

CHIRP FEEDBACK

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International Federation of Airworthiness

WHITTLE SAFETY AWARD

The Trust has received the International Federation of Airworthiness Whittle Safety Award for its management of the aviation programmes.

The citation reads:

To Peter Tait, Chief Executive of the UK Confidential Human [Factors] Incident Reporting Programme (CHIRP) and his team, Mick Skinner (Deputy Director Engineering) and Kirsty Arnold (Cabin Crew Programme Manager and Administration Manager)

"In recognition of their contribution to aviation safety, through the development of a confidential reporting programme on human performance issues and concerns. An addition to formal reporting systems within the United Kingdom, the programme covers all aviation related sectors and disciplines."

EDITORIAL

TIREDDNESS, FATIGUE AND SICKNESS

One of the more frequent topics on which advice has regularly been sought in CHIRP reports submitted by flight crew and cabin crew members over the past fifteen years or so is what constitutes 'fatigue' and how it relates to tiredness.

Medical literature suggests that there is no specific medical definition of the condition 'fatigue'; it is often described as 'chronic tiredness' or 'extreme tiredness', but what does this mean? In relation to airline operations, the Flight Time Limitations Guidelines do not preclude an individual being extremely tired; for example at the end of a maximum Flight Duty Period (FDP), possibly involving the exercising of discretion, or at the conclusion of an extended Duty Period (DP) involving post-flight positioning. Having discussed such situations with many reporters, the key issue is whether at the end of the subsequent rest period the individual has obtained sufficient rest such that he/she is able to report for a subsequent duty in a sufficiently rested condition and, if this should not be the case, what are the circumstances that prevent this?

Medical sources suggest that up to ten per cent of the general population is affected by 'fatigue'; therefore, it might be expected that a proportion of flight/cabin crew could be similarly affected, regardless of their duty/roster patterns. The contributory causes to fatigue cited in medical literature include the following:

1. Not enough sleep - The NHS suggests that up to one third of people do not have sufficient sleep or suffer from bouts of insomnia. Managing rest periods effectively is important. Late night internet exchanges or late night social functions prior to an early FDP can be powerful influences in increasing tiredness, as can remaining active throughout the day prior to a late/night FDP.
2. Non-acclimatised sleep periods - Long-haul roster sequences depend on adequate rest being achieved during a stopover when individuals are not acclimatised. Medical advice includes ensuring that your room is dark, cool and quiet. Also, if possible avoid eating a large meal immediately before attempting to sleep.
3. Dehydration - A loss of hydration in a flight deck/cabin environment can cause symptoms of fatigue. If your urine is not light coloured or if you feel thirsty, you are probably already dehydrated.
4. Excessive intake of coffee/tea - Whilst coffee/tea is widely regarded as a stimulant and thus a protection against fatigue, an excess of caffeine may cause fatigue symptoms in some individuals and should be consumed in moderation. Also remember that caffeine is a diuretic.
5. Food Intake - Eating the wrong foods or not enough can contribute to extreme tiredness. Guidance on sensible eating is widely available.
6. Sleep Apnoea - This condition causes a sleeping individual to stop breathing briefly repeatedly through a sleep period; this reduces the benefit of a reasonable sleep period, often without the individual being aware.
7. Other medical conditions both mental and physical can contribute to a feeling of extreme tiredness and thus are also potential causes of fatigue. Examples are: stress, depression, anaemia, underactive thyroid gland, diabetes and certain heart conditions. Most if not all of these are treatable; any concerns that you might have should be discussed in confidence with your Authorised Medical Examiner.

So, if you are healthy and have taken heed of all of the medical advice, will you avoid becoming fatigued? The simple answer is - Not necessarily.

Whilst CAP371 and the QinetiQ 'SAFE' Work/Rest model are based on sound scientific research, there are duty/rest combinations that appear to be the principal cause of some individuals becoming sleep deprived regardless of their attempts to follow 'Best Practice'.

One such example is the UK - East Coast US/Caribbean 'Bullet' schedule. Originally, many of the route schedules to these destinations were protected by the 'Florida Two' (F2) Variation, which afforded flight crew additional pre and post duty FTL protections. More recently, some operators have devised schedules for these routes which avoid the relevant F2 protections

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and additionally in some cases have included post FDP positioning at the destination prior to the return flight. In one case a UK AOC Holder subsequently introduced additional restrictions for roster sequences to such destinations; however, others have not.

Another example is the benefit that has accrued to operators from the Common Type Rating; this has permitted some operators to roster individuals on a mix of multi-sector short-haul and long-haul operations, which for some individuals is reportedly potentially fatiguing. It might be expected that operators would pay particular attention to such operations as part of their Safety Management System (SMS) or Fatigue Risk Management System (FRMS), for those who have one, to be able to justify their roster policy; however, this is not always apparent.

A further outcome of some operators' rostering policies relates to the use of in-seat Controlled Rest. A specific recommendation of the CAA 'Review on In-flight Napping Strategies' (CAA Paper 2003/08) published in 2003 was that short naps should only be used to combat unexpected low levels of alertness that could not have been anticipated when the flight was scheduled (Page 25; Para 8.1). However, anecdotal evidence over the past two to three years suggests that some operators have apparently acquiesced to the use of in-seat rest on a routine basis, in some cases coincidentally with the third flight crew member of an augmented crew taking Bunk Rest. Whilst it might be argued that it is preferable for a flight crew member to take a period of Controlled Rest to ensure that both operating pilots remain alert during the descent/approach/landing phases, the question might be asked why an operator's Safety Department/SMS/FRMS does not seek to establish why operating flight crew members require to take Controlled Rest as a matter of course, leaving the aircraft in control of a single operating crew member for extended periods of a flight.

It has been argued that the introduction of FRMS ensures that potentially fatiguing rosters/schedules can be identified by operators through the review of flight crew reports and managed accordingly. For this process to be effective it is essential that the review of fatigue reports is conducted in accordance with a clear Fatigue Reporting Policy that is published, reviewed and accepted by all stakeholders.

Regrettably, there is a perception among flight crew members that in some cases FRMS is used to justify an operator's commercial schedule by management exerting pressure on individuals not to submit a fatigue report or by selectively assessing 'operational fatigue' reports as 'individual sickness' and thus discounting such reports from being reviewed under the FRMS. In cases where FRMS is used or approved as a management tool to monitor roster patterns, it is also essential that the CAA's oversight of the operator's review processes and procedures is sufficiently robust and effective to provide the necessary assurance to employees that the FRMS is effective in managing fatigue; currently, this is not always readily apparent.

Finally, one thought for the future. The adoption of the European Commission Regulations on Flight Time

Limitations will undoubtedly raise further FTL related issues. The Regulations will introduce specific operator responsibilities for management of fatigue within a required SMS and in some cases mandate a FRMS. It is to be hoped that these regulatory changes will ensure that UK operators' SMS/FRMS processes identify and address potential safety risks associated with extreme tiredness, and that the CAA's audit processes provide assurance as to their effectiveness.

ENGINEER REPORTS

CERTIFICATES OF RELEASE

Report Text: ##### (Non EU maintenance provider) provides maintenance for a number of airlines.

For a significant period of time some line maintenance tasks, including Certificates for Release have been recorded by unauthorised persons using forged signatures; this is unsafe for the passengers who will fly with the airlines involved.

Several staff have been suspended following an internal complaint but no action taken as the Quality Department was influenced by senior management.

This is ridiculous and, in my experience, has never happened anywhere else in the world involving an EASA certified MRO Company doing this kind of maintenance. EASA is one of the best Authorities and everyone wants EASA approval.

CHIRP Comment: Discussions with CAA (SRG) established that, although the organisation did hold an EASA approval, the maintenance facility at which the alleged malpractices had occurred was not approved by EASA. Moreover, it was established that none of the aircraft for which falsified releases had been allegedly issued were registered within an EU Member State or operated into/out of the EU.

Enquiries directly with the organisation concerned suggested that difficulties had arisen as a result of a cost reduction programme in which the number of certifying staff and quality auditors had been reduced.

The specific allegations, including some examples, were raised with the senior Quality Manager of the organisation. Subsequently, it was advised that some dubious practices had been identified at the facility at which the alleged practices had taken place; action had been taken to eliminate these and to reinstate some key engineering posts with appropriately qualified engineers.

Although the reported practices involved a non EASA approved maintenance facility, it serves as a reminder to UK operators that their contract with maintenance providers should include an assurance that the appropriate manpower resources and skills are available to carry out the work effectively.

B1 CERTIFICATION TASKS/SIGN OFF AUTHORITY

Report Text: I am a B1 Licensed engineer working for XXX (UK airline) on the line. Just recently there have been lots of conflicting views coming from engineers and the company regarding B1 (mechanically based)

engineers carrying out and certifying B2 (avionic) related work.

I and many other B1s have a company approval to be able to certify limited B2 work. This was always seen as being limited to the replacement of LRUs (Line Replaceable Units) that did not require the use of specialist test equipment or test sets such as 'megas' and multi-meters.

The company are now saying that any B1 Licensed engineer can sign off avionic systems requiring only simple tests to prove their serviceability and not requiring troubleshooting. They are including Pitot/Static leak tests in this. While I can understand most avionic tests carried out in a line environment are quite simple and I would have no problem using aircraft BITE (Built In Test Equipment) checks to prove serviceability, I feel that Pitot/Static leak and sense checks are beyond a B1 Licensed engineer's certifying remit. These checks require the use of special test sets that require the operator to have specialist training. Bearing in mind the importance of these systems, if this is now the accepted way forward from EASA, isn't it a sign that previously high standards are being lowered to help meet budgets?

Why have any B2 engineers at a line station if all of the day-to-day avionic work can be carried out and certified by B1s?

I have enclosed details of a recent interpretation of the latest Part 66 Regulation by our Quality manager, which I believe is questionable. I look forward to hearing your views on this.

CHIRP Comment: The European Aviation Safety Agency (EASA) recently issued a clarification under the EASA Part 66 Regulation regarding the scope of work for which a B1 (mechanically based) Licensed engineer is able to sign off compared with that for a B2 (avionic based) Licensed engineer.

However, the increase in the scope of tasks which the clarification of the Part 66 Regulation permits requires an organisation also to comply with its responsibilities under EASA Part 145. These include the requirement for an organisation to ensure that an individual is competent to carry out any assigned task by having been appropriately trained and being adequately experienced.

In this particular case, the management concerned had taken advantage of the increased scope now permitted under Part 66 but appeared to have failed to acknowledge its responsibilities under EASA Part 145.

On learning of these concerns the Quality Manager elected to introduce 'avionics skills' training for B1 engineers.

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FEEDBACK is published quarterly and is circulated to UK licensed pilots, air traffic control officers and maintenance engineers.

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ATC REPORTS

A CONTESTED DEPARTURE

A report published in GA FEEDBACK Issue 53/54 described a situation in which a relatively experienced general aviation pilot was requested by the duty Flight Information Service Officer shortly after take-off to report to the tower on his return from a land away cross-country flight.

The reporter could not recall any reason for the R/T request and described the level of distraction that he experienced during his outbound flight. He elected to cut short his land away and again lost situational awareness during his return flight.

After landing, it became apparent that the FISO had been uncertain as to whether he had issued a clearance to enter the runway. This could have been resolved by reviewing the ATC tape recording that was available.

In another similar case, a request for an experienced general aviation pilot to telephone ATC after landing transmitted following an inadvertent minor infringement of Controlled Airspace (CA) led the pilot to be similarly distracted and commit a more significant infringement.

During discussion of these incidents, it was noted that NATS has actively promoted the principle among the ATCO population not to issue any form of admonition over the R/T to a pilot irrespective of his/her experience to avoid causing any form of distraction and/or threat to safe flight thereafter. The Advisory Board considered this 'best practice' to be worthy of wider dissemination to ATCOs at non-NATS Air Traffic Service Units.

This principle is equally important for FISOs and also for cases where Air/Ground operators are requested to pass on instructions from the airfield operator.

USE OF CAT I/III HOLDING POINTS

In the last issue, we published a flight crew report on an incident arising from a misunderstanding on the flight deck regarding the taxi clearance limit that had been issued by ATC.

During our follow-up enquiries we became aware of a much wider issue; this involved a relatively long-standing practice among some ATC staff whereby the R/T ATC taxi instruction issued by the Ground Controller was routinely to a different clearance limit to that portrayed by the airfield ground lighting.

In the disidentification process prior to publishing the flight crew report we inferred that the incident described in the report had involved CAT I and CAT III holding points; the issue discussed below. This was not in fact the case.

Report Text: I am becoming increasingly concerned and frustrated with this Unit's policy on the use of CAT I and CAT III holding points, and believe we are 'training' flight crew to have runway incursions.

Years ago, the airfield had a block number taxiway system, with no runway holding point designators other than CAT I or CAT III signs. When we were initiating Low Visibility Safeguarding, if the Airfield Ground Lighting (AGL) was on, we would switch the 'wig-wags' and stop bars from the CAT I to the CAT III. Runway incursions

were rare, especially those during safeguarding and Low Visibility Procedures (LVPs).

Today, we have an alphanumeric designation system where the CAT III holding point are, for example, X1 and X2, and the CAT I equivalents are XB1 and XB2. However, it has become custom (there are no written procedures for this) for most ATCOs to clear aircraft to the CAT III holding points regardless of either the current weather conditions or which holding point is actually lit and active. There are many reasons cited for this behaviour; these include less RT (the extra syllable of XB1 rather than X1) and the fact that the CAT I holding points are not set up as 'shortcut' buttons on our electronic strip display (they need to be typed in manually).

Apart from when in Low Visibility Safeguarding (There is still the published procedure where we switch to CAT III holding points in safeguarding) and LVPs, I use the CAT I holding points, and have not witnessed any issues with R/T loading or workload. However, with the majority of ATCOs continuing to use the CAT III holding points even in CAVOK conditions, many aircraft will still continue past it to the CAT I holding point. This is due to the CAT I holding point being the active holding point, with the 'wig-wags' and stop bar lit.

Having discussed this issue with many pilots, the majority will justifiably state that they will hold where the 'wig-wags' are lit. Also, I have never seen an ATCO inform any of these aircraft that they have bust their clearance limit, as in reality the CAT I holding point is actually where the ATCO wanted the aircraft to be, but just didn't say it. So we have the situation where flight crews are being 'trained' to continue past the CAT III holding point used on the R/T and hold at the CAT I point and not being picked up on it. This obviously could lead to incursions when we actually go into safeguarding and LVPs, especially when we are in safeguarding due to low cloud and the visibility is fine.

Following an LVP safety survey, I believe there is a proposal to remain with CAT I holding points in safeguarding, until the point where the weather is almost down to LVP/CAT III. However, the implementation of this seems to have been delayed, because if you mandate the use of CAT I in safeguarding, you have to mandate the use of CAT I at all times other than LVPs, and there appears to be a reluctance to do so.

Talk to any flight crew, and they will say that they want to use CAT I holding points in CAT I conditions, and CAT III holding points in CAT III conditions. We have quickly changed our procedures before when flight crew have unanimously given their view (e.g. removal of 'expect late landing clearance' phraseology and switching giving a SID amendment from near the runway to before push-back). Why not now? I also understand that the airport authority also wants us to use CAT I in CAT I, and CAT III in CAT III. Why aren't we changing? There is a medium term proposal to change the way we designate the holding points, which is still in discussion with CAA (SRG), but this would be a quick win that will increase safety. Every other airport in the world seems to manage with using CAT I in CAT I, and CAT III in CAT III, why not this airport?

CHIRP Comment: As noted in the previous issue, the apparent non-standard practice and the implications of its use on flight crew situational awareness were highlighted to the Unit management and were also referred to the CAA for consideration by the Runway Incursion Working Group.

We understand that discussions have been ongoing between the Air Traffic Services Unit, the airport operator and CAA (SRG). A further meeting to resolve this matter is scheduled as this issue goes to print.

It is to be hoped that the long-term solution will acknowledge the importance to flight crew of verbal instructions being matched by visual cues, and that it is highly desirable that procedures at major UK airports should be ICAO compliant.

SELECTION OF RUNWAY LEAD-OFF LIGHTS

Report Text: I wondered if I could share a situation with you and open it up to everyone for comments.

At night, I like to have the relevant runway lead-off lights selected 'ON' when a landing aircraft is on final approach so that the pilot is able to orientate him/herself.

Recently I was told by a senior colleague that I was wrong to select the lead-off lights 'ON' for a landing aircraft to vacate onto taxiway # when the aircraft was on final approach. It was night, and due to LVP safeguarding, taxiway # was the only exit available for the landing aircraft. (We were not in LVP's, but had been close to it all day). Taxiway # is about 2/3 down the runway and it is not unreasonable to expect a medium twin-engine jet to be able to vacate onto this exit in normal daylight conditions.

I was told that I should wait until the aircraft had landed and when it was at the end of its landing roll I should then select the taxiway # lead-off lights to 'ON'. The aircraft is usually adjacent to the # exit when this happens. My colleague reasoned that it is a sharp turn (around 130 degrees) and as it was the only exit available it would make the pilot feel compelled to vacate there and could result in unsafe hard-braking as he/she struggled to make the exit if it were visible during the landing roll. I believe that when the lead-off lights are selected 'ON' it simply shows the pilot where the exit is. There is no pressure to vacate there, if you miss it, no problem. I think it is unsafe to leave the pilot guessing as to where the exit is, and to then turn the taxiway lead-off lights 'ON' at the very last minute.

In addition, when more runway exits are available in different weather conditions, I like to have the relevant lead-off lights selected when the aircraft is on final approach to aid orientation, and again this is deemed wrong at this unit.

If I were a pilot I would want to know where the exits were sooner rather than later to aid me in my braking. I would like to think that a pilot does not feel compelled by me to vacate at the only exit available without a back-track because I had put the lead-off lights on for him/her when they were on final approach.

What does everyone else say?

CHIRP Comment: From an ATCO perspective there would not appear to be any definitive guidance on when to switch runway exit/lead-off lighting ON. From information received, many ATCOs select the lights prior to an aircraft landing, although some ATSU's may establish a different local policy for specific reasons.

From a flight crew point of view, the preferred option would appear to be for the exit/lead-off lights to be visible during the landing. One of the important elements in the Approach and Landing briefing, which is normally conducted prior to commencing the initial descent, is the runway length, width and the location of exits in relation to the aircraft's anticipated landing performance. Being aware visually of the runway exit(s) provides a piece of key information to the flight crew.

We would be interested in other views.

FLIGHT CREW REPORTS

MORE ON INSTRUMENT APPROACHES IN CLASS 'G' AIRSPACE (FB 104)

Report Text: I recently read the report 'A GA Perspective' on the above topic published in FEEDBACK Issue 4/2012 in which the reporter had asserted his right to fly anywhere he wanted in Class G under VFR. In particular his comments were aimed at a previous report that had emphasised that good airmanship dictates that pilots give Class G instrument approaches a wide berth. The reporter concerned defended his 'right' based on effective use of 'See and avoid'.

I'm afraid this pilot has not read enough recent accident or coroner reports which would tell him 'See and avoid' can be a serious game of chance, where in areas such as instrument approaches or circuit patterns, you are more likely to set yourself up on a constant bearing closure than anywhere else. Once you are in this position you will only have a very short window (10 seconds or less) when your eyes have a chance of seeing the other aircraft. Then it really becomes a game of chance.

So based on the shortcomings of 'See and avoid', I would endorse strongly the original advice. Give these areas a wide berth if you don't need to be there.

CHIRP Comment: We acknowledge that there are a range of views on this topic; however, from a safety perspective the Air Transport Advisory Board endorses the previously published advice, which was that aircraft in transit should plan to avoid the vicinity of instrument approaches whenever this is feasible.

CONDITIONAL CLEARANCES

Report Text: I have noticed that you get the following ATC instruction often at UK airports: "Line up after the next landing Mitsubishi 668 Starcruiser Mk3B".

May I point out to the ATC fraternity that I don't need to know the type of aircraft that is about to land and after which I am instructed to line up. It may be an aircraft type that I haven't heard of and possibly don't have a clue as to what it looks like; so how can I read back the aircraft type in my reply if I can't recognise it? To do so would confirm that I know what one looks like and am

able therefore to comply with the instructions given to me. The correct response would be to inform the controller that you are unable to recognise a Mitsubishi 668 Starcruiser Mk3B but if that's one about to land, after which I am required to line up, then I will line up after that aircraft has landed and look forward to having a closer look at a Mitsubishi 668 Starcruiser Mk3B as it passes by just for interest sake, as I've never seen one before.

Years ago I thought I heard my clearance as "Line up after the next landing DC8". So I replied, "Line up after the next landing DC8". When the aircraft came nearer it turned out to be a VC8 - a four-engine Viscount turboprop and not a four-engine McDonnell Douglas DC8 jet. An error was made and not corrected. This all goes to show that we don't need to know the aircraft type. Just refer to the aircraft as the next one to land or the one on short finals etc.

CHIRP Comment: Regardless of whether the aircraft type is included in a conditional clearance, two important points are worth emphasising.

The first is that the 'condition' must always precede the 'instruction' (not as quoted above).

The second is that whether or not the aircraft type is given, a conditional clearance must relate to one movement only and in the case of landing traffic, this must be the first aircraft on approach.

Both points are covered in CAP413; Chapter 4, Page 7, Para. 1.7.8

RISK AWARE OR RISK SHIFT?

'Risk Shift' is a term given to describe an important aspect of human behaviour.

A typical case is where an individual elects to carry out a potentially unsafe action, which nevertheless results in a successful outcome. If the same potentially unsafe action is repeated also with successful outcomes, the perception of risk of an unsafe outcome is diminished, whereas in reality the risk is no less.

Report Text: I was a passenger on an evening flight from a UK regional airport. I was seated over the wing. The stand was well floodlit & just before pushback I noticed that there were several large areas of frost, up to 2 or 3ft square each, on the wing upper surface, aft of the leading edge slats. After the safety demonstration (we were now taxiing) I asked a member of the cabin crew if she knew whether the aircraft had been, or would be, de-iced. She thought not. I asked her to inform the flight crew that the wing had significant areas of frost on the upper surface. She reported this to the Senior Cabin Crew Member (SCCM), who then used the interphone (presumably) to call the flight crew. The SCCM came down: "the Captain says its fine, it's just condensation, anyway, the wings are heated, so it's not a problem". I told him that although I could of course be wrong, I regularly inspected wings for icing, as I am a pilot rated on the same aircraft type. [While I am aware that condensation can often look like frost, the deposit in question was white & crystalline - and the Wing Anti-Ice system is inhibited on the ground

(save a 30sec test), at least it is on the aircraft of the same type that I fly!]

The SCCM then looked more concerned & went back to use the interphone again. We took off a couple of minutes later. (The cockpit door had remained closed.) On the takeoff roll, the wing lights had been put on so I was able to observe the nearest patch of frost. As we accelerated, this patch (which didn't move, or flow back at all, as condensation would presumably do) began to change in colour from white to grey/clear, front to back; shrink in size from its perimeter inwards; & as we got airborne, it all sheared off (maybe as the wing anti ice was activated?)

I requested to speak to the flight crew after the flight. I was just interested to learn whether their company operated to the same policy as my airline - basically, nil deposits on the critical surfaces. "Yes we do", I was told. I inquired as to whether they were aware that they had just taken off with ice on the upper wing & described everything I had observed. The First Officer found my account "very hard to believe"; he had checked the wings on his walk round & "it was just condensation". He commented that nobody else was de-icing, the OAT had been 8°C & the fuel was still warm, even now after landing. (For my money, the fact that no other aircraft were de-icing isn't relevant. If this were a way to decide whether to de/anti ice, then nobody would ever de/anti ice, except perhaps first thing in the morning - and anyway, how many other aircraft could truly be seen in the dark?)

I'm definitely far from a world authority on airframe icing but in my view, although the First Officer's other observations (on OAT & fuel temperature) are indeed factors that would lead one to suspect that airframe icing would be unlikely, they certainly don't rule it out. Probably the most important thing I personally have learnt about airframe icing is that you can't always satisfactorily predict its presence or absence.

This is reflected in the manufacturer's advice that flight crew must keep in mind that the wing temperature of the aircraft may be significantly lower than 0 °C, after a flight at high altitude and low temperature, even if the Outside Air Temperature (OAT) is higher than 0 °C. In such cases, humidity or rain will cause ice accretion on the upper wing, and light frost under the wing. (Only 3 mm of frost on the under side of the wing tank area is acceptable.) Also, when icing conditions on ground are encountered, and/or when ice accretion is suspected, the Captain should determine, on the basis of the exterior inspection, whether the aircraft requires ground de-icing/anti-icing treatment. This visual inspection must take into account all vital parts of the aircraft, and must be performed from locations that offer a clear view of these parts.

I enquired if the aircraft commander intended to submit a report on the event? No they wouldn't be, I was told - they had "followed their procedures". That is why I am contacting CHIRP. I imagine that in this case, as the manufacturer's advice noted, the wing had become cold soaked on multiple sectors/short turnarounds & the humidity that night meant condensation formed, which had turned to frost by the time we pushed back.

Lessons Learned: Presented with the information that a passenger, who stated that he was a pilot rated on the same type, reported frost on the wings, I would like to think that flight crews would actually check the wing close up (not just from the flight deck, which is at best a very restricted view). I was quite stunned that this crew effectively ignored the information given to them.

CHIRP Comment: Notwithstanding the obvious pressure to make an on-time departure, it is difficult to understand why the aircraft commander elected to ignore the information passed by a positioning flight crew member without a visual check.

Hoar frost, if present on the upper surface of a wing, especially in the location described in this report, can have a significantly detrimental effect on the lift capability. This can be particularly critical in the case of wings without leading edge devices as the fatal accident during a take-off at Birmingham demonstrated.

If there is any doubt; there is no doubt - Stop and take the time for a positive check.

CLOSE ENCOUNTER WITH 'HELMED'

A recent General Aviation report which described a close encounter between a light aircraft carrying out circuit instruction and a helicopter emergency medical (HEMS) flight transiting through the airfield overhead brought to light two points that are worth noting.

The first was a lack of awareness among the GA community of the significance of the 'Alpha' suffix used by HEMS aircraft. There is anecdotal evidence that holders of professional pilot licences might be similarly unaware.

The policy for the application of callsigns to helicopter emergency medical (HEMS) flights is set out in Aeronautical Information Circular No. 96/2008 (Yellow 277) [Available at: www.ais.org.uk]. HEMS R/T callsigns comprise three elements: the first two are the callsign 'Helimed' and a two-digit unique aircraft identifier. The third element is the suffix 'Alpha'; this is only used when an Air Ambulance is performing an emergency operational task and affords the helicopter the highest priority by ATC against all other traffic. The suffix 'Alpha' is not used on routine operational, training or other flights.

The second point was an apparent misperception on the part of the HEMS pilot that the 'Alpha' suffix afforded the aircraft priority in Class 'G' airspace. This is not the case; the Rules of the Air do not afford a 'Helimed ## Alpha' any priority. Notwithstanding this, the vital role of HEMS operations should be considered to be similar to an ambulance displaying blue lights/sirens and whenever possible an 'Alpha' flight should be afforded priority before 'right of way' becomes an issue.

HELICOPTER OPERATIONS - COCISS

Report Text: I have a query on a matter that is leaving my colleagues and me rather uncomfortable.

COCISS - 'Clear of cloud in sight of the surface' exists for operations below 3,000' AMSL; however our CPL (H) licence privileges allow us to operate in Controlled Airspace under IFR without an Instrument Rating as long as we remain 'COCISS' - no height or altitude mentioned!

This has been interpreted as a 'get-out' to the caveat of 3,000' AMSL and hence we are conducting operations significantly above 3,000' utilising the COCISS caveat.

The CAA has apparently endorsed this interpretation, which appears to be purely down to the ANO CPL (H) 'get-out'.

CHIRP Comment: The advice of the CAA was sought on this query. The CAA responded as follows:

The commenter should carefully review the privileges of the UK CPL(H) licence at Schedule 7 of the Air Navigation Order (ANO) and the Rules of the Air, Sections 4, 5 and 6. The "caveats" mentioned are not being interpreted in the correct context and it is not understood what is meant by "get outs"; there are none.

The commenter is correct in saying that a UK CPL(H) holder, under the privileges of his licence, does not require to hold an IR to fly in IFR in classes D, E, F and G airspace provided he remains "Clear of Cloud and with the surface in sight". This has been a long standing arrangement but was adapted in 2007 to align with revised VMC minima criteria in an effort to reduce helicopter accidents associated with flight into degraded visual environments. Clearly, this does not provide for flight in cloud without an IR.

It is important to understand what "with the surface in sight" means and this is laid out at article 255 of the ANO and describes what references are needed to remain legal: *'With the surface in sight' means with the flight crew being able to see sufficient surface features or surface illumination to enable the flight crew to maintain the aircraft in a desired attitude without reference to any flight instrument and 'when the surface is not in sight' is to be construed accordingly.*

The EASA regulation (Part-FCL.600) requires an IR for any flight under IFR, regardless of airspace or conditions.

Pilots should consider whether it is wise to operate in controlled, or uncontrolled, airspace at higher altitudes without having an appropriately equipped aircraft and an IR, especially at night where remaining clear of cloud may be difficult to assure except in absolutely clear and stable meteorological conditions, and where achieving and maintaining the necessary visual references may be difficult. Being caught at high level above a cloud layer moving in at a lower level could present recovery problems and may lead to illegal flight. Holding a valid IR and flying an appropriately equipped aircraft would be advisable and would provide reassurance to both the pilot and the aircraft operator who has a duty of care in these circumstances.

ELECTRONIC MANUALS

Report Text: Recently my employer has been changing to electronic manuals and has chosen the iPad as the device the company will use. They produced a restricted single App to give automatic updates and full access. This only works on iPad, not any other device - even related ones like iPhone. Aside from that there currently are six-month cycle CD's of PDF manuals given out and some web access. This is openly stated as being for economic reasons.

Unfortunately, management has decided to remove all paper copies issued to flight crew and no device to read the e-manuals on. Further to that, the Reps report

that the company will not provide any support to claim tax back from HMRC as that would be an admission of it being necessary for our work and making them liable to supply them. Yet, at my recent refresher training course the trainers were asking pilots to produce and use their personal iPads in the classroom to allow the modules to be completed.

At this point you are probably thinking 'this is industrial, why write to CHIRP?' Well, I believe it has now become a safety issue as the latest company notice about e-manuals has threatened disciplinary action on any pilot printing manuals at company expense. (E.g. in the crew room). The crew room does not have any computer study access. All of the computers in the area are stand-up for check in and pre-flight use only with no stools to sit at. So now the only way to access manuals with company provided means is during your short pre/post flight time standing at the check-in computer or whilst operating the aircraft. Not exactly key study times! But reflect on why such a threat has been made? Surely that means that pilots are printing manuals in whole or part and the company wants to stop them. What does it say about the need for access to manuals? And the company ethos? Is that Safety first?

So manual access is being severely restricted unless pilots are prepared to take an interest in IT and pay the full cost of providing their own access via devices and or internet access. Not all are willing or able to do so.

It would make my mortgage a lot cheaper if someone else would pay it. That is the premise on which the company's policy on e-manuals is based. Safety is suffering for cash - again. I don't mean it's going to cause a crash tomorrow, but it's another brick in the wall, another hole in the Swiss cheese.

This whole way of thinking must be challenged and stopped.

CHIRP Comment: There is a clear obligation on the operator under EASA-OPS 1.1040 (f) to ensure that all operations personnel have easy access to a copy of each part of the Operations Manual which is relevant to their duties.

In addition, EASA-OPS 1.1040 (m) states:

"An operator may be permitted by the Authority to present the Operations Manual or parts thereof in a form other than on printed paper. In such cases, an acceptable level of accessibility, usability and reliability must be assured."

The financial benefits that an operator derives from replacing hard copy manuals with operational information in an electronic format are significant. Therefore, it might be anticipated that an operator would be keen to ensure that the electronic information is easily accessible to all individuals, particularly those who do not have personal access to the on-line information. Given this, it is difficult to understand the justification for not providing appropriate facilities for easy access in crew rooms and, similarly, for prohibiting the printing of hard copy extracts by individuals

It is questionable whether the access arrangements described in this report comply with the Regulations and thus whether it would be appropriate for them to be subject to review by the CAA.

FIRST OFFICER EXPERIENCE LEVELS

Report Text: I am writing to CHIRP to voice my concern regarding, not just the level of experience of First Officers (FO's) at my base, but more to highlight the global CRM issue relating to new FO's and the resulting effect. I understand that I am not alone to express my concern of the number of new pilots I find myself flying with.

I am aware that this is regarded by my company as a training base and as such has a high percentage of junior FO's; however, the extra pressure placed upon Captains who end up flying with new inexperienced pilots for the vast majority of time is immense. This then creates the inevitable 'post line-training guidance' whereby bad habits start, adherence to SOP's stray and the '1,000 hour bubble' looms; on reaching this level of experience the company then moves them onto another base and so the cycle starts again.

Besides continually working with virtual strangers for the majority of time, in my experience, this base has a very low number of permanent experienced First Officers. If on the other hand, there were to be a higher level of experience within the FO community at this base, this would place considerably less pressure on Captains, who dare not take their eye off the ball for a second! I know that other colleagues have written to management to express their concern but are still waiting for a reply.

Lesson Learned: To simply spread the level of inexperience through the company.

CHIRP Comment: Managing a flight crew workforce to maintain similar experience levels between bases is not an easy task and might be subject to influences other than management, such as seniority rights. Moreover, some junior First Officers are extremely proficient.

However, routinely operating with very junior First Officers can be very demanding for some Captains, particularly those with no instructing experience or who are relatively inexperienced themselves. Thus, if an operator's basing policy is as described above, senior management has a responsibility to ensure that concerns reported to the company are acknowledged and reviewed to ensure that the overall experience levels at a particular base do not constitute a risk to operating standards.

The reporter's concerns have been represented to the relevant senior safety manager.

INSTRUCTING STANDARDS

The relationship between an instructor and his/her students is most important, regardless of whether it is at a basic flying school or in an airline. Many instructors understand this, but from time to time we receive reports that suggest that the standard of instruction does vary. A poor instructional technique or inadequate instruction can have serious consequences for some students. The following is a recent example submitted through the GA Programme:

Report Text: Following the discussion in GA Feedback Issue 51 about varying instructors, can I offer an example of the effect of different instructional

attitudes? In the RAF I failed my Final Handling Test after 96 hours flying, and was sent home.

When circumstances eventually allowed, I decided to get a private licence. My first instructor was young, enthusiastic and bossy. I had not flown for fifteen years, so my reactions were obviously slow. But each time I started thinking, say, "Speed is dropping off" he would say "Watch your speed!" He continued to nag me about height, slipping turns, trim, headings, and everything else, always just as I was nagging myself, until I became a twitching wreck.

In the end I asked for a change of instructor. The new instructor's attitude was quite different. Flying was to be enjoyed. He watched, rather than nagged. He kept quiet and let me sort myself out. I relaxed and soon had my licence. A lifetime of pottering about in light aircraft has followed, for which I am very grateful. So a change of instructor, as in your comment, was indeed "the most appropriate course of action"

Lessons Learned: If truly unhappy with an instructor's attitude, change your instructor. Flying is expensive and should be enjoyed.

CHIRP Comment: An instructor must be capable of earning and retaining the respect of any student for whom he/she is responsible and adapting his/her instructional technique to a student's personality and pace of learning to maximise each student's potential.

In a commercial flight training environment it must be remembered that this is a professional relationship in which the student is the customer. If either party is not content, a change of instructor or, if necessary, training organisation is the most appropriate course of action.

Address Changes

If you receive FEEDBACK as a licensed pilot/ATCO/maintenance engineer please **notify Personnel Licensing at the CAA of your change of address and not CHIRP**. Please complete a change of address form which is available to download from the CAA website and fax/post to:

Civil Aviation Authority
Personnel Licensing Department
Licensing Operations
Aviation House
Gatwick Airport South
West Sussex RH6 0YR
Fax: 01293 573996

The Change of address form is available from: www.caa.co.uk/docs/175/srg_fcl_changeofaddress.pdf

Alternatively, you can e-mail your change of address to the following relevant department (**please remember to include your licence number**):

Flight Crew..... fclweb@caa.co.uk
ATCO/FISO..... ats.licensing@caa.co.uk
Maintenance Engineer eldweb@caa.co.uk