



www.caa.co.uk/gasil

Issue no 9 of 2010

Why is it all quiet?

A Cessna 172 was given clearance to line up on the active runway, but no further message was received from Air Traffic Control. While the Cessna waited for further clearance, a commercial airliner abandoned its approach and flew a go-around, because all its pilot could hear on the Tower frequency was background noise from inside the cockpit of the Cessna. The Cessna's radio had become stuck on permanent transmit, apparent because of a fault in the radio set itself.



We have advised in the past that if all radio reception seems to have ceased, especially when we are expecting a message from an Air Traffic Service Unit, that we should suspect that our own transmitter may be transmitting, and seek to resolve the problem. Unfortunately, if we are already listening to a different frequency on a second radio, we might not detect the problem immediately.

Why is it all quiet?.....	01	What's holding your wings on?	06
Emergency ADs.....	02	Light Sport Aircraft	06
VFR Charts and updates.....	02	Mandatory Permit Directives	06
Stuck throttle	03	Straight-in approaches	07
Water, water everywhere.....	03	It says it all	07
Belfast TMZ	03	Cap that	07
Condensation	04	GPS Training.....	08
Maximum power?.....	05	CAA Safety Evenings 2010-11.....	08
Controlled airspace.....	05		

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.

<u>Number</u>	<u>Applicability</u>	<u>Description</u>
EASA 2010-0183-E	Various helicopters	Spectrolab Nightsun XP searchlight
TC CF-2010-29	Bell Textron Canada 222, 230, 430	Hydraulic servo actuators
EASA 2010-0185-E	L13 Blanik sailplanes	Flight prohibition
EASA 2010-0190-E	Agusta AW 109SP	Sliding Doors Locking Receptacles

VFR Charts and updates

These are the publication dates of CAA charts issued recently and due in the near future.

ICAO 1:500,000 scale

Scotland	Edition 27	16 th December 2010
----------	------------	--------------------------------

ICAO 1:250,000 scale

Sheet 1	Northern Scotland East	Edition 6	1 st July 2010
Sheet 4	Northern Scotland West	Edition 6	26 th August 2010

1:50,000 scale

London Helicopter Chart	Edition 14	23 rd September 2010
-------------------------	------------	---------------------------------

The VFR charts "updates" pages are freely available for download, currently on www.caa.co.uk/charts, until NATS assumes responsibility for the service. The updates, including the applicable frequency cards, are updated every 28 days, and should be consulted as part of flight planning.

Editorial office: Flight Operations Inspectorate (General Aviation), attn GASIL Editor,
Safety Regulation Group, Civil Aviation Authority,
Aviation House, Gatwick Airport South, West Sussex, RH6 0YR.
Telephone (01293) 573225 Fax (01293) 573973 e-mail: david.cockburn@caa.co.uk.

Distribution: FOI(GA) Admin, address and fax as above. Telephone (01293) 573525.

Content: CAA staff comment and deductions are based on available information. The authenticity of the contents, or the absence of errors and omissions cannot be guaranteed. Nothing in GASIL relieves any pilot, operator or engineer of his/her duty to ascertain and comply with ALL applicable regulations and formal documents.

Stuck throttle

Last month's Occurrence listings included an incident of a PA28 which suffered a restriction in its throttle movement in flight. The instructor apparently set the aircraft up for a glide approach at an aerodrome with a long runway and shut down the engine before making a safe landing. The cause of the restriction was caused by a apparently a clamp on the throttle cable which had come loose.

Are we all happy we would cope with a similar problem as successfully?



Water, water everywhere

The AAIB's Bulletin 4 of 2010 includes a report of an accident following an engine failure at about 50 feet after take-off. It seems that the pilot was able to land back on an available runway, but because he had selected the gear up immediately after the aircraft lifted from the runway, the undercarriage was still up when it landed, and the aircraft was damaged.

Differences training for aeroplanes with retractable undercarriage usually includes teaching that the gear should be selected up immediately after the pilot assesses that there is insufficient runway available on which to land back in the event of an engine failure. However, if the pilot considers that the particular circumstances call for a maximum rate or angle of climb, he may decide to make the selection earlier. Decision making involves assessing risks.



File photo

According to the report, the cause of the engine failure, however, was probably water in the fuel tank, possibly entering through a wrongly fitted fuel filler cap. Similar cases have been reported in the past, and, as in this case, discarding a fuel sample containing water and apparently finding none in the next sample has not always proved that all water has been removed if a significant quantity of water has entered the tank.

Belfast TMZ

AIC M013/2010 announced the establishment of a Transponder Mandatory Zone (TMZ) within the Belfast Aldergrove controlled airspace (CTZ and TMAs) to provide a known traffic environment while a radar upgrade was completed. The TMZ was initially due to be removed at the end of September, but will now continue in force until 30 November 2010.

Condensation

The phenomenon of cooling by radiation is not confined to any particular time of year, but it seems that its effects become more noticeable as the heat from the sun becomes weaker, daytime temperatures reduce and the evenings grow shorter. We ought therefore to remind ourselves how these effects concern us as aviators.

Cloud cover reduces the rate of cooling by radiation considerably, so the effects are most apparent when the sky is clear and the air is moist. Unless we are monitoring the differences between temperature and dew point, we probably only realise that radiation is taking place when we encounter one of the effects.

In the morning of an autumn day, we may well encounter an aerodrome forecast for our home base suggesting conditions apparently suitable for a warm and pleasant day fly-out. The conditions we experience during our flight and on the ground at our temporary destination may have encouraged us to take full advantage of them for as long as possible before flying back. Even an unexpected delay to our planned departure time would not seem as frustrating as normal; after all, in a clear sky darkness wouldn't fall early or rapidly, even after the clocks have gone back (we did remember that, didn't we?).

Perhaps, however, a little shiver during the external pre-flight checks without the jacket we left at home might make us feel a little uneasy. We should be more uneasy were we to notice some condensation on the wings; the first indication that both cooling and moisture were present would probably appear at the point of maximum curvature, just above the fuel tank if fitted.

We know we should not fly without obtaining an aviation forecast which covers the whole time and area of our intended flight. If that mentions reduced visibility, even a 'PROB' or 'TEMPO', our internal alarm bells would be expected to ring. However, on a lovely day it may be that other thoughts have priority; after all pilots are human!

Once airborne and seeking our visual navigation features, little patches of grey haze may become apparent, usually forming over low lying ground, especially where water flows or lies. These patches may be cloud, but are much more likely in light winds to be radiation fog, and even if they do turn out to be stratus patches we should expect the base to be very close to the ground. As the heat radiates from the earth without the sun's energy to compensate, the patches will grow, and possibly drift in the wind, especially up gentle slopes. Is our base on high ground or low ground?

Approaching base, the UK's prevailing westerly winds suggest we should probably have to land towards the sun if we arrive before sunset. However, from an overhead join we should have no problems seeing the runway. That sun is going to exacerbate any little cracks, or even insect splodges on the windscreen, but we can always wait until the sun has set (if it hasn't already).

Unfortunately, any further delay increases the chances and the severity of radiation fog forming on the aerodrome, and at the same time reduces the time available to divert to somewhere more suitable (we did nominate and carry fuel for such an alternative, didn't we?). It is quite possible that if fog does form, it will be so thin that we can see the runway, or at least enough visual cues to identify where it is, all the way down the final approach. A steep approach gives a better view and reduces the amount of mist we need to look through. Approaching the surface, the visual cues may well be still visible, so we would start to think about the flare.

That is the moment when it is likely to all go grey. It is quite possible that we could see

vertically through a 50 foot thick layer of fog. However, when looking ahead for the far end of the runway, we should be looking through perhaps 500 metres of it, and suddenly all our references are likely to disappear. From this point on, a controlled landing, or even a last-ditch go-around, is a virtual impossibility. If we are lucky, the damage will be minimal, but if not

The fact that the hazard probably only directly affects the aircraft at the very last moment is the most dangerous aspect of trying to land through shallow or patchy fog. We must avoid putting ourselves in that situation.



Maximum power?

In a report from the BFU (German AAIB) we read of an accident to an aerotow combination just after take-off. The PA25 tug collided with trees, and the crew of the Janus Ce glider were seriously injured when it hit trees while manoeuvring to avoid collision with a house wall. The investigation was unable to find any apparent fault with the aeroplane, but the report notes that the carburettor hot air selector was found in the fully out position.

We frequently remind pilots to be familiar with the contents of SafetySense leaflet 14 “Piston Engine Icing” and to warm the carburettor with hot air, if fitted, before take-off and at regular intervals. However, it is also vital that the hot air system is de-selected whenever maximum power is required from the engine. If a pilot suspects that his engine is not giving maximum power when asked, it should be automatic to check the position of the hot air control as well as that of the power lever and flaps.

Controlled airspace infringement

A recent report concerns a pilot who was suffering communications difficulties and entered Controlled Airspace (CAS) without clearance. While we can sympathise with someone who experiences problems in flight which distract them from their legal responsibilities, perhaps we can all benefit from a reminder of the priorities when flying:

1. Aviate
2. Navigate
3. Communicate

Navigation near controlled airspace, or any restriction, requires careful planning. Rather than planning to follow our desired routing, we should plan in the expectation that we have to avoid the restriction, and follow that plan until we discover we can follow a different course of action. That means that if we suffer problems with communication, we can continue safely along our navigation plan until the problems are resolved.

What's holding your wings on?

Following a recent daily inspection on a K21 glider it was noticed by another pilot that the front of one of the main pins was about a centimetre proud of its correct position. The pilot who had carried out the previous inspection frankly admitted that he had checked, as was his habit, only that the red safety clip was holding the pin handle, and had not noticed the pin itself was out of its correct position.

The correct position is illustrated. The mis-alignment of the pin may well not have caused serious problems, as it was found difficult to move it during the subsequent re-rigging. However we should all reflect on the old maxim: "Don't assume, check!"



Light Sport Aircraft

The CAA has recently published AIRCOM 2010/11, relating to aircraft which fit the Light Sport Aircraft (LSA) definition. EASA has not yet published the Implementing Rules which will apply to this category of aircraft, nor finalised the Standard against which these aircraft can be certificated, so the AIRCOM provides considerable useful information for owners, and potential owners, of such aircraft.

This, like all AIRCOMs, can be accessed from the CAA website www.caa.co.uk/aircom.

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](http://www.caa.co.uk/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 > Publications > Subscriptions > New User Subscription Registration, and choose the 'Safety Critical Information' category.

2010-007

Savannah

Bungee pitch trim

2010-008

Rotorsport MTO3, MTOSport

Rotor blade cracks

Straight-in approaches

These pages frequently advise pilots to join the traffic pattern via the published procedure, and if there is none published, to make a standard 'overhead' join as shown in the [poster](#) with that title, which is available for free download from our web site www.caa.co.uk/safetysense. That advice is primarily to prevent a mid-air collision. However, pilots who fly from aerodromes with Air Traffic Control Units may become accustomed to requesting and obtaining clearance to arrive in the traffic pattern at other points, and perhaps even to make a straight-in approach.

However, approaching the runway from long final (4-8 miles) is not as simple as many people may think. The change from cruising speeds, configuration and power settings to those required on final approach can affect the pilot's perception of runway aspect, and many pilots find themselves with either too little or (more commonly) too much energy as they approach the runway. As with any approach, it is important that pilots are prepared to fly a go-around if the aircraft is not going to make a landing in the intended

place, and that they should do so as soon as that fact becomes apparent.

As reported recently by the BFU (German AAIB), a Cessna 172 pilot who had received clearance to land from a straight-in approach found his touchdown point would be more than half-way along the runway. The report notes that marks on the runway indicated that he had started to apply the brakes with 260 metres of runway remaining, but believing he was unlikely to stop before the end, he applied power in an attempt to go-around. The aircraft over-ran the end of the runway and came to rest inverted at the bottom of a bank as illustrated.



It says it all

This quote from an AAIB accident report in Bulletin 8 of 2010 could be applied to many accidents, perhaps including the one above. Let us all learn!

"The pilot assessed that causal factors included being too high during the final approach, being faster than planned on touchdown and being too far down the runway to permit a safe go-around for the given obstacles at the end of the runway. He stated that he should have aborted the landing at 200 ft and gone around"

Cap that

Readers of last month's occurrence digest will have noted that the pilot of a helicopter recently reported fumes and a strong smell of fuel in the cockpit shortly after take-off. Following an immediate landing, it was discovered that the fuel cap had apparently been left off after refuelling.

We do not wish to criticise the pilot - we are all human. However, hopefully, having been reminded of the possibility, the rest of us will be a little more careful with our pre-flight checks and able to reduce the risk of making the same error.

GPS Training

Readers will be aware of SafetySense leaflet 25 "Use of GPS", and the CD "Pilots' Guide to GPS" produced by the Airspace Safety Initiative (ASI). Equipment manufacturers produce instruction manuals and electronic assistance for those who purchase their devices, and several instructors have organised courses for students in the use of particular equipment. However, although the PPL ground study syllabus has for many years included the theory and applications of satellite navigation systems, the correct use of such a system in the air is only likely to be tested during renewal Licensing Skill Tests or possibly Licensing Proficiency Checks, and even then only if a GPS set is fitted to the aircraft.

The Royal Institute of Navigation (RIN) produced its first guide to aviation GPS use

in the 1980s, and has continued to provide advice on the subject, as it has on general navigation techniques ever since. It has recently produced a comprehensive syllabus for instructors to use, in combination with the manufacturer's instruction material, when training pilots in the use of their satellite navigation equipment. Last winter, GASCo distributed copies of the syllabus outline, and most readers should have received their own copy.

The CAA believes that this syllabus provides a useful tool for satellite navigation instruction, and proposes to distribute copies of the complete syllabus to flying schools for their instructors to use. The syllabus will also be available through the ASI web site, as well as from the RIN www.rin.org.uk.

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, and readers in the Staffordshire area should note that the event in Penkrige has been delayed from November to February. 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.

<u>Date</u>	<u>Area</u>	<u>Venue</u>	<u>Contact</u>
20/10/10	Rochester Aerodrome	Innovations Centre	01634 869969
03/11/10	Shobdon Aerodrome	Airfield Clubhouse	01568 708 369
11/11/10	Bristol International	Bristol & Wessex Flying Club	01275 472514
15/11/10	Sandbach, Cheshire	TBN	01889 508406
16/11/10	Manchester Barton	Clubhouse	nick.duriez@cityairportltd.com
24/11/10	Bournemouth	Bournemouth Flying Club	01202 578558
	Shoreham	Date being re-arranged	TBN
12/01/11	Elstree	Elstree Aero Club	02089 533432
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
23/02/11	Coventry	Coventry Aero Club	02476 301428
	Penkrige, Staffordshire	Date being re-arranged	01889 882871
22/03/11	Kinross (Portmoak)	Scottish Gliding Centre	TBN
24/03/11	Inverness	Highland Aero Club	01463 713086
26/03/11	Prestwick Airport	TBN	TBN