CALLBACK

From NASA's Aviation Safety Reporting System

ASRS

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The key to communicating at an airport without an operating Control Tower is selection of the correct common frequency for airport advisories while operating to or from the airport. CTAF, which stands for Common Traffic Advisory Frequency, is designated for this purpose. Use of the correct CTAF, combined with visual alertness and application of recommended operating practices, will enhance safety of flight during non-Towered operations.

This month we focus on ASRS non-Towered airport incidents that emphasize the following themes:

- **Communication** – Monitoring CTAF and use of the radio to report position and intentions.
- **Traffic Mix** – Being aware that straight-in IFR traffic to a non-Towered field may conflict with patterns for VFR traffic, especially in reduced visibility conditions (broken or overcast ceilings, haze, etc.).
- **Avoidance** – Practicing see-and-avoid procedures and visually checking the final approach course before takeoff or landing.
- **Frequency** – Use of the correct CTAF and current charts and flight information.

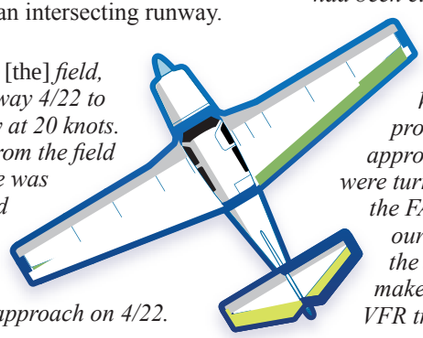
Monitor CTAF and Use Radios

An ATP-rated passenger in a Mooney aircraft was "along for the ride" when the owner/pilot neglected to follow recommended communication procedures at a non-Towered airport.

■ *The owner/pilot in command was flying and I was a passenger/observer. He entered the traffic pattern at approximately 800 feet AGL mid-field. Pilot did not monitor CTAF – he entered base and final and landed without incident. A C-210 was on opposite direction final at the time and he had to initiate a go-around to avoid conflict on landing. C-210 pilot was very upset on the ground after landing. Mooney pilot departed before a confrontation occurred. There were no injuries or damage, but this event could have been avoided….*

In another incident, a GA pilot flying a low approach to a non-Towered field had a near mid-air collision with a non-communicating C-172 departing from an intersecting runway.

■ *When flying my Mooney M20-F into* [the] *field, I decided to fly a low approach on Runway 4/22 to get a feel for the winds that were steady at 20 knots. I radioed my first position 3 miles out from the field and requested traffic information. There was no response. I set up for a 45 to midfield downwind left traffic pattern for 4/22 and made at least 2 more radio calls on the CTAF frequency 123.0 stating my position and intentions to fly a low approach on 4/22.*



While executing the low approach, a Cessna 172 passed over the top of my airplane at the intersection of Runway 4/22 and 31/13. He had taken off from Runway 31 without making radio calls, listening to radio calls, or checking for traffic.

Be Aware of IFR/VFR Traffic

A non-Towered airport may be an airport without a Control Tower, or an airport where the Control Tower operates part-time. At either type of airport, IFR aircraft may be making straight-in or other types of approaches, while VFR aircraft are flying standard traffic patterns to the active runway(s). This situation is especially likely to create conflicts in low visibility conditions.

Here is one such example, in which a corporate IFR aircraft was cleared for an RNAV (GPS) approach in IMC conditions, and experienced a near-mid-air collision with issued VFR traffic. Reported altitude of the encounter was 2,200 feet MSL.

■ *I had been issued approach clearance for the RNAV approach to Runway 19 at* [a] *regional airport. After crossing the initial approach fix…the Controller issued a traffic advisory for a VFR aircraft just to the north of the intermediate fix. I saw him on TCAD* [Traffic and Collision Alert Device] *and switched over to the CTAF frequency and advised him or her that I was on the approach and heading toward him. I received no reply, but the aircraft started turning toward me and climbing. I had told the Controller I would make a 360-degree turn to the right to give the other aircraft time to do something. He did it wrong, he turned toward me after I told him where I was. He may not have been on that frequency when I saw him turning toward me. I dove my aircraft sufficiently to have the TCAD start yelling sink rate. He passed directly overhead at somewhere between 50 to 100 feet above me. At that time I broke out of the clouds and visually recovered. I went around, climbed back to altitude, and rejoined the approach.*

I never saw the other aircraft visually. I told the Controller that I had been solid IMC throughout the entire avoidance until I broke out. The Controller was very helpful throughout.

In another example of IFR/VFR traffic mix, an air carrier on an ILS approach to a non-Towered field experienced a conflict with a VFR aircraft practicing the same approach.

■ *While descending we were cleared for the ILS for Runway 7 and ATC told us that there was VFR traffic to our north and that it was unverified. We told ATC we were looking for traffic. ATC then advised us that frequency change was approved so we could monitor CTAF frequency since this is an uncontrolled field. We had been cleared direct to the FAF and cleared for the ILS 7. We made our initial calls on CTAF trying to reach the VFR traffic. They were initially north of the approach and I thought they were doing maneuvers. We then heard the traffic state they were turning inbound on the procedure turn for the ILS 7. I guess they were practicing approaches while VFR. This is the time we noticed that they were turning inbound right towards us. We were now just over the FAF and the traffic was on a dangerous course towards our aircraft. To prevent a collision, the Captain turned to the south to avoid the VFR traffic and said we will have to make a 180-degree turn…so we would remain clear of the VFR traffic…The rest of the approach was uneventful….*

ASRS Alerts Issued in February 2010	
Subject of Alert	**No. of Alerts**
Aircraft or aircraft equipment	9
Airport facility or procedure	13
ATC equipment or procedures	5
Maintenance procedure	3
TOTAL	**30**

A Monthly Safety Bulletin from

The Office of the NASA Aviation Safety Reporting System,
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http://asrs.arc.nasa.gov/

February 2010 Report Intake	
Air Carrier/Air Taxi Pilots	2673
General Aviation Pilots	751
Controllers	535
Cabin/Mechanics/Military/Other	393
TOTAL	**4352**

Traffic Mix: Fixed vs Rotary

An air taxi flight crew had a close encounter with an EMS helicopter at a non-Towered field when the Captain succumbed to hurry-up urges.

■ *My Captain was in a hurry to get home. He had plans and we were running late due to weather. I was picking up weather and receiving our clearance to depart while he was taxiing the aircraft. I was heads down for most of the taxi, setting up equipment and writing down clearances. It was a short taxi from the FBO. The Captain taxied into the hold short position of runway. I received a clearance void time and I switched the radio to the local CTAF. Before I could make a radio call or run the Taxi check and Before Takeoff check, he increased power to taxi into position for takeoff. A medical helicopter was on short final right above the threshold. The helicopter pilot immediately made a position report and the Captain slammed on the brakes. It was a very close call. One that could have been avoided by not rushing. Not allowing another pilot to rush you and sacrifice safety.*

Both pilots should be heads up while taxiing. Both pilots should verify that final is clear. And checklists should always be completed regardless of how late you're running… Being late is better than not arriving at all.

In another see-and-avoid incident, a helicopter pilot failed to heed UNICOM announcements and maintain situational awareness.

■ *After announcing my intention to take off on Runway 5 on the UNICOM for a departure to the southwest, I entered Runway 5 and began my takeoff roll. After reaching about 40 knots (55 knots rotate speed), a helicopter entered the runway about halfway down the runway for his departure. He entered the active runway by 'air taxi' without hesitation and only announced his takeoff intentions on the UNICOM as he was entering the runway and was already over the runway before he finished his radio transmission. In order to avoid a collision, I pulled power to idle and braked, aborting my takeoff and proceeded to taxi back for a new takeoff attempt.*

Had the helicopter pilot paid more attention to the radio announcements on the UNICOM and looked down the runway, he would have had a better situational awareness of the airport and the fact that there was an aircraft already attempting to take off on the active. Also, had he hesitated after his transmission before air taxiing onto the runway, I would have had the chance to inform him as to my position before he proceeded further.

Use the Correct CTAF

A Piper Pawnee had just finished towing a glider and was returning to the field to land to the north, when a high-performance Mitsubishi turboprop landed south on the same runway.

■ *The PA-25 had just completed a tow and was circling in for a landing on Runway 34 and was making radio calls. The PA-25 was on final about 50 feet off the deck when an MU-2 landed Runway 16 with no radio calls and without flying a pattern. The calm wind runway is Runway 34. The PA-25 did take evasive action to avoid coming nose-to-nose with the MU-2. After talking with the MU-2 pilot he advised that he was not aware of the frequency change that took place a year ago even though he flies in weekly. Neither his charts, nor AFD* [Airport Facility Directory] *were current.*

A corporate flight crew failed to see an important NOTAM for an unfamiliar non-Towered field.

■ *We had been cleared for a visual approach to* [non-Tower] *field. We tried to call on UNICOM, but got no reply. Due to the proximity to a military airport, we elected to land with a slight tailwind. As we approached short final, we saw a light plane take off in the opposite direction. We did not require evasive action as he turned out from our path. Once on the ground, we found the change was in the NOTAMs, but was buried in many others, so we missed it. The lesson is to be far more careful with NOTAMs when going into an unfamiliar and uncontrolled field.*

A certificated pilot riding as a passenger in a Cessna 206 was helping the pilot work the radios while taxiing out for takeoff. Unfortunately, preoccupation with programming a GPS led to an incident.

■ *I was departing in a C206 and had the wrong frequency dialed for CTAF. I was the pilot not flying but was working the radios. Our back-taxi down Runway 20 caused a Cessna on short final to have to do a go-around. My inexperience with the GPS avionics in the 206 was what I attribute my error to. The pilot flying the aircraft on short approach was very angry, as was I at myself. I should have double-checked the frequency on the taxi-out but was distracted with inputting the flight plan in the GPS.*

ASRS Conducting Wake Vortex Encounter Study

In conjunction with the FAA, NASA's Aviation Safety Reporting System (ASRS) is interested in wake encounters, both enroute and in the terminal area within the United States. Some of the factors to be analyzed will include magnitude of wake encounter, aircraft spacing, aircraft type, runway configuration, and consequences from the encounter. This effort began in March 2007 and will be continuing in 2010.

ASRS contacts pilots who report wake vortex encounters to ASRS to request their voluntary participation in completing a web-based supplemental question set. All identifying information (names, company affiliations, flight numbers, etc.) will be removed in the ASRS summary research data.

To support efforts to fully understand wake encounter events, ASRS strongly encourages pilots who experience a wake vortex encounter to report these incidents to ASRS and to participate in the ASRS Wake Vortex Encounter Study.