RAANZ
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SEE and BE SEEN

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Have you ever seen another aircraft pass by and wondered whether the other pilot saw you?
Have you ever had a 'hot flush' after seeing another aircraft suddenly appear and wondered how close you actually got?
Have you ever had a near miss?
Vexing questions that are a real concern.

How does one prevent the nightmare possibility of a mid-air collision?

Aircraft, like motor vehicles are designed and built in many wondrous shapes and sizes. There are high, low, mid wings, rearwards and swing wings. They have small and large windows. There are long and short noses. The list goes on and on.

All have a common fault. **BLIND SPOTS AND PILOTS**. Aircraft do not fly into each other. Pilots do. They just happen to have an aircraft strapped to them.

Motor vehicles software has been developed and advanced to limit the advent of a collision with another. eg lane change assist, 360 degree cameras, head up displays, blind spot monitoring etc. etc.

Aircraft have glass cockpits and TCAS of various sorts that lead pilots to limit their look out.

Controlled airspace offers a greater margin of safety due to ATC giving traffic information or instructions to assist in preventing collisions. It does not mean the pilot should stop looking out the window, but it is a lot more reassuring to know that someone else is assisting you to stay alive. Future navigational systems such as ADS-B IN have the ability to display inside the cockpit what ATC see on their systems. ATC have terrain and short term conflict alerts. BUT this relies on all aircraft having serviceable systems.

CAA regulations lay down 'right of way rules' that all pilots must adhere to, but they are of no use if you are unable to see the other aircraft.

How can a pilot assist themselves in making the odds a lot smaller in experiencing a close encounter of frightening proportions?

- During the pre-flight consider the chances of other aircraft doing similar exercises or going where you are going e.g. training areas and transit lanes.
- Do you have a clean windscreen?
- What other activities may you encounter en-route? eg gliders, hang gliders, parachutes or drones.
- Are you on the right frequency?
- Have you checked you NOTAMS and airspace restrictions/limitations?

- Will you be able to cruise at a quadrantal level that will lesson you chances of meeting another aircraft/
- Do you have passengers that may be able to assist in keeping a look out?

Weather conditions obviously have a major bearing on the ability of being able to see and be seen-

- Reduced visibility due to rain or low cloud-maybe you should slow down and turn your landing light on (it may prevent a bird strike as well)
- Fly a safe distance vertically from cloud so that you are able to see clearly and further underneath.(saves you flying into it inadvertently as well)
- Make your turns down sun if you have an option, but consider that someone may be behind you and looking into the sun.
- Consider using the sun and look for shadows on the ground. Very useful if you think you are close to someone and may have lost sight of their aircraft. (don't be frightened of your own shadow)

Basic airmanship in carrying out manoeuvres should be taken into consideration at all times.

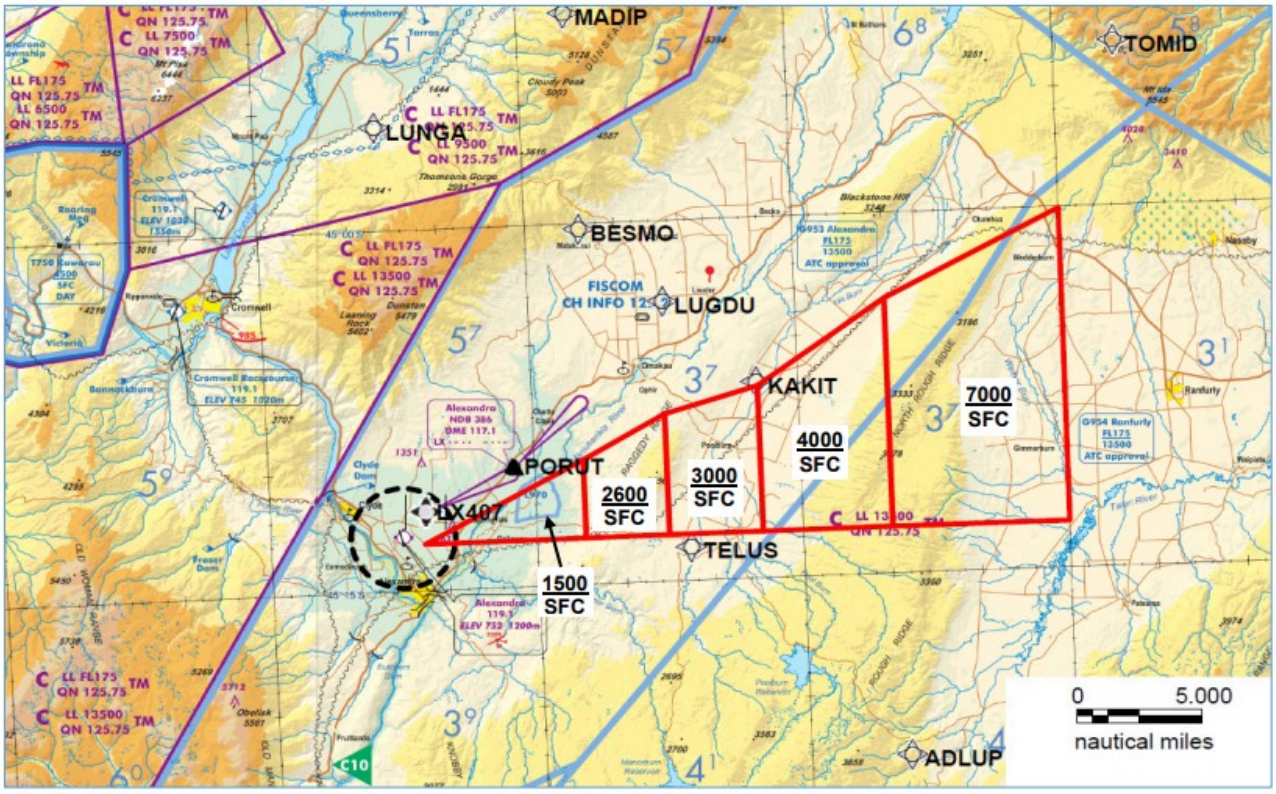
- Know your aircraft and blind spots.
- Have you looked both ways prior to commencing a turn?
- Have you looked above and below prior to changing altitude?
- Consideration should be given to the ability to see over the nose in a steep climb. A slight weave may assist in seeing another aircraft. (just as tail wheeled aircraft taxiing on the ground)
- Do you know you right of way rules?
- Do you know how to scan effectively? e.g. 20 degree chunks
- Make all standard radio reports and positions accurately. There are pilots that have not yet managed their parallax positioning and can be up to 3nms from where you think they are. The position report should be accurate so the other pilots direct their scan towards you better and have time to judge evasive/give way action if necessary.
- Should I do a standard overhead re-join or will it be OK to just join straight in.
- At busy time for arrivals at fly-ins it may be better to hold off until the circuit traffic lessens of if able hold overhead well above the circuit
- The most difficult area to see aircraft in the circuit is when you are on base leg about to turn on final. Aircraft can easily blend with the back ground. Are you about to cut in front of some one?
- Do not assume there will be no other aircraft in the vicinity. Some may be NORDO.

In Summary

- **All aircraft are difficult to see**
- **Do not assume that the other pilot will see you**
- **Take precautions and make flying enjoyable**

If you do not care for yourself at least consider not spoiling some on else's day.
Fly safe.

Proposed Restricted area- Alexandra- RPAS BVLOS trials
Paula Moore/CAA



Consultation with airspace users regarding an application from Skybase for the designation of five restricted areas near Alexandra aerodrome commenced on 22 August 2018.

Electronic copies of these documents are available on the CAA's Airspace Review page at the following link: http://www.caa.govt.nz/airspace/airspace-review/

The closing date for submissions is Wednesday 26 September 2018.

Users were also advised that as part of the consultation process to assist with understanding proposed airspace and answer any questions which have arisen, a consultation meeting would be held at Alexandra during the week 17-21 September 2018.

You are invited to attend the user consultation meeting to be held as follows:

Date: Tuesday 18 September 2018

Time: 7.00 p.m.

Venue: Alexandra Fire Station, 41-43 Centennial Avenue, Alexandra.

Note: there is no public parking on the premises due to operational requirements, but there is plenty of street parking in close proximity.

A central Otago landing strip (Al Millar)

ADS-B below FL245 heads up

From **31 December 2021** your aircraft will need to be fitted with an ADS-B transponder and associated or integrated GPS receiver if you want to operate in **any** controlled airspace.

No transponder- stick to Class G airspace.

The transponder and its associated GPS receiver must be certified or approved by CAA, and must be checked at installation and every 2 years by a qualified LAME.

The relevant standards are specified in AC91-24:

- 'Any ADS-B OUT systems installed after 20 July 2018 must include a **TSO-C166b** transponder (or demonstrate equivalent performance) and a compatible GNSS positon source certified to **TSOC145, TSO-C146 or TSO-C196**, or can demonstrate equivalent performance. '
- If you are looking at a 'deal' from the US, be aware that the NZ system is different to theirs. The buzzwords you need to see are '**ADS-B OUT 1090-ES**' (good) and not '**978 UAT**' (bad).
- CAA are considering low power alternatives (LPAT), but check with them before you buy as they will need specific testing and approvals, and may not end up any cheaper.
- If you are considering mixing and matching GPS receiver with an ADS-B transponder, be aware that there can be compatibility issues, with the transponder not recognising the GPS- check before you buy.
- And the GPS/transponder must output at least an **SDA (System Design Assurance) of 2** and a **SIL (Souce Integrity Level) of 3** for the data to be accepted by the Airways system. They will tell you if it is not, but again best to confirm with your supplier before committing.

And if you have the panel space, consider installing an **ADS-B IN** receiver. There are a number of pocket-sized receivers available that link via Bluetooth to apps such as AirNavPro and give you traffic information. With all a/c in controlled airspace ADS-B equipped, you get the same picture of traffic as the guys in the cab (or buried in the dungeons of Airways area control). If you have shelled out the dollars you might as well spend a couple of hundred more and take advantage of the benefits.

Incident Report

Microlight type/model
TECNAM P2004 BRAVO

Place of incident
Feilding aerodrome

Other aircraft involved
Nil

Describe the incident
PIC report
Duck Incident at Feilding Airfield 18th
August 2018

I booked ZK LLY a Tecnam P2004 Bravo for local flying to include circuits.
At approximately 1300 hrs local time I taxied out to the holding point for 10. After completing pretake off checks I lined up 10 runway. The runway was clear of any wild life.

At about 150 meters from the start of the take-off roll, at full power but still on the runway, I saw 3 ducks out of the left hand side on the windscreen take-off from the near side grass. Two avoided the aircraft but the third ended up going through the propeller. The first I knew of this was a considerable amount of blood and feathers on the windscreen.
There was no bang or change in power from the motor.
I closed the throttle and taxied clear of the runway.

The grass on the side of the runway is about 600 cm high and was wet at the time. An ideal habitat for ducks and other birds.
An additional factor is the ducks are presently mating and are very unpredictable.

Describe the affect on safety

Potential for catastrophic aircraft structural or engine/propeller failure, obscuration of vision leading to loss of control.

Remedial action taken
Maintenance Officer report: Prop strike (Duck) 18/8/18

Prop strike reported to me as Maintenance Officer on the 18/8/18. Hit Duck.
Visual inspection showed no major damage to propeller (2 x small nicks in leading edge approx 2mm x 2mm.)
I questioned the pilot about the incident and was satisfied that the engine was on full takeoff revs and no rev drop was notice when hitting the Duck.

I contacted the Rotax Service Center (Solo wings Taranga) and explained the situation and they agreed that in theory all should be good with no rev drop but do a complete check.
I checked the gearbox friction torque and there was no change from previous records.
I checked the magnetic plug and also found no issue.
I removed the prop and refurbished, balance and refitted it back onto the engine.
All steps taken entered into engine and propeller logbooks as attached.
Rotax Manual prop strike details also attached stating the rev drop to be considerable before gearbox removal for service.
All assembled, checked and passed as ready for service.

Corrective or preventive action recommendations
Feilding Aerodrome CEO Bruce Brownlie and other appropriate persons on Feilding Aerodrome notified of occurrence. An undertaking of further bird control was indicated.
It was suggested that it would be too wet to mow the grass verge presently.
Newsletter to be sent out to FFC members reminding of potential for bird strike:

Safely Speaking Sept 2018
As some of you might already know, one of our aircraft had an incident with a duck a couple of weekends ago. Luckily the result was duck zero and aircraft one – however, no one gets off scot-free and a number of hours were required to check the aircraft and ensure that no damage had been done. Despite this, it is pertinent to reflect on the risks associated with flying and how to mitigate them.
In our newly completed checklists in the aircraft (LLY and TRD – thanks instructor Matt), there is a check inserted under the ‘Line-up’ checks: ‘emergency procedures’. This is to get you thinking about ‘what-ifs’ – threat mitigation. The purpose is if you have run through the

potential risks before they occur then you are more able to make rapid sensible decisions in the event of an emergency, thus 'engine failure on rolling', and 'engine failure after take-off'. It is expected that you will verbalise the threat and your actions should that threat occur. You are also checking that the runway and climb-out are clear of threats and the windsock is pointing at you: scan for the presence of birds and their activities, and even then expect the unexpected – a kamikaze duck hidden in the grass.

Bird risk occurs all year round but threats can peak around Duck Mating time in July/August where love-struck ducks can become less threat aware themselves, and pose a risk by not keeping out of the way. If the aerodrome grass has not been mown recently then the tall grass can obscure birds resting and they will only become visible at the last minute.

Plovers can also present an increased risk in autumn with numbers on the airfield.

If hitting a bird in flight isn't bad enough, in nesting season they also like to deposit nice dry vegetation etc. into warm engine bays for their nests – a real fire risk. Another favourite site is the nooks and crannies in the wing or fuselage where vegetation may foul the control cables. This should all be checked for in your pre-flight.

Any near misses or incidents should be reported to the Safety Officer (Steve 021377636), CFI (Sarah 0273220274) or Maintenance Officer (Stan 0210453801) ASAP. The airfield committee will be notified to increase bird control and the aircraft thoroughly checked to ensure the safety of continued operation!

Please see the GAP publication 'Bird Hazards'

https://www.caa.govt.nz/assets/legacy/Publications/GAPS/Bird_Hazards.pdf (we have a few copies in the club rooms) and if in doubt ask one of our instructors.

Membership changes

John Paton	Southern Recreational Aircraft Club	Advanced National	Upgrade
Robert Bradnock	Feilding Flying Club	Intermediate	Upgrade
Paul Milnes	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
Ilana Greeff	Parakai Aviation Club	Novice	Joined
Pietro Zugnoni	Canterbury Recreational Aircraft Club	Advanced Local	Upgrade
Eaden McKee	Mercury Bay Aero Club	Novice	Joined
Carl Brickle	Geraldine Flying Group	Novice	Joined
Tania Campbell	Associate	non-flying	FRTO
Vicki Whittington	Associate	non-flying	FRTO
Elizabeth Sawkins	Associate	non-flying	FRTO
Emma Lockie	Parakai Aviation Club	Novice	Joined
Michael Godfrey	Canterbury Recreational Aircraft Club	Novice	FRTO
Ian Coombridge	Geraldine Flying Group	Novice	Joined
Warwick Coombridge	Geraldine Flying Group	Novice	Joined
Graham Tully	Canterbury Recreational Aircraft Club	Novice	Joined
Luke Baines	Associate	non-flying	Joined

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