

CHIRP FEEDBACK

Issue No: 76

Autumn 2005

EDITORIAL

NEW METHOD OF REPORTING

In response to requests we have developed a process by which it is now possible to send reports via the CHIRP website. To utilise this facility, log on to www.chirp.co.uk and click on the button 'Submit Report'. Enter your contact details then complete your report in the window that appears. On submitting, the report will be e-mailed directly from the website to the **CHIRP** office.

Using this method no information will be retained on the computer that you use to send the report; however, as with other e-mail transmissions, it is important to remember that we are unable to guarantee the safety or integrity of the information whilst in transit.

The web-site reporting facility also permits you to select the method by which you wish to receive confirmation that your report has been received.

Number of Reports Received Since the Last Issue:

ATC - 4

Report Topics Have Included:

Training/Assessment Techniques
 Comments on EFPS and Frequency Confusion
 Infringement of CAS
 Bad weather approaches into airfield with no published approach procedure

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**Flight Crew - 48**

#### Report Topics Have Included:

Rostering - Lates/earlies, multiple earlies  
 Sickness Management Policy  
 RT - Use and standards  
 Level Busts

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Engineer - 8

Report Topics Have Included:

Comments on "For Info" Tech Log Entries
 Recording and Rectification of Defects
 Certification of Work by Third Parties
 Influence of Alcohol

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BACK ISSUES

Back issues of AIR TRANSPORT FEEDBACK are available on our website: www.chirp.co.uk

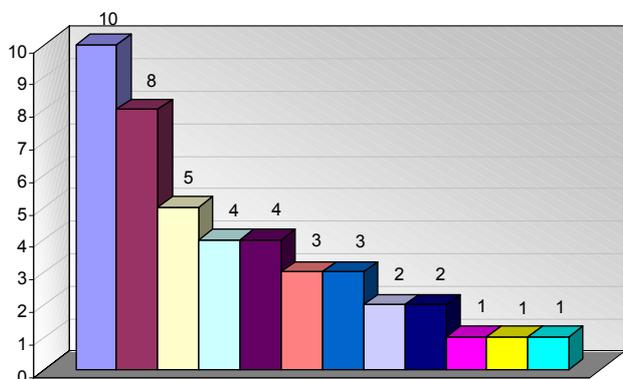
AIR TRANSPORT FEEDBACK is also available on the **CHIRP** website - www.chirp.co.uk

An Air Transport Safety Newsletter

from **CHIRP** the Confidential Human Factors Incident Reporting Programme

ATC REPORTS

Most Frequent ATC Issues Received Oct 04 - Sep 05



- Procedures**
(Application by Others, Adequacy, Application By Reporter)
- Communications - External**
(Pilots)
- Training**
(Technique, Adequacy)
- Airports**
(Infrastructure, Runways/Taxiways)
- Communications - Internal**
(Managers, Within Watch)
- Air Traffic Management**
(Separation)
- Handling/Operation**
(Operation of Equipment)
- Duty**
(Rosters/Rostering)
- Fatigue**
(Management of, Effects of)
- Aircraft Technical**
(Systems)
- Company Policies**
(Safety Reporting)
- Pressures**
(From Management/Supervision)

CHIRP Narrative: The high level of reporting in the UK air transport industry is widely regarded by other industries as the benchmark, and is often ascribed to the 'open reporting' culture that is encouraged by many organisations.

Notwithstanding the effectiveness of the reporting processes, it is acknowledged within the industry that some types of potentially serious incidents still continue to occur in spite of the considerable efforts to reduce them.

It is understandable that such a situation can lead managements to feel obliged to introduce more stringent methods of monitoring individual performance, and investigating incidents when they occur with the aim of preventing future occurrences.

The following report is a reminder that the success of such management initiatives is dependent upon maintaining the confidence and co-operation of the workforce:

REPORTING OF CAS INFRINGEMENTS

Report Text: I predict that there will be a significant reduction in the number of reported infringements of Controlled Airspace (CAS) by ATCOs at this Unit.

This is not as a result of a pilot education programme or improved clarity of CAS boundaries on aviation charts but because management, investigators and CAA (SRG) have decided to reprimand controllers that fail to provide IFR flights with separation of 5 miles or 5,000ft from infringing aircraft.

Sometimes this is virtually impossible.

I recently saw a slow moving radar contact approaching CAS on a squawk allocated by an adjacent radar unit, therefore the mode C was verified. About 2 miles from CAS the squawk changed to '7000'; mode C now unverified? The aircraft then entered CAS and became a confliction to my traffic.

My options:

- a. Climb 500ft into someone else's airspace, not possible.
- b. Turn right about 80 degrees and go outside CAS, not really an option.
- c. Turn left about 80 degrees using avoiding action and upset the aircraft and my sequence.
- d. Stop my inbound 1,000ft above the indicated level of the infringing aircraft and pass about 3nms ahead of it, giving traffic information.

I elected for option d and the IFR aircraft reported visual, passed 3 nms ahead and then continued descending as planned.

A few months ago I would have completed a report form to enable the infringement to be investigated and the pilot debriefed about his error, but not now.

Why should I spend time completing paperwork to then subsequently be reprimanded for my actions?

As there was no incident I will not report the infringement and, I believe, current policy will mean more of my colleagues follow the same course of action.

CHIRP Comment: The reporter's comments were represented to the management concerned. In their response the organisation noted that it has been working hard to get the culture right. One of the aims of the management initiatives has been to improve the reporting of incidents, including infringements, and it was noted that the number of formal reports and observations submitted by controllers in the ATS Unit concerned has increased significantly.

The Unit confirmed that controller responsibilities have been recently re-emphasised in respect of providing IFR traffic with 5,000ft/5nm separation; the objective of which is to encourage controllers to be pro-active.

However, it is perhaps understandable from an operational controller's perspective that a

consequence of the new policy is that in some situations it will reduce a controller's flexibility by requiring avoiding action to be given as the first response to ensure that the separation standards are maintained, which in turn may lead to a disruption of the approach sequencing.

The Unit has acknowledged that in discussions with CAA (SRG) it was agreed that the new policy would require flexibility in the way incidents are handled and a pragmatic approach to be taken in a case where a controller has been proactive in taking alternative action to avoid a confliction without adversely affecting the sequencing/flow rates.

US RTF PHRASEOLOGY - WHAT IT SHOULD BE

Report Text: I am a retired US air traffic controller and I thank you for both the volume and very high quality of the information you share through the CHIRP website. Very well done!

I'm writing because of something I read in your Summer 2004 issue of FEEDBACK. On page 6 there is an article titled "Frequency Confusion" in which the writer notes that frequency changes are done differently in North America. Specifically, with regard to frequency 132.15 he says, "In the USA and Canada this frequency will usually be passed as "Thirty Two Fifteen". In the CHIRP comment to this report, you say, "Unfortunately, the US phraseology is not fool-proof..." referring to the "grouping" of the digits in the frequency.

Well, unfortunately, the "US phraseology" as reflected in this article is not only "not fool-proof," but unapproved as well, except possibly when used to supplement the approved phraseology.

Here's what the FAA Order 7110.65 - Air Traffic Control says about stating frequencies:

2-4-17. NUMBERS USAGE

J. Frequencies.

1. The separate digits of the frequency, inserting the word "point" where the decimal point occurs.

(a) Omit digits after the second digit to the right of the decimal point.

(b) When the frequency is in the L/MF band, include the word "kiloHertz."

EXAMPLE-

Frequency	Statement
126.55 MHz	"One two six point five five."
369.0 MHz	"Three six niner point zero."
121.5 MHz	"One two one point five."
135.275 MHz	"One three five point two seven."
302 kHz	"Three zero two kiloHertz."

The digits must be separately stated. However, once this has been done, the frequency may be restated as a group for clarification.

2-4-18. NUMBER CLARIFICATION

a. If deemed necessary for clarity, and after stating numbers as specified in para 2-4-17, Numbers Usage, controllers may restate numbers using either group or single-digit form.

EXAMPLE-

"One Seven Thousand, Seventeen Thousand."

"Altimeter Two Niner Niner Two, Twenty Nine Ninety Two."

"One Two Six Point Five Five, One Twenty Six Point Fifty Five."

However, the controller is still expected to include ALL of the digits in the group as well as the word "point" ("one thirty-two point fifteen"). A fine point here is the fact that the 7110.65 also says:

The use of the exact text contained in an example not preceded with specific prescribed phraseology is not mandatory. However, the words and/or phrases are expected, to the extent practical, to approximate those used in the example.

This statement might lead some to argue that "thirty-two fifteen" is sufficient when used to clarify under 2-4-18. However, I would only point out that the word "point" IS required, as are all the digits, and that "thirty-two fifteen" does not rise to the standard.

I fully agree that the technique of reinforcing and clarifying by restating the digits in a different way is very useful. I only take issue with the assumption that in the US something like "thirty-two fifteen" legally stands on its own without the controller having stated "one three two point one five" first. Certainly, there are air traffic controllers who do this. However, their phraseology is not supported by our Manual of ATC, and it is sloppy.

CHIRP Comment: In response to previous suggestions from reporters to consider adopting the use of grouped numerals, the NATS Human Factors Group conducted a literature search from which it was concluded that the use of grouped numerals as alternative phraseology would offer no significant benefit over single numerals.

This report clarifies the recommended usage of grouped numerals in the USA to supplement single numeral phraseology, and interestingly is somewhat different to the general perception of pilots.

It is understood that some UK controllers adopt a similar procedure to that authorised in the US, by repeating a frequency/callsign using grouped numerals to clarify an instruction.

One of the principal arguments for not using the alternate phraseology is that it does not comply with ICAO Standards and Recommended Practices (SARPs). However, given the significant number of occasions on which ATC instructions are misheard, providing controllers with the option of electing to use grouped numbers as a method of clarifying frequency/callsign identification, as is currently the case in the US, would seem to be worthy of further consideration by both CAA (SRG) and ICAO and might assist in a case such as that described in the next report.

CALLSIGN CONFUSION

Report Text: Attached are copies of the flight progress strips relating to six aircraft of one operator that transited my sector within 6 minutes. (##3218; ##3298; ##3724; ##5418; ##5226; ##3036)

You will see that they are all four-figure callsigns, and several of them are very similar. In this particular instance there was no confusion, due to the fact that the pilots involved were very aware of the similar callsigns having flown "in company" over most of Europe before getting to the UK. A serious conscious effort on my part was also required to avoid getting confused.

My concern is that it would have been extremely easy for some confusion to have occurred, possibly leading to an incident. The effort required by the aircrew and myself, the controller, just to avoid mixing up the callsigns could have been a distraction in my main task of organising a safe, orderly and expeditious flow of traffic. I don't suppose it was any easier on any of the flight decks.

This is not unique to this particular airline as many airlines now use four-figure callsigns leading to similar situations.

My suggestion is that consideration is given to American style phraseology. For example ##3218 becomes ##Thirty two, Eighteen and ##3298 becomes ##Thirty two, ninety eight. This would avoid the obvious confusion inherent in ## Tree Too Wun Eight and ## Tree Too Niner Eight for example.

All of my continental ATC and Aircrew colleagues can speak reasonable English, and all of them can certainly speak and understand English Numbers from one to ninety nine, so I don't see the fact that this isn't "Standard" Phraseology to be a problem. The idea is to avoid confusion, and if this can be done by using colloquial style wording, I believe that it's worth considering.

CHIRP Comment: The reporter's comments regarding phraseology are addressed above.

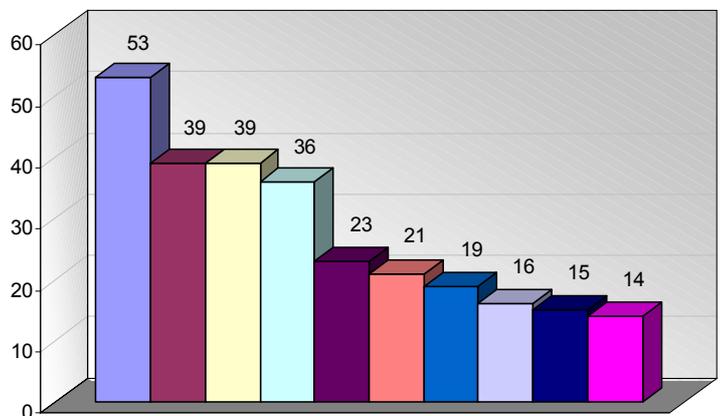
Callsign confusion, which can involve aircraft from different operators or aircraft belonging to the same operator as in this case, continues to be a problem both in the UK and elsewhere. The increased use of

four-digit numerical callsigns by some operators is a significant factor.

NATS has a policy to follow up incidents involving callsign confusion with the operators concerned and is promoting the adoption of four-character alphanumeric callsigns (two letters; two numbers). However, at this point in time, there would not appear to be an effective prevention strategy to address the problem described in this and other similar reports.

FLIGHT CREW REPORTS

Most Frequent Flight Crew Issues Received:
Oct 04 - Sep 05



- Duty**
(Rosters/Rostering, Length, Rest)
- Company Policies**
(Absence, Operational)
- Procedures**
(Application by Other Parties, Application by Reporter, Adequacy)
- Communications - External**
(ATC)
- Pressures**
(Time, From Management/Supervision, Commercial)
- Regulation/Law**
(Compliance with)
- Fatigue**
(Effects of, Management of)
- Aircraft Technical**
(Systems, Propulsion)
- Handling/Operation**
(Operation of Equipment, Aircraft Handling by Crew, Near Miss)
- Communications - Internal**
(Crew, Managers)

MORE ON AUTOMATED ATIS BROADCASTS

(1)

Report Text: With respect to FEEDBACK Issue No. 75, in the article "ATIS Changes" (Page 4) the CHIRP comment stated, "The automated ATIS message is changed when predetermined variances are triggered."

Certainly this isn't my experience in the UK. Automatic ATIS messages at AAA (a major UK airport) for instance are generated at every 20 and 50 minutes past the hour, regardless of the change or lack of change in the conditions. As our company procedure precludes monitoring the ATIS after top of descent - and all approaches from the south require an early descent over the city of London - the vast majority of occasions result in arriving in the terminal area "one ATIS short".

It would certainly be optimal if the ATIS really DID only change when ICAO variances were triggered, but worse perhaps is that the ATIS letter IS NOT changed when the added human voice notes to the broadcast (at AAA at least) are changed. This results in crews being unaware that low visibility procedures are in force, or terminated, or that associated taxiways are open or closed.

(2)

Report Text: The Comment does not seem to appreciate that some companies actively discourage either pilot listening to the ATIS during the latter stages of an approach. My airline forbids the monitoring of ATIS below 10,000 ft. If we are alerted to a change below that altitude we must ask ATC to pass us the differences. This is often a complete waste of time as the controller often ends up having to read out the entire new ATIS, sometimes with no significant change.

The ATC system really needs to come up with a way of ensuring that controllers are aware of any significant changes and appreciating the need for both pilots to maintain a listening watch on an approach frequency.

CHIRP Comment: Most airline SOPs require the flight crew to obtain the ATIS information in sufficient time to permit an Approach Briefing to be completed prior to commencing descent. Also, In order to reduce the possibility of misheard/misunderstood ATC clearances, some UK operators have adopted a policy of both pilots maintaining a listening watch on the ATC frequency and not monitoring the ATIS either from the commencement of descent or below a specific point, normally FL100/10,000ft.

From these and other reports received, some of the anticipated benefits of automated ATIS broadcasts would appear to have been eroded as a result of some changes being transparent to ATCOs, an apparent lack of consistency in the way ATIS information is updated and flight deck SOPs that are designed to minimise R/T errors.

The introduction of digital ATIS, which will automatically provide flight crews with the latest information, should significantly improve flight crew awareness of changes. In the meantime, as stated in the last issue, an initiative by CAA (SRG), ATS providers and airport operators to develop common

best practice SOPs for UK airfields with automated ATIS broadcast systems would seem to be highly desirable.

LEVEL BUSTS - ONE POSSIBLE CAUSE

Report Text: For a long time London has issued Manchester southbound departures with, for example:

"Climb FL330, to cross 50 before Biggin at FL290 or above" - this is fine, because it's simple and expected.

Last night we had:

Make your heading 190 degrees, climb to FL330 to cross 20 before CUMRI at FL 310 or above.

This was unexpected and my ageing brain found it too complicated. I read it back okay from memory, but finished with, "Did I get it right?" just to signify my concern.

Meanwhile during my readback, the PF was selecting 190, pressing heading select, dialling up FL330 and diving into the FMC to make create a waypoint and constraint 20 miles before CUMRI. After my readback I carefully monitored everything he had done, but it would have been only too easy for him to have selected FL350 (our requested level) in the box and for me not to have noticed.

A cause of level busts, maybe?

CHIRP Comment: Two HF points arise from this report. The first is that it is recommended best practice that an ATC instruction contain a maximum of three pieces of information. The second is that any changes to heading, altitude, route should be carried out on the basis of Select - Confirm - Execute.

HYPOXIA

CHIRP Narrative: This report was submitted by a professional pilot with in excess of 10,000 hours experience. Although it describes a recreational gliding incident it provides a timely insight into some of the symptoms and effects of hypoxia:

This flight was in a single-seat glider with the intention of soaring mountain lee waves. The glider is fitted with a very good oxygen system and I probably had about 50 to 100 hours experience above ten thousand feet and a few hours above twenty thousand feet.

After a low launch I was able to climb quickly in the mountain lee wave to about eleven thousand feet after which the rate of climb reduced considerably.

My policy had always been to start putting the oxygen on at thirteen thousand feet so as to be sure of being on oxygen by fourteen thousand feet. Being physically very fit and a non-smoker, I assumed this to be sufficient. On this occasion the waves happened to

top out at between thirteen and fourteen thousand feet. The oxygen mask is uncomfortable to wear and I felt fine so I did not put it on.

As a professional pilot I have been informed about the danger of hypoxia on a number of occasions, so I was fully aware of the insidious nature of slow onset hypoxia. In order to test myself, at regular intervals I would try counting backwards from 100, and check the colour of my fingernails. The counting backwards was easy and tedious so I did not do it for long each time. It did not occur to me that failure to complete the task could have been due to hypoxia.

After a time the colour of my fingernails was no longer pink, they were an unusual light purple colour, but I was expecting them to be blue if suffering from hypoxia. Aside from a slight headache I felt perfectly fine, alert, and in control. So although reduced oxygen could be affecting the colour of my fingernails I did not think it could have started to affect my brain.

After about 40 minutes above thirteen thousand feet I was still feeling perfectly alert and in control but the headache was becoming intrusive so I decided to see if oxygen would help. The oxygen mask has a couple of small chains to attach it to a skullcap, an over centre lever to press it to the face, a couple of radio cables, and the oxygen tube. It is necessary to make sure everything is in the correct place to be able to put the skullcap and mask on without a tangle. I got the mask out of its stowage, it looked tangled and I couldn't see how to untangle it. I looked at it for a few minutes before giving up and just held the mask to my face to see if a few breaths of oxygen would help the headache. Yet again it did not occur to me that I may be hypoxic.

The oxygen did help the headache. I put the mask down after a few breaths and could see it was not tangled, so I then put it on correctly.

When on oxygen it did not occur to me that I may have previously been hypoxic.

I stayed on oxygen for the remainder of the flight at altitude and landed safely at the airfield from which I had departed.

After the flight another glider pilot mentioned that he thought he saw me in class A airspace. I was most surprised and asked him to show me on the half million chart I had been carrying. He was correct, I had misread the chart and had strayed a short distance into the side of an airway. I was annoyed and disappointed that I had made such a basic error. And still, it did not occur to me that I may have been hypoxic.

Throughout the flight I had felt completely alert and in control.

The incredibly dangerous nature of slow onset hypoxia was illustrated to me by the fact that although I was aware of the condition and watching for symptoms, the very nature of hypoxia made it

impossible for me to realise I was suffering from the condition.

Even after the flight I was completely unaware that my mental capability had been severely reduced. It was not until a few hours later while thinking about what had happened that I realised hypoxia had caused my inability to perform the simple task of working out that the oxygen mask was in fact not tangled. It was not until a few months later that I realised my chart reading error was also probably largely due to hypoxia.

Over the years I have come across both power pilots and glider pilots who claim to have suffered no ill effects flying without oxygen at altitudes up to fifteen thousand feet. I now realise they just think they suffered no ill effects, but in reality almost certainly suffered some significant reduction in mental ability.

CHIRP Comment: The report describes very well the insidious nature of hypoxia when the cabin altitude increases slowly. The false sense of well-being and the degradation in critical faculties that the onset of this condition can induce, even in an experienced pilot, emphasises the importance of following a pre-determined SOP for establishing a supply of supplementary oxygen. It also highlights the inherent danger of relying on self assessment of the symptoms of hypoxia when the cabin altitude is at 10,000ft or higher.

When the loss of pressure is rapid, whilst it is more likely to be noticeable, it requires immediate action to establish a supply of supplementary oxygen if the onset of hypoxia is to be avoided.

Aviation Medicine - Third Edition (Ernsting/Nicholson/Rainsford) states that following a rapid decompression to above 30,000ft, there is no significant decrement in the performance of a psychomotor task for 12-14 seconds after the decompression. Thereafter, the time taken to complete the task will increase; for example at a final altitude of 40,000ft the time taken to complete a task increases to about three times its control value 20 seconds after the decompression.

RISK AWARENESS

Report Text: The forecast wind for our destination airport was 60 degrees off the landing runway at 25 knots with gusts up to 40 kts. The cloud was 1,000ft and the runway state was wet.

En route we obtained the actual weather for AAA; this was similar to forecast.

At around 1,000ft on the approach, our Rate of Descent was 650 fpm and all appeared normal. As we descended towards 500ft, more thrust was progressively applied to maintain the correct approach speed. Approaching the 200ft Rad Alt call, still more power was required and at this point there was a sudden decrease in speed of some 15kts plus;

we then received a full RED Windshear warning on the Primary Flight Displays. I called 'GO AROUND'; the PF responded 'Disregard' and continued the landing.

After landing we discussed the incident; The PF declined my suggestion that he report the incident to the Company.

CHIRP Comment: In many landing incidents and accidents, the Pilot Flying would appear to have become focussed on continuing an approach in spite of obvious information that a go-around would have been the correct and prudent course of action.

This behaviour can be the result of the PF believing that he/she will be able to achieve a successful outcome on the basis of his previous experience, and thus he/she underestimates the risk of disregarding the information available to him/her, such as an SOP warning call - a condition known as 'Risk shift'.

Flight data monitoring programmes are extremely useful in reducing the number of precursor events that can lead to a 'Risk shift' pattern of behaviour, but it is worth remembering that it can still happen.

SILENCE IS NOT GOLDEN

Report Text: I left the flight deck for a comfort break, returned 10 minutes later and believe that I inadvertently knocked the frequency knob on the radio.

I settled in and went to the ATIS frequency on Box 2 (I was the Non Handling pilot). Having got the ATIS information I returned to Box 1. The frequency was quiet for a few minutes. I asked for a radio check; no reply. I then went to the previous frequency; was told AAA control had been trying to contact me for 16 minutes!!!

When I contacted AAA on the allocated frequency I was told that "the military were concerned and had launched fighters". Not on guard on box 2 due to the ATIS frequency. I was told there would be no consequences.

CHIRP Comment: If the ATC frequency is unusually quiet even for a few minutes, the safe option is to request a communications check

DE-ICING - YES OR NO?

CHIRP Narrative: It's almost that time of year again!

Report Text: I am writing with concern over de-icing procedures on a recent flight on which I was a passenger from AAA to BBB

As we boarded the aircraft it was obvious (visible from the jetty) that there was quite a deposit of snow and ice on the entire span of the wing upper surface. The temperature was probably around freezing, and light snow was falling from time to time.

Although on-stand de-icing is the normal procedure at AAA, the engines were started and we taxied towards the runway holding point. I became more and more worried as it became clear that we were not going to be de-iced before take-off and I knew that we needed to. We stopped near the runway in the queue for departure, and I was preparing to say something to the cabin crew when the first officer came out of the flight deck and had a look at the wings. I had a quick word with him and said we needed to de-ice and he returned to the flight deck. The captain then made an announcement that we were returning to stand as he was not happy with the ice on the wing. We departed later after de-icing had been carried out, much to my relief.

I think it very likely that the need to de-ice was made apparent by radio from following aircraft, which prompted the appearance of the co-pilot in the cabin for an inspection. I cannot imagine what else would have prompted this check at this late stage (the weather had not changed). Whatever it was, I am glad that the last link in the safety chain held on this occasion.

My concerns are:

1. Why wasn't de-icing carried out before departure when the need was obvious?
2. Did the crew carry out any pre-flight inspection, especially considering the conditions?
3. Did the cabin crew have any awareness of this issue, and would they feel able to comment to the flight crew if they had noticed ice on the wings?

I hope that this report will result in the importance of proper icing checks and procedures being emphasised to the airline concerned.

CHIRP Comment: The report was forwarded to the operator concerned. The wings had been clear of contaminant at the time of the pre-flight external inspection prior to passengers boarding; the Captain had subsequently requested the First Officer to make a visual inspection from the cabin, as he had become concerned at the subsequent snow-fall.

The airline took action to raise awareness of cabin crew to look for presence of snow/ice on wings during their pre-flight duties and, if seen, to report to the flight deck, as recommended in CAA (SRG) FODCOM 23(2004). Is it worth reminding cabin crew members of this again before this winter?

DECLINING R/T STANDARDS - SOME ADDITIONAL THOUGHTS

(1)

Report Text: Concerning this topic, you state, "It is interesting to note that whereas a majority of ATCOs are evaluated at least twice a year on a random basis and debriefed on the quality of their R/T Phraseology,

no comparable evaluation exists for many pilots throughout their entire flying career."

I believe this to be quite incorrect. Correct R/T Phraseology is part of any pilot's recurrent proficiency, route checks and instrument rating renewals (I would have to check but poor R/T might even constitute a "fail") and any lapses in these areas should be highlighted by training captains/examiners. Most pilots undergo these type of checks at least four times every year and also from time to time fly with training captains on the line where any lapses should be debriefed by the training captain. This assumes, of course, that training captains are aware of the correct phraseology!

Furthermore line captains do, I believe, have a "coaching" role with respect to First Officers and they should (and probably do in most cases) comment on incorrect R/T phraseology.

I also share the concern about declining R/T standards and it is noticeable that some companies are better than others in this respect.

(2)

Report Text: It is not fair to say that Flight Crew are not evaluated and debriefed regularly on the quality of their RT Phraseology. This is one of the remits of a Training Captain. Consequently, there are at least 3 occasions each year when RT Phraseology is assessed - at OPC and LPC (generally in the simulator), and during the Annual Line Check (usually done with the Training Captain observing from the jump seat).

I am, however, continually amazed by just how many pilots fail to get an initial SID call correct - there is just no excuse as it is even highlighted on most Standard Instrument Departure charts. I also agree with the overall sentiment of the article that standards of RT are declining - despite the best efforts of many of us Training Captains!

CHIRP Comment: These were two of several comments received related to R/T standards and training.

Whilst it is correct that R/T phraseology is, or at least should be, part of any pilot's proficiency, and that both training and line captains have a role in promoting 'best practice'; regrettably, the evidence would suggest that this matter is not afforded a sufficiently high priority by all UK operators. This is highlighted by a recent ten-day 'snapshot' conducted by NATS in four centres in which controllers recorded over 1,100 instances of incorrect readbacks, of which 650 involved incorrect altitudes/flight levels.

As part of a campaign to raise R/T standards, CAA (SRG) is seeking to increase general awareness of the need for improvement and, among all examiners, the importance of including R/T phraseology in recurrent training.

R/T TRAINING FOR PILOTS

Report Text: With runway incursions appearing to be on the increase which has unfortunately included some fatal accidents in the recent past, I thought it necessary to write a letter to highlight what is the real root and hidden cause of these occurrences, this being the standard of R/T training for pilots.

I was previously an ATCO in the UK with CAA Tower Validation and a Radar Licence. I then left ATC and undertook a JAA ATPL course and I am now employed as a First Officer with a UK operator.

A fact that became blindingly obvious to me during the ATPL course (having already been an ATCO) is that although trainee pilots are given "Radio Telephony lessons" they are NOT in any way, shape or form taught RT in a practical and life saving sense that is required to be applied in the real world. So much so that for my own piece of mind I resorted to giving after school hours lessons to some groups of students in the hope that they would have a proper understanding of R/T procedures and instructions.

The R/T lessons as taught by the flying schools consist of picking out some of the "more relevant" phrases out of CAP 413 and referencing this to some of the questions that can be "expected" in the forthcoming JAA written exam. The remainder of the R/T is left to be picked-up by the trainee from the flying instructor during flying lessons. This then, with all due respect to professional flying instructors, leads to many misconceptions and wrong teachings in trainees due to the fact that unless the instructor has previously been an ATCO he will not have been taught correct R/T either. Note that this is not a complaint trying to apportion blame solely at the school I trained at, but is a fact of life at every flying school due to the Authorities not setting an appropriate curriculum.

In contrast however, R/T training for ATCOs in the UK is nothing short of fantastic, with all credit to the CAA. This is as you would expect and is akin to a trainee police officer learning every letter of the law and all the ins and outs of each law so that he is armed for any eventuality that could occur in the real world.

There MUST be some equal training for pilots otherwise the current situation prevails where ATCOs say certain words and phrases because each of these means something specific both practically and legally, but pilots just repeat them back like a parrot with no conception of those specific practicalities and legalities. Examples of this are:

1. Why is "Line up and wait" used and not "Line up and hold"?
2. When a "Land after" and "Cleared to land after" instruction is accepted, who is more responsible for initiating a go around?
3. How the responsibility for collision avoidance changes for VFR and IFR flights in each class of airspace when "Traffic Information" is given.

4. Why the word "Take-off" should only be used when being given a take-off clearance. At all other times the word "Departure" should be used e.g. "After departure fly runway heading maintain altitude 3000ft".

This lack of equivalent training is apparent every day in many areas of R/T transmissions but a particular area of worry and possibly that of most importance is the understanding of instructions to hold short of a runway, line up and wait, take-off and land.

As an aside, this is also linked to the almost universal practice by pilots whereby they will taxi across a red stopbar if it remains lit after an ATC instruction to cross it, i.e. it appears that the ATCO has simply forgot to extinguish it. It should be a universal law that pilots do not cross a stopbar until they have R/T clearance AND the stopbar is extinguished. ATCOs will never complain if a pilot holds position and queries a lit stopbar.

Authorities must change the current format and provide proper R/T training with a bias on how it applies practically to the real world, and highlight differences between ATC procedures and phraseology in different countries. It not more runway fatalities will continue to occur as have over the last couple of years.

Hopefully CHIRP can start the ball rolling and set-up some appropriate training. In many of the past runway incidents and accidents it may be fair to say that the pilots have made a mistake HOWEVER if they had been trained appropriately in the first place including being given an appreciation of why ATC do and say certain things, then it is equally fair to say that some of these incidents would have been prevented.

CHIRP Comment: The adequacy of CAP 413 with regard to commercial air transport operations has been the subject of increasing criticism in the recent past. Given that no formal requirement currently exists for testing R/T competence after the award of an R/T licence, the need for a review of Flying School training standards in this regard and the availability of a concise reference guide for professional pilots would appear to be compelling.

In the wider context, given the international nature of air transport operations and the threat posed by level busts/runway infringements, an international standard for the training and oversight of R/T proficiency must be worthy of consideration.

FERRY FLIGHTS (FB75) - DON'T BE RUSHED

Report Text: With regard to the second 'LEVEL BUST' item - 'EARLY MORNING FERRY' (FEEDBACK 75, Page 5), the reporter has in effect allowed himself, or herself, to fall into that classic "trap" of allowing themselves to be rushed. We have all done it! And probably regretted it!

However what concerns me most is the reporter's final sentence, "Also ferry flights require the pilots ... which makes it tight to get away on time".

I have operated similar flights and have NEVER left "ON TIME" on a ferry flight, and do not anticipate doing so because of the security check, which I will carry out correctly. Nothing has ever been 'said' by the company, nor do I expect it will.

The reporter should not allow him/herself to be 'pressurised' in this way, be it real or perceived.

CABIN CREW REPORTS

ON TIME DEPARTURES

CHIRP Narrative: One of the more frequently reported topics in the recent past is the pressure imposed on cabin crew to achieve an on-time departure. These two reports are typical:

(1)

Report Text: In the urgency to achieve an on-time departure, on many occasions I have witnessed, we have commenced pushback whilst passengers are still taking their seats and stowing bags in the lockers/ finding room in the lockers etc ... In one extreme case the last few hadn't even got through the aisles to their seats and we began to move.

Is there no way the flight crew could contact each cabin prior to pushback to ensure we are prepared before someone gets hurt?

(2)

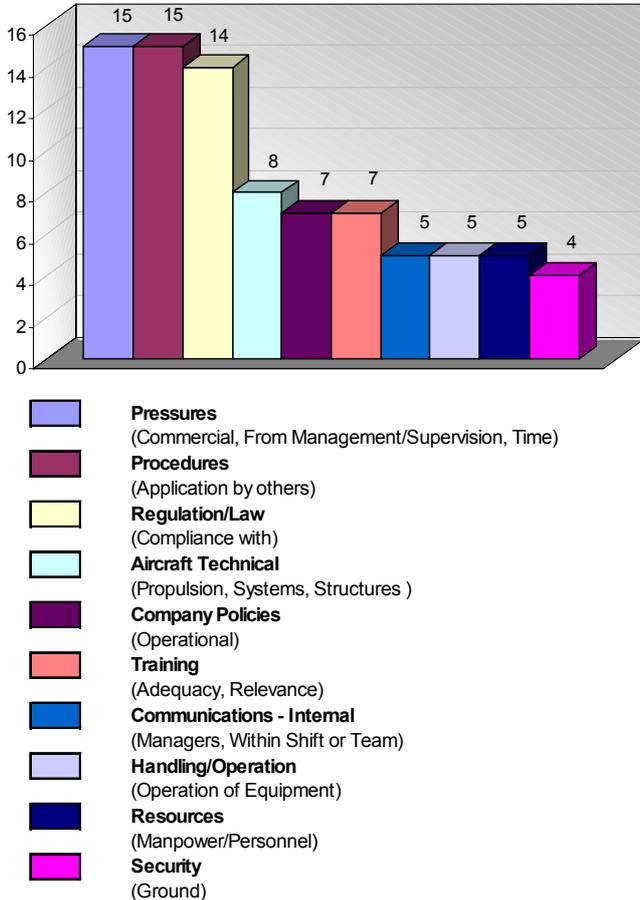
Report Text: Recently on several occasions whilst waiting for the 'CABIN SECURE' from colleagues prior to take-off, I have been phoned by the flight crew to inform me that "We are waiting for take-off" or "We are next in line" or "Are you secure yet" etc.

Surely the whole point of the "CABIN SECURE" notification is just that, and no amount of reminding from the flight crew will hurry things along. We are secure when we are secure and not a moment before. It takes some considerable time to ensure that an aircraft is secure for take-off and we should be allowed that time and not be contacted as a reminder to "hurry up".

CHIRP Comment: Where the taxiing distance is short or an early departure might be anticipated, alerting the cabin crew as early as possible will assist them to complete their essential duties in the most expeditious manner. A last-minute "hurry up" call will often interrupt the cabin crew and have the opposite effect to that desired.

ENGINEER REPORTS

Most Frequent Engineering Issues Received:
Oct 04 - Sep 05



WITHIN LIMITS?

CHIRP Narrative: In the recent past we have received a number of reports relating to the recording and rectification of defects. The following summary is one example.

Report Text: During an A check on an aircraft, excessive play was found in a major assembly - a common enough occurrence, normally rectified by re-shimming the affected parts. The next shift was tasked to check and rectify the defect.

They discovered that the normal shimming procedure failed to correct the problem and removed the affected part for further investigation. A work card was raised recording excessive wear in specific areas. Another shift came on, rechecked, and confirmed that the affected part was worn beyond the laid down limits. The owner was informed of this and it was arranged for the next aircraft due check to come in so items could be robbed to get the A check aircraft into service, subject to the usual checks.

This information was relayed to the foreman, who allegedly stated that they should not be changing those assemblies on A checks. He then allegedly instructed the shift in question to refit the parts, stating that he would sign it off. A *substituted* work card records that the subject part had been "assessed". It was reported that at the time, the Engineers running the check seemed to be unsure of their position and which way to proceed. It appeared they felt undermined and undervalued.

This company has, it is reported, turned into one that operates a total blame culture. As such, it appears that the engineers involved in this particular event felt there was no one within the organisation from the top down that could be approached without a level of victimisation occurring. No one was willing at the time to contact the CAA because such an atmosphere exists. Due to the size of the company any notification to their Quality department by an individual would certainly not have been kept confidential and as such all feel that by doing so they would be subject to future excessive pressure and victimisation.

CHIRP Comment: The substance of these reports was passed to the CAA (SRG), who investigated the matter. A subsequent investigation by the company showed that the original finding had been in error and that the affected parts were not worn beyond the laid down limits. In its response, the CAA (SRG) notes the following issues worthy of mention:

- The need for a clear understanding of what the inspection involves.
- Where an assessment is made against stated limits or dimensions the measurements found should be recorded.
- Records, once raised, should not be destroyed.
- If a reassessment is called up then the reason and the achieved results should be recorded with cross-reference being made to the original issue.
- Where there is ambiguity or evidence that checks may have been improperly performed the matter should be reported through the company system so that it can be publicised to a wide audience or the errors corrected.

JUST WHO IS RESPONSIBLE?

Report Text: Recently, on arriving at work at night, I was informed by handover that a fuel tank entry had been arranged to rectify a wing root fuel tank leak and an ongoing dry bay leak.

The weather conditions at the time: torrential rain, strong winds (10kt gusting 20kt) and forecast temperatures to be at/below freezing by midnight.

The fuel tank entry was to be carried out by an external company, with my company preparing the aircraft, for entry, preparing the aircraft for service

and certifying all work carried out. The aircraft was positioned on a hangar apron where no external lighting or power was available. I informed maintenance control of my concerns and that I was attempting to contact the maintenance organisation which owns the hangar to see if hangarage was available inside for the tank entry. After an hour of trying to contact them and after informing the external company of my concerns, I made the decision to cancel the tank entry.

My considerations in making this decision were:

1. Adverse weather conditions - opening tanks whereby contamination could occur - plus with temps forecast below freezing possible ice formation.
2. No lighting on the hangar apron, necessitating the use of generator power supplied lighting and therefore not providing adequate illumination of work and indeed aircraft area.
3. No electrical bonding of the aircraft IAW the AMM was available outside the hangar.
4. My company procedures only stated to ensure the tank entry was to be carried out IAW:
 - CAP 74
 - Confined Space Regulations 1997
 - H&SAW Act 1974

With no risk assessment having been carried out by my company and no confined space training given to me (as the contractor's paperwork and AMM requires me to inspect any work carried out inside the tank).

5. The company has not provided the following items required by the AMM:
 - Grounding lead
 - Spark proof flashlights
 - Protective clothing
 - Warning signs/ropes
 - 150lb portable fire extinguisher
 - Ground equipment that can be bonded to aircraft

I spoke with a local CAA surveyor about whether there are any laid down regulations or guidance on tank entry (especially outside in adverse weather); the reply was that it was not best practice, but acceptable if measures to prevent contamination are carried out.

I also spoke to the HSE, which confirmed that tank entry (and as defined, even putting your head in the tank is classed as tank entry) does come under confined space working, and procedures should be in place.

I hope you might be able to throw some light on some of the points raised.

CHIRP Comment: We raised the question of certification responsibilities in relation to work contracted to third parties with the CAA (SRG), who responded as follows:

Contract arrangements may involve approved organisations, capable of managing their own work and certifying for it. In such cases the contracted organisation's procedures will cover all aspects of the control of work and either a CRS in the technical log or a Form 1 will be issued. The alternative is for the primary maintenance organisation to contract the activity to an approved or unapproved organisation but retain responsibility for oversight and for the final certification.

Where this latter approach is used, the primary maintenance organisation should assign one of its certifying staff, who should treat the contractors as if they were unapproved mechanics. The company's standard procedures should then be followed, which of course address the need for involvement/supervision as laid out in CAA Airworthiness Notice No. 3 and particularly paragraphs 1.4, 1.5 and 1.10. The primary maintenance organisation's normal paperwork system, e.g. additional worksheets cross-referenced to the technical log, should be employed.

CAA (SRG) ATSINS

The following CAA (SRG) ATS Standards Department ATSINS have been issued since July 2005:

CAA (SRG) ATS Information Notices are published on the CAA (SRG) website -

www.caa.co.uk/publications/publications.asp?action=sercat&id=2

Number 68 - Issued on 17 August 2005

Cancellation of Take-off Clearance

Number 69 - Issued on 19 August 2005

Publication of the Air Navigation Order

Number 70 - Issued 5 September 2005

Single European Sky (SES) - The Interoperability Regulation

Number 71 - Issued 30 September 2005

Amendment to CAP 452 Aeronautical Radio Station Operator's Guide

Number 72 - Issued 30 September 2005

Phraseology for Conditional Line-up Clearances

CAA (SRG) FODCOMS

The following CAA (SRG) FODCOMS have been issued since July 2005:

CAA (SRG) Flight Operations Department Communications are published on the CAA (SRG) website - www.srg.caa.co.uk

Special Communication 2/2005

1. Alleviation for Flight Deck Doors and Interphone Systems

17/2005

1. Third Letter of Consultation: Proposal to Amend the Air Navigation Order 2005 -

18/2005

1. Consultation on a Proposal to Introduce ICAO Airspace Classification "C" Above Flight Level 195 Across All European Civil Aviation Conference (ECAC) States - UK Implementation

19/2005

Fire Extinguisher Training

20/2005

1. Insurance Requirements for Air Carriers and Aircraft Operators - Documents to be Carried (Amended)

21/2005

1. Recording of Dangerous Goods Occurrences Reported Under the Air Navigation (Dangerous Goods) Regulations 2005

22/2005

1. Passenger Boarding - Provision of Steps

23/2005

1. Carriage of Guide Dogs and Assistance Dogs in the Aircraft Cabin

24/2005

1. Provision of Rescue and Fire Fighting Services (RFFS) for Helicopters at Onshore Unlicensed Operating Sites Used for the Purpose of Public Transport of Passengers

25/2005

1. Pleasure Flying Site Requirements for H1 Helicopters

26/2005

1. Helicopter Operations into Congested Areas

27/2005

1. Standard Weights for Passengers Carried on Flights in Connection with Oil and Gas Exploitation

UK AIRPROX BOARD

AIRPROX INCIDENTS IN UK AIRSPACE

The thirteenth report from the UK Airprox Board was published in late July.

The rate of 'risk bearing' Airprox involving commercial air transport (CAT) aircraft - where 'safety was compromised' - continues to fall, notwithstanding one serious event at the end of 2004. In broad terms, of those Airprox with a CAT involvement, one in every ten is 'risk bearing' nowadays compared with around one in four some 10 years ago.

'Hours flown' data are back in the climb, after a drop following '9/11', both for CAT and general aviation.

New airports have opened in the UK and pilots accustomed to flying in Class A airspace, with the associated level of ATC service, may now find themselves in Class G where 'see and avoid' applies. Some ATSU's will endeavour to provide a Radar Advisory or Radar Information Service when requested. Airprox Board experience would endorse one of the findings of another recent CAA-MOD study, encouraging all who fly outside controlled airspace to understand the types and level of service that can be expected from military and civilian ATSU's when operating in Class G airspace.

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CHANGE OF ADDRESS

If you receive FEEDBACK as a licensed pilot/ATCO/maintenance engineer you will need to notify the department that issues your licence of your change of address and **not** CHIRP. Please write (including your licence number) to Personnel Licensing, CAA (SRG), Aviation House, Gatwick Airport South, West Sussex RH6 0YR:

Flight Crew Post - as above
Fax: + 44 (0) 1293 573996
E-mail: fcweb@srg.caa.co.uk

ATCO Post - as above
Fax: + 44 (0) 1293 573974
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