

ORIGINAL

NO.HQCAA/1901/230/SIB



CIVIL AVIATION AUTHORITY

**ACCIDENT INVESTIGATION REPORT IN RESPECT
OF M/S SCHON AIR C-172 AIRCRAFT REG.NO. AP-BDU**

WHICH OCCURRED ON 23RD JUNE, 1998

AT

**QUAID-E-AZAM INT'L AIRPORT
KARACHI**

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KARACHI, PAKISTAN

INVESTIGATION IN RESPECT OF ACCIDENT TO M/S SCHON AIR
(PVT) LTD AIRCRAFT REG. NO. AP-BDU C-172 OCCURRED ON
23RD JUNE 1998 AT QIAP KARACHI.

Authority:- Director General Civil Aviation Authority
 Memorandum No. HQ CAA/1901/230/SIB dated 27th
 June, 1998 (Appendix 'A')

Composition of Investigation Team

(a)	Air Commodore (Retd) Jamal Hussain President SIB CAA	Investigator In-charge
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1. AIRCRAFT INFORMATION

- | | | | |
|------|--|---|---|
| 1.1. | Aircraft type | : | Cessna - 172 |
| 1.2. | Reg. NO. | : | AP-BDU |
| 1.3. | Engine types, airframe positions & S.Nos. | : | Lycoming 0-320D2J,
SR.No.L7869-39A. |
| 1.4 | Certificate of Registration | : | 620 |
| 1.5 | Certificate of Airworthiness No. & date of expiry, and flight manual No. | : | 573 Expires 28.03.1999 |
| 1.6 | Certificate of Safety date & time (GMT) of issue and period of validity. | : | 6th June, 1996, valid up to 5th July, 98 |

- 1.7 Date of construction of : 1981
airframe.
- 1.8 Name address of Owner. : M/s Schon Air (Pvt) Ltd, QIAP
(Gen.Avn. Area) Karachi.
- 1.9 Airframe history. (Give : T.S.N. 8325:50, 260:35 11:55 up
flying times since
manufacture, last overhaul
and last periodic check.
List also essential
modifications completed.
- 1.10 Engine history. (Give :
flying time since
manufacture, last overhaul
and last periodic check.
List also essential
modifications completed). T.S.O. 260:35, 11:55 up to date.
- 1.11 Gross Weights. Maximum : 2400 Lbs.
permitted by C of A for
this flight, at the time of
accident.
- 1.12 Loading. Centre of gravity : PLS. See Pilot Operating
limits in C. of A. and
centre of gravity position
at the time of accident and
commencement of flight. Manual
C-172P
- 1.13. Accessory history, (Give : Same as engine.
details of operating life
and operating time since
manufacture and
overhaul).
- 1.14. Defects. (List and remarks : Under investigation by SIB.
upon any technical defects
in airframe engines or
accessories discovered
during investigation).

2. CREW INFORMATION

2.1 Pilot-in-Command

2.1.1. Name : Muhammad Owais Khan

2.1.2. Position in the Cockpit : Right Hand Seat

2.1.3. Date of Birth : 08.03.1966

2.1.4. Type of Lic and No : ATPL NO. 981

2.1.5. Medical date with status : June, 1998, valid.

2.1.6. Rating

2.1.6.1. Type(s) held : C-402, C-172, C-152

2.1.6.2. Type current : C-402, C-172, C-152

2.1.7. Flying Experience

2.1.7.1. Grand total : 2150 Hours

2.1.7.2. Total -in - Command : 2100

2.1.7.3. Where trained Karachi (Raji Aviation)

**2.1.7.4 Date of Joining : 26th December, 1994
the org,**

2.2 Co-Pilot

2.2.1. Name : Nasir Qadri

2.2.2. Position in the Cockpit : Left Seat

2.2.3. Date of Birth : 30.08.1971

3.1 Captain Muhammad Owais Khan, Acting Chief Flying Instructor Schon Air was scheduled to fly CPL renewal check flights with two under check pilots, Mr. Nasir Qadri and Mr. Muhammad Irfan, on 23rd June, 1998. Both the under check pilots were CPL holders and were flying check rides to

maintain their CPL currency. Captain Owais informed both the under check pilots a day earlier to report to the flying club for a 0800 hours start up. He further tasked Mr. Nasir Qadri to first file the flight plan with ATC before reporting to the club. Captain Owais had planned to check out Mr. Nasir Qadri from the left seat first while Mr. Irfan would ride as a passenger in the rear seat. After completing Mr. Nasir's check, the two under check pilots would swap seats on ground and Mr. Irfan would be given his check ride. The total mission, including the change over, was to be of 3 hours duration.

3.2 Mr. Nasir Qadri, after filing the flight plan reported to Schon Air where after a cursory brief by Capt. Owais he was asked to proceed to the aircraft and request for start up clearance. While Mr. Qadri was getting the start up clearance, Mr. Irfan, the second under check pilot also turned up at 0800 hrs. Without any briefing to Mr. Irfan, Captain Owais asked Mr. Irfan to sit in the rear seat.

3.3 Start up and taxi out was normal. Mr. Nasir was on control while Captain Owais was handling the R/T. As the aircraft approached tower, ground control asked AP-BDU (aircraft call sign) to change over to tower frequency and cleared them to enter Bravo taxiway. Tower cleared AP-BDU

for take off from RW 25L, reporting wind as 260 degree/10 kts. As AP-BDU entered RW 07R/25L, ATC informed the Captain that RW 07R is available and he could use it if he was ready for an immediate take off. Captain Owais stopped the aircraft about 300 feet from Bravo link facing 07 and confirmed to ATC that he was in a position to take off from present position, facing 07. Take off was initiated. As per the statement of DATCO, who was an eye witness to the whole incident, the aircraft lifted off normally about 1000 to 800 feet before Delta link, climbing to about 20 to 30 feet AGL before he noticed a discernible nose pitch up followed by a rapid sink rate. The aircraft hit the centre frangible barricade which had been placed 150 feet from Delta link to mark the end of RW 07R and beginning of RW 25L, swerved to the left and impacted ground nose first, skipped a couple of times and eventually flipped over on its back off the paved surface to the left and came to rest. Rescue services were alerted who reached the scene within a minute. DATCO saw the three occupants come out of the wreck apparently unhurt and there was no sign of fire.

4. Injury to Person

4.1 No apparent physical injury to any of the three occupants although Mr. Irfan , the passenger, did complain of a sore back, which improved after a couple of days' rest.

5. Damage to Aircraft

5.1 See Appendix 'B'.

6. Other Damages

6.1 Nil

7. Meteorological Conditions

7.1 Surface wind 260 degree/10 kts, visibility 8 kms, no weather warning.

8. Navigation and Landing Aids.

8.1 Not relevant.

9. Communication

9.1 Not relevant

10. Aerodrome and Ground Facilities

10. The last 2000 feet of RW 07R (east of Delta Link) had been closed for repair work. RW beginning marking of 25L were painted at the Delta Link. Three frangible aluminium light barricades 4 feet in height were placed 150 feet further east of Delta link to provide clear visual cue to the aircraft and vehicular traffic. These actions were duly notamized (Appendix E).

11. Wreckage and Impact Information

11.1 See Appendix 'C'.

12. Fire

12.1 No fire was caused in this accident

13. Witnesses

13.1 Statements of witnesses are given at Appendices 'D-1' to 'D-6'.

14. Investigation

14.1 Mr. Nasir Qadri, holder of CPL licence no. 2099, was on the control during the take off phase. In his statement he admitted that he had failed to check the latest NOTAMS while filing the flight plan despite the fact that he was flying a check ride after about six months' gap. Nearly 2000 feet of RW 07R had been closed (east of Delta link) for reconstruction work and this fact had been notified through a NOTAM issued on 24.05.1998 (Appendix E). He was given minimal brief on mission details and asked to go to the aircraft and request for start up clearance. The presence of another person, Mr. Irfan, who was sitting in the rear seat was a surprise for him. Start up, and taxi out to abeam ATC was normal with Mr. Nasir on control with Captain Owais handling the R/T. Initially they were cleared for RW 25L but as Mr. Qadri entered RW 07R from point Bravo and was beginning to back track on 07R to go to beginning of 25L, ATC gave them permission to take off from RW 07R if they so desired. At this point, Capt. Owais took over controls, stopped the aircraft facing 070 degree and confirmed to ATC that they were ready for an immediate take off from present position. They were cleared for an immediate take off. Having completed take off checks, Captain Owais asked Mr. Qadri to execute a short take off and handed over controls

to Mr. Qadri. Mr. Qadri acknowledges taking over control after brake release. At about 40 kts, Mr. Qadri noticed the frangible barricades that had been placed beyond point Delta to warn both aircraft and vehicles that they were entering an area where construction work was in progress. Mr. Qadri admits that the appearance of barricades about 1500 feet ahead come as a surprise, rather shock. From his statement it is evident that the appearance of barricades set in an element of panic. At that point Mr. Qadri maintains that Captain Owais put his hands over the controls and in Mr. Qadri's opinion, Captain Owais had taken over controls without announcing. Mr. Qadri assumed that Captain Owais had the controls now but Mr. Qadri did not remove his hands from the yoke. According to Mr. Qadri, the aircraft got airborne normally but did not appear to gain sufficient height. As the barricades appeared closer, Mr. Qadri thought that Captain Owais had increased back pressure further in an effort to avoid hitting the barricades which only resulted in the aircraft developing a sink. As the aircraft approached the barricades, Mr. Qadri admits to pulling the yoke back fully as a last ditch effort to avoid hitting them. Unfortunately the aircraft hit the centre barricade, swung left, the nose dropped and the prop touched the runway and eventually after a few skips, it flipped over.

14.2 Captain Owais Khan's statement upto the take off point corroborates fairly closely with Mr. Qadri's statement. At take off point, Captain Owais admits that he accepted ATCO's offer of RW 07R as it would help to save at least two to three minutes on the ground. He was aware that from point Bravo to end of RW 07R was about 5000 feet. Further more, since from 25.05.1998, runway beyond point Delta had been declared sterile (closed) so his effective runway availability was about 3000 feet. Considering that they had lined up about 300 feet ahead of point Bravo, he had only 2700 feet of RW to work with (see Appendix 'K' & 'L'). He also realised that he would be taking off into 10 kts of tail wind. According to Captain Owais, he calculated his take off distance with 10 kts tail wind to be about 1630 feet leaving him about 1070 feet as safety margin, which he considered adequate for a safe take off for Cessna 172. He asked the under check pilot to execute a short field take off. Take off roll upto 40 kts was uneventful. He remembers nose lift off at 50 kts and getting airborne at 55 kts .For some inexplicable reason, at that moment he tried to call tower to reconfirm if they were cleared for right turn out of traffic and having failed to raise tower, he was in the process changing to the secondary radio when he suddenly realised that the aircraft speed was dropping through 50 kts to 45 kts (46 kts is the stall speed at that configuration). He asked Nasir

to lower the nose and he tried to push the yoke forward but felt resistance. By this time the aircraft had already entered a stall which resulted in it first hitting the frangible barricade before hitting the ground and coming to a stop on its back.

14.3 The third passenger, Mr. Irfan was an important eyewitness. In his statement he was unable to confirm the conversation that took place between Captain Owais and Mr. Nasir Qadri from start up onwards because their voices were not audible to him. However, he categorically states that throughout the take off run phase, Mr. Qadri was on control while Captain Owais appeared to be busy with the radio. He also recalls normal lift off at about 55 kts, which is the correct lift off speed for a short field take off at their given weight,. He then remembers the speed dropping from 55 kts to 45 kts, which alarmed him, and he was about to warn the pilots when he noticed Captain Owais attempting to correct the situation. It was rather late by then and the aircraft had entered a stall from which it failed to recover and eventually crashed.

14.4 Duty ATCO also confirms that till lift off, all appeared normal and at about 20 to 30 feet AGL, the aircraft started to sink till it hit the centre barricade and crashed. He was asked as to why did he offer RW 07R with 10 kts tail wind to which he

replied that take off from 07 would have helped in adjusting other incoming/outgoing traffic. He also added that decision to take off into wind or down wind finally rests with the pilots. DATCO also confirmed that PK-302 had gotten air borne from RW 25R (main runway north of and parallel to RW 07R/25L) two minutes prior to AP-BDU was given take off clearance. Given the wind condition, this two minutes time interval practically eliminated any chances of AP-BDU coming under the effect of PK-302's (Airbus) wake.

14.5 Chief Operations Officer was examined. He was asked to explain the presence of 4 feet high aluminium hurdles 300 feet from the end of Delta link on RW 07R/25L. He clarified that due to reconstruction programme of RW 07R/25L, the last two thousand feet east of Delta link had been closed and this was duly notified through a NOTAM (Appendix 'E'). He also added that proper runway marking to show the new beginning of RW 25L were painted to ensure pilots have the visual cues both for take off and landing at RW 07R/25L. To give further warning to the pilots, three light aluminium hurdle shaped obstruction markers were placed 300 feet further east of Delta link across the width of the declared sterile portion of RW 07R/ 25L. These obstruction markers were about 4 feet height and were brightly coloured with red stripes to make

them easily visible. These "frangible" obstruction markers were in accordance with the guidelines given at pages 97/98 of Chapter 8 of Annexure-14 Aerodromes (Appendix 'F'). and Chapter 5 pages 35/36 of Airport Services Manual (Appendix 'G').

14.6 Inspection of crash site revealed that the aircraft right elevator first impacted the centre barricade, knocking and breaking it down. A portion of right stabiliser was found about fifty feet from the position of the other two side barricades, (Appendix 'C-1'). Broken portions of the centre barricade were lying about 100 feet away. First propeller mark impact was about 340 feet from the barricades (Appendix 'C-2'). The aircraft was lying inverted facing west about 540 feet from the barricade. The right stabiliser portion was found broken and it had red colour embedded in it suggesting that it had impacted the centre barricade first (Appendix 'C-8'). Right elevator half portion was found lying 100 feet from the main wreckage, (Appendix 'C-6'). The cockpit instruments were found compressed but the ASI was serviceable and was recovered. It was sent for testing and found to be satisfactory (Appendix 'H'). The pilot/passenger seats were slightly buckled and right nose wheel had broken off. The propellers were bent forward clearly indicating that they were under torque (developing

power) during impact. Fuel shut off switch was found off which Captain Owais in his statement mentioned that he had switched it off after the crash before getting out of the wreckage.

15. Analysis

15.1 From the statement of Captain Owais and his under check pilot Mr. Nasir Qadri and from the observation of Duty ATCO and examination of impact point and wreckage, it is obvious that Cessna 172 No. AP-BDU stalled soon after getting airborne and as a result, hit the centre frangible barricade that had been placed 300 feet beyond Delta Link, and eventually crashed coming to rest up side down, just off the edge of the concrete surface beyond Delta link. What led to the stall ? Three possibilities were examined which will be discussed in the subsequent paragraphs.

15.2 Engine Failure. Engine failure soon after lift off can lead to a stall if the pilot does not react immediately by lowering the nose and landing straight ahead. In this accident the pilots did not report any engine malfunction till the point of

impact. Duty ATCO also does not remember any change in engine sound till after the crash. The damaged propellers (bent forward) clearly indicate that engine was developing power as it impacted that runway. The engine was fully certified and had valid certificate of airworthiness. Stalling out due to loss of power is thus ruled out.

15.3 Over Reading Airspeed Indicator. Since the difference between the lift off speed for a short field take off and stall margin of Cessna 172 is only about 9 Kts (55 Kts being lift off speed and 46 Kts stall speed) an airspeed indicator overreading by 10 Kts could lead to premature lift off resulting in a stall. In this instance lift off was successful at 55 Kts and the aircraft climbed to about 20 to 30 feet hence the airspeed indicator appeared to have been correctly calibrated. Also, the aircraft stalled out once the speed was indicating about 45 Kts (statement of both the pilots and the passenger) which again points to a serviceable gauge. And finally to be absolutely certain, the airspeed indicator was sent for calibration check and the test report has declared the airspeed indicator serviceable. A faulty over reading airspeed indicator as being the cause of stall is ruled out.

15.4 Mishandling of Aircraft. During the take off phase, monitoring of speed is the most critical phase as the margin of error between take off speed and stall speed is small (in this case 9 Kts). The under check pilot admits that during the take off run at around 40 Kts, the sight of the barricades about 1500 feet ahead surprised him and thus a state of panic was introduced. He erroneously assumed that the Instructor Pilot had taken over the control whereas he was still flying the aircraft. The aircraft got airborne at about the correct speed but the under check pilot (Mr.Qadri) appeared to be more worried about clearing the barricades and was not monitoring the speed. Unconsciously he increased pressure on the yoke thereby raising the aircraft nose higher than required which quickly led to the speed bleeding off to 50 Kts and then to 45 Kts where the aircraft entered a stall. Unfortunately the Instructor Pilot (IP) at that critical moment was busy with the radio, ostensibly trying ^{to} contact tower to reconfirm turn out of traffic directions, an information he could have easily delayed asking for till the aircraft was safely airborne. But the time the IP realised the drop in speed and reacted, it was too late and stall had set in. With only 20 to 30 feet of height above ground, a crash was inevitable. The collision with the centre frangible barrier led to the break up of the right elevator which made the aircraft go out of control and impact the surface

nose first, before flipping over. If the aircraft had avoided hitting the barricade, it most probably would have touched down very hard on all three wheels possibly resulting in breaking of the undercarriages. The damage to the rest of the airframe would most likely have been of a lesser magnitude. Mishandling of controls during the take off phase by the under check pilot and lack of monitoring by the IP and late reaction by him (IP) led to the stall and subsequent crash.

15.5 Other Factors. Why did the under check pilot's attention get diverted from monitoring the airspeed and instead got fixed to the barricades and why was the IP slow to spot the error? Some of the major factors observed were:-

15.5.1 **Ignorance of NOTAM.** RW 07R was shortened by 2000 feet and a NOTAM had been issued. The under check pilot did not check the NOTAM and the IP did not remind him about this change despite the fact that the under check pilot was flying after a gap of six months and the NOTAM was issued only about a month earlier. If the Under check pilot had checked the NOTAM or had the IP briefed him about it before the mission, the SP might not

have reacted in a panic, which eventually led to the stall.

15.5.2 **Inadequate Pre-flight Brief.** Captain Owais was taking the under check pilot on a check sortie. He also should have known that the SP was flying after a gap of about six months. Formal briefings on the exercises should have been conducted and a refresher of normal and emergency procedure should have been carried out. The IP failed to carry out a proper briefing . Had a proper briefing been conducted, the SP may not have made such an elementary error of not monitoring speed during the take off phase.

15.5.3 **IP's Pre Occupation with R/T.** When an under check pilot is performing a take off, the IP's primary task is to monitor the aircraft direction and speed. He cannot allow himself to get distracted with any other task. Even if a call is to be made. He must not take his eyes off the speed and direction. In this accident, firstly the IP was trying to get confirmation of turn out of traffic from ATC which was totally unnecessary at that stage because standard

departure for RW 07R is to climb straight ahead on runway heading till 3000 feet AMSL before contacting approach control for further instructions. Why did Captain Owais want to confirm right turn out of traffic when the under check pilot was in the critical phase of breaking ground is inexplicable. An even if for some obscure reason he wanted to contact tower, he could have done so without taking his eyes off the airspeed indicator and the aircraft nose attitude. That he neglected to do either is a reflection of his casual attitude. Under check pilots are expected to make elementary mistakes and IPs are trained to spot them in time and take corrective action. Captain Owais failed in his duties as an IP.

15.5.4 Decision to Take off Down Wind

"Runway behind and sky above are useless" is the first maxim a pilot is taught. Unless absolutely necessary, taking off under tail wind condition are to be avoided. In this instance although Captain Owais did not violate aircraft performance limits because 2700 feet of available runway with 10 Kts of tail wind was enough for a Cessna 172 to get safely airborne, it does reflect poor airmanship because by opting to

take off from where he did, he had unnecessarily reduced his margin for error. Back track to 25L which was the take off runway given to him originally and taking off with 10 Kts of headwind would have given him ample margin to cater for any take off emergencies. A word about the Duty ATCO. Again DATCO did not violate any rule when he offered a down wind runway to the pilot. However, under normal circumstances DATCOs should not, on their own, offer a Runway for take off when a tail wind exists. That the Duty ATCO in this accident himself offered a change of runway from one which had a headwind of 10 Kts to one with a 10 Kts tail wind in order to facilitate an early take off which would help reduce traffic congestion may have been well intended but did not turn out to be a wise decision. Such actions can only be justified if the Runway needs to be cleared immediately to recover an aircraft in emergency.

16. Findings

16.1 Captain Owais, CFI, Schon Flying Club, was authorised to fly CPL, IR check sorties with Mr. Nasir Qadri CPL holder 2099 and Mr. Irfan Butt CPL holder 2040 on 23rd June, 1998.

16.2 The aircraft Cessna 172 No. AP-BDU was fully serviceable and had no discrepancy.

16.3 Mr. Nasir Qadri the under check pilot was flying after a gap of about six month.

16.4 Mr. Qadri had filed a flight plan with ATC at about 0720 hours for a 0800 take off.

16.5 Mr. Qadri did not check the latest NOTAM and was unaware that east of Delta link of RW 07R/25L had been closed vide a NOTAM that had been issued on 24-5-1998 (Appendix 'E').

16.6 Captain Owais briefed the under check pilot only to the extent about the exercises the under check pilot was expected to perform. Captain Owais did not carry out any refresher brief on normal and emergency procedures.

16.7 Captain Owais asked the second under check pilot, Mr. Irfan Butt, to sit in the rear seat as a passenger without any briefing. Captain Owais was planning to check Mr. Irfan Butt out after completing the check out of Mr. Nasir Qadri. He had planned to brief Mr. Irfan Butt during the change over.

16.8 Start up and taxi out to abeam ATC tower was normal with Mr. Nasir Qadri on control while Captain Owais was handling the R/T.

16.9 Abeam ATC tower AP-BDU was cleared to enter RW 07R/25L via Bravo and was cleared for back track to line up on intersection D. Wind was reported as 260 Degree /10 Kts and visibility 8 Kms (Appendix 'J').

16.10 As AP-BDU entered active 07R/25L via Bravo Link, Duty ATCO offered RW 07R to the aircraft and asked him if he was ready for an immediate take off (Appendix 'J').

16.11 The reason for offering RW 07R, which had a 10, Kts tail wind component was to expedite take off of AP-BDU which would have helped in adjusting other traffic.

16.12 Captain Owais stopped the aircraft about 300 feet from Bravo Link and confirmed to ATC that it was no problem to take off from present position on 07R and "we are ready".

16.13 ATC cleared AP-BDU for take off repeating surface wind.

16.14 Captain Owais acknowledged the take off clearance also mentioning "right turn out ...rolling" (Appendix 'J').

16.15 Prior to rolling, Captain Owais and Mr. Nasir Qadri carried out pre take off checks. Captain Owais asked Mr. Qadri to perform a "short field take off" which Mr. Qadri acknowledged. Mr. Qadri also recollects flaps being set to 10 degrees, which is the standard for short field take off procedure.

16.16 Two minutes before AP-BDU was cleared for take off PIA flight 302 had taken off from main Runway 25R.

16.17 As AP-BDU commenced its take off roll, ATC reminded AP-BDU to "confirm take off before intersection" in a bid to re-emphasise the point that beyond east intersection Delta, RW

07R/25L had been notamized as sterile area where work was in progress (Appendices E and J).

16.18 At around 40 Kts, Mr. Qadri spotted three barricades just beyond Delta link at about fifteen hundred feet away. Mr. Qadri was unaware of the NOTAM by which the length of RW 07R had been reduced and all area beyond Delta link had been declared sterile area.

16.19 The appearance of barricades took Mr. Qadri by total surprise. He feared that the aircraft might not be able to clear the obstructions within the remaining distance available.

16.20 Mr. Qadri got airborne at about 55 Kts roughly 800 to 1000 feet before the barricades. He was still unsure whether the aircraft would be able to gain sufficient height in time to clear the barricades.

16.21 Mr. Qadri's attention was diverted to the barricades and after lift off he unconsciously raised the nose attitude higher than required which led to a rapid bleed off of speed.

16.22 Mr. Qadri was too engrossed with watching the barricades and failed to monitor the speed drop till the IP took over. At that stage the aircraft had entered a stall.

16.23 While Mr. Qadri was in the nose lift off phase, Captain Owais was busy trying to establish contact with tower to confirm about turn out of traffic direction.

16.24 Captain Owais failed to monitor the error of the under check pilot till too late. By the time he realised that speed was dropping to a dangerously low level, it was too late. His attempt to correct the situation by pushing forward on the yoke could not rectify the situation. The aircraft had already entered a stall and with only 20 to 30 feet of height above ground, a crash became inevitable.

16.25 Captain Owais could not offer any explanation as to why he failed to notice the error in time.

16.26 The aircraft lost height rapidly; the right elevator hit the centre barricade putting the aircraft out of control. It banked to the left with the nose dropping. The aircraft propellers hit the surface making the aircraft skip a couple of times before flipping

over and coming to rest on its back off the left edge of the concrete surface.

16.27 The three occupants exited the aircraft without any apparent injury. Captain Owais took the precaution of shutting off the fuel supply before crawling out of the wreck.

16.28 Duty ATCO initiated the crash action immediately on witnessing the crash.

16.29 Fire trucks reached the scene of accident within a minute of being alerted.

16.30 There was no sign of fire so fire extinguishers were not used.

16.31 The aircraft has sustained major damage. Damage details are given as (Appendix 'B').

17. Cause (s) Of Accident

17. Failure of Mr. Nasir Qadri, the under check pilot, to maintain flying speed after getting airborne. The unexpected appearance of the barricades unnerved him to the extent that

he unconsciously raised the nose to an attitude, which resulted in rapid drop of speed, which eventually resulted in stalling of the aircraft. Being unaware of the NOTAM where the change in runway length had been notified was a major contributory factor.

17.2 Failure of the IP, Captain Owais to monitor the under check pilot's performance during take off. Captain Owais allowed his attention to get diverted to making some trivial R/T calls and subsequently failed to notice the rapid drop in speed till it was too late. Inadequate briefing to the under check pilot on normal and emergency procedures, was a major contributory factor.

18. Recommendations

18.1 CPL of Captain Owais, which was suspended on 25-06-1998, may be restored. However his Rated Flying Instructor (RFI) status should be reviewed by CFS.

18.2 Mr. Nasir Qadri's CPL check ride should be flown by a CAA Inspector.

18.3 Schon Air must emphasise on all their instructors on the importance of proper briefings and debriefings even on check sorties.

18.4 Chief Operations Officer QIAP to replace the present barricades with ones with heights of two feet or less.



Portion of
→ stabilizer
of right size
was recovered
from this
point.

BARRICADES ABOUT 2500 FT DOWN THE RUNWAY.



VIEW OF CRASH SITE FROM BARRICADES.

APR-C2



MARKS ON GROUND ABOUT 340FT FROM BARRICADES. ANOTHER VIEW.



APP-C3"



BARRICADE BROKEN PARTS.



APP 'C4"



EVIDENCE OF TYRE MARKS ABOUT 180 FT FROM THE AIRCRAFT.



APP-C5'



TOP MARKS ON THE GROUND - ABOUT 240FT FROM BARRICADES.



TOP GROUND MARKS ABOUT 240FT FROM THE BARRICADES - CLOSE-UP
VIEW. NOTE:- TYRE RUBBING MARKS - PATTERN.

APP-C6



CRASH SITE ANOTHER VIEW

Right
elevator
(half
portion)
which had
broken off
after impact
with barricade
and ground.



APP-C-7*



AIRCRAFT CRASHED SITE _ ABOUT 540' FROM BARRICADES.



APP 'C8'



→ Right stabilizer damage (red colour of the barricade was found embedded in the broken portion of the stabilizer)

CRASH SITE ANOTHER VIEW.

