Injury :

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

- (a) requires 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 5 percent of the body surface.

Substantial Damage :

Any damage which necessitates the replacement or extensive repair of any major component.

3. INVESTIGATION OF ACCIDENTS (AIRCRAFT RULES 1937)

Rule 68—Notification of Accidents

An accident in which an aircraft is involved shall be notified in accordance with the provisions of sub-rules (3) (4) and (5) of this rule if between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked :—

- (a) Any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto ; or
- (b) the aircraft receives substantial damage.

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 (herein after 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 and with respect to any such formal investigation the following provision shall apply namely :

The Central Government shall appoint a competent person (hereinafter referred to as 'the Court') to hold the investigation and may appoint one or more persons possessing legal, aeronautical, engineering, or other special knowledge to act as assessors, it may also direct that the court and the assessors shall receive such remuneration as it may determine.

4. TYPE OF FLYING

1. Airline Operation :

The operations include all scheduled, non-scheduled and non-revenue flying by the two nationalised airlines under Air Corporation Act, 1953.

2. Non-Scheduled Operations :

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

3. Flying Training :

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

4. 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.

5. Private and Business :

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

NOTE :—As per Aircraft Rules 1937, 'Helicopter' means a heavier than air aircraft supported in flight by the reactions of the air on one or more power driven rotors on substantially vertical axis. In this publication, where applicable, the word 'aircraft' also includes Helicopters.

AV. 15013/5/82-A

9

AIRLINES OPERATION ✓

1. Aircraft

Type : B-707

Registration : VT-DJJ

2. Date and time

22nd June, 1982 ; 0434 hrs.

3. Location

Bombay Airport

4. Type of operation

Scheduled operation

5. Persons on board

Crew : 10, Pax : 101

6. Injury index

	Fatal	Serious	Minor	None
Crew	2	6	4	Nil
Pax	15	19	16	49
Others	Nil	Nil	Nil	

7. Damage to aircraft

Destroyed

8. Pilot-in-command

Licence : ALPT No. 665

Age : 48½ years approx.

Total Hours : 6627.15 hrs.

Summary

Boeing 707 aircraft VT-DJJ operating scheduled flight touched down heavily on runway 27 of Bombay Airport. After first impact, the aircraft bounced and wheel well fire warning came 'ON'. The commander opened power and initiated 'GO AROUND'. The take off warning horn also came on. The aircraft rolled for some distance along the right edge of the runway and again got airborne. The aircraft speed started dropping and the stick shaker came 'ON'. The aircraft impacted the kutchra ground near end of runway 27. Thereafter, the aircraft was out of control, and started disintegrating while travelling on the kutchra ground. Two cabin crew members and 15 passengers on board were fatally injured and 6 crew members and 19 passengers got serious injuries. There was no fire.

The accident has been investigated by a Court of Inquiry and the investigation report is under examination by the Govt.

PE — misjudged distance
— procedure, direction

FLYING TRAINING/GLIDING-1

1. Aircraft

Type : Schweizer Glider

Registration : VT-GDD

2. Date & time

9th Feb., 1982 ; 1325 hrs.

3. Location

Near I.I.T., Kanpur

4. Type of operation

Practice Flying

5. Persons on board

Crew : 1, Passengers : Nil

6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	Nil
Others	Nil	Nil	
Substantial			

7. Damage to glider

8. Pilot-in-Command

Licence : GPL No. 648

Age : 21 years approx.

Total hrs : 15.06 hrs. (172 launches)

Summary

On 9-2-82, the Pilot took-off from Kalyanpur airfield for practice flying in Schweizer Glider. He attained an altitude of about 2400 ft. AGL while *soaring*. The pilot subsequently lost excessive height in an effort to recapture the thermal while returning to airfield. He decided to force land the glider in the nearest field. During forced landing, the glider got entangled in H. T. wires.

The pilot escaped with minor injury but the glider sustained substantial damage. There was no fire. The accident occurred during day-light conditions.

The probable cause of the accident has been attributed to collision of the glider with H.T. wires, which remained un-noticed by the pilot, during forced landing after experiencing inadvertant loss of height.

Factors : Personnel—Pilot (failed to avoid obstruction).

L

AV-15015/2/82 AS

13

FLYING TRAINING-2 ✓

1. Aircraft
Type : Pushpak MK-I
Registration : VT-DST
2. Date and time
27th Feb., 82 ; 11.50 hrs.
3. Location
On the Gandak river bank near Akilpur, Distt. Chhapra. (Bihar)
4. Type of operation
Practice flying
5. Persons on board
Crew : 1, Passengers : Nil
6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	Nil
Others	Nil	Nil	
7. Damage to aircraft
Substantial
8. Pilot-in-command
Licence : SPL No. 134
Age : 22 years
Total hours : 53 hrs.

Summary

The trainee pilot took off from Muzaffarpur for Patna on a solo cross country flight. He was cleared to fly at 1000 ft AGL. When he was over the Gandak river bank which is approximately 20 miles from Muzaffarpur, pilot noticed a vulture approaching towards the aircraft from left side. While the pilot executed right turn to avoid it, he experienced violent vibrations and flapping of left hand engine cowling. The aircraft hit the vulture. Pilot made a safe forced landing.

The aircraft sustained substantial damage. The pilot escaped unhurt. There was no fire.

The cause of the accident has been attributed to breakage of one of the propeller blades resulting from vulture hit.

Factors : Other—Bird collision.

AV-15015/3/82-AS

15

FLYING TRAINING—3 ✓

1. Aircraft

Type : Pushpak MK-I

Registration : VT-DMZ

2. Date & time

28th February 82, 0916 hrs.

3. Location

Gauhati Airport

4. Type of operation

Practice flying

5. Persons on board

Crew : 1; Pax : Nil

6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	Nil
Others	Nil	Nil	

7. Damage to aircraft

Substantial

8. Pilot-in-Command

Licence : SPL No. 57 AS

Age : 19 years

Total hours : 35.00

Summary

Trainee pilot, the sole occupant, took off from Gauhati Airport to carry out two circuits and landings. The take off, circuit and approach were uneventful. On touch down, the aircraft bounced, swung to the right and went off the paved surface, where it hit two piles of stones lying on the side strip causing substantial damage.

The pilot escaped unhurt and there was no fire.

The cause of the accident has been attributed to trainee pilot's failure to maintain directional control after aircraft bounced, resulting in aircraft swinging to right. Opening power at that stage aggravated the situation.

Factors : Personnel—Pilot (aircraft handling).

AV 15015/5/82-43
 19

FLYING TRAINING ✓

1. Aircraft
 Type : Pushpak
 Registration : VT-DWE
2. Date and time
 April 19, 1982; 7.35 hrs.
3. Location
 Bhubaneswar
4. Type of operation
 Training flight
5. Persons on board
 Crew : 1; Pax : 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 : SPL No. GATI : 39
 Age : 18½ years
 Total hours : 30.05

Summary

Pushpak aircraft VT-DWE took-off with a trainee pilot on his first solo flight from Bhubaneswar Airport on 19-4-82. Take-off, circuit and approach were normal but the tail wheel grazed the ground while landing. The trainee pilot opened power and went around. Again, during landing, the aircraft bounced and the trainee pilot opened power. During the third attempt to land, the aircraft landed with right wing low and developed a swing. The pilot again opened up, but the aircraft stalled when it was about 20 to 30 ft AGL and crashed.

The aircraft was substantially damaged. There was no fire and the trainee pilot escaped with minor injuries.

The probable cause of the accident has been attributed to improper attitude of aircraft during landing flare by the trainee pilot on his first solo. Inadequate experience and low skill were contributory factors.

Factors : Personnel—Pilot (aircraft handling).

AV. 15015/6/82-As

21

FLYING TRAINING/GLIDING-6 ✓

1. Aircraft	Type : T-21B Glider			
	Registration : VT-GAB			
2. Date and time	24-4-82 ; 1320 hrs.			
3. Location	Poona Gliderome			
4. Type of operation	Practice flying			
5. Persons on board	Crew : 1; Passenger : 1			
6. Injury index		Fatal	Serious	Minor/None
	Crew	Nil	Nil	1
	Passengers	Nil	Nil	1
	Others	Nil	Nil	
7. Damage to aircraft	Substantial			
8. Pilot-in-Command	Licence No. : GPL : 551			
	Age : 51 years			
	Total hrs. : 99.02			
	(Launches : 631)			

Summary

At 1320 hrs., the pilot took off from Poona Gliderome for practice flying alongwith one passenger on board. The glider attained a height of 800 ft. on cable release and while circling over the winch lost height to about 300 ft. Pilot was forced to attempt downwind landing. Finding inadequate sink rate during approach, the pilot flew in 'S' pattern with side slip. As there was possibility of overshooting, the pilot executed a steep turn for landing into wind from a height which was approximately 100 feet and the speed was close to the stalling speed of the glider. Glider stalled during the steep turn and crashed.

The glider suffered substantial damage but the crew and the passenger escaped unhurt. There was no fire.

The cause of the accident was attributed to execution of a steep 360° turn during final approach for landing into wind from low height with insufficient speed, when the glider stalled and crashed.

Factors : Personnel—Pilot (aircraft handling).

AV-150/5/7/2 23 *AS*

FLYING TRAINING-7 ✓

1. Aircraft	Type : Pushpak			
	Registration : VT-DYI			
2. Date and time	3rd July, 1982; 1055 hrs.			
3. Location	Near Behala Airport			
4. Type of operation	Test flight			
5. Persons on board	Crew : 2; Passengers : Nil			
6. Injury index		Fatal	Serious	Minor/None
	Crew	2	Nil	Nil
	Passengers	Nil	Nil	Nil
	Others	Nil	Nil	
7. Damage to aircraft	Destroyed			
8. Pilot-in-Command	Licence : CPL No. 111			
	Age : 50 years			
	Total hrs : 7390.04 hrs.			

Summary

The aircraft was being test flown for renewal of Certificate of Airworthiness. The aircraft took off at 1005 hrs., made a full stop landing, back tracked and again took off at 1043 hrs. The engine of the aircraft stopped in flight and the aircraft impacted ground in a steep nose down attitude.

The aircraft was destroyed. Both the occupants received fatal injuries. There was no fire.

The cause of the accident has been attributed to stoppage of engine in flight during approach to land which resulted in stall at a height insufficient for recovery. The exact circumstances of the stoppage of engine in air could not be established.

Factors : Aircraft—Powerplant (Powerplant failure for undetermined reason).

AV-15015/8/82-43

25

FLYING TRAINING—8

1. Aircraft	Type : Pushpak MK-I																
2. Date and time	Registration : VT-DPX																
3. Location	6th October, 1982 ; 1345 hrs.																
4. Type of operation	Village Bilsuri (near Sikandrabad).																
5. Persons on board	Distt. : Bulandshahar (UP)																
6. Injury index	Training flight (corss-country)																
	Crew : 1, Pax ; 1																
	<table border="0"> <tr> <td></td> <td>Fatal</td> <td>Serious</td> <td>Minor/None</td> </tr> <tr> <td>Crew</td> <td>Nil</td> <td>Nil</td> <td>1</td> </tr> <tr> <td>Pax</td> <td>Nil</td> <td>Nil</td> <td>1</td> </tr> <tr> <td>Others</td> <td>Nil</td> <td>Nil</td> <td></td> </tr> </table>		Fatal	Serious	Minor/None	Crew	Nil	Nil	1	Pax	Nil	Nil	1	Others	Nil	Nil	
	Fatal	Serious	Minor/None														
Crew	Nil	Nil	1														
Pax	Nil	Nil	1														
Others	Nil	Nil															
7. Damage to aircraft	Substantial																
8. Pilot-in-Command	Licence : PPL No. 3233																
	Age : 21 years approx.																
	Total hrs. : 69.15																

Summary

Pushpak aircraft VT-DPX was engaged in a cross-country flight with trainee pilot as Commander and an Assistant Pilot Instructor as a passenger on board. Over Bulandshahar, severe vibrations were alleged to have been experienced with loss of engine power. The aircraft made a forced landing due to reported engine trouble.

The aircraft was substantially damaged. Both the occupants escaped unhurt. There was no fire.

The cause of the accident has been attributed as "Propeller could have been damaged either by bird strike or due to some high trees during the low flying manoeuvre".

Factors : Personnel—Pilot (failed to avoid obstruction).

AV-150/519/82-AS
 27

FLYING TRAINING—9 ✓

1. Aircraft Type : Pushpak MK-I
 2. Date and time Registration : VT-DNO
 16th Oct., 1982; 1310 hrs.
 3. Location Near Ludhiana Airfield
 4. Type of operation Training flight
 5. Persons on board Crew: 2; Pax : Nil.
 6. Injury index
 7. Damage to aircraft Substantial
 8. Pilot-in-Command Licence No. : CPL 1321
 Age : 23 years.
 Total hours : 401.40 hrs.

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Pax	Nil	Nil	Nil
Others	Nil	Nil	Nil

Summary

Pushpak aircraft VT-DNO took off from Ludhiana Airfield for a training flight with an Asstt. Pilot Instructor and a trainee pilot on board. After the training exercises, when the aircraft was descending to join the circuit, the instructor saw a cluster of vultures ahead of him. In the process of avoiding birds, aircraft lost considerable height and came close to high tension cables. Pilot attempted to climb over the wires but the aircraft stalled and impacted the ground.

The aircraft sustained substantial damage. The instructor pilot received minor injuries and the trainee pilot escaped unhurt. There was no fire.

The accident has been attributed to laxity on the part of the instructor in not maintaining a good lookout.

Factors : Personnel—Pilot (aircraft handling.)

AV 15215/10/82-AS
 29

FLYING TRAINING/GLIDING—10

1. Aircraft
 Type : Glider ITG—3
 Registration : VT-GDV
2. Date and time
 1st November, 1982; 1037 hrs.
3. Location
 Nasik Road Airfield.
4. Type of operation
 Practice Flying
5. Persons on board
 Crew : 1, Passengers : Nil
6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	I
Passengers	Nil	Nil	Nil
Others	Nil	Nil	Nil
7. Damage to glider
 Substantial
8. Pilot-in-Command
 Licence : SPL No. GCD : 102 G
 Age : 26 years approx.
 Total hours : 11.42 hrs.
 (157 launches)

Summary

The trainee pilot was authorised by the Chief Gliding Instructor to have practice flight. The trainee pilot gave the signals for launch and the glider started rolling. During ground roll the *starboard* wing dropped and touched the ground. The glider became airborne with *bank* and a right swing. The cable was released. The glider swung 180° and impacted the ground.

The glider was substantially damaged. The trainee pilot escaped unhurt. There was no fire.

The cause of the accident has been attributed to improper application of flight controls by the trainee pilot to correct the starboard wing drop during take off roll.

Factors : Personnel—Pilot (aircraft handling).

Av 15013/7/82-45

31

AERIAL WORK-1

1. Aircraft Type : Bell 47G-5 Helicopter
Registration : VT-EAO
2. Date and time 30th May 1982; 1808 hrs.
3. Location Kallala Estate (near Cochin)
4. Type of operation Aerial Application
5. Persons on board Crew : 1; Passengers : Nil
6. Injury index

	Fatal	Serious	Minor/None
Crew	1	Nil	Nil
Passengers	Nil	Nil	Nil
Others	Nil	Nil	

7. Damage to helicopter Substantial
8. Pilot-in-Command Licence : CHPL No. 29
Age : 45-1/2 years
Total hrs. : 8038.10 hrs.

Summary

The helicopter was engaged in aerial chemical spraying operation of rubber plantations in Kallala Estate near Cochin on 30-5-82. During the 60th sortie, the last sortie of the day, when the helicopter turned towards helipad on completion of swath run, the engine failed. The helicopter lost height and hit rubber trees. The helicopter became uncontrollable and impacted the ground.

The pilot received fatal injuries and the helicopter was substantially damaged.

The probable cause of the accident was engine failure when the helicopter turned towards the helipad at the end of swath run. The engine failed due to partial oil starvation. Overspeeding was a contributory factor.

Factors : Personnel (Improper maintenance).

AV. 15213/6/82-AS

33

AERIAL WORK-2

1. Aircraft

Type : Bell 47G-5 Helicopter

Registration : VT-EAP

2. Date and time

26th August, 1982; 1401 hrs.

3. Location

Village Hakkuwala (Punjab)

4. Type of operation

Aerial Application

5. Persons on board

Crew : 1; Passengers : Nil

6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	Nil
Others	Nil	Nil	

7. Damage to helicopter

Substantial

8. Pilot-in-Command

Licence : CHPL 40

Age : 51 years

Total hours : 4500 hrs.

Summary

The helicopter was engaged in cotton spray operations at village Hakkuwala on 26.8.82. The pilot completed 10 sorties and changed to a new helipad. From this helipad when the pilot was taking off for the first sortie, the helicopter drifted to the right and impacted the ground in the right bank attitude and rolled over.

The helicopter sustained substantial damage. The pilot escaped unhurt. There was no fire.

The probable cause of the accident has been attributed to *inadvertant* decay in rotor RPM leading to ineffectivity of lateral control and helicopter settling with power while drifting in right skid low attitude resulting in dynamic roll over.

Factors : Personnel—Pilot (Aircraft handling).

AV-152 B/7/82-As

35

AERIAL WORK—3 ✓

1. Aircraft Type : Bell Helicopter 47G-5
Registration : VT-DZO
2. Date and time 26th Sept., 1982; 1620 hrs.
3. Location Village Bhagu (Punjab)
4. Type of operation Aerial Application
5. Persons on board Crew : 1; Passengers : 2
6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	2
Others	Nil	Nil	
7. Damage to helicopter : Substantial
8. Pilot-in-Command :

Licence : CHPL 107
 Age : 34 years
 Total hours : 3425.40 hrs.

Summary

The helicopter was engaged in cotton crop spraying operations on 26.9.82. After completion of 28 spray sorties and refuelling, The helicopter took off from Bhagu Rest House Helipad with the pilot and two engineering personnel as passengers on board for ferry flight to Muktsar town. After getting airborne and while transitioning to horizontal flight, the helicopter hit a four feet high 'bundh' at a distance of 65 feet from its 'lift off' point.

The helicopter was substantially damaged. The pilot and both the passengers escaped unhurt. There was no fire.

The probable cause of the accident has been attributed to the helicopter, during take off, momentarily losing translational lift, due to sudden unfavourable wind conditions.

Factors : Personnel—Pilot (aircraft handling).

Other—(weather).

AV-150 13/8/82-As

37

AERIAL WORK-4 ✓

1. Aircraft

Type : Basant

2. Date and Time

Registration : VT-ECM

27th Sept., 1982; 0815 hrs.

3. Location

Village Bhutan (Haryana)

4. Type of operation

Aerial Application

5. Persons on board

Crew: 1; Pax : 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 : SCPL No. 464

Age : 38 years

Total hours : 3994 hrs.

Summary

Basant aircraft VT-ECM was engaged in cotton spray operations on 27-9-82. During first take-off, the pilot lifted-off prematurely probably due to sudden appearance of blue bulls at the end of the air strip. Due to premature lift-off the aircraft failed to climb and the pilot was forced to abandon take-off. The aircraft touched the ground heavily and was substantially damaged. The pilot escaped unhurt. There was no fire.

The cause of the accident has been attributed to failure of the aircraft to climb due to premature lift off and the pilot was forced to abandon flight as the aircraft was not gaining height and forward speed.

Factors : Personnel—Pilot (aircraft handling).

AV 15013/9/82-41

39

AERIAL WORK—5 ✓

1. Aircraft

Type : Helicopter Bell 47G-5

Registration : VT-DZS

2. Date and time

24th December, 1982; 1235 hrs.

3. Location

Near Village Talimora (Gauhati)

4. Type of operation

Aerial Application

5. Persons on board

Crew : 1; Passengers : 1

6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Passengers	Nil	Nil	1
Others	Nil	Nil	

7. Damage to helicopter

Destroyed

8. Pilot-in-Command

Licence : CHPL No. 57

Age : 38 years

Total hours : 6500 hrs.

Summary

Bell 47G-5 helicopter VT-DZS took off from Gauhati Aerodrome for aerial survey of Garo Hills. Flight was uneventful for about 50 minutes with helicopter flying at 500 feet AGL. While flying over thick bamboo jungle, the pilot experienced engine failure. Auto rotational landing could not be effected. The helicopter crashed in the bamboo growth.

The helicopter was destroyed due to impact. Both the persons escaped unhurt. There was no fire.

The cause of the accident has been attributed to engine failure due to fatigue fracture of magneto idler gear shaft. Jammed cyclic control and unsuitable terrain were the contributory factors.

Factors : Aircraft—Powerplant (fatigue failure).

Av 15013/1/82-AS

41

PRIVATE—1 ✓

1. Aircraft Type : Twin Beech Expediter C-185
Registration : VT-CNB
2. Date and time 25th March, 1982; 0950 hrs.
3. Location Udaipur Airport
4. Type of operation Private
5. Persons on board Crew : 1; Pax : 1

6. Injury index

	Fatal	Serious	Minor/None
Crew	Nil	Nil	1
Pax	Nil	Nil	1
Others	Nil	Nil	

7. Damage to aircraft

Substantial

8. Pilot-in-Command

Licence : ALTP No. 67

Age : 56 years

Total hours : 15000 hrs. approx.

Summary

Twin Beech Expediter aircraft VT-CNB took off from Delhi Airport and landed at Udaipur Airport after two hours of flying. During back tracking, the pilot experienced difficulty in manoeuvring the aircraft. On visual inspection, pilot noticed that tail wheel assembly had collapsed thereby causing damage to both rudders and fins.

All the persons on board escaped unhurt. There was no fire.

The probable cause of the accident has been attributed to collapsing of tail gear as a result of breakage of safety shear bolt. The bolt gave way due to restriction in the linkages.

Factors : Personnel—Inadequate maintenance.

AV-15013/2/82-AS
 43

PRIVATE-2 ✓

1. Aircraft	Type : Beechcraft Bonanza A-35			
	Registration : VT-DAC			
2. Date and time	24th April, 1982 ; 0840 hrs.			
3. Location	Jindpur village in Alipur Block (Delhi)			
4. Type of operation	Private			
5. Persons on board	Crew : 1 ; Pax : 3			
6. Injury index		Fatal	Serious	Minor/None
	Crew	Nil	Nil	1
	Pax	Nil	Nil	3
	Others	Nil	Nil	
7. Damage to aircraft	Destroyed			
8. Pilot-in-Command	Licence : PPL No. 2764			
	Age : 40 years			
	Total hrs : 133.20 hrs.			

Summary

Beech Bonanza aircraft took off from Safdarjung Airport for Karnal. During climb, Captain noticed engine oil pressure below minimum, rise in oil temperature and partial loss of engine power. He decided to execute a forced landing in a field. After touch down, aircraft came to rest after hitting a stack of dry wheat crop in the field and caught fire.

The aircraft was destroyed. All persons on board escaped unhurt.

The cause of the accident has been attributed to leakage of oil from oil line connecting governor unit to the oil transfer unit (O.T.U.) of the propeller at the O.T.U. end resulting in loss of power.

Factors ; Personnel—Improper maintenance,

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PRIVATE-3 ✓

1. Aircraft	Type : Beechcraft			
	Registration : VT-DCW			
2. Date and time	30th April, 1982; 07.52 hrs.			
3. Location	Near Dhamra (Bhubaneswar)			
4. Type of operation	Private			
5. Persons on board	Crew : 2; Pax : 2			
6. Injury index		Fatal	Serious	Minor/None
	Crew	Nil	Nil	2
	Pax	Nil	Nil	2
	Others	Nil	Nil	
7. Damage to aircraft	Substantial			
8. Pilot-in-Command	Licence : CPL No. 253			
	Age : 42 years			
	Total hours : 5477.08 hrs.			

Summary

Beechcraft aircraft VT-DCW took off from Calcutta for Bhubaneswar with two crew and two passengers on board. After about an hour the pilot noticed fall in oil pressure on port engine followed by complete depletion of engine oil, necessitating port engine shut down inflight. Pilot observed cylinder head temperature going high on the live engine accompanied by a burst of smoke in the cockpit which disappeared after a few seconds.

The pilot, as a result, executed safe forced landing on the muddy sea beach. The aircraft was destroyed as the wreckage could not be retrieved from sea for a period of one month following the accident.

All the persons on board escaped unhurt. There was no fire.

The cause of the accident has been attributed to rupture of oil hose connecting isolating valve to the propeller dome resulting in complete loss of oil from port engine, thus necessitating its shut down inflight.

Factors : Personnel—Improper maintenance

TABLE 1

Classification of Accidents (Powered Aircraft) by nature of the flight for the year 1982

Nature of flight	No. of Accidents	No. of Fatal Accidents	Crew		Passengers		Others		Aircraft Damage		
			Killed	Seriously injured	Killed	Seriously injured	Killed	Seriously injured	Destroyed	Substan- tially damaged	Minor damaged
Airline Operations	1	1	2	6	15	19	0	0	1	0	0
Non-Scheduled Operations	0	0	0	0	0	0	0	0	0	0	0
Flying Training	6	1	2	0	0	0	0	0	1	5	0
Private & Business	3	0	0	0	0	0	0	0	1	2	0
Aerial Work	5	1	1	0	0	0	0	0	1	4	0
TOTAL	15	3	5	6	15	19	0	0	4	11	0

TABLE 2

Accident Statistics and Fatality Rate of Air India for the year 1982

Type of Operation	Scheduled International	Non-Scheduled	Combined Scheduled & non-Scheduled
Hours Flown (No.)	61,975	621	62,596
Passengers Carried (No.)	1,708,914	11,719	1,720,633
Kilometers flown (in thousands)	42,513	441	42,954
Passenger Kilometers flown (in thousands)	7,970,767	43,853	8,014,620
Total number of Accidents	1	—	1
No. of fatal accidents	1	—	1
Crew fatalities	2	—	2
Passengers fatalities	15	—	15
Fatality rate per 100 million Passenger Kms. (Crew)	0.025	—	0.0249
Fatality rate per 100 million Passengers Kms. (Passengers)	0.188	—	0.187
Accident rate per 100 million Kms. flown	2.352	—	2.328
Accident rate per 100 million pax. Kms. flown	0.0125	—	0.0124
Fatal Accident per 100 million pax. Kms. flown	0.0125	—	0.0124
Accident rate per 100,000 hours flown	1.613	—	1.597
Fatal accident per 100,000 hours flown	1.613	—	1.597

TABLE III

Accident Statistics & Fatality Rate of Indian Airlines for the year 1982

Type of Operation	Scheduled
Hours flown (No.)	101933
Passengers carried (No.)	6581999
Kilometers flown (in thousands)	48649
Passenger Kilometers flown (in thousands)	5293115
Total No. of Accidents	—
Number of fatal accidents	—
Crew Fatalities	—
Passenger Fatalities	—
Fatality Rate/100 Mill. Pax. Kms. (Crew)	—
Fatality Rate/100 Mill. Pax. Kms. (Pax)	—
Accident Rate/100 Mill. Kms. flown	—
Accident Rate/100 Mill. Pax. Kms. flown	—
Fatal Accidents/100 Mill. Kms. flown	—
Accident Rate/100,000 hrs. flown	—
Fatal Accidents/100,000 hrs. flown	—

TABLE IV

Combined Accident Statistics & Fatality Rate of Air India and Indian Airlines for the year 1982

Type of Operation	Scheduled Domestic and International
Hours flown (No.)	163908
Passengers Carried (No.)	8290913
Kilometers flown (in thousands)	91162
Passenger Kilometers flown (in thousands)	13263882
Total number of accidents	1
No. of fatal accidents	1
Crew fatalities	2
Passengers fatalities	15
Fatality rate per 100 million passenger kms. (Crew)	0.015
Fatality rate per 100 million passenger kms. (Passengers)	0.113
Accident rate per 100 million kms. flown	1.097
Accident rate per 100 million pax kms flown	0.0075
Fatal accident per 100 million kms. flown	0.0075
Accident rate per 100,000 hours flown	0.61
Fatal accident rate per 100,000 hours flown	0.61

TABLE V

Aircraft Accidents of Flying Clubs/Institutes (Excluding Gliding Clubs) and Agro Operators for the year 1982

Operation	Number of Accidents		Hours Flown	Hours flown/accident	Accident Rate per 10000 hrs.		Fatalities		
	Total	Fatal			Total	Fatal	Crew	Pax	Others
Flying Clubs/Institutes	6	1	21558	3593	2.783	0.4638	2	0	0
Aerial Work	5	1	4680	936	10.68	2.1367	1	0	0

TABLE VI

Glider Accidents of Gliding Clubs for the year 1982

Number of Accidents		No. of Launches	No. of Launches/Accident	Accident rate per 10000 launches		Fatalities		
Total	Fatal			Total	Fatal	Crew	Pax	Others
4	0	29349	7337	1.363	0	0	0	0

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TABLE VII

Powered Aircraft Accidents by Class of Pilots' licence for the year 1982

Class of Licence held	Total Accidents	Fatal
SPL	3	0
PPL	2	0
CPL	3	1
SCPL	1	0
ALTP	2	1
CHPL	4	1
Total	15	3

TABLE VIII

Aircraft Accidents by Phase of Operation

Phase of Operation	Total involvements	% of total
Static	0	0
Taxi	1	5.26
Take off	4	21.05
Inflight	4	21.05
Landing	10	52.60

TABLE IX

KIND OF FLYING (POWERED AIRCRAFT)	
TOTAL ACCIDENT RATE PER 100,000 AIRCRAFT HOURS FLOWN	
1. AIRLINE OPERATIONS	
(a) Indian Airlines	0.00
(b) Air India	1.5975
2. FLYING CLUBS/INSTITUTES	27.83
3. AERIAL WORK	106.83