

# FEEDBACK

Issue No: 55

July 2000

## EDITORIAL

### FB 54 - SIGN-OUT OF WORK, APPROVALS AND EXTENSIONS

In FB 54, the report 'Sign-out of Work, Approvals and Extensions' concerned a fixed wing aircraft. However, we were rightly taken to task about the different requirements related to Rotorcraft.

Under the terms defined in AWN No 3, Paragraph 6.5, Aircraft Maintenance Engineers, Type-Rated in Categories 'A' and 'C' Rotorcraft, can sign for instrument and electrical work.

#### LATERAL CONTROL IN TURBULENCE

In the recent past we have received two confidential reports in which pilots have reported experiencing a lateral control limit during an approach in turbulent conditions. Both reports involved the same aircraft type. The information has been passed to the aircraft manufacturer.

In situations such as those reported, it is perhaps a natural reaction not to submit a formal report after the occurrence on the basis of 'Was it the aircraft or was it me?' However, it is most important that any incident of this type should be made the subject of a formal report in order to permit the exact circumstances, pilot control inputs and aircraft behaviour to be investigated. Regrettably, this was not possible in either of the cases reported to us.

Notwithstanding the importance of a making a formal report, we would be interested to learn of any similar experiences that have not, as yet, been reported.

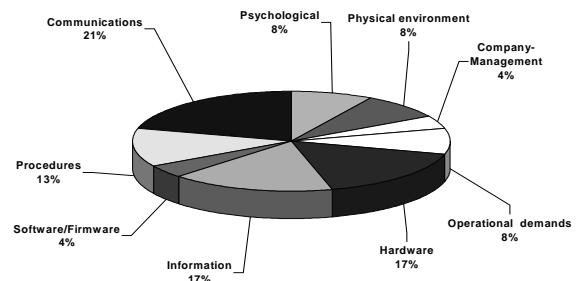
#### KEY AREA PIE CHARTS

Since the last Issue, we have adopted the ICAO ADREP2000 Human Factors Taxonomy to analyse reports received. The Key Area Pie Charts in this Issue reflect this change.

## ATC REPORTS

ATC Reports received in Period: 6

Key Areas:



#### REPORTABLE OR NOT?

Over the last year or so, I have observed on several occasions aircraft being given avoiding action or other urgent instructions to ensure separation. Because separation has been maintained, the controllers have chosen not to report these events under the MOR scheme.

I have been unable to find a definitive answer from written guidance or from discussion with other controllers as to whether such events are reportable incidents or not.

I feel they should be, for the following reasons:

- I would imagine that pilots of aircraft given avoiding action would like reassurance that such non-standard events are investigated.
- I feel that lessons, which could be learnt, are lost.
- I feel the non-reporting of such events could give a misleading impression of the safety of the system.
- I fear there could be a culture developing where controllers are inclined not to file reports "if they can get away with it".

FEEDBACK can also be accessed on the internet at [www.chirp.dircon.co.uk](http://www.chirp.dircon.co.uk)

Confidential Human Factors Incident Reporting Programme

**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>P 1</b>
<b>FLIGHT DECK REPORTS</b>	<b>P 4</b>
<b>ENGINEERING REPORTS</b>	<b>P10</b>

**IF YOU NEED TO CONTACT US:**

Peter Tait      Director  
                    Flight Deck/ATC Reports  
David Johnson   Deputy Director (Engineering)  
                    Eng/Maintenance Reports  
Kirsty Arnold    Administration Manager  
                    Circulation/Administration

-OOO-

**The CHIRP Charitable Trust**  
**FREEPOST (G13439)**  
**Building F131, Room 129**  
**DERA Farnborough**  
**Hampshire GU14 6BR, UK**

**Freefone (UK only):** 0800 214645 or  
**Telephone:**      +44 (0) 1252 395013  
**Fax:**                +44 (0) 1252 394290 (secure)  
**E-mail:**            Confidential@chirp.co.uk

-OOO-

**CHANGE OF ADDRESS?**

**We are only able to accept a change of address in writing, stating your licence number, to the address above.**

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.

-OOO-

**REPRODUCTION OF FEEDBACK**

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

Registered in England No: 3253764

Registered Charity: 1058262

*Continued from Page 1:*

*Research has shown that causal factors identified in post-accident investigations are often also present in precursor incidents in which an intervention has mitigated the outcome of that particular occurrence. Frequently, it has been the case that previous incidents have occurred but have not been reported.*

*The Mandatory Occurrence Reporting Scheme acknowledges the importance of reporting all incidents, which although not immediately endangering an aircraft, if allowed to continue uncorrected, would create a hazard. However, the exact circumstances leading to the submission of a report must remain a matter of individual judgement.*

*The safe option is, if in doubt, to submit an Occurrence Report.*

\*\*\*\*\*

**HUMAN CENTRED DESIGN?**

Several recent incidents have brought into focus continuing concerns among many of my colleagues about the operating characteristics and technical shortcomings of the new telephone/RT system at this Unit. Regrettably, several of us feel it unwise to submit our concerns, either directly or by 1261, because of Management sensitivity to the situation, but I feel the need to do something about it, as it is very real and pressing.

The following summarises our ongoing concerns about the system:

The system is a single integrated telephone and RT system, computer driven with no inherent redundancy. The only backup is a standby handset and a plug-in phone, which has already been demonstrated to be unworkable in a recent incident in which a 'runner' had to be employed to relay releases to Approach.

With the "old" system, phones and RT were separate, very reliable systems. Failure of the phone system could be coped with using intercoms to Tower and Area sectors. Intercom has now been removed between Approach and Area and is now so cumbersome as to be effectively unusable. As a result, opportunities to expedite traffic are often lost due to lack of time. The alternative - the 'hotline' - is highly intrusive in use - both microphones are made live - so every part of the conversation is heard by both parties - and the hotlined party feels pressured to reply instantly to that, rather than something else which may actually be of a higher priority.

The old system of intercom permitted a frequency to be discretely monitored, and often the information required could be obtained by this technique, without ever having to call the other person to ask a direct question. For example, if Approach saw an aircraft go round, he could

quickly flick the intercom switch to monitor Tower and quite possibly hear the aircraft or Tower controller give a reason for the go around, without having to be told, or intrude at a time of high workload for the Tower to ask what was happening. If the aircraft was heard to state it had a problem, a solution could then be worked out possibly minutes before Tower had time to ring with details. This is only one small example of the loss of capacity the new system has caused.

As to the serviceability of the system, I have been without communications more times, or suffered major problems with part of the system more times since the new system was introduced, than I have previously suffered in over ten years in ATC and I feel rapid improvement is essential before a major incident occurs.

Other deficient areas are:

1. The phone panel is difficult to see, requiring you to shift position considerably from the normal operational position to operate the system.
2. Emergency lines are not highlighted, and to call an outside number you have to change the page to one with an outside line, select that line, then change page to another one with the dial facility, select dial, then enter the number required. If this is not done within so many seconds, the line is automatically deselected and the whole process repeated. On more than one occasion, where I tried to coordinate an aircraft, which involved this procedure, I was distracted before the full call could be entered and the line disconnected - the aircraft then had to free-call the unit concerned because I hadn't been able to offer a service in the time available - another loss of capacity.
3. The control of R/T and phone volume levels was formerly by two independent rheostats on the headset plug panel, which could be varied by touch alone, instinctively. The new volume controls are on a separate page and cannot be altered by feel. They also obscure the other phone pages, so cannot be left on. Although a "comfort" issue, the variation in the volume of some aircraft transmissions can become an irritation to add to others inherent with the system.
4. The new headsets have been very unreliable and various modifications are being considered, but we are still having to cope with sub-standard equipment, which is also uncomfortable to wear.

In conclusion, the new system is seriously flawed from an operational point of view, if maximum handling of traffic with low operator stress and workload is required. These deficiencies have become more apparent with time rather than less so.

There is a pressing need to at least improve the overall reliability of the system and headsets before summer traffic levels. A safety study needs to be done to verify

the capacity of the back up systems. Any shortcomings should be rapidly identified and rectified.

Questions need to be asked how such a system could be selected and installed when most, if not all of these deficiencies were readily apparent when the system was introduced at another unit. It is worrying to hear that the system is planned to be introduced elsewhere.

On a more personal level, I have never felt so off balance and vulnerable as a controller in more than ten years operational experience, since I feel a serious failure of the system is imminent without rapid improvement, and I am in no way alone in this view. We feel that in many ways our views are being dismissed or marginalized, as simply moans about change, but we have seen huge changes over the years without a problem. A serious safety issue is at stake now.

***This report was one of several received shortly after the introduction of the new equipment. Other reports had been submitted directly to the Unit management. The reported shortcomings were reviewed by CAA (SRG) and a number of corrective actions agreed. These have been or are in the process of being implemented.***

## ATC COMMENTS

### COMMENTS ON FB54

Thank you for the latest edition of CHIRP in which there are two related items I feel compelled to respond to.

1. The response to the item on London City departures seemed to suggest that, as the departure was known traffic, such R/T loading carried no safety implication. That troubles me.

Under such time pressure the temptation is there to cut corners, e.g. use readback time to co-ordinate or plan instead of just listening. Errors are more easily missed and if you do miss a readback, checking adds to the pressure.

Under these circumstances any "Mayday" would have to be declared by squawk and how would such a busy controller provide a "Mayday" with the assistance he would need and still maintain a safe sector? One could hardly say "R/T silence, Emergency in progress". The circumstances, as they were described in the article, suggest "overload" to me and the crew are right to be concerned.

A recent level bust incident in which TCAS averted a high risk of collision was another example of this type of problem. Holding procedures were in force when high R/T loading led to a loss of the R/T discipline that would probably have prevented it. Recently, another controller told me that he had an aircraft inform him "... a few minutes ago we had a TCAS RA

but couldn't get in on the R/T to report it. We have been up and are now down again.' This sort of R/T loading is becoming commonplace and I think it represents a significant reduction in flight safety.

Spare R/T capacity is not wastage. On the contrary, it is essential to maintain a safe and orderly service to the air transport industry and if necessary we must restrict traffic to provide it.

- My second concern relates to the letter on wake vortex and I agree with the sentiments of the writer. The B757 is notorious both for producing high wake vortex and for being very slow inside 4 miles on approach. It is not uncommon to see the standard 4-mile vortex separation on final erode to 2.5 miles at touchdown.

At the heart of the matter is the issue of spare runway capacity. Spare runway capacity, like R/T, is not wastage but essential to preserve flight safety and we no longer have the runway capacity we need to provide the safety margins that are necessary. Errors tend to be on the tight side and in the case of arrivals, there often isn't enough R/T capacity for correction. We must either build more runways where they are wanted or reduce the number of movements. To do neither is to deny the truth. If we are truly risk averse, then the issue of movement rates must not even enter the argument.

Runway, airspace and R/T capacity is being outstripped by demand and somebody has got to take responsibility for reversing this trend if we are serious about safety. The politicians and ATC managers are renowned for saying that safety is paramount when ATC issues make the headlines. The truth is that as long as nobody gets hurt, it is not. We are paying lip service.

others are limiting their length of stay. Weather improves, but a Low Visibility Procedure (LVP) monitored approach is necessary to a Category 3b Autoland.

The controller instructs us to maintain 180kts to 6 miles DME and 160kts to 4 miles DME. Glideslope capture is at 8.6 DME/3000ft. We are forced to accept a very non-standard approach. Our Standard Operating Procedures insist on a standard profile in LVP conditions, i.e. Flap 30 at glideslope capture, requiring a speed of 161kts or preferably less (to reduce flap fatigue). Net result is a non-standard Flap 5 gear down approach until 6 DME, flap 20 until 4 DME and then Flap 30, i.e. from G/S capture until 2.5 DME; completely non-stabilised in pitch, speed and thrust, not to mention that landing checks are still to be done, then straight into the Autoland.

The use of 180kts to 6DME is unacceptable for this type, even under VMC. The use of 160kts to 4DME is tolerable in VMC or IMC and can be accommodated within our SOP's, but is not acceptable under LVP's. 150kts from G/S capture to 4DME would be do-able as we could take flap 30 as per SOP's.

How many extra movements do these highly undesirable procedures create at ###?

*We have been advised that the increased traffic separation required for LVPs make speed instructions of the type described in this report unusual. More generally, instructions to maintain airspeeds of 160kts or more can preclude a stabilised approach being flown in some aircraft types and the analysis of operational flight data prompted one UK operator to seek an agreement on approach procedures at one UK airport to minimise the number of non-standard, rushed/unstable approaches.*

*The fact remains, if you are not comfortable with an ATC speed request in the prevailing conditions, decline it as early as possible and state the maximum speed permitted by your SOPs.*

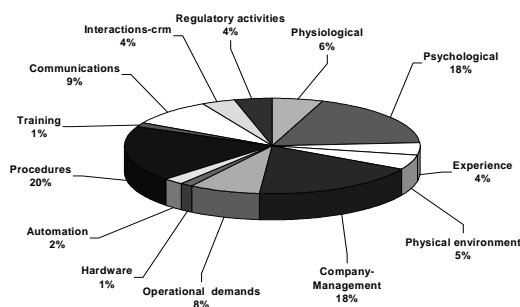
## FLIGHT DECK REPORTS

Flight Deck Reports received in Period: 47

Key Areas:

### SEPARATION VS STABILISED APPROACH

Number seven in the hold waiting for Runway Visual



Range (RVR) at ### to increase. One aircraft diverts and

\*\*\*\*\*

### ATIS INFORMATION

Arrived in the LAM hold at the end of the queue to land at LHR after the night landing slot restriction.

Approximately 20 minutes holding was required, so I checked Stansted (STN) ATIS although the airport could be seen from the hold.

The first broadcast said ATIS would be available after 0550Z. Eventually this changed to say ATIS would be available after 0650Z.



Finally landed at LHR and when driving home heard on the radio that a Korean Airlines 747 had crashed on take-off from STN and that the airport was closed.

It would have been helpful if this information could have been on the STN ATIS (i.e airport closed).

***The reporter's comments were brought to the attention of both NATS and AAIB.***

***The information broadcast on the Stansted ATIS during the period of closure was one of the points covered in the AAIB/CAA(SRG)/NATS Accident Debrief and it has been agreed that should a similar situation arise, information on the closure would be broadcast on the ATIS.***

\*\*\*\*\*

### **CONFUSING DEPARTURES**

There are two Le Bourget departures that are identified in a manner that can lead to uncertainty as to which departure should be flown. In fact the naming and placement in the Approach Charts for the airfield almost guarantees confusion of the two sooner or later. The two are LAGIL an easterly departure, terminating at LAGIL and L'AIGLE, a westerly departure terminating at LGL.

It is obvious that the two go in opposite directions, but sadly this fact is no longer a cue when re-routing is a normal practice, and we have become accustomed to departures (and arrivals) that go in directions completely opposite to that expected.

Ensure that any uncertainty is resolved with ATC, by using the full phonetic identifier before becoming airborne.

***CAA (SRG) International Services Department have agreed to represent this concern.***

\*\*\*\*\*

### **CALLSIGN CONFUSION**

Here is another one for you - I wonder if CHIRP could exert some discreet influence.

My present company uses four-figure flight numbers. Sometimes these numbers are also used as call signs and sometimes we are allocated an alphanumeric call sign, consisting of 2 digits followed by either one or two letters, e.g. 12A or 34BC.

Our company instructions require a Crew Report (as distinct from a Safety Report) to be submitted when callsign confusion or potential callsign confusion might exist. Several have been submitted, but very little has happened. The potential confusion arises because a large proportion of our flights are within the UK FIR. Nearly all these flights are allocated an alphanumeric beginning with the same number. So at any one time on any one

frequency it is common to hear (for example) 12A and 13A, or 12B and 13B. Even the less similar callsigns still require care; say 16R and 16Q. Similarly, every day the 1232 and 1236 depart within a few minutes of each other for European destinations, respectively, also returning at similar times as the 1233 and 1237. The 22AB passes the 23AB to and from a European destination every day, on the same frequency.

The company's response to this has been a shining light of how not to apply CRM principles. The person concerned replied to the effect that the problem was "not his fault" and that the range of callsigns from which he could choose were pre-allocated by the company. There seemed to be no interest in actually talking to the people concerned within the company to effect a change! Even with two numbers and one letter, the number of potential permutations of callsigns is 2,600, with two letters and two numbers we have over 6,000, so why do we have to make do with so many that start with the same number, sound similar or are appalling tongue twisters? How many departures out of ### every day using these callsigns? Answer, under 40! (OK, I know that other UK bases have to be considered too)

I really do despair over achieving what would be such a simple and zero cost change to improve safety. I feel that it is just a matter of time before someone takes someone else's clearance and an incident occurs. Even at best, it has us needlessly on edge for a large part of the time.

Perhaps a word from CHIRP would persuade those concerned?

***The subject of Callsign Confusion has been examined by NATS in the Aircraft Call Sign Confusion Evaluation Safety Study (ACCESS). The ACCESS report is due to be published shortly and is understood to contain recommendations to address the type of problem highlighted in this report.***

\*\*\*\*\*

### **FULLY RESTED?**

We were rostered to operate a round trip to the Eastern Mediterranean reporting at prior to 0600 hrs local time. It became apparent the previous evening that the aircraft had a technical problem and was running late. Operations were obviously aware of this and the fact that the planned schedule would probably be close to the maximum Flight Duty Period. At around 0300 hrs, I was telephoned at my home whilst still asleep and told that as the aircraft was running late the reporting time had been delayed by thirty minutes.

This obviously changed the maximum permitted Flight Duty hours for the upcoming flight. I believe this to be an infringement of the CAP but since this incident it has been suggested to me that the possibility exists of an

agreement with the CAA to allow certain companies this protocol.

I am writing to see if this matter can be resolved. As I understand the matter, a telephone call of this nature constitutes a commencement of the duty period. I would be grateful if you could let me know the correct interpretation for future reference.

***This report was forwarded to Capt Doug Akhurst, Head Flight Operations Department CAA (SRG) who provided the following statement:***

The CAA has not approved any protocol that will allow operators to employ the procedure described by the reporter.

However, although a telephone call received during a person's Rest Period does not constitute a commencement of a Duty Period, it is nevertheless unreasonable for the operator to make such a call, at night, when the pilot is expected to be asleep, except to initiate a new, full Rest Period. A call such as the reporter received can never be regarded as an acceptable practice.

\*\*\*\*\*

### **DUPLICATE INSPECTIONS - PILOT STYLE**

On two occasions recently I, as the operating pilot, have been asked to sign for a duplicate inspection following routine maintenance at the helicopter's operating base. This appears to be happening on a regular basis and would appear to be illegal.

I think that it would be helpful for others in the same situation to know where they stand. It is obviously cheaper for the maintenance organisation to send one engineer not two but nullifies the reasoning behind a duplicate inspection on a flying control, i.e. two people who know what they're looking for - not one and a pilot!!

***BCARs Chapter A6-2, Maintenance of Aircraft, gives the overall requirements for duplicate inspections at Paragraph 10.***

***In the particular case reported the relevant subparagraph is 10.3.9. This states that a pilot or flight engineer, licensed for the type of aircraft concerned, may complete the second part of the duplicate inspection, should a minor adjustment of the "Vital Point/Control" system be necessary when the aircraft is away from base. Authorisation has to be granted by the responsible JAR 145 Approved Maintenance Organisation, if the aircraft is being used for the purpose of Commercial Air Transport.***

***In the instance cited, it would appear that the procedure was irregular on the two counts underlined.***

\*\*\*\*\*

### **AN ERROR - TOLERANT DESIGN?**

During the past six months or so we have seen two new pieces of avionics on our flight deck, TCAS and 8.33 MHz radios. I believe that the type of switches on these boxes is a potential hazard to flight safety.

TCAS:

There is a small rotary switch to change the range on the TCAS (VSI) display. When turning the rotary switch it is easy to move the vertical three-position switch above, which controls the selection for transponder encoding. The three choices are ALT 1, OFF and ALT 2. With OFF selected ATC see no transponder altitude readout and the TCAS display shows OFF. The three-position vertical switch is just too easy to change selection.

VHF Communications boxes:

In particular the No. 1 VHF, our usual one for communication with ATC - although VHF Box 2 is to the same design. A small vertical (TRANSFER) switch of similar design to the problem one on TCAS is used to switch between active and pre-selected frequencies. During a recent climb-out from ### we had been transferred to the second London sector which was very busy, and were being asked for various headings/expedited climbs. The First Officer was using the GNS-XLS to enter the required heading. This required him to reach across the cockpit to do so. I think we had been at FL 170 for a few minutes and were watching the TCAS display (we were IMC) because it was so busy. We then had a call to return to our second London sector frequency, the one I thought we were still using!! On so doing we heard a very busy controller asking another aircraft to relay a call to us to expedite a climb! When reaching across the cockpit I think that either the First Officer or I had knocked the TRANSFER switch and had unknowingly transferred us back to our previous sector frequency.

The ease with which these mistakes can be made is almost as frightening as the possible events that could follow such an error. Why these switches are not small flat rotary ones with positive detents beats me.

***The reporter's concerns have been passed to the aircraft manufacturer.***

\*\*\*\*\*

### **UNDOCUMENTED FREIGHT**

***The potential dangers inherent in the carriage of undocumented freight on a routine basis are all too obvious. And yet ...***

Recently, while carrying out the pre-flight inspection, I noticed an item of freight in the forward cargo hold. Later, when the load sheet arrived just prior to departure there was no mention of any freight on it and no documentation regarding the item in the hold. We

asked the gate representative to query the situation with the baggage handling personnel and also contacted Operations to check on the freight. When Operations subsequently responded they said that they were not aware that we should have been carrying any freight and that since we had no documentation and it was not listed on the load sheet to have it off-loaded.

If I had not noticed the item on my inspection (purely fortuitous that no passenger baggage had been loaded to conceal the freight package) we would have departed with this item incorrectly on board and not been aware of it. The security implications are obvious.

What concerns me is that I can think of at least six occasions when I have actually carried or would have carried unaccompanied baggage or unauthorised freight. Each time we have discovered the offending item (whether before or after the flight), it has been a purely accidental or fortuitous discovery.

This situation leads to the important question as to how many times do we actually carry unaccompanied baggage or unauthorised freight and we don't discover it? We simply arrive at our destination and depart with no knowledge of what has happened. The ground handling staff in the arrivals hall discover it (normally on the baggage carousel) then send it on to its destination (either via another aircraft, if it's in the wrong airport, or taxi to the appropriate address).

The Company does follow up on those incidents that are reported. But the evidence suggests that we are carrying items in the hold that should not be there on many more occasions than either the company or flight crewmembers are aware.

Why doesn't the Company require the Handling Agents to file a report every time they discover an item of unauthorised freight or unaccompanied baggage and eliminate this unsafe practice?

***Why not indeed.***

\*\*\*\*\*

### **RAMP SAFETY - ANOTHER ASPECT**

Most hazards can be reported via my company ASR scheme. However, this particular issue falls outside the usual "flight safety related" scope of most reporting systems and perhaps it is outside the remit of CHIRP. Having said that, this is such a serious threat, in my opinion, that it can't be ignored.

At ### Airport, staff access from the terminal building to the ramp in the area of stand ## is a potential killer: One walks from behind a wall, straight into the path of traffic moving along the road, perhaps only a foot from the side of the building. Those in the know stop and peep cautiously around the corner before stepping onto

the road. I am convinced that one day, someone will die, through a moment of inattention.

The solution to this problem would be either to divert the road, or to install a barrier, forcing pedestrians to move to the left, away from the blind corner, before walking onto the road.

***The Reporter's concern was represented to the Airport Authority, who promptly investigated the report and acknowledged that a problem did exist with the access after conducting a safety/risk assessment. Pending a long-term solution to segregate the road and the ramp access, safety barriers were installed.***

***This airport, like most others in the UK, has a local reporting scheme for this type of issue and emphasised that any safety concern reported directly to the airport authority will be investigated.***

\*\*\*\*\*

### **EXPECT THE UNEXPECTED**

***This incident was reported under the Police Flight Safety Data Scheme (Bulletin No 10, Second Quarter 2000) and is reproduced with their kind permission:***

It was raining as usual, low cloud with strong wind from the SW. Our helicopter was sitting outside getting wet. The rain had just reduced to a light drizzle when a report came in of a Road Traffic Accident with the driver running off across fields. The incident was only a short distance so we decided to see if the cloud base would allow us to attend. Quick start, wet seat, wet overalls, but putting discomfort to one side I continued with brief normal take-off etc. The windscreen started to mist-up so I selected the de-mist; this was the first de-mist of the Autumn. After three minutes of frantic window wiping I realised the cabin was like a sauna and the misting was getting worse.

To check that that de-mister was operating correctly I asked the observer to remove his glove and check the airflow.

We found that the heater/demist control valves were reversed and in fact we were blowing hot air into the wet cabin and not over the windscreen. Operating the cabin heat valve cleared the screen; by this time we had decided to return to base due to low cloud.

Back at base I checked that in fact the knobs were in the correct sense so the fault must lie under the floor; I was glad it hadn't been a night flight!

The lesson - check it before you need it.

## **FLIGHT DECK COMMENTS**

**FB54 - WAKE TURBULENCE**



I operate a twin turboprop in the 'Medium' Wake category. Several years ago my company issued a Notice to the effect that we should treat 757's as 'Heavy' in the light of, then, recent incidents and whilst the CAA carried out a study. Later, this was withdrawn and replaced with a one saying that the CAA had finally decided the 757 was a 'Medium' (for departures).

I have never been happy with this, as there appears to be much evidence to the contrary. So, my solution is simple and effective:

I ALWAYS treat 757's as 'Heavy'. To ease the process, if I see a taxiing 757 that I think may be directly in front of us, I always inform ATC I will require my two or three minutes separation, depending on the take-off point. This gives them the time to alter the departure order if necessary. We usually use an intersection, so it causes fewer problems than you may think.

Even if I am running late, I am happy for my departure being delayed a few minutes more in order to avoid a potentially serious incident.

\*\*\*\*\*

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

*The latest CAA (SRG) Flight Operations Department Communications have been issued since April 2000:*

**7/2000**

- 1. Letter of Intent: Intention to Amend the Air Navigation (No 2) Order 1995 to Enhance the Safety of Public Transport Helicopter Operations at Night

**8/2000**

- 1. Cosmic Radiation

**9/2000**

- 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

**10/2000**

- 1. IFR Capable Helicopters: Unexpected Failure of De-selection of Autostabilisation Systems and the Consequent Effect on Handling Qualities

\*\*\*\*\*

**FB54 - FUEL PRESSURE**

One of the good things about the airline with whom I am employed is that we, as Captains, are never put under any pressure whatsoever about how much fuel to carry. This is as it should be and I never cease to be amazed at reading articles like 'Fuel Pressure' in Issue 54.

\*\*\*\*\*

**FB54 - ANOTHER CASE OF HIGH PRESSURE**

In the report "Another Case of High Pressure" the air traffic controller asks why the pilot descended below the

Minimum Sector Altitude (MSA) when asked to do so by ATC. "MSAs are published on the approach plates, so why didn't the crew query the altitude given."

I have heard this one once too often. Pilots descend below MSA on almost every flight they make. It is a matter of routine; you would not get into Alpine airports any other way. Even in the UK, at one Regional airport for example, the MSA is 3,500 ft and the usual clearance is to 1,850 ft. Some pilots declare the radar vectoring minima to be a better rule to follow, but not only are the jagged edges of these areas difficult to follow in relation to the aircraft position, but many airports regularly descend the aircraft in IMC below the radar vectoring minima.

I noticed a recent incident report that blamed the crew for making a descent below MSA. Yet I seem to remember making many radar vectored right-base turns onto Runway 24 at ### that were well below MSA in IMC - simply because the controller wanted to place the aircraft on a quick seven-mile final.

There are no clear rules as to whether one should follow the clearance below MSA and while making a mental picture of your position in the circuit can assist in making such judgment, if there are any other distractions going on at the time, one is very likely to follow the instruction.

*If a pilot has any doubts about complying with an instruction to descend below the MSA, he should refuse to accept it and explain to the controller what his concerns are.*

\*\*\*\*\*

**FB 53 - RAMP SAFETY**

I agree with the editorial comment "Ramp safety" in Issue 53. At the UK and European airports, from which my company operates, it amuses me that I, who is hopefully aware of the perils of the ramp, must wear my Hi-Vis jacket when walking to the aircraft upon pain of a hefty fine or removal of my pass. However, passengers may walk the same ground without a coat and often unescorted.

On one occasion the First Officer and I watched a lady passenger leave a UK Regional Airport terminal alone and board an empty aircraft next to ours despite us blowing horns, waving and flashing lights!

Yes, the ramp rules need looking at.

\*\*\*\*\*

**FB 54 - RAMP SAFETY**

I too admire the trust of ground handling personnel who willingly defy a 70 tonne jet as it pulls onto the gate. I

see no advantage in being so close to the nose, especially in the blind spot. A brake failure could have a potentially fatal result. There are no extra points for getting the airplane chocked before the engines have wound down and anyway, most companies require the crew to personally verify (visually) that chocks are in place before releasing the parking brake.

Perhaps better education of ground crew would be in order.

***Shortly after FEEDBACK 54 was published, we received the following comment from Peter Cox, BALPA Representative, Airside Safety Management Working Group:***

Reference the item 'Ramp Safety' on page 8 of FEEDBACK 54; this was discussed today at the CAA Airside Safety Management Working Group. It will be addressed in the next amendment to CAP 642 *Airside Safety Management*, and in the forthcoming HSE document *Aircraft Turnround - A guide for airport and aerodrome operators, airlines and service providers on achieving control, co-operation and co-ordination*.

In the meantime, the point has been noted by the handling agents' representative on the Working Group.

\*\*\*\*\*

### **MORE ON AIRPORT SECURITY**

***The following reports have been selected from our continuing post-bag on this subject:***

**(1)**

Just some general comments rather than a specific incident. I work for one of the larger UK airlines. We operate from 10 UK bases (i.e. some pilots based there) plus a similar number of smaller UK airports where no pilots are based. It is commonplace for one or both pilots in any crew not to be locally based.

More and more UK airports are introducing local security procedures. These range from the merely inconvenient (if you are not based there) where a locally distributed swipe card is required to access various crew channels, doors, gates etc, to the downright awkward, where you cannot get back into your aircraft, or out of a jetty airside, without an access code.

The sort of incidents you have highlighted in recent CHIRP reports have occurred to me and my colleagues lots of times. Airport authorities MUST recognise that it is just not good enough to cater for locally based aircrew, and not those based elsewhere. We cannot have every swipe card, access code, or security procedure knowledge for every airport (although my company makes a valiant attempt to give us this knowledge).

Whilst we ALL wish to maintain the security of our aircraft, the balance has tipped far too far towards making life difficult for aircrews, not making aircraft secure. A typical example (although not directly safety related): One regional airport has introduced a new crew route to bypass immigration on arrival. It involves swiping your I/D card then entering a code, which allows the first door to open. We then go through the (heavily spring loaded) door with flight bags, cases etc to a second door. Here we just have to identify the secret wall-mounted switch and press it while simultaneously opening the door. At the end of a long day all of this is terribly irritating so as a result, no one bothers. We just go through immigration with the passengers. It's so much easier.

\*\*\*\*\*

**(2)**

I refer to the "Keypad Lockout" incident on page 7 of FEEDBACK 54. Apart from the obvious difficulties that the writer encountered, what about the rather more serious safety implications of a locked door on the airbridge? If the airplane or airbridge area need to be evacuated, say due to a fire, the delay in finding a valid ID and remembering an access code, particularly when under stress, could lead to consequences that don't bear thinking about.

Also, regarding security, I'm told that a recent security directive at my home airport does not allow for aircrew to carry Swiss Army knives. So how do we open the engine oil-can down route ... by telepathy? Methinks the tail is starting to wag the dog as we "run the gauntlet" just trying to get to work.

\*\*\*\*\*

**(3)**

Whilst not directly concerning flight safety can someone please explain why, at ###, air crew are required to show their security passes when LEAVING airside for landside after a duty. I believe this is the only airport in the country (including BAA airports) where this is a requirement. It always causes accusation of "Jobsworth" etc from crews particularly after a long flight.

Perhaps the question should be asked - what if a crew member has lost his/her pass during a duty - will they be detained airside for the rest of their lives?!

***A summary of the reports received on airport security, including a brief analysis of the key points and the airports involved, has been passed to the Operations sub-committee of the National Aviation Security Committee, chaired by a senior official of the DETR. The same information has been made available to the Airport Operators' Association (AOA), and is being considered.***

*The specific subject of keypads, their operation and the safety implications in the event of an emergency on stand has been brought to the attention of the relevant Airport Authority and, we understand, is currently the subject of a review. We will give further up-dates as more information comes to hand.*

*After a Company investigation, prompted through CHIRP, without compromising the reporter, it is understood that appropriate measures have now been taken to correct the reported situation.*

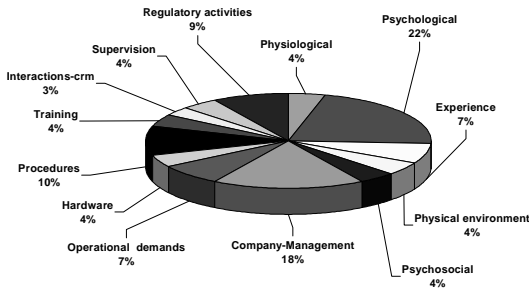
\*\*\*\*\*

**FMC DATA UPDATES**

**ENGINEERING REPORTS**

Engineering Reports received in Period: 17

Key Areas:



**SOME 'BETTER' RESULTS CAN BE UNACCEPTABLE!**

*In attempting to achieve better results, some individuals may become over zealous and disregard basic good management practice and regulations.*

The airline I work for is embarking on a major cost cutting exercise. In recent months the operation has undergone major changes. New management has been installed and this has resulted in unacceptable managerial techniques.

Staff have been required to work very long hours, one member in particular has had to work split shifts, finishing work at midnight and then be back at work at 04:30 in the morning, this has been required on numerous occasions. Another staff member has been continually pressured about his work effort, this has caused him to suffer from high blood pressure.

The engineer in charge has been undertaking illegal certification of our customers' aircraft solely in an effort to save money. He has been advised that it is illegal to certify third party aircraft without the appropriate authorisation, he has chosen to ignore this information with a total disregard for the CAA licence and Company authorisations.

I'm writing this to you because passing this information directly to the Company could cause pressure to be placed on me by other managers.

I am writing to express my concern on two matters about Flight Management Computer (FMC) navigation data which is updated every 28 days into FMC computers on third party aircraft I work on.

1. It is becoming a problem with the operator not supplying the disc in time to allow updating: this means the aircraft are flying BR nav routes with out-of-date nav data. My main concern is the Inertial Reference System (IRS); present position is updated using auto-tuned Distance Measuring Equipment (DME) stations, the auto-tuning being controlled by the out-of-date nav data. Although I realise the information is probably still correct we cannot be sure.

If a false DME fix is obtained or "No Fix" can be found, the IRS could be out of position with the crew having no way of knowing as they will see the same IRS position as will the auto pilot: flying waypoint navigation.

The aircraft Minimum Equipment List (MEL) prohibits BR nav operation with FMC unserviceable but neither my company's Quality department nor the operator see the out-of-date "nav data" as an unserviceable FMC and continue to operate the aircraft normally having raised a "B Defect".

2. Due to no FMC nav data disc being available from the supplier to enable updating, I was presented with a disc which had been used before and then overwritten with the latest data via e-mail from the supplier, via the Internet.

I refused to load this disc but was presented with a new disc, the following night shift, with the same information loaded via the Internet, this time certified by Chief Training Captain that the information was correct plus an assurance in writing by our Quality Manager that he was satisfied with the disc.

The disc was loaded and no problems with verification were found, although crews reported several arrivals/departures were not available.

I am concerned that the information is obtained by an insecure route without any way of checking its content except by allowing crews to operate the information on the aircraft.

I am interested in your thoughts on both these items as myself and other engineers are concerned at both my

own company and the operator's disregard to the importance of this "nav data".

***We contacted the CAA with these queries. Taking the latter point first, there are considered to be sufficient safeguards built into the transmission of this data via the Internet for this practice to be acceptable.***

***With regard to the up-dating problem, the CAA are considering a form of words that can be included in an MMEL which will permit continued operation, in the event of a delay in receiving the latest data, in specified circumstances.***

\*\*\*\*\*

## **HEALTH AND SAFETY AT WORK**

***How often have you yourself or colleagues 'soldiered on' when not really fit for work? The following is one Engineer's salutary experience from which we should all learn, embracing many of the problems reported to us in one incident, with near lethal consequences.***

My account of a potentially fatal experience starts on my return from a short break where I had picked up an extremely virulent cough and cold.

My first late shift of four, as duty engineer, working alone, started mid afternoon and was due to finish at midnight. While getting ready to leave I wondered whether I was really fit for work. My cough and cold had become worse and with hindsight I should have phoned in sick. Phoning in sick, however, is a problem. It is all but impossible to bring in another engineer due to the pass office requiring 24 hours notice to issue a pass. The other alternative is to call in one of the other three engineers and disturb his rest day. I decided to tough it out. Monday's shift was uneventful. The night stop aircraft was only 20 minutes late and I was back home at about 01:00. I went to bed and had a disturbed night coughing.

Tuesday's late shift saw me at home at 02:30. The night stop aircraft had been over two hours late and required a daily inspection and some minor maintenance. My cold had not improved and I was feeling quite tired.

Wednesday's night stop aircraft was only 30 minutes late but arrived with a serious engine defect. As last shift duty engineer I was obliged to perform the necessary troubleshooting and defect rectification. Engine runs were required and I called in an off-duty engineer to assist. We finished the work 2½ hours after shift finish time and discussed our dislike of what we see as enforced overtime.

By Thursday I was exhausted. An aircraft arrived requiring a repair and I carried out the necessary maintenance requirements. While completing the paperwork in the flight deck the captain told me that the airbridge, "my only exit", was being removed from the

aircraft. I opened the left-hand passenger door to ask for the airbridge to be repositioned but the escape slide had already been armed. One of the cabin crew attempted to stop me opening the door, however, I saw it was too late, the door assist bottle had already fired.

The slide inflated and immediately punctured on the airbridge. This left me teetering on the door threshold with a considerable drop onto a large steel electrical supply box below.

I was extremely shaken, but luckily no one was hurt, cabin crew, the people on the airbridge or myself. My shift, however, was not over. I was now expected to perform maintenance tasks, remove the slide, function the door and certify the aircraft fit for flight. I continued working until 03:00. The work included another aircraft returning to stand with a serious defect. I diagnosed the problem, rectified it and released the aircraft for flight. I arrived home at 03:45 knowing that my first day off would be spent sleeping and the second trying to get my body ready for an early start the day after.

Several questions arise from this incident:

Should it be made easier to take a few days off sick without encroaching on your colleagues' free time?

Did my tiredness contribute to the error of not checking if the door was armed? If so, is my shift pattern safe, considering the amount of 'compulsory' overtime involved?

Is it common practice for operators to arm their slides on stand? If so, I have graphically illustrated that correct slide deployment is unlikely to occur and impede aircraft evacuation in an emergency.

Are all airbridge operators aware of the dangers of accidental slide deployment?

***A range of issues is highlighted in this report.***

***Concerning fitness and fatigue, there are responsibilities placed on both the individual and the organisation under Airworthiness Notice 47. At outstations, where manning levels are tight, additional pressures are put on the individual not to take time off knowing further burdens will be placed on colleagues. From an organisational standpoint, matching manning with workload is much more difficult than at a base. Add to this the difficulty in finding qualified engineers then there must be a tendency to provide minimum manning. This then begs the wider questions that recruitment and training of engineers are woefully inadequate.***

***Turning to the operating procedures for the opening/closing and arming/disarming of doors, the vital importance of observing company procedures is amply portrayed by this incident.***

\*\*\*\*\*



## ENGINEER TRAINING AND ORALS

Some time ago a new starter was placed in my team after about a week in the company, due to being found unsuitable to work on the ramp, with a view to being given an opportunity to gain experience on a 'Majors' line. I soon found he had no tools and he was forced to buy a tool kit. Other members of the team and myself started to doubt his ability and competence. When this person asked me to fill out his first month's assessment, I played for time to consult my supervisor. We then explained what would be contained in the written assessment. The net result was he was found other employment with the company at the end of his probation. A very unpleasant time for the team.

What sticks in my mind was his efforts to sell his tools when he left the hangar. The main reason he was taken on was he had passed the written (exams) of all his "X" licences by taking a course at College. He would have soon been found out at an oral examination, which JARs claim serves no purpose.

I had support from both management and the Trade Union, but some criticism from others outside the team. I felt it was part of my job.

CAA (SRG) Response from Jim McKenna, Head of Engineer Licensing:

Clearly, where there are noted difficulties or knowledge shortfalls with students who have been seconded for practical training from training colleges or schools, it is important that the matter is brought to the attention of the college or school concerned, or the Engineer Licensing Department of the CAA. There was always a risk that the oral, contrary to the expectations of the reporter, would not pick up the anomaly.

Unless the issue is brought to the attention of the CAA the situation cannot be addressed.

## ENGINEERING COMMENTS

### FB53 SECURITY

Engineers have to have an individual pass for each airport, flight crew have one that is recognised by all airports. Are engineers considered to be a greater risk than flight crew? No, it is because we are an easier target than the aircrew from which to make extra revenue. The aircrew would not tolerate having to carry passes for each airport, neither would the airlines, engineers on the other hand are not considered to be as important (actually overheard in an airport security unit!) and therefore have to 'put up with' having their access restricted.

It does not stop there however. Now the vehicles have to have an apron permit for each individual airport. I am based in one airport but regularly have to access another

airport. Until December 1999 this was not a problem, the base airport vehicle apron permit was accepted as proof of meeting the required insurance and safety standards. This is no longer the case. The airport authorities have decided that an apron permit is required for each airport, without any notification I may add. The reason for this can only be commercial, the revenue obtained from issuing individual permits. What other justification can there be?

We have a standard airport driving permit yet it is only valid for the airport for which it is issued. Yes, it can be validated for other airports after having a familiarisation course, but it is not practicable for the engineer to go to each airport that they may have to attend in order to have their driving permit validated. We have standard markings on the airports that anyone with a driving permit is aware of. We do not have to have our driving licences validated for the next town we drive in so why do we need it for each airport?..

These restrictions are now extending into all aspects of airport access. A valid fire training certificate from another airport is no longer acceptable before the issue of a permanent pass. The training must be specific to that airport. This would be understandable if the information given in the training was specific to that airport, but it is not. It is the same video and brief given at any airport and is in fact misleading. At my base airport, many telephones are on a separate switchboard. Dialling the emergency number, as briefed, without adding a prefix, will not connect you to the emergency services. This has been pointed out to the Fire Service but nothing has been done about it, and the same standard brief is being given. The point that I am making is that these changes to the way we can gain access to the airports are not really for security and safety reasons, they are for commercial reasons, to generate revenue for the airport authorities.

I fully agree with your correspondent in FB54, the authorities have lost sight of the fact that without the airlines there would be no passengers to pass through their out-of-town shopping malls.

I am tired of arriving at an airport to recover an aircraft and wasting considerable amounts of time trying to gain access, having to leave my vehicle landside and having to be escorted. Please give us what we need. ONE pass, ONE apron permit and ONE driving permit valid for ALL UK airports!

*From our postbag and some of the comments published earlier, the assumption that flight crews have a universally recognised pass and have unimpeded access to all UK airports will be seen to be wide of the mark! However, several correspondents have made the same comment concerning security being used as an excuse for creating additional revenue-earning opportunities.*