

TO INVESTIGATE INTO THE GROUND ACCIDENT IN WHICH
TWO, TWIN OTTER AIRCRAFT REG. AP-BCG AND AP-BCH
RESPECTIVELY WERE BADLY DAMAGED ON 5TH SEPT, 1985
AT 0230 L.T. PARKED ON BRAVO TAXIWAY
AT ISLAMABAD AIRPORT

1. AIRCRAFT INFORMATION

- | | | |
|--------|--|---|
| 1.1 | Aircraft type and Manufacturer's S.No. | : Twin Otter DHC-6-300
S.No. 726. |
| 1.2 | Registration Marking | : AP-BCG |
| 1.3 | Engine type, installation and Manufacturer's S.No. | : Pratt & Whitney PT6A-27
PORT S.No. PCE 41929
STBD S.No. PCE 41800 |
| 1.4 | Certificate of Registration | : No. 582. |
| 1.5 | Certificate of Airworthiness | : No. 535. |
| 1.6 | Certificate of Maintenance | : 31.8.1985, valid for
7 days or 50 flying hours. |
| 1.7 | Date of construction of Airframe | : October, 1980. |
| 1.8 | Owner | : M/S P.I.A.C. |
| 1.9 | Weight permitted by C of A | : 5670 K.G. |
| 1.10 | Weight at time of accident | : 3681.8 K.G. |
| 1.11 | C of G | : Within limits. |
| 1.12 | <u>Airframe History</u> | |
| 1.12.1 | Hours since new | : 6997.21 Hours. |
| 1.12.2 | Hours since C of A inspection | : 454.14 Hours. |
| 1.12.3 | Modification | : Upto Date. |
| 1.13 | <u>Engine History</u> | |
| 1.13.1 | Hours since new | : PORT 221.34 Hours
STBD 2196.33 Hours |
| 1.13.2 | Hours since C of A inspection | : PORT 221.34 Hours
STBD 453.14 Hours |
| 1.13.3 | Modification | : Upto Date |
| 1.14 | Accessory History | : All accessories are
within life. |
| 1.15 | Defects | : Nil |

1. AIRCRAFT INFORMATION

- 1.1 Aircraft type and Manufacturer's S.No. : Twin Otter DHC-6-300
S.No. 768.
- 1.2 Registration Marking : AP-BCH
- 1.3 Engine type, installation and Manufacturer's S.No. : Pratt & Whitney PT6A-27
PORT S.No. PCE 40603
STBD S.No. PCE 41152
- 1.4 Certificate of Registration : 583.
- 1.5 Certificate of Airworthiness: 536.
- 1.6 Certificate of Maintenance : 3.9.1985, valid for
7 days or 50 flying hrs.
- 1.7 Date of construction of Airframe : May, 1981.
- 1.8 Owner : M/S P.I.A.C.
- 1.9 Weight permitted by C of A : 5670 K.G.
- 1.10 Weight at time of accident : 3625.5 K.G.
- 1.11 C of G : Within limits.
- 1.12 Airframe History
- 1.12.1 Hours since new : 5399.37 Hours.
- 1.12.2 Hours since C of A inspection : 529.11 Hours.
- 1.12.3 Modifications : Upto Date.
- 1.13 Engine History
- 1.13.1 Hours since new : PORT 2400.31 Hours
STBD 836.43 Hours
- 1.13.2 Hours since C of A inspection : PORT 528.41 Hours
STBD 529.41 Hours
- 1.13.3 Modification : Upto Date
- 1.14 Accessory History : All accessories are
within life.
- 1.15 Defects : Nil

/Crew Information

2. CREW INFORMATION

2-1 PILOT-IN-COMMAND (A.F.I.)

2-1-1 Name	-
2-1-2 Date of birth	-
2-1-3 Where Trained	-
2-1-4 Type of Licence and No.	-
2-1-5 Aircraft type ratings	-
2-1-6 Aircraft type rating current	-
2-1-7 Medical date with Status	-
2-1-8 Total in Command	-
2-1-9 Total Flying experience	-
2-1-10 Total in Command on the type incident occurred	-
2-1-11 Date of joining the P.I.A.	-

N/A

2-2 CO-PILOT

2-2-1 Name	-
2-2-2 Date of birth	-
2-2-3 Where trained	-
2-2-4 Type of Licence & No.	-
2-2-5 Aircraft type ratings	-
2-2-6 Aircraft type rating current	-
2-2-7 Medical date with Status	-
2-2-8 Total Flying experience	-
2-2-9 Total in Command	-
2-2-10 Total in Command in the type incident occurred	-
2-2-11 Date of joining the P.I.A.	-

N/A

3. SUMMARY

- 3-1 There was a major ground accident between two Twin Otter aircraft of PIAC namely AP-BCH and AP-BCG respectively on 5th Sep, 1985 between 0210 and 0216 local time.
- 3-2 Before the accident Twin Otter aircraft Reg. No. AP-BCH was parked on "nose wheel marking point" No.2 while 2nd Twin Otter aircraft Reg. No. AP-BCG was parked on "nose wheel marking point" No.1 on dis-used Bravo Taxiway. This area has been allotted by Civil Aviation Authority, Islamabad Airport. This is shown in Line Diagram at Appendix "AA".
- 3-3 Prior to this accident, these two aircraft were lashed/moored in view of the "Met Warning", expected thunder storm and wind gusting upto 35 knots or more.
- 3-4 According to the statement of Duty Engineer and his staff (Appendix "A", "B", "D", "E", "F", "G", "H" & "J") the "Met warning" passed by Flight Operation PIAC the wind speed mentioned was QNT 35 knots only.
- 3-5 There was a "Met warning" for dust/thunder storm showers issued by Met section, PAF Chaklala. The time zone was from 1930 E to 2230E dated 4th Sep, 1985, extended to 0500 E on 5th Sep, 1985, further extended to 0800 E. The forecast wind speed was from W/SW/20-25 QNT 35 knots or more (Appendix "V", page 2, 3, 4, 5 & 6). Furthermore according to "Weather report" at 0210 on 5th Sep, 1985 the forecast weather was, heavy thunder storm with the forecast and a wind speed of 62 knots. However at 0216 local time on 5th Sep, 1985 the wind speed according to "Weather report" had dropped down, to 35 knots and at 0230 local time the "Wind speed" dropped down to 20 knots only. (Appendix "V", page 7, 8, 9, 10).
- 3-6 During this severe thunder storm and hail the Twin Otter aircraft AP-BCH was partially lifted of the ground from No.2 nose wheel marking point and left wing was dragged or touching the ground and hit the other parked and lashed Twin Otter aircraft AP-BCG on No.1 nose wheel marking point.

A single rope tied under each wing with the mooring stone was found broken.

- 3-7 Both the aircraft sustained major structural damage. The provisional damage report is given (Appendix "Q").
- 3-8 Some of the picketing stones were scattered/dragged alongwith chocks and various broken parts of the aircraft shown in Appendix "CC" and Line diagram Appendix "BB".
- 3-9 In addition to the Twin Otter aircraft a Fokker F-27 aircraft Reg. No. AP-AUX parked at Bay No.6 was moved from its place by 10 feet. The both left landing gear main wheels were deflated and no other damage was sustained.
- 3-10 The investigator incharge reached the scene of accident at 0430 hours. The investigator incharge alongwith Senior Airworthiness Surveyor inspected the scene of accident and had a general discussion with PIAC Engineers, present on the spot. Necessary photographs were taken.
- 3-11 Investigator incharge authorised Deputy Chief Engineer PIAC that the aircraft could be removed from the scene of the accident at 0900 local time.

4. INJURY TO PERSONS

- 4-1 There was no injury to the occupants.

5. DAMAGE TO AIRCRAFT

- 5-1 Both Twin Otter sustained major structural damage and F-27 Reg. No. AP-AUX suffered a minor damage (Appendix "W").

6. OTHER DAMAGE

- 6-1 Some of lashing ropes and parts of the aircraft had broken during storm of Twin Otter aircraft.
- 6-2 PIAC Radio section and Inspection office building damaged. The docks and trestles were uplifted and hit against the buildings.
- 6-3 P.B.S. gate was lifted from the ground and fell on main road.
- 6-4 A metal placard "Welcome distinguished guests" was badly wrinkled (Appendix "CC" page,6).

/The adjacent

6-5 The adjacent boundary wall 50 feet in length had fallen (Appendix "CC" page 6).

6-6 Three huge trees were uprooted (Appendix "CC", page 5 & 6).

7. METEOROLOGICAL CONDITIONS

7-1 Met warning had been issued for severe thunder storm and hail and also weather report. (Appendix "V").

7-2 Weather was a factor.

8. AIDS TO NAVIGATION

8-1 Aids to Navigation were not a factor.

8-2 Aids to Navigation were operating normal.

9. COMMUNICATION

9-1 Communication was not a factor.

10. AERODROME AND GROUND FACILITIES

10-1 Normal facilities were available at the airport.

10-2 Aerodrome and ground facilities were not a factor.

11. FLIGHT RECORDERS

11-1 Not fitted.

12. WRECKAGE

12-1 The Two damaged Twin Otter aircraft were removed from the scene of the accident by the Engineering staff of BIAAC after being duly authorised by investigator incharge at 0900 hours.

13. FIRE

13-1 There was no fire.

14. SURVIVAL ASPECT

14-1 There were no occupants in aircraft.

15. TEST AND RESEARCH

15-1 Breaking strength of mooring rope SD 12519 used for tie down of Twin Otter aircraft was obtained from DE HAVILLAND CANADA through telex (Appendix "S"). The breaking strength of mooring rope SD 12519 is 6288 pounds.

/Un-approved

- 15-2 Up-approved mooring rope used by PIAC on the Twin Otter aircraft was sent to Naval Dockyard Karachi for its breaking strength, which is 1653 Lbs, material Polyester. Report (Appendix "R")
16. OBSERVATIONS

- 16-1 The "Met warning" regarding severe thunder storm was duly passed to PIAC Flight Operation on telephone by the "Met" section PAF Chaklala. Flight Operation passed the information to Duty Engineer PIAC. However there was discrepancy in the wind speed. According to "Met warning" wind speed was QNT 35 knots or more, while information passed to PIAC Flight Operation was QNT 35 knots as stated by Flight Despatcher PIAC on duty. (Appendix "J"). The same information was passed to Engineering staff. However weather report indicating a wind speed of 62 knots at 0210 local time was passed to Flight Operations PIAC.
- 16-2 The Twin Otter aircraft were not properly moored in accordance with instructions contained in Maintenance Manual by the concerned staff, while the nose of the aircraft was not lashed/moored at all.
- 16-3 There were no instructions in writing issued by Deputy Chief Engineer PIAC, Islamabad Airport regarding safety precautions of Twin Otter aircraft during such weather conditions.
- 16-4 The flaps of Twin Otter aircraft Reg No. AP-BCH were found down (20°) by the investigator incharge, thus providing maximum lift. This defect in flaps had been reported earlier and is caused due to internal leakage.
- 16-5 The aircraft were not parked and moored into wind as laid down in the Maintenance Manual.
- 16-6 FokkerF-27 aircraft Reg. No. AP-AUX was dragged on the ground about 10 feet, thereby deflating the port main wheels.
- 16-7 Pakistan Burma Shell gate was lifted from the ground and fell on main road.
- 16-8 A metal placard "Welcome distinguished guests" fixed in front of Airport exist was badly wrinkled (Appendix "CC" page, 6).

/The PAF

16-9 The PAF Machinery Pool boundary wall 50 feet in length had fallen (Appendix "CC" page, 6).

16-10 Three huge trees were uprooted (Appendix "CC", page, 5 & 6).

I N V E S T I G A T I O N

17. SCENE OF ACCIDENT

17-1 The investigator incharge alongwith the investigator of the accident at 0430 hours on 5th September, 1985.

17-2 On arrival, initial discussions were held with PIAC Engineers present at the spot.

18. EXAMINATION OF WRECKAGE

18-1 The damaged Twin Otter aircraft were examined by the investigator incharge, alongwith the investigator, the details of which are given in Appendix "BB" & "CC". Necessary photographs of the effected aircraft, broken parts and mooring stones including broken rope were taken.

18-2 A Line diagram showing the location of Twin Otter aircraft after the accident was made, indicating the parking position of various scattered items alongwith distances (Appendix "BB").

18-3 PIAC Engineering staff were authorised to remove Two Twin Otter aircraft involved into the accident from the scene of accident, after all the formalities were completed and the area critically examined.

19. WITNESSES

19-1 The following information was obtained from the witnessess:-

19-1-1 According to the statement of Mr. Imdadul Haque, Deputy Chief Engineer PIAC, Islamabad Airport (Appendix "C") the mooring instructions as laid down in Maintenance Manual of Twin Otter aircraft had not been followed. The nose wheel of the aircraft were not tied down and that the aircraft were not parked into wind. This

/is supported

is supported by the statements of Aircraft Engineers and Officer Engineering PIAC, as given in (Appendix "A", "B", "D", "E", "F", "G" & "H").

- 19-1-2 A "Met warning" had been issued and Flight Operations PIAC was informed on telephone who in turn informed the Duty Engineer PIA. This is supported by the statements of Sqn Ldr Fazal Ellahi, OIC Met Sqn, Mr. Mirza Aurangzeb, Met Officer, Cpl Tech Mushtaq Hussain, Senior Tech Fuzail-ur-Rahman, and Senior Tech Mawaz Khan (Appendix "L", "M", "N", "O" and "P") and also by the statement of Mr. Salman Zafar Khan, Flight Despatcher PIAC (Appendix "J"). Further-more hourly Weather reports were also passed to all concerned.
- 19-1-3 There were no instructions in writing about the mooring of the aircraft issued by Mr. Imdadul Haque, Deputy Chief Engineer, PIAC (Appendix "C"). Only verbally instructions has been given. This is supported by the statements of Aircraft Engineers (Appendix "A", "B", "D", "E" & "F").
- 19-1-4 According to the statement of Mr. Imdadul Haque, Deputy Chief Engineer PIAC (Appendix "C"), Mr. Niaz Ahmad Qureshi, Aircraft Engineer (Appendix "B") and Mr. Amanullah Malik, Aircraft Engineer (Appendix "D") a polyester rope was used, instead of the rope recommended in the Maintenance Manual. Further-more no approval had been obtained from Civil Aviation Authority thus violating rule 40 of Civil Aviation Rules 1978.
- 19-1-5 According to the statements of Mr. Niaz Ahmad Qureshi, Aircraft Engineer and Mr. Amanullah Malik, Aircraft Engineer (Appendix "B" & "D") the aircraft were tied down with one point under each wing to a single mooring stone and nose wheel had not been tied down at all. While according to the statement of Mr. Amanullah Malik (Appendix "D") the nose of the aircraft

/should

should have been tied down with a rope. Further-more two picketing blocks under each wing should have been used, instead of one as laid down in the Maintenance Manual (Appendix "T").

19-1-6 According to the statement of Mr. Imdadul Haque, Deputy Chief Engineer PIAC (Appendix "C") the aircraft should have been taken inside the hanger under the conditions but these aircraft were not taken inside the Hanger, as he and duty engineer thought that the wind conditions, did not justify it.

19-1-7 According to the statement of Mr. Imdadul Haque, Deputy Chief Engineer PIAC (Appendix "C"), Mr. Niaz Ahmad Qureshi, Aircraft Engineer (Appendix "B") and Mr. Amanullah Malik, Aircraft Engineer (Appendix "D") the flaps of aircraft which were found 20 degree down, could be due to either creeping of the flaps during the night or due to the effect of storm (Appendix "CC" page 2 & 4). According to the statement of Aircraft Engineers (Appendix "C" & "D") defect of this kind was reported in the month of June, 1985, which was rectified.

19-1-8 According to the statement of Mr. S.M. Baig, Aircraft Engineer (Appendix "A") Fokker F-27 AP-AUX was pushed side ward on the ground thus deflating the port landing gear main wheel tyres. The aircraft was parked on Bay No.6.

20. DOCUMENTS

20-1 The following information was obtained from the documents:-

20-1-1 The Two Twin Otter aircraft were properly registered bearing No. AP-BCG and AP-BCH.

20-1-2 Aircraft were properly maintained having valid Certificate of Airworthiness, Certificate of Maintenance and

/Daily

Daily inspection.

20-1-3 The aircraft were not moored/tied down according to the laid down instructions in the Maintenance Manual.

20-1-4 The aircraft were not moored/tied down facing into the wind as given in Maintenance Manual (Appendix "T").

21. DISCUSSION

21- ANALYSIS

21-1-1 A major ground accident took place between Two Twin Otter aircraft of PIAC, namely AP-BCG and AP-BCH respectively on 5 Sep, 85 between 0210 to 0216 local time. Prior to this ground accident these two aircraft were moored on Bravo Taxiway (un-used) at their normal parking place.

21-1-2 There was a "Met warning" for dust/thunder storm showers issued by "Met" section, PAF Chaklala. The time zone was from 1930 E to 2230 E of 4th Sep, 1985, extended to 0500 E on 5th Sep, 1985 and further extended 0800E. The forecast wind speed was from W/SW/20-25 QNT 35 knots or more (Appendix "V", page 2, 3, 4, 5 & 6). Further-more according to "Weather report" at 0210 on 5th Sep, 1985 the forecast weather was, heavy thunder storm with hail and a wind speed of 62 knots. However at 0216 local time on 5th Sep, 1985 the wind speed according to "Weather report" had dropped down, to 35 knots and at 0230 local time the wind speed dropped down to 20 knots only. (Appendix "V", page 7, 8, 9, 10).

21-1-3 According to the "Met warning" there was thunder storm and wind gusting upto QNT 35 knots or more. Further-more according to the weather report the anticipated wind speed was 62 knots.

21-1-4 The aircraft were not moored/lashed according to the Maintenance Manual (Appendix "T"). The nose of the aircraft was not lashed and instead of two mooring stones under each

/wing

wing, there was only one mooring stone under each wing.

21-1-5 The mooring rope used was not according to specification as given in the Maintenance Manual, Chapter 10-00-00 page 1, para 2. Mooring rope SD 12519 referred in the Maintenance Manual has a breaking strength of 6288 pounds which is confirmed by the aircraft manufacturer through telex (Appendix "S"). Un-approved Polyester rope used by PIAC on these aircraft was tested in Naval Dockyard Karachi and is found to have breaking strength of 1653 pounds comparing with the laid down breaking strength, the Polyester rope used has 1/4 strength. This is a violation of Rule 40 (1 & 2) of Civil Aviation Authority Rules 1978.

21-1-6 Had proper mooring rope been used this accident could have been avoided, which has caused loss to the national exchequer of Rs. 3 Crores in foreign exchange. This is due to sheer negligence and laxity on the part of Deputy Chief Engineer, Duty Engineer and the Aircraft Maintenance Engineers.

21-1-7 The flap of Twin Otter aircraft AP-BCH which was found 20° down at the time of accident had crept to that position. This was not due to result of thunder storm and its after effects as stated by Deputy Chief Engineer PIAC (Appendix "C").

21-1-8 The engineering staff showed a callous attitude in mooring of the aircraft properly according to the laid down instructions in the Maintenance Manual and the "Met warning" was taken as a matter of routine. This was aggravated by poor supervision of the Engg Management. This was a general laxity in handling the situation.

22. CAUSE

22-1 The cause/causes of the accident are as under:-

22-1-1 The aircraft were not parked into wind as laid down in the Maintenance Manual.

/The aircraft

The aircraft were not moored/lashed according to the instructions laid down in the Maintenance Manual. Nose wheel of both the aircraft were not lashed, and only one mooring block instead of two were used under each wing.

- 22-1-3 The rope used was non standard and no approval had been obtained from Civil Aviation Authority and was not in accordance with the specifications.
- 22-1-4 The flaps of AP-BCH crept to 20° down position due to internal defect, which resulted in providing maximum lift.
- 22-1-5 There were no instructions in writing by Deputy Chief Engineer PIAC, Islamabad Airport regarding taking these aircraft to a safer place such as a Hanger which was available at that time. Hence safety precautions were completely disregarded.
- 22-1-6 The "Met warning" had not been taken seriously and callous attitude was displayed.
- 22-1-7 Under the existing conditions the aircraft should have been taken inside the Hanger which was not done.

23. FINDINGS

- 23-1 The aircraft were properly registered.
- 23-2 The certificate of Airworthiness was valid.
- 23-3 The certificate of maintenance was valid.
- 23-4 Based on the discussions at para 21 of this report it has been established that the cause/causes of the accident was due to:-
 - 23-4-1 The aircraft were not parked into wind as laid down in the Maintenance Manual.
 - 23-4-2 The aircraft were not moored/lashed according to the instructions laid down in the Maintenance Manual i.e. The nose wheel of both the aircraft were not lashed and only one mooring block instead of two were used under each wing.

/Unapproved

- 23-4-3 Un-approved Polyester rope used by PIAC on these aircraft was tested in Naval Dockyard Karachi and is found to have breaking strength of 1653 pounds comparing with the laid down breaking strength. ^{/6288 Lbs} the Polyester rope used has 1/4 strength. This is a violation of Rule 40 (1 & 2) of Civil Aviation Authority Rules 1978.
- 23-4-4 Had proper mooring rope used this accident could have been avoided, which has caused loss to the national exchequer of Rs.3 Crores in foreign exchange. This is due to sheer negligence and laxity on the part of Deputy Chief Engineer, Duty Engineer and the Aircraft Maintenance Engineers.
- 23-4-5 The flap of Twin Otter aircraft AP-BCH which was found 20° down at the time of accident had crept to that position. This was not due to result of thunder storm and its after effects as stated by Deputy Chief Engineer PIAC (Appendix "C").
- 23-4-6 The engineering staff showed a callous attitude in mooring of the aircraft properly according to the laid down instructions in the Maintenance Manual and the "Met warning" was taken as a matter of routine. This was aggravated by poor supervision of the Engineering Management. This was a general laxity in handling the situation.
- 23-4-7 There were no instructions in writing by Deputy Chief Engineer PIAC, Islamabad Airport regarding taking these aircraft to a safer place such as a Hanger which was available at that time. Hence safety precautions were completely disregarded.
- 23-4-8 The "Met warning" had not been taken seriously and callous attitude was displayed. The contention of Flight Despatcher, Flight Operation and Duty Engineer PIAC that the wind speed given by the "Met" section on telephone was 35 knots and "NOT" more is incorrect. This is supported by statements of witnesses at Appendices "L", "M", "N", "O" & "P".

/weather

23-4-9 Weather warning was received on telephone as per routine and not in writing as it was not asked for by PIAC.

22-5 No modification was found pending.

24. RECOMMENDATIONS

24-1 The parking and mooring instructions as laid down in the Maintenance Manual must be followed.

24-2 Mooring rope as given in the Maintenance Manual must be used. Breaking strength of the rope should not be less than 6288 pounds as recommended by the manufacturer's.

24-3 Written instructions should be issued regarding taking these aircraft to a safer place such as hanger whenever "Met warning" is received where the wind speed is 35 knots or more.

24-4 Met reports to PIAC is given on telephone as is the practice. It should be followed by in writing to both Flight Operations and Duty Engineer of PIAC respectively.

24-5 Disciplinary action should be taken against the following Aircraft Maintenance Engineers of PIAC:-

24-5-1 Mr. Imdadul Haque, Deputy Chief Engineer is over all incharge of maintenance and supervision of all aircraft based and operated at Islamabad Airport. He has failed to take safety precautions and implement requirements of the aircraft manufacturer. He has violated Rule 40 of Civil Aviation Rules 1978. He should be penalised for the above lapses by suspending his AME licence for a period of one year and debarred for promotion for a period of two years. He should be warned for his callous attitude.

24-5-2 Mr. Sultan Muhammad Baig, AME-787 was the Duty Engineer on the night of 4th Sep, 85. He did not take safety precautions in view of "Met warning" on that night. He did not ensure proper mooring of the aircraft. For this lapse his increment should be

/stopped

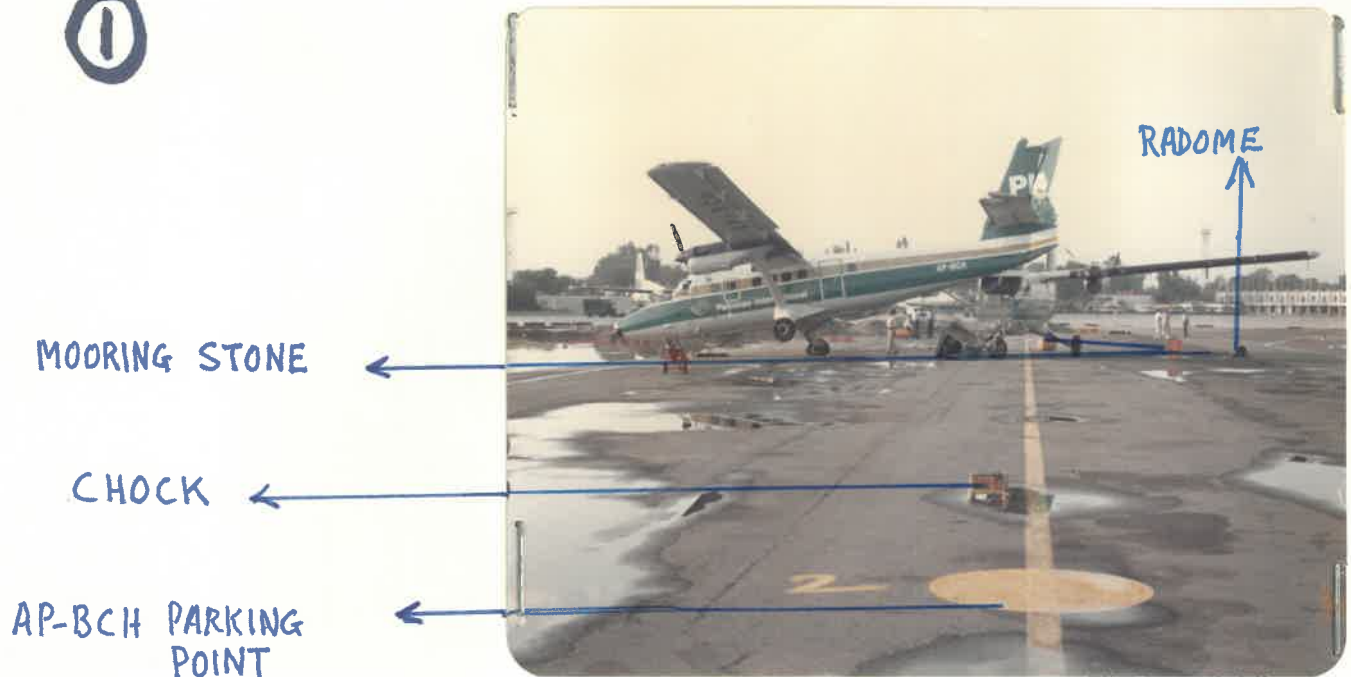
stopped for a period of one year. He should also
/ for be warned/his negligence.

24-5-3 Mr. Niaz Ahmed Qureshi P-17004, AME-611 was the
maintenance Engineer of the Twin Otter aircraft
on that night. He failed to moor/lash both the
aircraft in accordance with Maintenance Manual.
He used non standard mooring rope and did not
take safety precautions. For his omissions his
licence should be suspended for a period of one
year. He should also be warned in writing.

VARIOUS VIEWS OF THE SCENE (EIGHTH PAGE)

OF ACCIDENT AND SCATTERED PARTS

①



②



③



DAMAGED PARTS OF AP-BCH + AP-BCG

①

TAIL PLANE
AP-BCH

PROPELLER
AP-BCH

RADOME
SECTION
AP-BCG



②



FUSELAGE
AP-BCH

③



TAIL PLANE
AP-BCH

VARIOUS VIEWS OF DAMAGED PARTS
OF TWO TWIN OTTER AIRCRAFT.

①

DAMAGED TAIL
AP-BCH



②

DAMAGED RADOME
AP-BCG

DAMAGED TYRES



③

FLAPS 20° DOWN
AP-BCH

DAMAGED FUSELAGE
AP-BCH

DAMAGED TYRES
AP-BCH



- 4 -

CLOSE VIEW OF DAMAGED PARTS

FLAPS 20° DOWN
AP-BCH

MOORING ROPE



CLOSE UP VIEW OF THE
DAMAGE - AP-BCG



DISPLACED
MOORING STONE



SCATTERED A/C
PARTS.



①

PATH OF
CYCLONIC THUNDER
STORM-UP ROOTED
TREE ←



②

NO. 2 UPROOTED
TREE ←



③

No. 3 UPROOTED
TREE.



④

DAMAGED
METAL DISPLAY
BOARD



⑤

50' OF FALLEN
WALL DUE TO
STORM.



-7-

NEW MOORING ROPE AND USED ROPE
BROKEN DURING STORM ON 05 SEP. 85

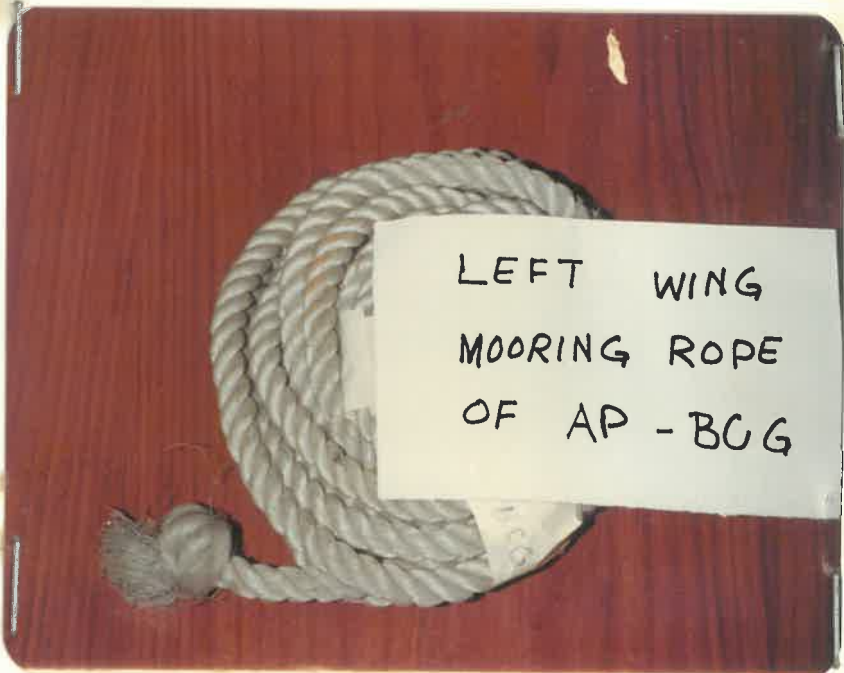
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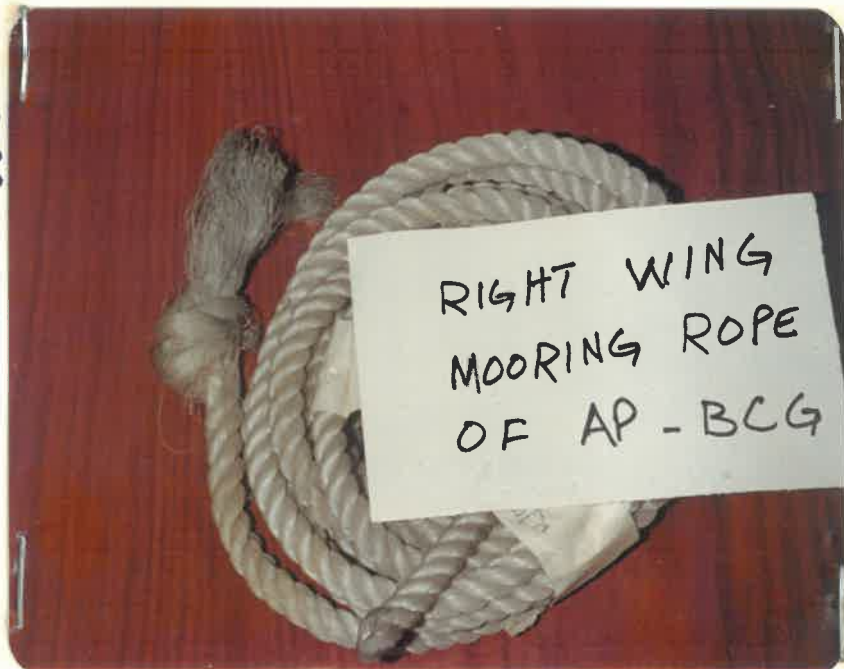


AP-BCG

2
BREAKING
STRENGTH
1653 lbs.
APPROX. 1/4
OF ORIGINAL
APPROVED ROPE.

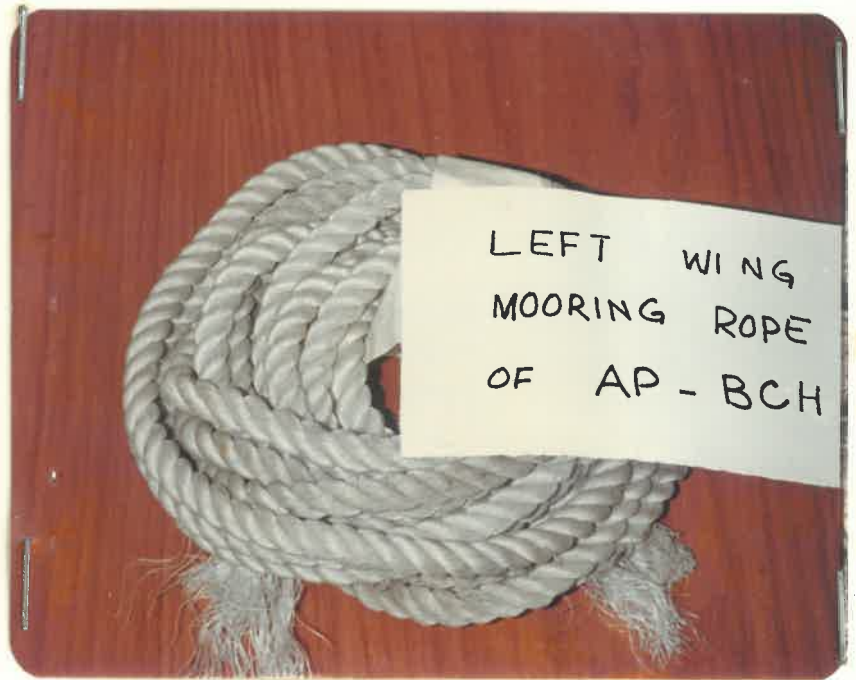


3



AP- BCH, MOORING ROPE

4



5

