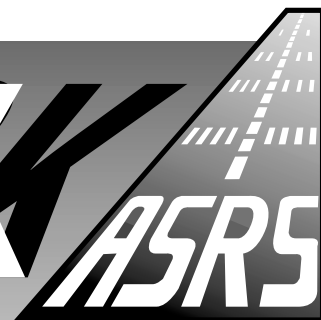


CALLBACK

From NASA's Aviation Safety Reporting System

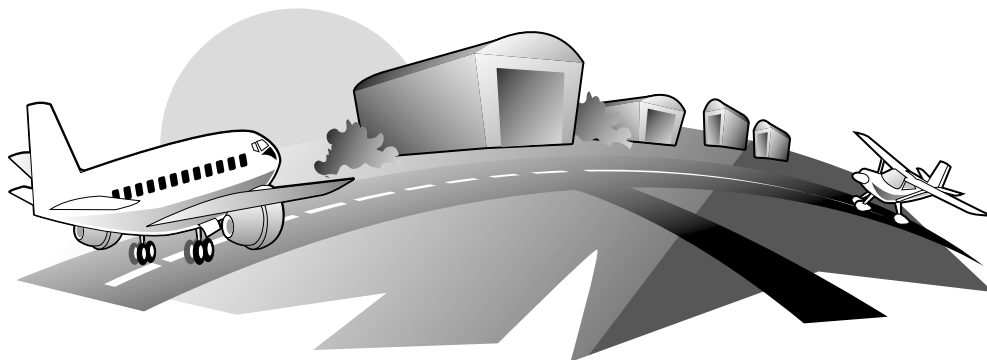


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Operating Safely at Airports Without Control Towers

There are several keys to safe operations at airports that do not have an operating Control Tower. One is selection of the correct Common Traffic Advisory Frequency (CTAF), the frequency designated for carrying out airport advisory practices. The CTAF may be a UNICOM, MULTICOM, FSS, or Tower frequency and is identified in appropriate aeronautical publications.



Another crucial practice is careful visual scanning to see and avoid other aircraft, especially those that are low-flying, on straight-in approaches, or have no radios.

Recent ASRS reports illustrate several problematic scenarios that can occur at fields without operating Control Towers.

Opposite Direction on the Same Runway

■ We were departing [non-tower field] on Runway 05, wind was calm. Made numerous calls that our King Air was taxiing from the ramp to Runway 05, departing Runway 05, etc. [Piper] Archer made no radio calls. We heard other aircraft in pattern using Runway 05. As we were accelerating to V_1 , the [Piper] Archer came over the hump in the runway. He was using Runway 23. I swerved right and aborted the takeoff. We missed by 30 feet. The fact that the ends of the runway are not visible from one another was a major factor in this occurrence. Also, the fact that the [Piper] Archer made no radio calls is the most important factor. The best way to avoid this problem in the future is for [pilots] to...follow standard established procedures for operating in non-controlled environments.

Use of a Non-Preferred Runway

■ At XA43 [local time] we reported on CTAF 119.4, B737 pushing back for departure, Runway 14 [airport]. Tower does not open until XB00 local time. At XA45 we reported B737 taxiing for Runway 14 [airport]. We noticed one aircraft in the pattern for Runway 32 that reported downwind for Runway 32. At XA50 we were released by Approach for departure. We verified the aircraft visually on downwind abeam midfield and reported on CTAF, "B737 departing Runway 14 [airport]." Immediately, we heard on CTAF, "I'm on my takeoff roll, Runway 32." At the far end of the runway we notice a Cessna on takeoff roll...We delayed our takeoff.

This could have been a safety hazard if the other aircraft had not made the radio call... Factors affecting the situation: (1) Runway 32 is the preferred runway – we were using Runway 14 for our direction of flight; (2) We wanted to depart promptly to avoid a conflict with the downwind aircraft.

The reporter also mentioned that he was the only one monitoring CTAF while his First Officer was getting the clearance from Approach Control, and for this reason the crew might have missed the Cessna's earlier CTAF calls. Pilots on IFR flight plans, like this crew, also have the option of asking Approach Control whether there is traffic inbound for the runway in use.

No Radio Aircraft

■ While taxiing to the end of Runway 03 for takeoff I checked the runway and traffic pattern. I had no radio so I couldn't hear the radio traffic. I was checking the runway for traffic and saw none. As I crossed the hold line for Runway 03 I checked again and saw a Cessna 172 bounce after touchdown on the runway. I immediately stopped halfway between the hold line and the edge of the runway. After the C172 turned off the runway and passed me, I back-taxied to Runway 21 and took off... The Cessna apparently blended in with the background of trees and buildings and I did not see the Cessna until it bounced after touching down...

The *Aeronautical Information Manual* section 4-1-9 offers a comprehensive summary of recommended communications procedures at airports without operating control towers, and emphasizes that not all aircraft operating into these fields have radios. ▲

ASRS Recently Issued Alerts On...

Multiple CL65 inflight windshield failures
Terrain-related B767 map shift near a Chilean VOR
Lack of onboard escorts for passengers deported by INS
'Hold short' signage and marking at a West Coast airport
Inflight avionics fire/smoke in a single-pilot BE99 operation

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April 2001 Report Intake

Air Carrier / Air Taxi Pilots	2536
General Aviation Pilots	829
Controllers	72
Cabin/Mechanics/Military/Other	168
TOTAL	3605

Unscheduled Rest Periods

The effects of fatigue on pilot performance have been much studied in multi-crew air transport operations, but fatigue is also problematic in single-pilot operations. A single-pilot cargo flight, for example, may involve long periods of silence, restricted pilot movement, reduced cockpit ventilation, vibration, and other conditions known to invite drowsiness.

The result? In a few cases reported to the ASRS, pilots flying alone have fallen asleep while airborne. A few recent examples reported by air taxi pilots.

■ I was on an IFR flight plan from ABC to XYZ, and about halfway to XYZ I fell asleep. The autopilot was on, and the heading indicator was set on a due west heading, and the altitude was set at 8,000 feet. I didn't wake up for 30 to 45 minutes. When I woke up I was about 90 nm south of the VOR. I couldn't get ABC or XYZ air traffic control on the radio, so I tried ZZZ, and it took 2 or 3 frequencies to finally make contact. I turned due North to point the airplane in the right direction, and climbed to 10,000 feet for right altitude for direction of flight, and for better radio/nav reception and better fuel consumption. I didn't think I had enough fuel for XYZ, so I chose to land at ZZZ. I landed at ZZZ with about an hour of fuel.

Later I was supposed to call XYZ Tower about the incident, and they said it was a Pilot Deviation. I asked what that was, and [they] told me that I went beyond the IFR clearance limit. Filed/cleared to XYZ, but didn't land at XYZ, then passed XYZ. Problem: lack of sleep. To correct the situation: Get 6 to 8 hours sleep, keep oneself busy in the cockpit [with] altitude changes, drink water, and open air vents/air conditioning.

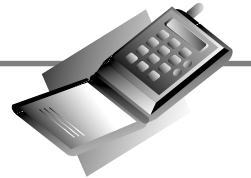
In another incident, a pilot on a night flight did not feel fatigued, but was unable to communicate with ATC after "closing his eyes":

■ While at cruise at 4,000 feet indicated (MSL), while flying on autopilot for nearly 2 hours, I closed my eyes to rest prior to making a landing. I entered a dreamlike state wherein I could hear radio communications in my headset, but I lacked the situational awareness to respond to them. I had impairment of my perception of the passage of time for an estimated 45 nm or about 15 minutes. When I regained my situational awareness, I was 10-15 nm northwest of destination. I called the Center to re-establish communications and was given a radar vector back to the airport...

[Contributing factors]: A longer than normal flight due strong headwinds; extremely clear flight conditions with numerous shooting stars; extremely cold air temperatures with dry cabin heated air; later than normal flight departure time; very little radio communications traffic; long periods of silence except for engine drone. Pilot did not have a sense of fatigue when the incident occurred, but eyes were hot, dry and tired from 2-hour flight...

Because individuals may vary widely in sleep requirements, pilots need to know their own sleep needs and be aware that reduced rest for more than a few days is a "red flag" for flight safety. ▲

Cell Phone Notes



Cell phones are often considered a boon in the cockpit during electrical failures and other emergencies. Here are a few additional thoughts offered by pilots reporting cell phone related incidents to the ASRS:

■ I am a pilot for a parachute operation. We were to make a demonstration jump into a high school football field west of the primary airport in Class C airspace. A NOTAM had been filed for the jump, and I had personally informed the Supervisor at the Tower of our intentions. I contacted Clearance Delivery before engine start, then attempted to start the engine. It was very slow to turn over, which was not typical for this aircraft, especially since it had just been flown. The second attempt succeeded... As I [climbed over the jump site] to 4,000 feet, I experienced a total electrical failure. I attempted to contact the Tower with a cellular phone, but was unable to tell if they could hear my intentions. We also had a 2-way radio for contact with ground support personnel, so I relayed the message to pass on to the Tower... Since our plan was to make the jump, we proceeded and I then departed to an uncontrolled airport [for landing].

Although I know that cellular phone use has saved many pilots, it had not occurred to me that I would be completely unable to hear in the aircraft... For others who may be planning to use a phone in an emergency, a single-engine airplane is a far noisier environment than we may expect.

Not Off the Hook

And from a Captain reporting a "close call" of a different sort:

■ ...While taxiing in, my cell phone, which I forgot to turn off [before takeoff] rang. I turned the phone off, parked, completed the checklist...

Apparently our reporter's phone was "on" for the whole flight. The activation of a cellular phone while airborne – by either passengers or crew – is prohibited by the Federal Communications Commission (FCC). A cell phone has a much greater transmitting range while airborne than a land-based mobile device and may cause serious interference to transmissions at other cell locations. The FAA supports the FCC ban "for reasons of potential interference to critical aircraft systems," according to FAA Advisory Circular 91.21-1A.6(b). ▲