**Tim:** 0:05

Welcome, everyone, to the Civil Aviation Safety Authority podcast series. This series explores a whole variety of air safety-related topics, with hints and tips helpful for our everyday flying. I'm Tim Penney and joining me is Lea Vesic as your host.

**Lea:** 0:23

You will hear interesting stories from our industry, including pilots and aviation experts, aviators such as yourself, involved in different areas of aviation who are willing to share their stories and experiences so we can all learn from each other.

**Tim:** 0:36

And whether we fly three times a week or three times a year, that doesn't really matter, there's always something we can learn to ensure optimal safety. For more information on a wide range of safety issues, visit our website: www.casa.gov.au/pilots.

This first episode or our inaugural episode will give all of us at least an insider's look at the challenges and the risks and the techniques involved in operating at non-controlled aerodromes. We've all heard the expression, "Be heard, be seen and be safe." But being heard properly, with information that's presented in the correct order, and format certainly goes a long way to helping us all to actually be seen and actually be safe.

Communication really is behind a lot of this. And we're going to hear today about what happens when radio comms are perhaps not quite correct. And while the "See and Avoid" principle is still quite relevant to our flying, it's actually the "Hear and Avoid" principle or "Alerted See and Avoid" and for this episode, we're joined by two pilots - Nerita Somers, who is a trainee pilot and Ben Mackney, co-owner of Flight Standards in Darwin.

They both have personal experiences with events that occurred in non-controlled aerodromes and here to share what happened, what they learned, and what you can take away to help you stay safe on your next flight. So, first up, let's meet Ben Mackney.

**Ben:** 2:25

I'm originally from the far north coast of New South Wales. Learn to fly from a young age while I was at school and eventually found myself chasing the, I guess flying dream up in the Northern Territory. I've worked for a number of charter companies over the years both as a staff member and as a contractor and been lucky enough to operate across the whole of Northern Territory into WA, across Queensland and a range of other locations around Australia and a little bit of international charter type operations in a range of aeroplanes as well. So, different performance categories, different design features and whatnot.

**Tim:** 3:02

Yeah, that's great. Ben, you're currently with Flight Standards up in Darwin? Is that correct?

**Ben:** 3:03

Yeah, that's correct. So, I'm one of the owners of Flight Standards. I'm also a Chief Pilot overseeing a small charter operation out.

**Tim:** 3:18

Would I be correct in saying that a lot of your flying is actually in and around these non-controlled airfields?

**Ben:** 3:24

Absolutely.

**Tim:** 3:26

Yeah, there are literally hundreds if perhaps not thousands of these airfields all over Australia and, again, Ben, would I be correct in saying it ranges in everything from a dirt strip and a paddock to quite large facilities that are uncontrolled?

**Ben:** 3:42

Yeah, there's a massive range of airfields across Australia, obviously, with a range of traffic mixes, and also a significant variation in terms of what's available, both with infrastructure on the ground, but also infrastructure in the air. So, even down to what frequencies are being used in locations, whether they're on discrete frequencies, or whether they're using a generic 1267 or similar.

**Tim:** 4:06

Do you want to just perhaps kick off proceedings by, you know, sharing with us maybe a time that in your experience operating in and around these airfields, that highlight some of the things that can potentially come and bite or things that you may have to watch out for when you're operating in these environments?

**Ben:** 4:26

So, the first one, I was quite a junior pilot, recently checked a line on a Cessna 210, operating primarily out of Darwin. And on this particular charter, I flew into a strip called Mullumbimby\* 04:42, which is up on the northern coastline of Australia out in the middle of Arnhem Land. I landed without incident, shut down, saw my passengers on their way, and then started up to subsequently depart Mullumbimby and return to Darwin.

I made all normal radio calls that would be expected for an aerodrome like that, a taxiing call and entering call. However, the challenge with Mullumbimby\* is it's within a region that is covered on the en route chart by some green lines that indicate any aerodrome within this region uses a particular discrete frequency, which in that case is 127.5.

**Tim:** 5:23

So, sort of like a broadcast area, Ben?

**Ben:**  5:26

Exactly, but immediately adjacent to Mullumbimby, just to the east is the edge of that line, and it then becomes 127.15. And a lot of the traffic coming in and out of Mullumbimby is traffic from aerodromes to the east. So, on this particular day, I made my broadcasts that I was taxiing for departure, I made a subsequent broadcast saying that I was backtracking the runway.

And as I got about halfway down the runway, I looked up to find much to my surprise another aircraft turning on to final for the runway that I was backtracking. I made another broadcast just in case they hadn't heard the first. And there was no response, I made a subsequent broadcast and really tried to encourage him to change his trajectory.

**Tim:** 6:11

This is getting interesting.

**Ben:** 6:14

Yeah, so, he continued his approach towards a landing. And I ended up pulling over to the side of the runway, because I was certainly not in a position to be able to backtrack quickly and get off the runway. I pulled off to the side of the runway, lit up every light that I had in a flashing type sense to try and catch his attention.

And thankfully, he saw me at short final and went around and a short time later, he performed a radio check on the frequency and asked me if I could hear him at that point in time. Now, subsequent sort of, I guess, investigations just in the normal conduct of a charter operation that got reported in a safety management system. And it was later found out that that pilot had come in and failed to switch over to the Mullumbimby frequency.

**Tim:** 7:05

Yeah.

**Ben:** 7:07

So, regardless if he'd made appropriate calls or not, it still wouldn't have fixed the problem in that situation. But it shows just how easily people can find themselves on a collision course I suppose. So, the other time was quite a bit different insofar as I was a fair bit further down my experience path, I suppose. By that stage, I was operating a Cessna Conquest, so, a fairly high-performance pressurized turbine aeroplane.

And on this particular day, I was flying into Jabiru, in the middle of the Kakadu National Park. Now, the speed at which an aeroplane like that descends is typically in the order of five to six nautical miles per minute. And it's routine for an aircraft like that to switch over to the CTAF frequency and make an inbound call on the CTAF as they descend through about 10,000 feet. So, by that stage, we're talking an aircraft that's about six minutes from touchdown, if everything goes to plan.

On this particular day, flying into Jabiru, I switched over to the CTAF, now noting that Jabiru can be a little bit busy at times, particularly with a couple of scenic flight operators in the region, as well as there was a fly-in and fly-out operation happening out of there with the local mine. But also it's using the generic CTAF frequency of 126.7 as are so many aerodromes in the Northern Territory, which means that due to the way the repeater stations will work, flying into somewhere like Jabiru, you're often hearing people some hundreds of miles away from you, who are also broadcasting on the same frequency.

Despite switching over to the CTAF frequency quite early, if I remember correctly, I transferred at about 12,000 feet, I was unable to get a single radio call inbound until I was overhead the runway.

**Tim:** 9:02

Wow, that's pretty impressive.

**Ben:** 9:04

And the simple reason for that was because the frequency was completely congested. And frustratingly, on that day, it was congested with unnecessary radio calls.

**Tim:** 9:15

Yeah, that's the big thing, isn't it?

**Ben:** 9:16

And so I think it really highlighted to me that there are certainly radio calls that we must make. And there are radio calls that can certainly in certain situations improve safety out of sight. But it highlighted to me that if we have a dogmatic approach to radio calls, and we say well, I was always taught this radio call in flying school, so I must use this radio call now, we can be inadvertently creating an unsafe situation and often to people who are completely separated from our own operation.

**Tim:** 9:51

CASA hosts a range of resources and events to support the pilot community. Register to attend our free AvSafety seminars, to hear about safety issues, talk to us and meet other people in industry. Visit www.casa.gov.au/AvSafety to register. And while you're there, subscribe to the mailing list to stay up to date on changes and information relating to aviation safety resources for all pilots.

So, as we listen to Ben's story, it's clear how important and life-saving situational awareness and understanding the correct procedures can be even when we think we have done all the right things. So, now let's have a chat to another pilot on the other side of the country, Nerita Somers, who begins by sharing with us how she got involved in aviation.

**Nerita:** 10:41

I've always had a childhood dream to fly. It's something that I always thought that I couldn't do simply because of my cultural background, and also being a woman and never seeing a pilot that looked like me growing up. So, my family also wanted me to go down a stable career and for them that wasn't really aviation. So I went to Swinburne University, I have a degree in commerce, majoring in accounting. And what I thought it was really interesting was in my classes, there were student pilots, they were underdoing a double major at Swinburne.

And when it came to exam time, a lot of the students were asking me for help. And at that time, I thought, hang on a second, I'm helping these students pass their exams. And for so many years, I thought I never had the aptitude to even become a pilot. So, it started to set that fire for me to go, let me at least try the entrance exam. Let's see if I can get into a flying school. And lo and behold, I did and fast forward now I hold my recreational pilot's license, I've passed my private pilot's license theory and I have passed majority of my commercial pilot's license subjects.

So, I'm well on my way to becoming a commercial pilot. So, I remember early on in my flight training, there was not much consistency or standardization with my actual flight training, because I had over 14 different instructors over a very small space of time. So, you can imagine every different instructor had their own method.

And as I mentioned, there was no standardization. So, there was definitely some gaps created in particular when it came to non-controlled aerodromes. So, for example, I remember my first navigation flight to Bacchus Marsh aerodrome. And this was at the time I was very new to navigation. This was with one of many instructors that I was learning basically, on the go, how to do a navigation flight.

And I remember at the time of the pre-flight briefing, it was literally done on the go. And when I say on the go, actually walking to the aircraft to get ready for the flight. I remember not being entirely clear over what the expectations were of the flight. And when we actually started to approach the aerodrome from the air, I, for some reason, you've got a heavy workload in the air, you're trying to remember a lot of things.

And also, there was a power imbalance between your instructor and yourself. And you're assuming that the instructor would take over if you felt unsure about anything. And that's where assumptions creep up, right? So, I remember, I started to descend on the live side of the runway at Bacchus Marsh. And all of a sudden, I remember reading through the Ursa that I had to descend on the dead side to join the circuit, at circuit height.

So, all of a sudden, I quickly put the aircraft to full power and started to climb out of that situation, and then proceeded to descend on the dead side for the circuit height and join this circuit pattern. But again, that will be something that I'll forever remember. But in hindsight, there was so many things for that particular flight. You know, we talked about the Swiss cheese model in aviation. And whilst this could have been incredibly disastrous, it wasn't thankfully, but it's given me a lot of areas of improvement and things I would do differently moving forward.

**Lea:** 14:35

So, from your experience, it really highlights the importance of understanding what you need to know yourself as a training pilot, the expectations and particularly the objectives of each training flight, and flight instructors should in many cases direct students to their relevant training syllabus, and pilots themselves can use this documentation as a great reference guide, along with all the other flight planning documentation for each sortie.

**Nerita:** 15:00

Definitely, I think, as they say, hindsight is 20/20. And as a student pilot, I've become more assertive in what the minimum expectations are for any flight. That includes being 100% certain what is going to be required through the flight, getting to know my flight training material, going through the aerodrome or aerodromes that I'm going to be flying into, understanding, you know, what is the right way to join the circuit, is there anything that I should be made aware of, for example, is there certain operations that are occurring at a particular aerodrome?

I know at Bacchus Marsh, it is a non-controlled aerodrome. So, you also have gliders as a good example, something that I hadn't experienced before. So, that's a whole nother kettle of fish. But I think any advice I could give for future aviators, especially around non-controlled aerodromes, make sure you're comfortable with your instructor, make sure that you go through a proper pre flight briefing to understand what you're going to do for a particular flight.

In addition, if you feel uncomfortable at any state, make sure you speak up. I know sometimes it's challenging. I'm definitely a personality, I like to work through things I tried to problem-solve by myself. But remember, you're a student at the end of the day, it's okay to ask questions. It's okay to make, you know, errors, because you are still learning. But the main thing is that you're trying to close those gaps, right?

And in addition, always go through a post-flight briefing afterwards, find out where those gaps were, areas of improvement so you can not only become a safer, but a more diligent pilot, also keep a copy of your flight training records so at any stage, you can pull them back out, reference them, and then just feel a lot more comfortable when you're going out for your next flight.

You know, there's a saying "Failure to prepare is preparing to fail", right? And you always need to be ahead of the aircraft as a pilot. So, make sure, if you're uncertain about anything, it's better to be uncertain on the ground than uncertain in the air in my experience, so make sure you do your flight planning, get it checked over by your instructor. And lastly, if you feel that you're not receiving the appropriate instruction, you also have the option to say you're not comfortable with that particular instructor and ask for a new instructor because aviation is not the cheapest endeavour to undertake.

And every flight hour comes at a relatively huge cost. So, make sure you're getting your money's worth. At the end of the day, if you're not comfortable with who you're flying with, you have to be able to speak up about that and challenge the status quo.

**Tim:** 17:51

Let's return now to Ben and hear some final thoughts on his experience, and final takeaways from the Nerita.

**Ben:** 17:58

The pilot is at the coalface on the day, they're the ones that need to determine what's appropriate at that point in time. But, there can also sometimes be a tendency I've heard it described as "monkey see, monkey do", we hear pilots make certain radio calls and maybe in a certain situation, we think geez, that really helped that particular situation. But as a result, some people then grab on to that particular call and make it part of their everyday process, which is not necessarily appropriate.

One of the common ones that we hear in the top end is with people reporting on either CTAF or area frequency that they are in cruise at 9500 feet, tracking outbound from somewhere like Darwin or Gove or Catherine, some major centres. And they're putting out an all-stations broadcast to let people know they're there. Now, what I've found in talking about this particular topic is that there are many different opinions on the topic.

And it's certainly not clearly defined that it's right or wrong, necessarily. But if they broadcast such a broadcast on CTAF, they may be thinking that they're making a safer environment, because they're letting people know what they're doing. But there's a risk then that as we've said, there's a congestion risk. But also, there's a whole half of the sky filled with pilots operating under the instrument flight rules that most likely aren't even listening to the CTAF frequency at that point in time and so may be completely unaware that that aircraft is there anyway, so not only have they congested frequency on a frequency that half the sky are listening to, but they've also missed half of the sky at the same time.

**Nerita:** 19:47

I guess one of my main takeaways as you know, being a training commercial pilot would be for the student pilots out there, make sure you select an appropriate school that you feel comfortable with, that are willing to go on this journey with you. It does take a lot of resilience and grit to get through your aviation studies. It's not simple, it's not something that you can cram the night before and get through it, because you've got your theory side and your practical side. So, make sure you do your investigation with a particular school that you're thinking about going through, and thereafter make an informed decision.

**Lea:** 20:29

If you want to learn more about how you can stay up to date on the topics we've discussed today, check out the information and resources by going to the link in the description. Thank you to our guests for sharing their wisdom, stories and insight. We look forward to having you join us for our next episode. My name is Lea and this is the AvSafety podcast.