GASIL
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Civil Aviation Authority

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It's not the one you see, but . . . .

SafetySense leaflet 13 "Collision Avoidance" contains much useful advice on lookout. Included in that is the warning that, when we see another aircraft during our flight, "do not forget the rest of the sky". We need to remember that concentrating on that one aircraft we have seen will severely reduce the chances of seeing any other aircraft which might actually pose a greater collision threat.

The same warning about what might be described as 'target fixation' applies to other situations as well. AAIB Bulletin 9 of 2010 includes a report on an accident to a balloon whose pilot was concentrating on avoiding a set of cables on his approach, but struck a second set which he had not observed until it was too late to take avoiding action.

Flight into Europe

Readers will be aware that UK operating procedures and associated radio procedures, are different from those promulgated by the International Civil Aviation Convention (ICAO) and officially followed on the continent of Europe. A year or so ago the CAA produced a multi-media supplement to CAP 413 the Radiotelephony Manual, to assist pilots with their radio calls in this country, and Eurocontrol has produced a similar multimedia item for the European GA Safety Team (EGAST) giving guidance on ICAO radio procedures.

Pilots who intend flying in continental European airspace are advised to refer to this guide, which like the CAA supplement can be downloaded onto home computers. Other material, such as safety posters, videos and a leaflet on collision avoidance, can also be found on the EGAST web site, http://easa.europa.eu/essi/EGAST_1.htm.

Microlight?

An initial report by the BFU (German AAIB) concerns an airborne tailplane failure to a microlight aeroplane which was apparently manoeuvring at over 170 kilometres per hour. The investigation has reached no conclusion about the accident cause, although it indicates that control flutter was the reason for the damage. However, the report does suggest that the aircraft was 37 kilograms overweight.

Whatever the primary cause of the accident, flying an aircraft at a weight above the maximum authorised take-off mass invalidates the Certificate of Airworthiness, which in turn may be considered by insurance companies to invalidate their policies also. The crew of the aircraft concerned were able to land it safely; the damage could have been more severe.

Know your landing area

SafetySense leaflets 12 'Strip sense' and 17 'Helicopter airmanship' both recommend that when intending to land at an unfamiliar destination, the pilot should 'check it out' either with another pilot who is familiar with the landing area, or on the ground. It seems likely, and the assumption is supported by pilot reports, that several accidents reported recently would have been avoided if that advice had been followed.

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Felt fast?

In the AAIB's Bulletin 9 of 2010, we read of a pilot landing at a strip who apparently reported that "the approach had felt 'fast'". The landing was 'long and fast' and as he approached the fence he attempted a go-around but struck a fence and a tree trunk, against which the aircraft came to a halt.

Late decisions to go-around are the cause of many serious accidents. We continue to advise strongly that if the approach does not feel right, the pilot should go-around while he or she can do so safely. Having reached a safe height above the ground, it should be possible to identify why the approach felt wrong (tailwind, lack of flap, wrong runway etc) in slow time before making a better approach next time.

Has he seen me?

When a risk of collision exists, the Rules of the Air Regulations are clear about the actions required by pilots. The aircraft with right of way shall maintain course and speed, while the aircraft giving way shall alter course and avoid flying over or under the other aircraft. Because pilots are human, and eyes have limitations, the rules leave the option for the pilot with right of way to escape by climbing or descending if he believes the other is not giving way as required.

However, not every situation presents an obvious risk of collision. Two aircraft may appear to be safely passing each other in fairly close proximity. However, an alteration of heading, or height, by one aircraft may change the situation for the worse, so it is important that we do not disregard the presence of an aircraft which initially does not present a collision risk. We also need to maintain our lookout scan for other possible threats.

A reader has suggested that, if each pilot who has seen another aircraft which appears to be coming close, whether or not a risk of collision exists, should 'waggle' his wings to indicate that he has seen the other aircraft. This would give confidence that the 'waggling' aircraft will not manoeuvre hazardously.

The suggestion has merit, with the added benefit that if the other pilot has not seen the approaching aircraft, movement of the wings should increase its likelihood of being seen. However, although we think it a good idea, we must not warn against relying on it. As with car drivers flashing headlights, 'waggling' only indicates that the aircraft is there – it does not necessarily mean that the pilot has seen you. He may be trying to improve lookout behind his wings, or may even be signalling to another aircraft you have not seen!

Foreign information

As a result of a recent comment from a reader, it may be timely to remind readers that information printed on UK CAA Charts concerning airspace outside the UK cannot be guaranteed to be accurate. Indeed, the charts include the following warning: "Users are reminded that aeronautical information outside the UK FIR is not subject to UK NOTAM action. Such information should be checked against the Aeronautical Information Package for the appropriate area."

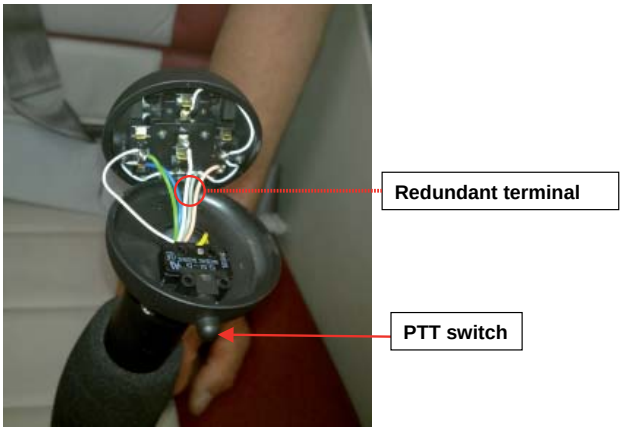
We continue to strongly advise pilots to obtain a current chart issued by the Authority of the State in whose airspace they intend flying.

Electric trims

The crew of a CZAW Sportcruiser recently experienced some disconcerting handling problems. Every now and again, the elevator trim moved to the fully nose-up position without any trim selection being made by either crew member. Fortunately, the forces involved could be overcome by aggressive forward pressure on the control column while the desired trim position was reselected.

Eventually the crew concluded that the trim movement occurred every time the radio transmit button was pressed. When they arrived at their destination, engineering investigation discovered that both the stick-top assemblies had a similar fault. The assemblies are in 2 halves, and when these were fitted together, one of the contacts in the press to transmit circuit made contact with a redundant terminal in the elevator trim circuit. The redundant terminal was removed, and we understand the manufacturer has issued a Service Bulletin to prevent the problem recurring.

Autopilots and electric trims are useful aids for a pilot. However, as this incident shows, faults do occur, and when they do they can cause serious handling problems. It is essential that we understand our electrical systems, especially when they can be connected to the flight controls, and can recognise and recover from a trim runaway in any condition of flight. Included in that, as we have advised frequently in the past, we must know, and be prepared to use, every means of removing power from systems which can affect our flight controls.



Skating on thin ice

In January this year, a commercial flight taxied in to what appeared to the pilot to be a wet apron. Unfortunately, it was in fact covered in ice, and the aeroplane skated across the apron, fortunately avoiding contact with anything solid.

As winter approaches, we need to remember that rain falling on a frozen surface is probably the most hazardous weather phenomenon we can encounter in the UK, and take great care when it becomes even a possibility. The CAA's 'Winter Operations' website page www.caa.co.uk/winteroperations contains information useful for all types of operation, including GA.

Before the visibility drops . . .

Snow does not fall very often in our country, but when it does it usually produces a considerable reduction in visibility, especially from an aircraft cockpit. From a distance it may look similar to any other precipitation, but if we fly into it we can quickly lose sight of the horizon and often even the ground below us. Those with training and qualification in instrument flight need to transfer to instruments before losing that horizon, and those without such training need to stay well away from the hazard.

When snow or the probability of snow is forecast, look well ahead for the signs of any visible precipitation, and treat it as a potential major hazard. Entering a snowstorm inadvertently has been assessed as the cause of at least one UK fatal accident in recent years.

Emergency ADs

EASA produces bi-weekly summaries of the ADs they have issued or approved, which are available through their web site www.easa.eu. Foreign-issued (non-EU) Airworthiness Directives are also available through the same site, as are details of all recent EASA approved Airworthiness Directives. CAA ADs for UK manufactured aircraft which have not yet been incorporated in CAP 747 can be found on the CAA web site www.caa.co.uk/ADS.

We are aware that the following Emergency Airworthiness Directives have been issued recently by EASA and the FAA, however this list is not exhaustive and must not be relied on.

Number	Applicability	Description
EASA 2010-0206 E	Austro Engines E4 engines	High pressure fuel pump
EASA 2010-0207 E	Eurocopter EC135 & 635, BK117C-2	Instrument control panel
EASA 2010-0208-E	Mystere-Falcon 50	Emergency brake installation
EAD CF-2010-36	Bombardier CL-600-2C10, 2D15, 2D24	Main landing gear
EASA 2010-0216-E	Eurocopter BO105	Main rotor blade erosion protection
EASA 2010-0222-E	Agusta A109A, 109AII	Tail rotor special hub plug

More Ice

A foreign registered light aeroplane reported suffering severe icing in February during the cruise between two UK aerodromes. Apparently the pilot experienced control difficulties during his approach which he attributed to a tailplane stall, but was able to land safely from a second approach.

Ice presents a serious hazard to aircraft, and if ours is not cleared for flight in icing conditions it is important to stay away from cloud at altitudes above the forecast freezing level. It is also important, if the aircraft is cleared for flight in icing conditions and equipped appropriately, to check frequently that the equipment is functioning, and coping with the conditions being experienced.

Partial power after take-off

We emphasise, and student pilots are taught, that in the event of an engine failure after take-off the first priority is to achieve and maintain a safe speed, and then a landing should be made on the best available ground within a narrow angle ahead and into wind. However, engines do not always fail suddenly, and some power may still be, or seem to be, available. It is important that pilots consider, and instructors teach their students, how to deal with a partial power situation safely.

If any amount of power is lost during the initial climb, the same initial actions must be taken. Reducing drag if appropriate, achieve and maintain the correct speed. For a single-engined aircraft that should be the glide approach speed appropriate for the height you are at. Then, if a safe landing can be made ahead on the runway remaining, close the throttle and land. If not, trim the aircraft and use whatever power remains to reduce the rate of descent while choosing a landing area ahead or within a narrow angle, then close the throttle and land.

If enough power remains to actually climb, remember that every turn reduces the climb rate, so continue to climb ahead at a speed which gains you energy (always ready to return to that glide approach speed) using the available power until you are sure that even if the engine now fails completely and suddenly, you can safely turn towards a better landing area, which you might consider to be the aerodrome from which you departed. Do not be tempted to turn back earlier – fatal accident listings contain many who have!

Mandatory Permit Directives

The following Mandatory Permit Directives (MPD) have recently been issued by the CAA. Compliance is mandatory for applicable aircraft operating on a UK CAA Permit to Fly. MPDs can be found at www.caa.co.uk/mpds and will remain on the website available for download until they are published in CAP 661, Mandatory Permit Directives, which is published twice a year in January and July and can be found at www.caa.co.uk/cap661.

Owners of aircraft with Permits to Fly and their Continued Airworthiness Managers should register to receive automatic email notification when a new MPD is added to the website, through www.caa.co.uk/subscription > New User Subscription Registration, and choose the 'Safety Critical Information' category.

2010-008 R1	Rotorsport MT03, MTOSport	Rotor blade cracks
2010-006 R1	Thruster T600, T300 and TST	Exfoliation Corrosion Splits Aluminium Flying Strut Ends

Propellers

According to a report in AAIB Bulletin 9 of 2010, the pilot of a Jodel D117 had almost completed the pre-start procedure when he remembered that he had omitted to turn the propeller through a number of turns, as was his usual practice. He left the cockpit and proceeded to turn the propeller. The engine started on the third turn, and the aircraft, which was not chocked and was not equipped with a parking brake, started to move. The pilot was unable to restrain the aircraft before it collided with a hedge.

We warn people frequently that spark-ignited engines may burst into life at any time, and it was fortunate, or more likely the result of his correct technique while turning the propeller, that the pilot was uninjured . However, in this case it seems the pilot had not only left the magnetos switched on, but had set the throttle and mixture for start, so it was perhaps not surprising that the engine started.

We can all make mistakes, so perhaps every student pilot should have ingrained in them by their instructors when they first enter a cockpit that they should never leave it without ensuring the magneto switches are OFF.

File photo

VMC?

Those of us who usually fly at less than 140 knots below an altitude of 3000 feet may have forgotten the fact that if we fly above 3000 feet the VFR minima (Visual Meteorological Conditions or VMC) require us to maintain a distance from cloud of 1500 metres horizontally AND 1000 feet vertically in addition to having a flight visibility of at least 5000 metres. If we are above 3000 feet and unable to maintain these conditions, we are required to follow the Instrument Flight Rules.

Above that altitude outside Controlled Airspace, IFR require us to remain more than 1000 feet above any obstacle within 5 nautical miles of our track. We must also cruise at the correct Flight Level appropriate to our magnetic track (quadrantals in UK airspace) if we are above Transition Altitude (which is 3000 feet over most of the UK except when below certain Controlled Airspace). That requires us to set 1013.2 HPa (millibars) on our altimeter which must therefore be accurate. It seems from an airprox report from the BFU (German AAIB) that the misunderstanding may not be confined to the UK.

Frequency Monitoring Indications (Listening Squawks)

Most readers will be aware that several air traffic control units with responsibility for Controlled Airspace over the UK have published Mode A transponder codes which may be selected by pilots who are flying close to their Controlled Airspace and monitoring the published frequency. The following "listening squawks" should be used (with Mode C selected when fitted) when monitoring the associated frequency:

- **0010** Birmingham 118.050 MHz
- **0011** Solent/Bournemouth 120.225 MHz/119.475 MHz respectively
- **0012** Thames Radar/Gatwick 132.7 MHz/126.825 MHz respectively
- **0013** Luton/Stansted 129.550 MHz/120.625 MHz respectively
- **6170** Doncaster Approach 126.225 MHz
- **7366** Manchester 118.575 MHz

Whenever your equipment is transmitting one of these transponder codes, you are agreeing to listen for instructions or information on the appropriate associated frequency. However, you are not receiving a service and you must stay clear of controlled airspace – you cannot enter it without the permission of the appropriate air traffic control unit. Return your transponder to another suitable code (eg: 7000), with Mode C if fitted, as soon as you stop monitoring the associated frequency.

CAA Safety Evenings 2010-11

As previously announced, the responsibility for organising GA Safety Evenings for the coming season has been taken over by GASCo, the GA Safety Council, to which the CAA is a major contributor. The evenings will continue to be of value to everyone involved in general aviation, whatever they fly, operate or maintain, and logbooks will continue to be signed when requested as proof of attendance!

The events so far confirmed for the coming winter are listed below, although readers should note that one or two previously announced events may have changed their date. Organisations wishing to host such an evening during the coming winter should contact GASCo in the first instance on 01380 830584 or by email to ce@gasco.org.uk.

Date	Area	Venue	Contact
15/11/10	Sandbach, Cheshire	Wheatsheaf Hotel, Sandbach	01889 508406
16/11/10	Manchester City Airport	Barton Clubhouse	nick.duriez@cityairportltd.com
23/11/10	Old Sarum	Old Sarum Flying School	01722 322525
24/11/10	Bournemouth	Bournemouth Flying Club	01202 578558
01/12/10	Shoreham	Main Terminal (T1) Restaurant	07790 669163
09/01/11	Morpeth	Eshott Airfield	07703 032793
12/01/11	Elstree	Elstree Aero Club	02082 019818
25/01/11	Leeds/Bradford Airport	Multiflight	01132 387130
26/01/11	Sandtoft	Airfield Terminal	01427 873676
27/01/11	North Coates	North Coates Flying Club	01652 618808
03/02/11	Penkridge	Staffordshire Aero Club	01889 882871
17/02/11	Plymouth	Plymouth Flying Club	01752 773335
22/02/11	Wellesbourne	TBN	01789 842007
23/02/11	Coventry	Coventry Aero Club	02476 301428
22/03/11	Kinross (Portmoak)	Scottish Gliding Centre	01383 729323
24/03/11	Inverness	Highland Aero Club	01463 713086
26/03/11	Prestwick Airport	NATS Prestwick Centre	01292 692730