

INVESTIGATION REPORT INTO AN ACCIDENT IN
WHICH G.P.U. NO. 645 HIT FOKER AIRCRAFT
REG. NO. AP-AUX, ON 101184 AT 0640 HRS.
AT ISLAMABAD AIRPORT

1. AIRCRAFT INFORMATION

- 1.1 Aircraft type and Manufacturer's S.No. : Foker, F-27
S.No. 10335
- 1.2 Registration Marking : AP-AUX
- 1.3 Engine type, installation & Manufacturer's S.No. : Two Rolls Royce
Dart 532
S.No. 398
- 1.4 Certificate of Registration. : S.No. 398
- 1.5 Certificate of Airworthiness. : 356/2
- 1.6 Certificate of Maintenance. : valid upto 11.11.84.
- 1.7 Date of Construction of Airframe : 1967
- 1.8 Owner : M/S P.I.A.C.
- 1.9 Weight permitted by C of A. : 19773 K.G.
- 1.10 Weight at time of accident. : N/A
- 1.11 C of G : N/A

1.12 AIRFRAME HISTORY

- 1.12.1 Hours since new : 36174 - 19
- 1.12.2 Hours since C of A Inspection : 403 - 23
- 1.12.3 Modifications : Upto date.

1.13 ENGINE HISTORY:

- 1.13.1 Hours since new : No. 1 - 2321.02
No. 2 - 3888-11
- 1.13.2 Hours since C of A Inspection : N/A
- 1.13.3 Modification : Upto date
- 1.14 Accessory History : N/A
- 1.15 Defects : N/A

2. CREW INFORMATION - Not Applicable.

3. SUMMARY

- 3.1. Fokker F-27, Registration No. AP-AUX was parked on Bay No.3 at Islamabad Airport. There were no occupants in the Aircraft. Mr. Misbah-ud-Din, Senior Technician P-42767 had carried out a rectification of a defect on GYRO HORIZON on Aircraft AP-AUX (Appendix "A").
- 3.2. After rectification earlier on Aircraft AP-AUR he wanted to check the serviceability of GYRO HORIZON on Aircraft AP-AUX for which he required a G.P.U. He could not locate the driver of G.P.U. No.645 and thus drove the said G.P.U. to Bay No.3 where AP-AUX was parked.
- 3.3. On reaching near nose of the aircraft he applied brakes to stop the G.P.U. but could not do so as brakes had failed and the brake pedal had gone fully down (App."B").
- 3.4. Mr. Misbah-ud-Din, Senior Technician P.No.42767 held a valid apron driving licence for driving light vehicles. He also held a civil Learner's Licence for driving heavy vehicles. In the interest of PIA and high sense of duty he drove G.P.U. No.645 to check the serviceability of GYRO HORIZON on aircraft AP-AUX. He did so as the driver of the said vehicle on duty, Mr. Fida Hussain P-24873 was not present and had left the vehicle un-attended.
- 3.5. The time of the accident was 0640 on 10th November, 1984.

4. INJURY OF PERSONS

- 4.1. There was no injury to any person.

5. DAMAGE TO AIRCRAFT

- 5.1. The following damage was noted after the aircraft was stripped:-

- 5.1.1. R/H Fuselage damaged fore and aft between STA 2170 and 3100 CMA cross-sec between strigers 44 and 41 complete skin need replacement.

/Three

- 5.1.2. Three bonded stringers No.42,43 and 44-A between above mentioned sta damaged need replacement.
- 5.1.3. Channel frame at STA-2480 damaged CMA need replacement STP its connection at top also damaged.
- 5.1.4. WEB plat supporting damaged 14 inches long CMA need replacement. REF SRM - 53-10-04 FIG-05.
- 5.1.4. Chine line rear of STA 2480 damaged 10 inch long patch as per SRM-53-01-02.
- 5.1.6.. Oxygen chargin connection damaged stp its connection lines damaged.
- 5.1.7. Pnew lines pt No PNEU-DI-76-71-1 CMA Pnew DI-79-27-1 CMA PNEW DI-80-27-1 and PNEW DI-80-27-1 damaged.
- 5.1.8. R/H side Fuselage skin and frame fore and aft between sta 4645 and Sta. 3100 and between stringers - 44 to 42 badly pressed especially at frames 3415-3460 3820-4240 and 4645. Area X-Ray and Eddy current insp in progress.
- 5.1.9. A deep scratch at stringer No.46 from flage sta 3820 and STA 4240.
- 5.1.10. Deep longitudinal dent from sta 2170 to sta 4645 at stringer No.49.
- 5.1.11. R/H side mlg and drag stay strut got shock loading as GPU got stopped against it.
Shock strut CMA drag stay strut and lock strut inspn of STBD side are being replaced for shop check.

6. OTHER DAMAGES

- 6.1. The following damage was noted on G.P.U. No.645:-
 - 6.1.1. Side pannels were damaged. (Appendix "E")
 - 6.1.2. Radiator grill was damaged.
 - 6.1.3. Engine top pannel was damaged.

/Metrological

7. METROLOGICAL CONDITIONS

7.1. Weather was fair. (Appendix "N")

8. AIDS OF NAV

8.1. Not applicable.

9. COMMUNICATION

9.1. Not applicable.

10. AERODROME & 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 applicable.

12. WRECKAGE

12.1. The damaged aircraft AP-AUX and G.P.U. No.645 is under repairs.

13. FIRE

13.1. No fire occurred.

14. SURVIVAL ASPECTS

14.1. The operator did not experience any difficulty in this respect.

15. TEST AND RESEARCH

15.1. Not applicable.

16. OBSERVATIONS

16.1. It was observed that the driver/operator of GPU No.645 Mr.Fida Hussain P-24873 was not at his place of duty and had left the vehicle un-attended. Mr.Misbah-ud-Din,

/Sr. Tech.

Senior Technician, P.No.42767 held a valid apron driving licence for driving light vehicles and also held a civil learner's licence for driving heavy vehicles. He drove the vehicle in the interest of PIA with the understanding that it was a light vehicle.

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

17. SCENE OF ACCIDENT

- 17.1. The Investigator Incharge reached the scene of accident at 0710 hours on 10th November, 1984.
- 17.2. On reaching the scene of accident he immediately took photographs of aircraft AP-AUX and GPU NO.645 involved in the ground accident.
- 17.3. The brake padel of G.P.U. No.645 was checked by the Investigator Incharge and found that it was fully down, indicating a brake failure. He tried to move the brake padel up and down and found it free.
- 17.4. The G.P.U. was also examined by Senior Airworthiness Surveyor, Civil Aviation Authority, Islamabad Airport who found that the foot brakes of the vehicle had gone to fully down position indicating that it had failed (Appendix "B").

18. EXAMINATION OF THE WRECKAGE

- 18.1. The aircraft was damaged, details are given in Appendix "J" and "M".
- 18.2. The aircraft and G.P.U. were released by the Investigator Incharge.

19. WITNESSES

- 19.1. The following information was obtained from the Witnesses:-

/Mr.Taj Muhammad

- 19.1.1. Mr. Taj Muhammad, Senior Airworthiness Surveyor, Civil Aviation Authority, Islamabad Airport (Appendix "B") was at the scene of the accident at 0645 hours on 10th November, 1984. He observed that the foot brakes of the vehicle had gone to fully down position indicating brake failure.
- 19.1.2. Mr. Misbah-ud-Din, Senior Technician P-42767 (Appendix "A") was on shift duty on 9th Nov., 84 from 2100 hours till 0730 hours the following day i.e. 10th November, 1984. He drove G.P.U. No.645 under the impression that it was a light vehicle and also as the operator of the said G.P.U. was not available. He intended to check the serviceability of defect on GYRO HORIZON on aircraft AP-AUX parked on Bay No.3. He did it in the interest of PIA and as conscientious and honest worker. On reaching the aircraft he applied brakes to stop the G.P.U. No.645 but failed to do so as the brakes had failed.
- 19.1.3. Brake defect on this GPU had also been reported on 8.10.1984 by operator Mr. Muhammad Ajaib P.No.26564. He made the following entry (Appendix "H").
- "that the brakes of G.P.U. are unserviceable however if it is to be used, maximum care is to be taken. This indicated lack of appreciation on the part of operator as vehicle without serviceable brakes is un-fit to drive and it also indicated poor supervision on the part of O i/c T.G.S.
- 19.1.4. According to Mr. Ashiq Hussain, workshop Supervisor P.No.11681 (Appendix "D") the same vehicle i.e. G.P.U. No.645 was brought by Mr. Rehman Sher operator on 9th November, 1984 and pointed out that the brake of the G.P.U. was defective. Mr. Ashiq Hussain, Workshop Supervisor checked the vehicle and found the brake has been having brake problem and the Officer

/Incharge

Incharge, T.G.S. section failed to analyse it and take effective measures.

- 19.1.5. Mr. Muhammad Azhar, Officer Incharge, T.G.S. P-40381 (Appendix "C") was not aware of the state of said G.P.U. No.645. He was also not aware of the entry made by the operator Mr. Ajaib P-26564. His control over the maintenance activities is poor and leaves much to be desired. Further-more he displayed poor supervision as a sectional head.

20. DOCUMENTS

- 20.1. The following information was obtained from the documents:-

20.1.1. The aircraft was properly registered bearing Nationality and Registration Mark AP-AUX.

20.1.2. Aircraft was properly maintained having valid C of A, C of M and D.I.

20.1.3. Tech. Log Book of G.P.U. No.645.

21. DISCUSSIONS

21.1. ANALYSIS

21.1.1. G.P.U. No.645 was serviceable as indicated in Tech. Log Book. (Appendix "K")

21.1.2. Mr.Misbah-ud-Din, Senior Technician P-42767 was on shift duty on 9th November,1984 from 2100 hours till 0730 hours the following day. He held valid apron driving licence for light vehicles and also had a civil learner's licence for heavy vehicles. He drove G.P.U. No.645 under the impression that it was a light vehicle and also as the operator Mr. Fida Hussain P-24873 was not available.

21.1.3. Mr. Misbah-ud-Din, Senior Technician P-42767 intended to check the serviceability of defect on GYRO HORIZON on Aircraft AP-AUX for which

/he

he required a G.P.U. He could not locate the driver of G.P.U. 645 and thus drove the said G.P.U. to Bay No.3 where AP-AUX was parked.

- 21.1.4. Brake defect on this G.P.U. had also been reported on 9th November, 1984 and previously on 8th October, 1984 by operator Mr. Muhammad Ajaib P-26564. He made the following entry:-
- "that the brakes of GPU are unserviceable however if it is to be used maximum care is to be taken. This indicated lack of appreciation on the part of operator as a vehicle without serviceable brakes is un-fit to drive." (Appendix "L")
- 21.1.5. Mr. Taj Muhammad, Senior Airworthiness Surveyor, Civil Aviation Authority, Islamabad Airport (Appendix "B") was at the scene of the accident at 0645 hours on 10th November, 1984. He observed that the foot brakes of the vehicle had gone to fully down position indicating brake failure.
- 21.1.6. Investigator Incharge also checked the said vehicle at the time of the accident and found that the brakes was unserviceable.
- 21.1.7. Mr. Muhammad Azhar, Officer Incharge, T.G.S. P-40381 was not aware of the entry made by Operator Mr. M. Ajaib P.26564. Further-more he wrongly stated that the brakes of G.P.U.No.645 were found serviceable after the accident. This borne out by the statements of Mr. Fida Hussain, Operator, P-24873, Mr. Taj Muhammad, Senior Airworthiness Surveyor and Investigator Incharge (Appendix "G" & "B").
- 21.1.8. From the available evidence it is apparent that Mr. M. Azhar, Officer Incharge, T.G.S. had poor control over the maintenance of TGS equipment. Further-more he wilfully made a wrong statement that the brakes of said G.P.U. No.645 were serviceable knowing fully that the brakes were unserviceable.
- 21.1.9. A number of staff of PIA and CAA were questioned about defining light vehicles and heavy vehicles but no one could give a clear answer.

/There

21.1.10 There was no mention of types of vehicles on apron driving licence, which fell in the category of light vehicles.

22. CAUSE

- 22.1 The cause of this accident was due to complete brake failure on G.P.U. No. 645.
- 22.2 Non availability of driver at the place of duty.
- 22.3 Carelessness on the part of the driver to leave the ignition key in the vehicle.
- 22.4 Poor supervision on the part of Officer Incharge, T.G.S. equipment, Mr. Muhammad Azhar and poor maintenance.

23. FINDINGS

- 23.1 The aircraft was properly registered.
- 23.2 The certificate of airworthiness was valid.
- 23.3 G.P.U. No. 645 was serviceable as per Tech. Log Book prior to the accident. (Appendix "K").
- 23.4 The accident happened due to complete brake failure on G.P.U. No. 645.
- 23.5 G.P.U. No. 645 had a history of brake snags and proper rectification had not been done.
- 23.6 No classification of light vehicles (type of vehicle) has been annotated on apron driving licence.
- 23.7 Poor supervision and maintenance by Officer Incharge, T.G.S. and wilfully making a wrong statement about the serviceability of brakes as borne out by the statements of Mr. Fida Hussain, Operator, P-24873, Mr. Taj Muhammad, Sr. Airworthiness Surveyor and Investigator Incharge.
- 23.8 Mr. Misbah-ud-Din, Sr. Tech. P-42767 drove the said G.P.U. No. 645 due to misunderstanding but in the interest of Service (P.I.A.)

/Recommendations

24. RECOMMENDATIONS

- ✓ 24.1 Disciplinary action should be taken against Mr. Muhammad Azhar, Officer Incharge, T.G.S. for the reasons as mentioned in para 21.1.8, 22.4 and 23.4 respectively.
- 24.2 Necessary annotation should be made on the apron driving licence indicating the types of vehicles which fall under the category of light vehicles.
- ✓ 24.3 The working of T.G.S. section should be streamlined.
- 24.4 Under the circumstances mentioned in para 23-8 his action (Mr. Misbah-ud-Din Sr. Tech.) of driving the G.P.U. No. 645 be condoned.

APPENDIX "M"
DAMAGE TO F-27, AP-AUX AND
G.P.U. 645

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DAMAGE TO F-27, AP-AUX

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