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HQ CAA/1901/~~155~~/SIB

AIRCRAFT ACCIDENT INVESTIGATION

UZBEKISTAN AIRWAYS IL-76 AIRCRAFT

WHICH OCCURRED ON 21-04-1993

AT

PESHAWAR AIRPORT

CIVIL AVIATION AUTHORITY

KARACHI, PAKISTAN

DRAFT ACCIDENT REPORT

ACCIDENT TO UZBEKISTAN AIRWAYS IL-76 AIRCRAFT

CCCP 76794 WHICH OCCURRED ON 21-04-1993

AT PESHAWAR AIRPORT

Authority Director General Civil Aviation Authority
Memorandum NO.HQCAA/1901/155/SIB dated 24th
April, 1993.

COMPOSITION OF INVESTIGATION TEAM

- | | | | |
|-----|---------------------------|---|---------------------------|
| (a) | Mr. Abdul Basit | : | Investigator-in-Charge |
| | Chief Inspector & | | |
| | President S.I.B. | | |
| (b) | Mr. Shamimuddin | : | Investigator |
| | Cont. of Airworthiness | | |
| | (North) CAA Islamabad | | |
| (c) | Mr. Nikitin Alexander | : | Accredited Representative |
| | Chief of Inspection, CAA | | |
| | Tashkent | | |
| (d) | Mr. Kin Genndi | : | Accredited Representative |
| | Chief Pilot, CAA Tashkent | | |

1. AIRCRAFT INFORMATION

- | | | | |
|------|----------------------------|---|-----------------|
| 1.1. | Registration Marking | : | CCCP 76794 |
| 1.2. | Aircraft type and Maker's: | | Ilyushin IL-76, |
| | S. No. | | S.No. 009348954 |

1.3. Engine types, airframe positions and Maker's S. Nos. & date of Manufacture	:	Four Soloviev D-30 KP-2 Turbo Fan engines in individual under wing pods.
		a) 03053048902024, 25-11-89
		b) 03053048902028, 25-11-89
		c) 03053048902038, 27-11-89
		d) 0304402112609, 04-05-81
1.4. Certificate of Reg.	:	No.2667
1.5. Certificate of A/W No. and date of expiry	:	Y3-466 valid till 30-12-94
1.6. Validity of Certificate of Maintenance	:	Maint release was valid
1.7. Date of construction of airframe	:	30-12-89
1.8. Name and address of Owner	:	Uzbekistan Airways. Tashkent, Uzbekistan
1.9. Max·take-off weight	:	157 MT
1.10. Airframe History	:	Aircraft had done 3232 flying hours and 1277 landings at the time of accident.
1.11. Engine History	:	a) 3305 hours since new b) 3047 " " " c) 3305 " " " d) 5138 " " "
1.12. Defect	:	No defect was reported by pilot.

2. CREW INFORMATION

2.1. PILOT-IN-COMMAND

2.1.1. Name	:	Atabaev Kadir Kurbanovich
2.1.2. Position in the Cockpit	:	Captain
2.1.3. Date of Birth	:	24-3-1946
2.1.4. Type of Lic & No.	:	Civil Aviation Lic No.IPNO-12924
2.1.5. Medical date with status	:	Last check up on 15-3-93
2.1.6. Rating		
2.1.6.1. Type(s) held	:	Pilot of the first class
2.1.6.2. Type current	:	Has a permission to fly on IL-76 flew on aircraft AN-2,JK-40, TU-154
2.1.6.3. Asstt/Flt.I.R	:	Instructor Rating
2.1.7.Flying Experience		
2.1.7.1. Ground total	:	12000 hours
2.1.7.2. Total-in-command:	:	2,000 hours
2.1.8. Where trained	:	Buguyuslam flying School, Civil Aviation
2.1.9. Date of joining Organization	:	In Civil Aviation from 1968

2.2. CO-PILOT

2.2.1. Name : Akimov Peter
Ivanovich

2.2.2. Position in the cockpit: Co-Pilot

2.2.3. Date of Birth : 16-01-1952

2.2.4. Type of Lic and : Civil Aviation Lic
No. No.OPN-017276

2.2.5. Medical date with : Last check up on
status 06-04-1993

2.2.6. Rating

2.2.6.1. Type(s) held : IL-76

2.2.6.2. Type current : L-29, UTI MIG-15,
MIG-17, AN-2, AN-24,
IL-76

2.2.7. Flying Experience

2.2.7.1. Grand total : 10,000 hours

2.2.7.2. Total-in-Command: -

2.2.7.3. Total-in-Command: 600 hours
Co-pilot on the
type accident
occurred

2.2.8. Where trained : The Center of Peppar
Pilot in Vlsanovsk,
USSR

2.2.9. Date of joining : 1973
the Organization

2.3. FLIGHT ENGINEER

2.3.1. Name	:	Sereda Stepan Nickolaevich
2.3.2. Position in the Cockpit:		Flight Engineer
2.3.3. Date of Birth	:	06-07-1949
2.3.4. Type of Lic & No.	:	Civil Aviation Flight Engineer
2.3.5. Medical date with status	:	Last check up 6-4-93
2.3.6. Rating		
2.3.6.1. Type(s) held	:	IL-62, IL-62M, IL-76
2.3.6.2. Type current	:	IL-76
2.3.6.3. Asstt/Flt Instructor	:	IL-62, IL-62M, IL-76
2.3.7. Flying Experience		
2.3.7.1. Grand total	:	6,000 hours
2.3.7.2. Total-in-Command:		2,000 hours
2.3.7.3. Flt. Engr on the type of accident occurred	:	2,000 hours
2.3.8. Where trained	:	AVIATION INSTITUTE IN HARKOV, HIGH SKOOL FOR FLIGHT ENGR IN VLSANOVSK
2.3.9. Date of joining the Organization	:	1976

3. SUMMARY OF ACCIDENT

3.1. UNHCR chartered Uzbekistan Airways Aircraft for carriage of cargo from Peshawar, Pakistan to Termez, Uzbekistan. The cargo consisted of a total of 1430 tent sets of 90 metric tons. Uzbekistan Airways scheduled two charter flights by ILYUSHIN IL-76 aircraft on 20th and 21st April, 1993. The flight on 20th was uneventful. However, the flight on 21st met with an accident. The flight on 21st April, 1993 was operated by IL-76 aircraft CCCP 76794. The aircraft while operating flight NO. UBZ 3542 on 21st April took off from Peshawar at 1918 hrs (PST) and landed back at 1938 hrs (PST) after declaring emergency. The aircraft crossed the Barrier on the runway and came to stop on the over-run area. There was neither fire nor injury to any crew member. The place where aircraft came to stop on the over-run area sunk by few inches. Both take-off and landing was on runway 35. Number of tyres on both forward and aft bogies of both left and right hand main landing gear burst. Pieces of tyre and rim caused secondary damage to aircraft structure. The damage was in landing gear bay areas and fuselage. Aircraft barrier and perimeter fence at end of 35, Jeep No. LET 7015 belonging to Mr. Salahuddin, wall and door of shop and house across the road were also damaged.

4. INJURY TO PERSON(S)

4.1. There was no injury to any of the crew members. However, one of the guards posted near the Airport perimeter fence at runway 17 fell into a ditch due to aircraft wash. He was taken to hospital & was released after check up. There was no serious injury. It was more a case of shock.

5. DAMAGE TO THE AIRCRAFT

5.1. Number of tyres had burst and many wheel assemblies were damaged both on left and right hand main landing gears. Aircraft fuselage and both left and right hand main landing gear bay area were damaged. Electrical wiring was found damaged at one of the locations. One of the radio antenna was also found damaged. Details of damage to aircraft is attached as Appendix 'A' to this report. Location of debris on runway is attached as Appendix 'B' to this report. The Appendix also shows level of surface from R/W 17 to the perimeter fence.

6. OTHER DAMAGES

6.1. The aircraft damaged arresting barrier installed at R/W 17 before coming to stop in over-run of R/W 35. Airport perimeter fence at R/W 17 was damaged. Surface of over-run of R/W 35 was damaged due to sinking of aircraft by few inches after coming to stop. Private property across University Road was damaged. The damage was limited to sign board, masonry wall and iron gate. A house about 50 metre from University Road was damaged. The damage were due to one of the tube pieces and aircraft wash. A jeep, belonging to an employee of Pakistan Tourism Development Corporation, which was under-neath the aircraft on University Road while the aircraft lifted off was damaged. The damage was limited to soft top, structure of the jeep roof and one of the rear seats was hurled out.

7. METEOROLOGICAL CONDITION

7.1. A CB developed in the South of Peshawar at 1900 hours (PST) which gave gusty wind at about 1930 hrs (PST) gusting to about 35 knots. Gusty wind continued till late evening. At about 1730 hours (PST) rain started accompanied by thunder. Thunder/rain continued with intervals till 1900 hrs (PST). However, thunder

continued till 2100 hrs (PST) although rain/shower seized. Runway became wet due to rain/showers. Wind at the time of accident was between 8-10 knots continuously changing its direction from South to West. Radar observation and actual weather at the time of accident are attached as Appendix 'C' & 'D' to this report.

8. NAVIGATION & LANDING AIDS (VISUAL/NON-VISUAL)

8.1. Not a factor in accident.

9. COMMUNICATIONS

9.1. ATC tape transcript is attached as Appendix 'E' to this report. Crew had problem in Communicating in English fluently with ATC.

10. AERODROME AND GROUND FACILITIES

10.1. Not a factor in accident.

11. FLIGHT RECORDERS

11.1. Graphs prepared from DFDR read out and CVR read out are attached as Appendix 'F' & 'G' to this report.

12. FIRE

12.1. There was no fire.

13. SURVIVAL ASPECTS

13.1. It was a cargo plane and was carrying cargo. However, Crew disembarked from normal exits. There was no problem what so ever.

14. TEST & RESEARCH

- 14.1. DFDR & CVR read out was obtained from facilities located at Tashkent, through the Director General Civil Aviation, Uzbekistan.

15. OBSERVATIONS

- 15.1. National Airfield clearance policy (NAFCP) has been violated by construction in the funnel & clearway areas by private parties. This is obviously a hazard for flight safety. The damage to private property occurred due to this illegal construction. NAFCP should be followed & the area should be cleared immediately to prevent any mishap in future. PIAC has not positioned Tug and tow bars at Peshawar Airport, despite recommendation by CAA in case of accident to PIAC's aircraft at that Airport. Due to non-availability of the same it is difficult to remove the aircraft expeditiously & consequently the runway remains blocked for considerable period in case of mishaps. PIAC should again be advised to position Tug & tow bars at Peshawar Airport.

16. INVESTIGATIONS

- 16.1. There was an agreement between UNHCR, Geneva & 'Relief Transport Services Ltd.,' U.K. The company chartered two flights from 'Uzbekistan Airways' to fly 90 metric tons (MT) of relief goods consisting of tent sets. These tents were required to be distributed amongst Tajik Refugees in Khuduz, Afghanistan.
- 16.2. Total of 1430 tent sets comprising of double fly tents, ground sheets & accessories were required to be transported. Uzbekistan Airways scheduled two flights by Cargo aircraft ILYUSHIN IL-76 on 20th & 21st April, 1993. The payment was required to be made on the basis of weight. Logistics Officer of UNHCR posted at

Peshawar handed over 1430 tent sets, loaded on 11 trucks to their forwarding agent 'Ocean Air International, Peshawar on 20th & 21st April, 1993. The forwarding agent was required to handle customs formalities, export permit, labour & trucking.

- 16.3. On 20th April, 1993 cargo of 5 trucks was loaded on the aircraft as the Flight Crew refused any further loading. On this day the cargo was first loaded on pallets and was then transferred to aircraft. The aircraft has weighing scales & the weight on the pallet can be measured. A total of 650 tent sets (minus some accessories) weighing 39 MT was carried on board. The weight of each pallet was noted & loading was supervised by load master. The flight was uneventful.
- 16.4. On 21st April, 1993 cargo of 6 trucks was loaded on the aircraft. Moreover, some accessories carried forward from previous day were also loaded. The cargo was not loaded on pallets as such weighing by aircraft scale was not possible. Bulk loading was resorted to. A total of 780 tent sets alongwith accessories left over from previous day were loaded on the aircraft. Weighing of cargo was not carried out on ground.
- 16.5. If it is assumed that 1430 tent sets weighed 90 MT, then weight of 650 tent sets would be 40.91 MT & that of 780 tent sets would be 49.1 MT. Since 39 MT, were carried on 20th April, 1993 remaining load of 1.91 MT & 49.1 MT was carried on 21st April, 1993. That means a total of 51.01 MT. However, physical weighing of cargo after the accident revealed a weight of 54.4 MT. The total weight & break-up of weight of each truck is attached as Appendix 'H' to this report. This discrepancy can be explained by the fact that either the estimate of one set of tent is incorrect or the cargo was drenched in rain water. It would be worth mentioning here that procedures were not followed as the cargo was not weighed at all & proper load sheet

was not prepared. Station Manager Uzbekistan Airways indicated that they have handling agreement with PIAC & preparation of load sheet is their responsibility. However PIAC's personnel disagreed with his contention & indicated that they only provide limited services & load sheet is not their responsibility. On further enquiry from concerned GM at PIAC's headquarters it was clear that there is mutual agreement between PIAC & Uzbekistan Airways for traffic handling at QIAP, Karachi and Tashkent. The agreement is not valid in case of Peshawar Airport. As such the contention of Station Manager Uzbekistan Airways is not correct & he was responsible for preparation of correct load sheet. The general declaration, load sheet, flight plan, trim sheet and Airway bill for the flight on 21st April, 1993 are attached as Appendix 'J', 'K', 'L', 'M' & 'N' to this report.

- 16.6. Flight NO. UBZ-3542 on 21st April, 1993 was operated by ILYUSHIN IL-76 aircraft CCCP 76794. The aircraft took off from Peshawar at 1918 hrs (PST) & landed back at 1938 hrs (PST) after declaring emergency. The aircraft was Airworthy and the flight crew had valid licences. There was rain & thunderstorm with gusting wind. Aircraft was cleared to take-off from runway 35. The wind direction was South to South West. Aircraft started take off roll but the acceleration was low as per statement of Pilot. Pilot also reported that the runway was about to end but the aircraft did not get airborne. It would be worth pointing out that over-run area is below the level of runway. The end of the over-run area is about 19 feet below the level of runway. Whereas top of perimeter fence is about 11 feet below the level of runway. Aircraft became airborne at the end of the runway but the main landing gear (MLG) wheels touched the perimeter fence. The barbed wire & pipe of the fence were damaged. Approximately an area of 50'x10' of the fence was damaged. The aircraft tyre burst and the tube piece was found in a house about

50 m from University Road. Jeep No.LET 7015 which was moving on University Road and was just beneath the aircraft was damaged. Private property on other side of University road & located in clear way and the funnel area was also damaged. Details of damage have already been provided.

- 16.7. Pilot heard the tyre burst & noticed vibration due to impact of MLG wheel with perimeter fence and thought that he had lost main landing gear(s). He, therefore, declared emergency and asked permission for landing & provisioning of emergency services. Right hand side of rear fuselage had also rubbed with the fence. A radio antenna located in this area was damaged. Pilot was cleared to land on runway 35. He attempted to land but he had to 'go-around'. In the second attempt Pilot successfully landed the aircraft on runway 35. He touched down at about 1000 feet from start of runway. However, the aircraft came to stop in over-run area after damaging arresting barrier. Some Aquaplaning marks were found on the tyre.
- 16.8. As the runway was partly contaminated with water the co-efficient of friction was low and there was aquaplaning. Due to this aircraft came to stop in the over-run area. Due to excessive braking the tyres burst. After tyre burst the wheel came in contact with runway and wheel rims were damaged. However, there was no damage to runway.
- 16.9. There was neither any fire nor any injury to crew members. The place where aircraft came to stop on over-run area sunk by 3" to 4". The areas involved are 50' x 12' and 20' x 10'. Number of tyres on both forward & aft bogies of both left & right hand main landing gears burst. Number of wheel rims of burst tyres were damaged. Pieces of tyres/tubes & rims caused secondary damage to landing gear bay areas and fuselage.

16.10. There is no evidence that the crews are less skilled than others. The aircraft they fly have a well - documented safety record. The problems appear to be in competence in air-traffic-control English, and unfamiliarity with operational environment about which, until recently, they had no need for knowledge.

17. WITNESSES

17.1. Statements of following is attached as appendices to this report.

17.1.1.	Pilot	"O"
17.1.2.	Co-Pilot	"P"
17.1.3.	Flight Engineer	"Q"
17.1.4.	Meteorologist	"R"
17.1.5.	ATCO	"S"
17.1.6.	SATCO	"T"
17.1.7.	Station Manager Uzbekistan Airways	"U"
17.1.8.	Logistics Officer UNHCR Peshawar	"V"
17.1.9.	OCEAN Air International	"W"
17.1.10.	PIAC's Cargo Terminal Manager	"X"
17.1.11.	PIAC's Cargo Officer	"Y"
17.1.12.	Mr.Salah-ud-din	"Z"

18. FINDINGS

18.1. The aircraft had no technical problems and was having a valid certificate of Airworthiness.

18.2. The crew were properly licenced and were fit to operate the flight.

- 18.3. During loading proper care was not taken. The cargo was neither weighed nor properly distributed in the aircraft to ensure the CG within limits. The crew also did not properly check load sheet & flight plan for the flight.
- 18.4. Weather was contributory factor.
- 18.5. Language problem existed between the crew and ATC. This is also evident from the two accidents which occurred to Russian registered aircraft in India.
- 18.6. Water accumulation on runway in patches causing wet and slippery conditions.
- 18.7. National Airfield clearance policy was not being followed which is contrary to the Air Traffic regulations.
- 18.8. PIAC has not positioned Tug & tow bars at Peshawar Airport, despite recommendations made in case of previous accidents to PIA Aircraft at that airport to retrieve their own aircraft.

19. CAUSE(S)

19.1. The cause of accident was

- 19.1.1. Improper load sheet prepared by Station Manager of Uzbekistan Airways.
- 19.1.2. Incorrect flight plan as it did not correctly cater for cargo & aircraft performance.

20. **RECOMMENDATIONS**

- 20.1. Action under the rules should be taken against Station Manager Uzbekistan Airways for incorrect load sheet.
- 20.2. Action under the rules should be taken against flight crew for incorrect flight plan.
- 20.3. While the Uzbekistan crew is operating in Pakistan they should quickly acquire proficiency with surrounding and understand the ATC procedures; meanwhile they should carry a CAA designated Pilot.
- 20.4. Payment should be made by Insurance Company for the damages to airport, Jeep of Mr. Salahuddin & private property. It would be worth pointing out that private property has been constructed in clear way & funnel area by violating policy.
- 20.5. Payment should be made by Uzbekistan Airways for the services provided by PAF. The details are available in statement of SATCO.
- 20.6. PIAC should again be asked to position Tug & tow bars at Peshawar Airport.
- 20.7. National airfield clearance policy must be enforced by the concerned agencies.



1. GENERAL VIEW OF THE AIRCRAFT



2. GENERAL VIEW OF THE AIRCRAFT



3. TYPE OF AIRCRAFT



4. TAIL NUMBER



5. GENERAL VIEW OF THE AIRCRAFT



6. TYRES TREAD PIECES AND HOSE



7. TYRE'S TUBES PIECES, RIM PIECES AND STRUCTURE PART



8. TYRE'S TUBES PIECES, RIM PIECES AND STRUCTURE PART



9. AIRPORT PERIMETER FENCE



10. DAMAGES ACROSS JAMRUD ROAD SIGN BOARD



11. DAMAGES ACROSS JAMRUD ROAD SIGN BOARD



12. DAMAGE OF WALL UNDER CONSTRUCTION ACROSS ROAD



15. AQUA PLANNING MASK ON L/H MAIN WHEEL (MW)



16. MW RIM DAMAGE



10
17. R/H REAR BOGIE MAIN WHEELS BURST



18. R/H BOGIE WHEELS



19. MW RIM DAMAGE



20. L/H REAR BOGIE MAIN WHEELS



21. L/H REAR BOGIE ATTACHMENT UPPER PANEL DAMAGE



22. L/H REAR BOGIE MAIN WHEELS TYRES DAMAGES



23. MAIN WHEEL RIM DAMAGE



24. R/H MAIN WHEELS PANELS UNDER SURFACE SKIN DAMAGE



25. R/H FUSELAGE SKIN DAMAGE



26. R/H MAIN WHEELS UPPER PANEL SKIN AND WIRING DAMAGE



27. R/H MAIN WHEELS PANELS UNDER SURFACE DAMAGE



28. FUSELAGE SKIN PANEL DAMAGE



29. TYRE MARKS ON RUNWAY



30. TYRE MARKS ON RUNWAY



31. DAMAGE TO SHRUBS & GRASS DUE TO AIRCRAFT WASH & JET BLAST