

CALLBACK

From NASA's Aviation Safety Reporting System

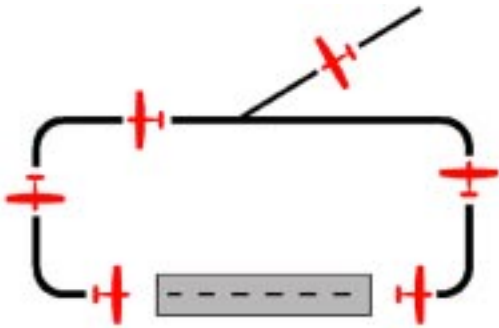


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Is There a Pattern Here?

Vigilance and adherence to published procedures are critical when operating in or near an airport traffic pattern. Whether the airport is towered or non-towered, certain fundamentals apply to all pattern operations. Clear, concise communications, see and avoid, and use of standardized arrival, approach, and departure procedures provide a pattern for efficiency and safety.



Cutoff on Takeoff

As the pilot of a homebuilt aircraft reported to ASRS, use of the correct procedures for departing a non-towered airport can be "overshadowed" by a less conscientious arrival. Judging from a rather terse communication after landing, it appears that the Cessna pilot may have had an attitude problem.

■ *It was a busy, non-towered airport with several aircraft in the pattern and several waiting for takeoff on Runway 24.... After waiting for several aircraft in the pattern to land, a break occurred after a taildragger landed. I checked to see that no one was on base and announced that I was going into position and hold on Runway 24, until the taildragger cleared the runway. He took some time clearing and I then announced that I was rolling on [Runway] 24 with a westbound departure. As I was accelerating down the runway, a shadow appeared. A Cessna 172 passed 30 -- 40 feet overhead and landed right in front of me. I closed the throttle, braked, and aborted the takeoff. The Cessna exited and parked.... I asked [the pilot] if he saw me on the takeoff roll. After a few seconds of radio silence, he called back, "Yeah, I saw you."*

Old Habit — New Pattern

A Bonanza pilot related how an unfamiliar approach to a familiar field caused some confusion. Proper entry into the traffic pattern is crucial and should be based on situational awareness, not a habit pattern.

■ *I was approaching the airport from the southeast. I contacted Tower and was told to call at three miles for a right base entry to Runway 6. At three miles southeast, I called and was told to watch for traffic on left base for Runway 6. I told Tower that the traffic was not in sight.*

When I finally saw the traffic, it was close off my left wing, about 300 feet below me. I was told by Tower that I had flown through the final approach course, very close to landing traffic, and that I was to make a left 180-degree turn to enter final for Runway 6. An uneventful landing was accomplished.

After thinking about the incident, I realized what had happened. I have been to this airport many times, but almost always approaching from the northeast and usually landing on Runway 24. This time I approached from the southeast for a base entry to Runway 6. I was intent on looking for my traffic and mistook Runway 14/32 for Runway 6/24. I was looking at the wrong runway and looking for traffic in the wrong place. When I saw the traffic, I thought he was in the wrong place and I became confused, until the Tower told me about flying through the final approach course for Runway 6. I realize that orientation is a full time job, especially when flying in the pattern. When I didn't see the traffic, I should have called the controller and asked for further directions....

Traffic Alert

The Grumman AA5 pilot who submitted this report got a valuable assist from an onboard traffic warning system. As the reporter pointed out, traffic alerting systems do not replace the pilot's responsibility to see and avoid traffic.

■ *Four miles from the airport, the controller cancelled coverage with no comments about traffic.... I switched to the Common Traffic Advisory Frequency (CTAF) and called four miles out, then, since I was in position to directly enter left base for Runway 29, I did so and called my position. I saw no traffic in the pattern, although my new Traffic Proximity Alert System (TPAS) warned me of an aircraft within two miles. The TPAS gives only range and not bearing, so I suspected the traffic might be heading to a nearby airport since no one was responding on CTAF. I turned final and made the radio call; still no response from other traffic. Now the TPAS began to display a rapidly decreasing range, down to 0.4 miles. Suspecting that I was descending onto another plane on final, I leveled off and went around, not climbing in case the traffic was above me. At midfield I heard a helicopter make a radio call on short final, then I saw him as I turned crosswind. He completed his touch and go, then flew another tight and very low pattern, completed another touch and go, then left the area.... I suspect that his radio was off until he saw me pass over him on final.*

...I failed to see and avoid traffic in the pattern (although it was difficult to see a small helicopter flying a nonstandard pattern). The helicopter pilot was not using his radio, apparently assuming he was the only one around. The major factor in avoiding a collision was the TPAS. It made me aware of traffic that I otherwise would not have seen. While it is relatively unsophisticated, giving only approximate range with no bearing and depends upon active transponders in the other aircraft, it has nevertheless proved its value to me. Still, it is not a substitute for "see and avoid." I need to be more observant

ASRS Recently Issued Alerts On...

Jetstream 4100 pitch down incident
DA50 auto pressurization controller failure
Beechcraft A100 fuel tank access plate leak
Hold short lines obscured at a Southern airport
Civil/military traffic conflict at a Southern airport

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June 2003 Report Intake

Air Carrier / Air Taxi Pilots	1736
General Aviation Pilots	719
Controllers	32
Cabin/Mechanics/Military/Other	109
TOTAL	2596

Is There a Lesson Here?

Flight instruction can be a demanding task, but the process should never demand so much of an instructor's time and attention that safety is compromised. Several recent ASRS reports address some of the more common "unintended" lessons that result from flight training.



Two Pilots Too Busy Training

While an instructor and a student pilot in a twin-engine Seneca were preoccupied with an engine-out maneuver, a Cessna 152 occupied a growing portion of their windscreen. Unwittingly, the flight instructor in the Seneca also provided some free lessons to the Cessna pilot who related the incident to ASRS.

■ *[Our] traffic was...a Seneca beginning a missed approach over the VOR.... The Seneca initiated a right turn toward our position and reported to Tower that they were, "looking for traffic." I turned left to avoid a potential conflict. The Seneca called, "traffic in sight" when approximately 500 feet horizontally and 200 feet vertically separated from us.*

*It was discovered later that the instructor and student on board the Seneca were **both** busy with a simulated engine-out, missed approach and failed to locate us until the last minute.... Better coordination of traffic by the Tower, and a more vigilant lookout by the instructor/safety pilot would have prevented this event.*

As for myself, I have learned that, even at a towered airport, any doubts about other traffic must be resolved and perhaps earlier evasive action should be taken when a conflict is possible. ▲

Two Pilots Too Busy Training II

A Tower controller reported to ASRS on another incident involving a simulated engine failure in a light twin. Once again, a training maneuver resulted in a traffic conflict that required an evasive maneuver.

■ *[I was] working Local Control North with three aircraft inbound from the northwest, all VFR. Local Control South coordinated a northwest departure for a Piper, VFR. When I approved the northwest turn for the Piper, all of my aircraft inbound from the northwest were abeam the Piper*

and at 2,500 feet. The Piper was leaving 2,600 feet before he turned. I saw the Piper's target on the D-BRITE (Digital Bright Radar Indicator Tower Equipment) heading northeast at 2,400 feet. I asked the Piper to report his altitude...and looked out the window to see if he was in conflict with any of the inbound traffic. I saw him just as he dove to miss one of the aircraft.... The [instructor pilot in the] Piper said that he pulled an engine on the student as they turned northwest, causing the aircraft to turn northeast and descend.... ▲

**"The horn, the horn, the lusty horn,
Is not a thing to laugh to scorn."**

William Shakespeare

As You Like It. Act IV. Sc. 2.

In the next report, a student pilot and a flight instructor in a Cessna 182 RG learned a hard lesson about checklists and distractions. The instructor also shared a sound lesson about audible warnings.

From the student pilot's report:

■ *I interrupted the landing checklist to report mid-field, downwind. My instructor then pulled back the throttle and told me to set up for an emergency landing on the runway. I did not return to the checklist, but immediately began calculating distance to the runway and best airspeed. While my instructor guided me, I set up on final approach and flared only to hear and feel the tail strike the ground, followed quickly by the rest of the aircraft. The prop struck several times and the engine stopped....*

I have learned that every landing requires full attention.... Checklists are the only way to make sure that nothing has been missed and, once begun, each checklist must be completed....

From the flight instructor's report:

I planned on simulating an engine failure after my student started the landing checklist at the point where he would have lowered the landing gear. My student made a position report, however, at mid-field, downwind where I had expected him to lower the landing gear. Without thinking further, I simulated the failed engine by reducing the throttle to idle. While supervising the emergency procedure, I was also critiquing the flight path my student was taking.... I had not noticed that my student had skipped half of the landing checklist and I did not double-check the gear extension, as I normally would have. I also did not notice the audible gear warning horn.... ▲

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