

**Aviation Safety Investigation Report
199502934**

**Cessna Aircraft Company
C-152
Piper Aircraft Corp
Warrior**

04 September 1995

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Occurrence Number: 199502934 **Occurrence Type:** Incident
Location: Coolangatta, Aerodrome
State: QLD **Inv Category:** 4
Date: Monday 04 September 1995
Time: 1444 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-28-151
Aircraft Registration: VH-BSY **Serial Number:** 28-7415143
Type of Operation: Non-commercial Practice
Damage to Aircraft: Nil
Departure Point: Coolangatta Qld
Departure Time: 1444 EST
Destination: Coolangatta Qld

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Student	14.8	42

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: 152
Aircraft Registration: VH-HVI **Serial Number:** 15281112
Type of Operation: Instructional Dual
Damage to Aircraft: Nil
Departure Point: Coolangatta Qld
Departure Time:
Destination: Coolangatta Qld

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	1000.0	7300

Approved for Release: Wednesday, August 14, 1996

CIRCUMSTANCES



At the time of the incident, control tower staff comprised an aerodrome controller, a surface movement controller and a coordinator. Aircraft traffic was a Cessna 172 engaged in circuit training, a helicopter operating close to the airport boundary, two other aircraft inbound to the circuit and a Piper PA 28 taxiing for takeoff. In addition, a maintenance vehicle was working in the vicinity of the runway.

The pilot of the PA 28 requested and was given a clearance, by the aerodrome controller, to line up on runway 32. The aircraft was lined up adjacent to taxiway F which is 430 m from the runway threshold. The PA 28 was held on the runway whilst the controller coordinated requirements for some of the other traffic. Shortly after the PA 28 lined up the pilot of the Cessna 172 requested a clearance to land on runway 32. The controller checked that the runway appeared to be unoccupied and cleared the pilot of the Cessna 172 to land. Shortly before the Cessna 172 touched down, the controller noticed that the PA 28 was still on the runway. He did not give any instructions to the pilot of either aircraft. The Cessna 172 landed on the threshold and turned off the runway at taxiway D, 390 m further on. The controller then cleared the pilot of the PA 28 to takeoff.

The Manual of Air Traffic Services indicates that a controller should not clear an aircraft to land unless he or she is assured that the landing area will be available. Similar rules are set out in the Aeronautical Information Publications for pilots. Experience suggests that controllers normally use a combination of situational awareness and visual cues to help meet their runway requirements. The aerodrome controller reported his situational awareness was reduced by the distraction caused by the coordination requirements for other traffic and the maintenance vehicle. As a result he forgot about the PA 28 after he had cleared it to line up. When the controller checked the runway for obstructions, after the pilot of the Cessna 172 had requested a landing clearance, his vision was partly obstructed by a visual display unit located on the console in front of him. As a result he did not see the PA 28 until he stood up from his normal operating position. This did not occur until after he had given the clearance to land. At that point the Cessna 172 was about to touch down. The controller considered that any instructions from him might make the situation worse and he decided to say nothing. He knew the pilot of the Cessna 172 was very experienced and would avoid any conflict, if possible.

The other tower staff reported they were busy with their own tasks and were not aware of the impending conflict.

The pilot of the PA 28 was inexperienced and reported that he had not fully assimilated the other circuit traffic when he lined up on the runway. As a result he did not recognise that the Cessna 172's clearance to land would place that aircraft in conflict with his.

The pilot of the Cessna 172 reported that he was concentrating on his student's performance and was not paying attention to other traffic. Therefore, he was not aware the PA 28 had not been cleared for takeoff. He observed that the PA 28 was still on the runway as his aircraft approached touchdown. Assuming it had been given a clearance to takeoff, he initially thought the PA 28 would get airborne before his aircraft landed. When the PA 28 did not move he reassessed the situation and decided it was safer to continue with the landing than to attempt a go-around. His student had to apply power to roll through to taxiway D, after landing.

Although the visual display unit obstructed the controller's vision of the runway from his normal operating position (seated), it is not unusual for similar obstructions to exist, particularly in older control towers where roof support-posts are used. Consequently, it is accepted practice for controllers to move their position when checking that a runway is not occupied. In this incident the controller did not do this before he cleared the Cessna 172 to land. It is probably that, in the pressure of the moment, he did not recognise that his vision was obstructed.

SIGNIFICANT FACTORS

The following significant factors were identified as contributing to the incident.

1. The aerodrome controller's situational awareness was reduced, by distraction, to a point where he forgot about the position of an aircraft that was critical to his clearance decision.
2. The aerodrome controllers scan of the active runway was obstructed by a part of the tower equipment and, in the pressure of the moment, he did not recognise the obstruction. Consequently, the controller did not move to check the complete runway, and he did not observe the runway was still occupied, when he cleared the Cessna 172 to land.
3. The inexperience of the PA 28 pilot was a factor in his not recognising that the Cessna 172's clearance could place that aircraft in conflict with his.
4. The pilot of the Cessna 172 was distracted by his instructional activities and did not recognise that the PA 28 had not been cleared for takeoff. Consequently, he allowed the student to continue the approach in anticipation the landing area would be clear before the aircraft touched down.
5. When the pilot of the Cessna 172 realised the landing area would not be clear, he assessed that the safest alternative was to continue to a landing rather than attempt a go-around. As a result the Cessna 172 landed on an occupied runway.

