

# FEEDBACK

Issue No: 51

July 1999

## EDITORIAL

In the weeks following the publication of FEEDBACK 50, there was considerable media interest in the item titled "A Minimum Fuel Policy?" In some cases media reports inferred that more detailed information than that which appeared in FEEDBACK was sourced from this Programme.

The facts are that no information other than that published in FEEDBACK was made available to any third-party other than CAA (SRG) and the Department of the Environment, Transport and the Regions (DETR), both of whom were informed as soon as the detailed information had been validated, as far as was possible, and well in advance of the wider publicity that followed the distribution of FEEDBACK. As is often the case in this type of issue, we were aware at an early stage that some general information relating to the incidents had been reported separately to other agencies.

In the period since the media interest, we have received several enquiries as to whether the resulting publicity compromised the confidentiality of the reporter(s). We would wish to point out that absolute confidentiality has been retained throughout the process.

### REPORT FORMS

We continue to receive reports on report forms that have long been superseded. As an example, we recently received a report on a form printed circa 1992. In order to ensure that reports are received and acknowledged as expeditiously as possible, it is important that a current report form with the correct postal address is used whenever possible.

If your organisation has a supply of forms different to that enclosed, we will be pleased to supply an appropriate number of current forms.

### CHIRP SURVEY

A separate supplement has been included with this issue of FEEDBACK showing the results of the recent Survey and a commentary on the results. A total of 3,842 returns were received, some 13.5% of the total circulation for the Survey. This represents a statistically significant sample of the readership of FEEDBACK and we would like to thank all those who took time to return their Survey forms and to make comments.

### THE CHALLENGE OF THE FUTURE

The Royal Aeronautical Society Report titled "The Challenge of the Future" spells out the problem of the civil aircraft maintenance industry, from the largest airline to the individual owner. The Report states "There is strong evidence that existing maintenance resources are being over-stretched and will offer little capacity for growth either in terms of UK operators increasing their own fleets, or receiving maintenance contracts from overseas operators. This problem should be tackled not solely by recruitment of more staff, but also by improving processes to make the best use of those staff available".

The Report recommends "... that airline Chief Executives include engineering and maintenance manpower .... within the corporate business plan, in the same way as for aircrew", and "That a seminar on these issues be arranged to generate momentum in finding and implementing solutions".

The Chairman of the CAA, Sir Malcolm Field, states in his covering letter to the Report "... If the industry does not reverse the current trends it will see the airline growth severely limited and business opportunities lost to foreign competition. Serious staff shortages will not be allowed to compromise safety standards ..."

The findings of the RAeSoc Report are supported by reports that we have received from Licensed Engineers and maintenance personnel, some of which have been published in FEEDBACK, in the period since the Programme was extended to include these groups.

**FEEDBACK can also be accessed on the internet at <http://www.chirp.dircon.co.uk>**

**Confidential Human Factors Incident Reporting Programme**

## INSIDE THIS ISSUE:

<b>ATC REPORTS</b>	<b>P2</b>
<b>FLIGHT DECK REPORTS</b>	<b>P4</b>
<b>ENGINEERING REPORTS</b>	<b>P6</b>
<b>FEEDBACK COMMENTS</b>	<b>P9</b>
<b>SURVEY RESULTS</b>	<b>CENTRE PAGES</b>

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## CHANGE OF ADDRESS?

A Change of Address can only be accepted in writing to the address above and NOT by telephone.

FEEDBACK is published quarterly and is circulated to UK licensed pilots, air traffic control officers and maintenance engineers, if you are not already on our circulation and would like to be please send your application in writing to Kirsty at the above address.

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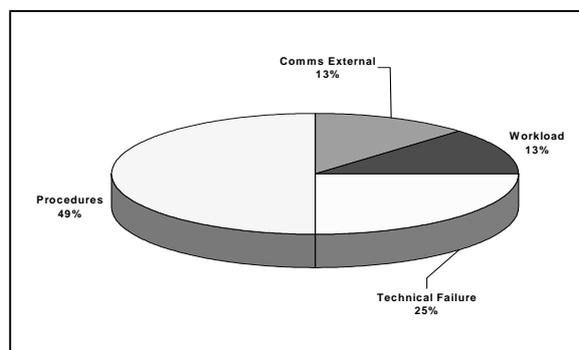
## REPRODUCTION OF FEEDBACK

Requests for reproduction, in whole or in part should be made in writing to the Director at the above address.

# ATC REPORTS

ATC Reports received in Period: 6

## Key Areas:



## COMMON DEFINITIONS

The Manual of Air Traffic Services Part 1, Section 9, Chapter 2, specifies the terminology and definitions for description of a runway state by ATCOs when it is affected by water.

JAR Ops 1, Subpart F details the terminology and definitions for description of runway state by aircrew when it is affected by water. While similar in some respects to that used by ATCOs, differences exist with definitions and some terminology.

The current situation requires aircrew to interpret ATCO reports, often at a time of high cockpit workload. Instead of adopting common terminology and definitions SRG, Directorate of Aerodrome Standards and ATSSD are advocating the continuance of different reporting systems.

FEEDBACK has long expressed aircrew concerns over dual language usage, why is the UK advocating dual usage of a common language?

*CHIRP Comment: In response to a number of landing incidents in which the runway surface condition was relevant to the occurrences, a CAA (SRG) Working Group conducted a review of the terminology and definitions relating to runway state in order to address the differences between the reporting of wet runway surface conditions, which is based on a Recommendation contained in ICAO Annex 14 Aerodromes, and the criteria/terminology for calculating take-off and landing performance under JAR (Ops).*

*A revised runway surface condition reporting scheme is currently being promulgated to flight crew and controllers in amendments to the Aeronautical Information Publication (AIP), the Manual of Air Traffic Services Part 1 and an Aeronautical Information Circular.*

*(Continued on P.3)*

*The method of assessment of wet runway surface conditions is to be more precisely defined and reported separately for each 1/3 of the most significant area of the runway. Pilots should note that the assessed area, which will be determined by the relevant aerodrome authority, will not include the entire runway length and width although notable quantities of water outside this area will be specifically added to a report.*

*As the reporter notes, it has not been possible to establish common terms for the reporting of a runway contaminated by water and the relevant JAR (Ops) performance parameters. However, in an effort to harmonise ICAO and JAR (Ops) terminology the UK CAA (SRG) has implemented this scheme, which relates the ICAO-based terminology used for reporting runway surface conditions to the terms used in JAR (Ops). Runways reported as Water Patches or Flooded should be considered to be Contaminated for JAR (Ops) performance purposes*

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### CODE CONFUSION

#### (UK ATS unit) does not have automatic SSR (Secondary Surveillance Radar) code/Callsign conversion. Estimates are received from Area Control by telephone and the data is manually inputted into a computer console adjacent to the radar console. Only callsigns that are converted from SSR codes by this method can be displayed on the radar displays at ####. All other SSR codes are shown raw, i.e. A four-number plus the Mode C readout.

The process is full of opportunities for error and numeric confusion. For instance, an estimate could be received as ABC1123, ETA 1213, SSR 1233. This occurs with increasing frequency and it is not surprising that incorrect SSR codes are being communicated or transposed.

In a recent incident an inbound aircraft was not callsign-converted and the ATCO was not able to identify the aircraft. The aircraft was following the standard silent handover procedure that has been agreed for arrivals.

This type of incident is becoming ever more frequent with SSR codes being displayed with incorrect callsigns, or no callsigns at all. Depending on circumstances, this can be a most frustrating and confusing situation.

In another incident, ABC123 (a jet) was displayed as XYZ 789 (a turboprop). Due to operator error the correct aircraft identification was never displayed even though modifications to the displayed information were tried. Subsequently, when XYZ 789 actually made contact, the callsign of this aircraft was also incorrectly displayed.

In increasingly busy traffic situations, combined with silent releases of inbound aircraft, incorrect data display can cause extreme difficulties. Observing "XYZ 789" on

the display and using the callsign "ABC 123" when XYZ 789 is also expected on the frequency could lead to incorrect RT calls being made. It is a significant Human Factors problem.

An ATC Occurrence Report Form was filed on earlier incidents in accordance with the requirements of the MOR scheme but was assessed by CAA (SRG) as non-reportable and of no significant safety-related aspect. I disagree with this. Reliant as we are on data being received correctly, further errors can occur during the transfer of communication and manual input.

*CHIRP Comment: Prior to receiving this report, two earlier confidential reports on similar incidents at the same unit had been assessed by the CHIRP Advisory Board and passed to CAA (SRG) Air Traffic Services Standards Department for their review.*

*This further report was also forwarded to CAA (SRG), noting that this issue appeared to be a safety related matter that ATCOs had attempted to report through formal channels, apparently without success.*

*CAA (SRG) Air Traffic Services Standards Department (ATSSD) provided the following response:*

Third Party Reply: "... When initially presented to the Authority, the report was adjudged to be "Non-Reportable". When later contacted by the reporter with additional information, the occurrence was reclassified as reportable and appropriate investigation commenced.

The initial classification by the CAA did not mean that the report was considered insignificant or unimportant, but that it felt that the routine regulatory oversight was considered adequate to cater for any required follow-up, investigation, and initiation of remedial actions directed at that particular occurrence. It is important that this point is made known to, and appreciated by, all individuals with responsibility for initiating occurrence reports and is detailed in CAP 382 (The Mandatory Occurrence Reporting Scheme).

With regard to the occurrence itself, the equipment and procedure issues are well known to the appropriate ATSSD inspectors and have, in the past, been addressed, by the Unit Managers concerned, to their satisfaction. Notwithstanding this, the situation is being reviewed once again, and if necessary, further recommendations will be made to the Units involved.

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### THE RIGHT FREQUENCY?

On at least three occasions within the past year I have received RTF calls on our Tower Frequency for Met. information addressed to another aerodrome's tower located over 200 miles away. On one occasion I missed the intended station's name on the initial call and the

pilot missed my station's name on reply. The error was only spotted when the pilot read back a non-existing (at my unit) runway as the runway-in-use. At the time of the call the other aerodrome's weather was good, we had 200 metres in fog.

On other occasions pilots have complained about distracting breakthrough from the same unit's inbounds whilst my inbounds have been on short final. This would suggest that the offender was very high and/or too near my station.

When inbounds to our airfield call on Tower Frequency for Met, sometimes 100 miles away, I always transfer them to Radar Frequency. This is not because I can't be bothered reading it as some crews intimate, but rather Approach/Radar should be the first contact frequency and have a greater protected range.

An even better solution would be for such aircraft to obtain the weather from Volmet (which both stations Met is on) and if necessary get an update from approach when transferred and therefore nearer and lower.

*CHIRP Comment: The geographical separation between aerodrome service ground stations to ensure as far as possible that aircraft at the limits of height and range to each service do not interfere with each other is a radius of 25nm up to 4,000 ft (Tower) or 10,000 ft (Approach). UK AIP Gen 3.4.3 Para 2.2(a) refers. Airborne calls made to airfields from high altitudes will be potential sources of interference, particularly when transmitting on Tower frequencies.*

We were cleared to descend to 3,000' for a visual approach. On descent, TCAS revealed a target through which we would fly at approximately 5,000'. We vectored ourselves round it. Later conversation between this aircraft and ATC revealed it to be an inter-Island flight and the aircraft type was an Islander.

My initial call to ATC had been taken to mean "Islander in sight" not "the island in sight".

ATC never mentioned another aircraft to us until after we avoided it.

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*We have received a number of requests for information on liaison visit to ATS Units. The following contact Telephone Numbers may be used to obtain details regarding Flight Crew Familiarisation Visits. **These numbers are for Flight Crew use ONLY.***

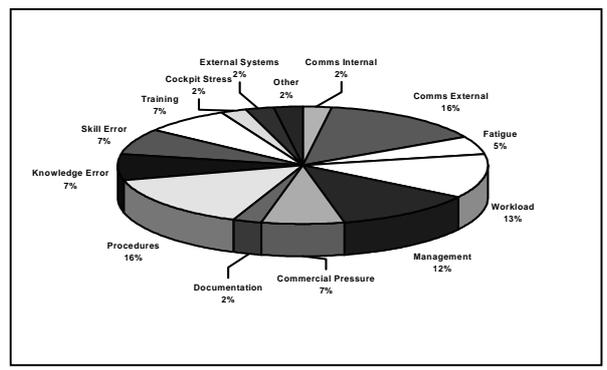
LATCC	01895 426176	Jo Clare
SCATCC	01292 692699	Colin McIntyre - Sim Sup Mgr
MAN	0161 499 5314	John Evans (internal 7-5314)
LGW	01293 575271	<b>Note: Visits strictly limited to those who genuinely use Gatwick Tower ATC service</b>
STN	01279 669387	Watch Manager
BHX	0121 780 0901	Liz Barlow
LTN	01582 395455	Watch Manager
EDI	0131 339 1888	Colin Hicks - Trg & Ops Mgr
GLA	0141 840 8029	Duty Watch Manager
ABZ	01224 723714	
BHD	01849 422955	
CWL	01446 712575	

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## FLIGHT DECK REPORTS

Flight Deck Reports received in Period: 24

### Key Areas:



### AN ASSUMED NEAR-MISS

Descent obtained, before contacting ##### ATC (*Caribbean destination*), cleared down to FL100. Became visual with the Island just before change to ##### ATC frequency. My initial call was "ABC123" level FL100, with the Island in sight, request visual".

### AN UNTIMELY CALL

In my Company it has become normal, when calling Operations inbound with ETA etc., for them to pass messages for pilots to call Crew Control after landing. The purpose of this is to advise them of changes to their roster for the next few days. When this was first introduced it did not happen very often, but with the shortage of pilots that we now suffer from it is happening on virtually every flight. These changes can be considerable (there is no Management control over the type or number of changes that can be made) and invariably cause disruption to one's home and social life. Not surprisingly therefore a message to call in is always greeted with dismay and the feeling of "I wonder what they want this time".

Unfortunately this feeling persists for the rest of the flight. Company's calls are usually made about 30 minutes before landing, just prior to top of descent. So for the most important part of the flight; descent, approach and landing, when utmost concentration is needed, there is this nagging feeling on the back of the pilot's mind of a pending argument with Crew Control.

This distraction cannot be good and it is now so common that I would suggest it has become a definite Flight Safety Hazard.

The issue of roster disruption needs to be addressed but meanwhile I would like to see in-flight Crewing messages banned. If it is really necessary to contact pilots in this way then it should be left until at least the aircraft is parked at the gate with the engines shutdown.

*CHIRP Comment: The attention of FOD's/Chief Pilots has been drawn to this report.*

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### LEVEL BUSTS - COMPLEX PROCEDURES

I have read the ongoing saga concerning level busts. I would be most interested to learn of the aircraft types that are involved in these busts. I have noticed that departures/arrivals from/to many airfields have become much more complicated with frequent level and track changes. There is now an increased work-load imposed on pilots by sector ATC as they juggle with their increased traffic movements leading to frequent stepped climbs and descents and heading alterations. Presumably, these SIDs/STARs/ATC changes are designed with FMS equipped aircraft in mind where the jolly old computer does the work?

I fly a steam driven B727 where I do not have the benefit of any modern technology and thus have to manually fly these complicated traffic patterns usually accompanied with many frequency changes both for the VHF and VOR, which ensures that the other pilot cannot assist with navigation etc. With so much going on in the cockpit at once there is an increasing difficulty of flying reasonably accurately and with the weather factor thrown in an almost impossible task is created.

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### ERROR BY DESIGN?

Our fleet has some aircraft with VHF Navigation/Communication boxes from a different manufacturer than the remainder. These have the VHF NAV Box and the ATC Transponder box of similar layout. On the NAV box a white button on the right hand side changes the Pre-set RT frequency to the In-Use RT frequency whilst on the Transponder box it is the IDENT button. On numerous occasions when asked to squawk IDENT, I have pressed the similar button on the NAV box thereby taking me off the In-use ATC frequency and onto the pre-selected frequency. As we operate routinely out of ###, all the controllers voices are familiar but the change in controllers voice has never alerted me to my error.

The situation is not helped by the fact that both boxes are mounted on the right hand side of the central

console and partly obscured by the collective but surely the manufacturer isn't helping by making his product range with a similar appearance.

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### AHEAD OF THE GAME?

A somewhat amusing incident, but with some potentially serious implications?

I was occupying the jump-seat on a positioning flight. Taxying inbound at #### (UK destination), ATC instructed our aircraft to hold position pending pushback of another aircraft. Several minutes later, no aircraft movement was observed or even sight of anti-collision lights or a tug. Problem queried with ATC - still instructed to hold. A few more minutes passed, and another aircraft was held behind us.

Problem queried again. "Hold for ##;" (European Airline). The aircraft concerned was quickly spotted ... still refuelling!! However, it HAD called for push!

I wondered how accurate a check was carried out on their fuel uplift? Who checked the refuelling panel was secure? No fire cover seen - did they have pax aboard (highly likely!) - is this permitted without fire cover?

*CHIRP Comment: Many airline/airport authority procedures permit refuelling with passengers on board, provided the cabin emergency exits are appropriately manned. No additional fire cover is normally specified.*

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### DEAF EARS?

Fortunately, I have no incident to report. I would like, however, to highlight a common practice by some airlines, including my employer, which I feel is a significant risk to flight safety: namely the practice of not using flight deck intercom systems in favour of half wearing a headset over one ear for VHF comms, whilst using the other ear, unaided, for cockpit communications. And all this in what are often not so quiet flight decks.

I cannot believe that we do not hear much better with two ears than with one, and many are the times when I, and other colleagues of mine, have had to ask for the other crew member to repeat things because of aircraft noise in one ear, and ATC in the other with the volume turned high enough not to miss a call. Not the best answer in a busy terminal area after a long flight, and an unnecessary increase in stress factors. Myself and others have raised this point several times to our training and safety departments, all of which has fallen, pardon the pun, onto deaf ears. The stock answer is that there is no written down SOP on intercoms, and common agreed

practice rules. In reality, the guy in the right hand seat has no influence without things getting silly.

As even single ear-piece headsets are not incompatible with intercoms, I would have thought a compromise would be mandatory use of full headset and intercom at the busy times, say below a given flight level, with the option for personal preferences in the cruise. Volumes for different communication channels could be adjusted to suit, and surrounding noise significantly reduced. This would preclude the need to speak louder than usual to be heard, to ask for repetitions, and generally improve the working environment. After all, if the CAA and other agencies have made intercoms mandatory in transport aircraft, it will be for a reason.

*CHIRP Comment: The use of headsets for the purpose of effective reception of RTF/intercom messages between flight crew members is not mandated. The certification requirement for an intercom system is to provide communication between all crew members in an emergency.*

*The partial/full use of a headset in normal operations should be dependent on the ambient noise level on the flight deck. For this reason, some operators specify the headset policy by aircraft type and phase of flight, as the reporter suggests.*

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### ON REACHING THAT CERTAIN AGE

Two recent accident/incident reports have involved, as an apparently minor contributory factor, the handling pilot being distracted by dislodging his spectacles.

When I had to learn to cope with wearing spectacles I found it a far-from-easy process even though, being a training captain, I had ample opportunity to practice in the simulator.

The main problems were:

1. Learning to line up the lenses with where I wanted to focus on the instrument panel.
2. Learning to keep my head still, and in the right position during an instrument approach so that I had the correct view on going visual.
3. Developing a technique to cope with use of the Oxygen mask.

At home, and in the office, I found that attaching the specs to a cord slung round my neck was comfortable and convenient. When I tried the system in the simulator however, it proved disastrous, particularly in the oxygen mask case. The potential for getting caught up in a tangle of headset cable, oxygen tube, specs cord and control column was far too great.

It would be interesting to know whether the two pilots involved in these reports were using a cord. Pilots should at least be made aware of the potential problems

and encouraged to develop their own practices during recurrent simulator sessions.

The best advice I received from another Training Captain was, in the event of the need to go onto oxygen, first: "Clean your head!" ie remove headset, specs, pipe or anything else, then don the Oxygen mask, then restore the headset, specs or whatever else you need. This took but a moment and if done as a conscious first step, brought forth order out of chaos.

The aircraft type and model will influence best practice, but I'm sure there is a wealth of experience on this subject in the profession. Can CHIRP tap into it, and pass it on for the benefit of all?

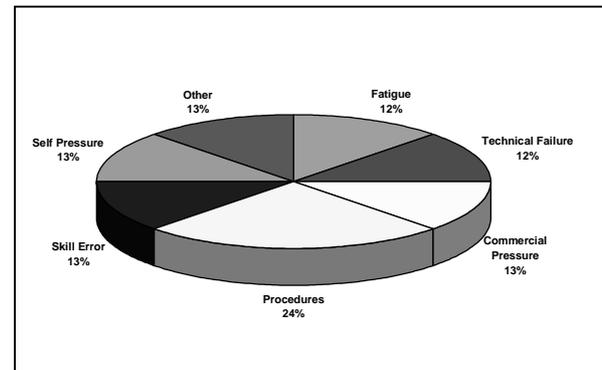
*The most recent incident to which the reporter refers is described in AAIB Report No. 3/99.*

*As the reporter states, there are a number of problems associated with the use of spectacles on the flight deck, particularly bifocals. Many of us have to grapple with this particular problem at some time or another. We will be pleased to pass on any other good suggestions.*

## ENGINEERING REPORTS

### Engineering Reports received in Period: 3

#### Key Areas:



*This report, written with a welcome touch of wry humour, highlights some of the bureaucracy, masquerading under the name of Security, which can add significantly to the frustrations and time pressures that accompany many tasks that we are asked to perform on a frequent basis.*

### ID STRESS

There has been a lot of talk in chirps about what stresses an engineer has to endure today. A number of the articles have focused on duty hours, working night shifts, shortages of qualified personnel and the commercial pressures put on us.

I am a senior engineer in a UK Regional airline, which has its base maintenance at XXX airport.

So what stresses could we have?

Is it because we don't have enough personnel? - No.

Is it because of the unsociable hours we have to work? - No.

Is it because the aircraft are difficult to work on? - No.

Do we have a shortage of spares? - No.

Are we underpaid or mistreated by our bosses? - No.

It's the barrage of obstacles put in our way that prevent us from doing our job properly.

Yesterday for me, it all came to a climax. I went over to Security to have my ID card reissued with the yellow air crew stripes. The aircrew IDs for our engineers was a result of the airline having numerous line stations and destinations that we fly to. Last month I needed one of our engineers to cover AAA airport whilst the engineer based there was away. It took 3 days for this person, who already had a pass for BBB airport, to have it validated at AAA. Day 1 - Driving course, Day 2 - Security brief, Day 3 - Safety brief (which teaches a LAE that propellers are dangerous, jet engines are hot and the little red flashing light means, the pilot may be about to start engines).

So I have now lost this person for 3 days whilst he drives backwards and forwards to AAA. This happens any time that we have a need to visit a different airport.

So the decision was taken that LAEs should have aircrew IDs and travel as supernumerary crew.

My ID was issued by XXX Security but they took my Manoeuvring Area Driving Permit (MADP) away, the reason given was that it had expired. And to add more pain - I was required to attend a security brief otherwise my ID would be cancelled. Now here I am with the ramp vehicle and I can't even drive it back airside. The security brief is going to be on the day when I was rostered to be elsewhere.

Every time I get a pass for an airport I have to attend all these briefs which all show the same video. I am required to taxi and ground run aircraft at anytime anywhere and don't have any problems - but I still need to attend a driving course.

Shortly having left security at XXX, our operations department called me, asking if I could go over to YYY Airport because one of our aircraft had one flat main wheel tyre (4 fitted). The timing was going to be OK because the rush hour had not yet started. So off I go with two new main wheels and ask Operations to advise YYY to expect me at Security Gate 1. Ten minutes before arrival YYY are told again to expect me. I arrive at Security Gate 1 and am greeted with the - "Sorry you can't come in without a YYY ID."

Would they accept a BBB, AAA, CCC ID? - No.

Would they accept a XXX aircrew ID? - No, because it says "Engineer".

Twenty minutes later after much telephone conversation between Gate 1 and Security Control, I was told to go to the terminal and get a temporary pass - of course, once you find your handling agent with an authorised signatory.

I told Security that I would have problems parking outside the terminal, I was told, "Tell the security person at the terminal that you are going there to collect a pass". When I got to the terminal Security told me, "You can't park here." Regardless of what the other person told you, and your neck full of IDs.

So after having parked my car and found a signatory and gone to Security to have a temporary pass issued, I get back to Gate 1. ONE HOUR HAS NOW ELAPSED.

In between this time I have had a steady stream of calls from our Operations asking where I was and when the aircraft would be serviceable again.

I eventually get to the aircraft, ATC having told the captain that the stand is required, and promptly making him move - I now have two flat tyres and can't get the jack under the axle. A very kind, fellow engineer from ### (UK airline) told me that he had strongly recommended that the aircraft should not be moved but his recommendations had been ignored.

The ### engineer had already prepared the nitrogen bottles, one tyre was pumped up allowing the axle jack to be slipped in.

In all it took 15 minutes to do the job, one hour to get on the apron, a lot of very disappointed passengers, and one very stressed out engineer.

Is this a one off occasion? - Certainly not, it happens all the time. The engineer is treated like the airport leper. Wouldn't it be nice if I could flash my little red CAA AME book and get to my aircraft the same way that the crew can show their little green CAA ATPL book and get to their aircraft? I'm sure flight crews would support me on this, especially since they are the ones calling Operations asking how long it will be before the engineer turns up, who happens to be having another ID card hung around his neck.

So, as you can see, the work does not stress me out, the aircraft is fixed with ease, I can even predict how long it will take.

What else stresses me out?

Aircraft finishes flying (around 10 p.m.) It requires a defect rectifying. Defect is rectified with relative ease; aircraft requires a ground run:-

XXX Airport charges £100.00 for the first half-hour and £200.00 thereafter for use of the run bay (commercial pressure?).

At AAA Airport - "Can't you fly the aircraft somewhere else to do your ground runs?" Ground runs not allowed after 10 p.m.

Most other airports are the same (*as regards ground runs at night*). Ask yourself this - when do airlines stop flying? At night!

How can I be allowed to do my job safely and professionally when sometimes I have to allow the aircraft back into service without a ground run?

Please feel free to contact me for further details. If you can't find me, I will probably be sitting watching another ramp safety video (after having worked a night shift) so that I can have another ID hung round my neck along with all the other engineers.

There is no real shortage of engineers - their time is being dreadfully misspent.

Its time that the CAA and the DoT got together and resolved this one problem of many. This is what Human Factors is all about.

*CHIRP Comment: Establishing the correct balance for effective security measures at UK airports on the one hand with the requirement for authorised airline personnel to have reasonable access on the other is essential.*

*If this report reflects a more general problem, there may be a case for reviewing the security procedures for personnel on essential airline duty at some UK airports. We would be interested to learn of other similar problems*

*The issue of ground running at airports and curfews, also mentioned by the reporter, is a matter which the UK Flight Safety Committee, in one of its working groups, is assessing.*

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*The professionalism of some Engineers, in the face of commercial pressure, is called into question in this report.*

### **ON TIME - SERVICEABLE OR NOT?**

Following previous reports of engineers being pressurised into signing aircraft to fly when being unserviceable, I would like to publicise events at my workplace. (A JAR 145 Approved organisation).

My company is contracted to ### (*A company operating under a UK AOC*) to provide line maintenance services.

Occasions have occurred when a certifying engineer has been pressurised by ### (*the company*) to sign a defect as cleared in order that the aircraft can make its slot. When we have refused and declared the aircraft AOG there have been threats of reprisals etc.

As an example, a #### (*a narrow-bodied jet*) arrived with a discrepancy between the Captain's and First Officer's altimeters. An avionics engineer carried out trouble shooting and upon finding the required spares were not

available declared the aircraft AOG. Another engineer from ### (*the company*) then came from their Maintenance Control and proceeded to sign the defect as ground tested, no defect, and also signed the daily check and Release to Service 'blind'.

In addition to this cavalier attitude, from someone who does know better, I am concerned about the ever increasing number of 'non-aviation' people coming into executive positions with no understanding of (or choose to ignore) aircraft and flight safety. They then proceed to frighten normally responsible personnel into putting aircraft into the air knowing they are in a non-airworthy condition, using threats to their careers or continued employment.

I would like to see a method of making these people aware of the responsibility behind operating aircraft and that for once the bottom line and the shareholders must take second place.

*CHIRP Comment: Whilst it is recognised that the vast majority of UK AOC holders and Approved maintenance organisations manage the sometimes difficult balance between the demands of the schedule and the need for unscheduled maintenance in an entirely safe manner, this report indicates that some individuals succumb to pressure to dispatch a technically defective aircraft.*

*It is in situations such as this where engineers will earn the respect and status they seek by the manner in which they demonstrate their professionalism.*

*For those individuals who hold the opinion that defect rectification must be subordinate to an airline's perceived performance/profitability the well known phrase, adapted for the purpose, "If you think a missed slot is expensive, try an accident," comes to mind.*

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### **CAA (SRG) FLIGHT OPERATIONS DEPARTMENT COMMUNICATIONS**

*The latest CAA (SRG) Flight Operations Department Communications have been issued since April 1999:*

#### **6/99**

1. Controlled Flight into Terrain (CFIT) - Operational and Training Considerations.

#### **7/99**

1. JAR-Ops 1/3 Subpart M Quality Systems - Implementation Guidance.
2. Light Aircraft Maintenance Schedules (LAMS).
3. Circuit Breakers (CBs) Operational Use.
4. Battery Overheating - Potential Fire Hazards.

#### **8/99**

1. Inoperative Exits - ANO Article 54(8) Policy Change - With Effect From 1 June 1999.

# FEEDBACK - COMMENTS

## 'A LOW APPROACH' (FB50)

*The report 'A Low Approach' described an incident in which a helicopter crew inadvertently descended too low when transitioning to visual from a rig radar approach in poor weather. The following two reports offer further comment on this subject.*

### (1)

I think the disorientation caused by rig lights at night even in good visibility can trigger an instrument scan breakdown. In fact it is the most dangerous time when someone is transitioning from pure instrument flight to partial visual reference.

Twice in only 2,000 offshore hours in my career whilst operating as a co-pilot I have had to take control from the Captain to recover from very high rates of descent close to the rig at night. In both cases the aircraft would probably have ditched without intervention. The first instance was in a North Sea operation with a senior management pilot who didn't get enough stick time, the second was in the South China Sea with a very experienced pilot who hadn't had much recent IF (*Instrument Flying*) experience.

In both cases I consider it to be a failure of the training system that led to the problem. We didn't have simulators then and I daresay things are better now, but this report still says something valid about training quality.

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### (2)

For a rig radar approach the crew has to plan the approach and overshoot profile as well as maintain their own separation from other traffic and maintain separation from surface contacts. This sometimes has to be done with little notice due to rapid weather changes and may be modified during the procedure due to changes of any of these factors.

These are all command decisions, as is the decision as to whether there is sufficient visual reference to continue the approach to land. In my opinion, therefore, the Captain should always be Pilot Not Flying for a rig radar approach if the conditions are likely to be anywhere near minima. Some crews (wrongly in my opinion) decide who should be Pilot Handling, based on whose landing it will be. However, as the procedure is flown at 60 Kts ground speed with a decision range of ¾ nm there is at least 45 sec to hand over control if it is a P2 landing. In reality there is far longer as the ground speed is brought nearly to zero to land. So whose landing it is should not dictate who is PF/PNF for a rig radar approach

I can honestly say I have never been low on a night rig radar approach (unintentionally anyway!). However, the night visual environment is one which can cause a lot of spurious visual cues that are a trap for the unwary, and North Sea crews spend less time in these conditions than in the late 70's early 80's, as we are all fully IFR trained now.

*CHIRP Comment: A visual transition at night in poor weather can be extremely demanding for the reasons given above. A lack of experience and/or recency may increase the level of difficulty. The plan for the approach should always include consideration of these factors.*

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## MORE ON ALTIMETER CONFUSION (FB50)

*We received a number of interesting responses to the report titled 'More on Altitude Confusion' that was published in the last issue of FEEDBACK and described the flight deck duties during a Standard Instrument Departure (SID). In view of the significant number of level bust incidents that occur in the departure phase of flight, three of these are included below. The first comments on the use of a flight level for the initial level off.*

### (1)

FB50 item "More on Altimeter Confusion" made compelling reading. I have every sympathy for aircrews in such circumstances.

There is absolutely no need for any ATS (*Air Traffic Services*) provider with any interest in flight safety or service to the customer to have departure procedures or SID's which mandate a Flight Level for initial level off. In the Scottish TMA (*Terminal Manoeuvring Area*) all SID departures climb to 6000 feet QNH (*altimeter pressure setting*) and inbound aircraft are descended to a "Minimum Stack Level" which is the FL equivalent of 7000 feet based on a common (Glasgow) QNH.

This is a simple, safe procedure, administered by the area control unit and takes the workload out of the cockpit.

*CHIRP Comment: As the report on Page 5 details, pilots operating from several of the principal UK airports would endorse the need for simple SID/STAR(Standard Instrument Arrival) procedures. It is difficult to understand why there is no current requirement for the flight deck task to be one of the criteria to be considered during the development of new/revised procedures.*

*Incidentally, do you know who is legally responsible for the accuracy of the information portrayed on your Departure/Approach plates?*

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*Other comments related to some of the operational techniques described in the published report.*

(2)

I feel stirred to reply to the above article. Whilst I would agree that there may be a case for having higher transition altitudes within the UK, the company procedures which were described (assuming they are correct) would appear to be somewhat old fashioned and perhaps misguided.

It may be a requirement to carry out a full thrust take off (for example due to runway contamination or low visibility, etc.) but this does not mean that the climb after 1,500 ft agl has to be conducted at full climb thrust. Most FMC's (*Flight Management Computer*) offer CLB1 or CLB2 (*Climb*) options which result in lower thrust settings leading to lower rates of climb which therefore allows more time to climb to the first level off. Many company operations manuals also instruct pilots to reduce the rate of climb to 1,000 fpm or less when within 1,000 ft of a cleared level when hand flying and/or not using the flight director. This instruction states something that is normal airmanship with respect to observing a clearance limit.

However the major point I wish to make is that checklists are not there to tell you how to operate the aircraft and its systems but to confirm that certain actions have been completed. Some pilots in the UK seem to be unaware that 1013 Mb may be set (on climb) when cleared to a flight level, providing no intermediate altitude reports below the Transition Altitude are required. {UK AIP (ENR 1-7-2 Para 5.1.4) refers}.

Your writer is incorrect in stating that "resetting does not come into any procedure until the After Take Off Check List and it is not relevant that the checklist cannot be completed "until FL100". Resetting of altimeters should be actioned at the correct time. As retracting the flaps is part of the after take off actions, would he wait until FL 100 to do so, just because that is when the checklist is read?

Reference to the altimeters on the checklist also means that they are set appropriately for the phase of the flight. Some departures require a level off at the transition altitude. Some pilots seem to think that the After Take Off Checklist cannot then be completed because 1013 is not set. On a flight where 1013 is never set (e.g. a short sector at low level), this would mean that the After Take Off Checklist could never be "technically" completed and yet the altimeters have been set correctly for this stage of the flight. Your writer is also wrong to say that "if the SID has an initial level off at an altitude, it doesn't matter if we forget something" because if that altitude is the TA you then have to remember to set 1013 when cleared for subsequent climb.

It worries me that there seems to be widespread ignorance of the whys and wherefores behind the correct setting of the altimeters. I can only conclude that either

this is not adequately covered in either basic or advanced training or that certain companies are using procedures which are out of date (more appropriate to lower performance aircraft) or incorrect. Until pilots understand how to operate the altimeters correctly to ensure vertical separation then it is surely irrelevant as to where the transition altitude is.

Navigation of the aircraft means vertical as well as horizontal. Navigation comes second to aircraft control but ranks high in the list of priorities. Yes, I would agree that there is a lot to do in the few minutes after take off and that aspects such as lower transition altitudes and ATC handovers do not help, but it is up to us as pilots and aircraft operators to make sure we understand the reasons why we carry out actions when we do rather than blindly following a checklist, which is not designed to tell us how to operate, but is another string to the bow to ensure safe operation.

*CHIRP Comment: Several other reporters commented on the practice adopted by some pilots to elect to hand fly the aircraft during the initial climb and departure, which in the case of some complex SID procedures can represent one of the highest workload periods in the whole flight.*

*While this may be justified on the basis of enhancing handling proficiency, it may in some circumstances adversely affect situational awareness.*

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**A COMMON AERONAUTICAL LANGUAGE  
(FB50)**

*We have continued to receive comments on the use of French and English in French ATC communications. The following two may be of particular interest:*

(1)

We encountered an engine problem on take off from #### ( a French Airport) which continued during initial climb out. Elected to return to the airport with one engine at idle/configured for a single engine landing.

We alerted the Fire service to check the engine, having shut it down, after clearing runway. A confusing three-way conversation ensued with the Tower controller acting as interpreter on the Tower frequency, as we were unable to communicate directly with the Fire service.

Are crews aware that the international language (English) doesn't extend to the emergency services at some major airports in France and that only French speaking crews are able to converse directly with the Fire service?

*CHIRP Comment: This problem is not confined to French airfields. Similar difficulties may be experienced in other countries.*

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(2)

I would like to emphasise the safety aspect of having a common language concerning RT procedures. I am a French pilot holding an UK ATPL and working for a UK airline.

I am used to flying with English First Officers who don't know how to speak French and don't understand it at all. They are, however, not to be blamed for that, despite what I often hear during conversations on the subject. French Airlines fly to Germany, Italy, or Japan, but their pilots don't know how to speak German, Italian, or Japanese. It's obvious that the English language must be the only official aeronautical language, not only for the benefit of English pilots (as I used to hear on the south side of the Channel), but for the benefit of all of us, whatever our nationality may be.

How many times, have I been aware of a critical situation while my first officer didn't have a clue what was going on! This fact is critical during departures and approaches in congested airspace. I think the reason why France doesn't adhere to this principle is simply that in case of an emergency, French procedure must be observed for obvious safety reasons. Under stress and heavy workload, there is no point in adding a language problem. This, however, shouldn't prevent all pilots from speaking English during normal times; then, should an emergency occur, pilots should send a MAYDAY message and switch to French. I am sure that everybody would understand. Apparently, this is the procedure the Air Force is using with military controllers and it works. I've noticed that several German pilots are using English RT in their own country. France must do the same.

The most disturbing fact is that the French DGAC (*Civil Aviation Authority*) itself seems to be aware of this safety problem, for they have set up two proper English exams, called QRI (Qualification Radio Internationale) and "Anglais du PL." Air France has its own (and not easy) English exam for its pilot recruitment as well.

In addition, I must say, after having been flying for more than two years within the UK airspace that the phraseology is much more respected there than in France where pilots are often arguing with the controllers, which makes the RT really difficult for foreigners who try to pass their own message in between, and sometimes unfortunately cutting off important transmissions because they don't know whether the discussion is terminated or not. By using the English RT, this problem would be solved as well.

*CHIRP Comment: We agree wholeheartedly with these sentiments - solely on grounds of safety.*

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*In FEEDBACK 48 we published a report on actioning defects recorded on centralised maintenance computers (CMC's). A*

*comment in FEEDBACK 49 on the design logic of CMC's has provoked the following further comment.*

**TO FIX ... OR NOT TO FIX (FB49)**

**(1) THE THEORY**

In answer to the published letter, the theory of EICAS is well known to all licensed engineers practising on these types of aircraft. However, the theory I feel is not beyond questioning.

The flight crew may not be concerned with an undercarriage proximity sensor inoperative or a lav/galley fan inoperative but the manufacturers/CAA are because they place restrictions in the MEL (*Minimum Equipment List*). If nobody looked in non-FDE's (*Flight Deck Effects*) these defects would not only go unreported and unrectified but the a/c would LEGALLY be out of compliance. That is why you should look at non-FDE's, not just for the safety of the aircraft, to help prevent a more serious failure, but also to help protect your licence as by not looking and acknowledging MEL defects you could be accountable to the CAA.

After all, if you opened the engine cowlings to change an ignitor box and noticed the IDG (*Integrated Drive Generator*) had low oil level would you just ignore it and say "it will be looked at in 10 days on the next check" or would you service it to prevent failure?

In the last paragraph of the letter, stating "present leg faults/existing faults need not be actioned on transit/main base" inputs, I think with the above examples (prox. switch/lav-galley fan) that this may be a very incorrect statement from somebody who may not actually be put in the position of carrying out line maintenance at "hands-on" level.

*CHIRP Comment: The comments that we have received on this subject only serve to reinforce our view that there is still a degree of confusion over the action to be taken on CMC readouts. If this is indeed the case, it needs to be addressed.*

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**ENGINEERING REPORTS - A COMMENT**

It seems that since their inception, a high percentage of the reports appear to have the same causal factors, shortage of manpower and commercial pressure. Or put more bluntly money.

The shortage of engineers is mainly of the industry's own making but the expected increase in this shortfall should not be a surprise. It was obvious at least ten years ago that not only would there be a lot of engineers retiring in the next year or two but also that the steady supply of trained engineers from the armed forces that have always bolstered the industry, was going to slow down due to Service manpower reductions and restructuring. The industry has always taken full advantage of the situation

including the ex-serviceman's ethos of 'get the job done, no matter what'. There has been inadequate commitment to ab initio and advanced training to rectify the situation. I suspect the reason is not lack of foresight, nor is it a 'head in the sand' attitude. It is probably cost once again. About two years ago I attended a presentation by the Chief Mechanic on the Boeing 777 development project. He said it was difficult recruiting young people to train as A&P (Airframe & Powerplant) mechanics at \$5.25 per hour, especially when a world famous fast food concern was paying them \$5.95 per hour for selling beef burgers. He spoke of forthcoming manpower shortages in the US and Germany for similar reasons to those above, not just the salary. At the time he was president of an organisation aiming to promote the status and awareness of aircraft engineering to the general public. I have not had any feedback on his success or otherwise. The CAA cannot ask engineers to work and conduct themselves in a professional manner whilst at the same time much of the industry simply tolerates them as a necessary evil in dirty overalls costing the company money. "Pilots make money, engineers cost money".

Commercial pressure is not just the domain of operations and commercial departments. Some engineering managers bow to it at the expense of good practice and the welfare of those in their charge. Or is it sometimes just naked ambition? It is all very well for one of your correspondents to say that we are licensed engineers first, but it's the employer who pays the salary, not the CAA.

*CHIRP Comment: Since the beginning of 1999, we have received some 23 Engineering reports, 11 of which have been on safety-related aspects of engineers' hours/working practices. In addition, there were several comments on these subjects in responses to the recent Survey.*

*We have also received some criticism for continuing to include reports on this subject.*

*The reports published in FEEDBACK can only reflect the occurrences that are reported to us. One of the principal purposes of this Programme is to highlight the lessons learned by reporters in order that others might avoid the same pitfalls.*

*The effects of the pressures placed on engineers and of those that individuals impose upon themselves in order to get the job done continue to be the dominant engineering issue reported to this Programme.*

*The above comments and another report received in this period detailing yet another case of the demands allegedly imposed on an engineer have been reviewed by the Advisory Board and have been passed to the Chief Surveyor CAA (SRG).*

## **SPEED CONTROL (FB 50)**

*Two reports in FEEDBACK 50 referred to problems associated with speed control procedures during descent and approach (Training -v- The Real World - Page 9 and an Unhelpful Approach - Page 10).*

*It has been suggested that the CHIRP comment missed the point in that the real problem is that the approach sequencing at some of the principal UK airports that is now necessary to maintain high runway capacity routinely requires pilots to maintain higher than optimum speeds, particularly during the latter stages of the approach. In these situations, pilots may be very reluctant to exercise their right to notify ATC that an earlier speed reduction is desirable to avoid late changes of power, configuration and trim needed to establish a stabilised approach.*

*This aspect was debated by the Advisory Board, from which the following comments were taken. From a flight deck viewpoint several members agreed that at many destinations pilots are pressurised continuously to maintain speeds at or close to the maximum capability of some aircraft types. However, UK airspace is by no means the worst environment in this respect either in Europe or elsewhere. The situation in the UK is achievable, but it should be recognised that when further tactical speed increases are required to adjust sequencing the flight deck task may be considerably complicated to the point that on a good day it will work, but there may be occasions when it will not.*

*From an ATCO point of view, it was noted that the principal area of difficulty is around 10-12nm from touchdown, a point at which pilots would often wish to be slower than the speed required to maintain sequencing. It was also noted that the ATCO's task of maintaining separation is complicated by the different operating techniques employed by airlines, even those operating the same aircraft type. It is important to remember that speed restrictions/changes during the final approach may preclude a stabilised approach from being flown.*

*In relation to this last point Conclusion No.3 of the Final Report of the Flight Safety Foundation Approach and Landing Accident Reduction Task Force Operations and Training is most relevant **"Unstabilised and rushed approaches contribute to Approach and Landing accidents."***

*Clearly the pressures are not going to diminish, but a continuing awareness of the problems that can result from a policy of minimum spacing/maximum runway utilisation may be of assistance to both flight crew and ATCOs.*

## **A PLEASING FOOT-NOTE**

Congratulations on the 50<sup>th</sup> issue.

My best wishes to you for the next 50 issues of this sobering publication of yours. Essential reading, which is why I circulate it around my colleagues.

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