

# FEEDBACK

Issue No: 59

July 2001

## EDITORIAL

### CABIN CREW PROGRAMME

*Confidential reporting is being made available to cabin crew members on a one-year trial basis with effect from 1 July 2001.*

*This initiative has the support of CAA (SRG) and a Flight Operations Department Communication (FODCOM 8/2001) has been issued containing details of the trial, which will be limited to safety-related issues. Unlike the main Programme, we are not able to inform cabin crew members directly of the trial, so please help to spread the word.*

*We intend to publish a separate newsheet for cabin crew members, but will include some items with flight deck interest in future issues of FEEDBACK.*

*The following report is one of a number we have already received:*

#### HASTY DEPARTURE

I was the In Charge Crew Member on board a wide-bodied aircraft.

The Captain had informed me that it was to be a very short taxi to our take-off point, so I started the departure sequence of doors to automatic and showing of the safety video at the first opportunity.

As the safety video finished my cabin crew started to check that passengers were seated and seat belts fastened etc. The three bells signal from the flight deck came immediately. I was located at my supervisory position waiting for the reports from my senior cabin crewmembers to come in. The interphone rang and it was the crewmember seated next to my take-off position. I was informed that the flight crew had rung down to say they were taking off immediately. I had not received the all clear from the cabin crew and had neither visited nor given the final interphone call to the Captain on the flight deck.

I made a PA announcement asking senior crewmembers to report their checks to me immediately. As I did this, the aircraft started its take-off roll. I ran for my seat, as did other cabin crew at their various locations. The aircraft was at quite a steep angle by the time I reached my seat and struggled into my harness.

Fortunately no one was injured and no passengers were unseated at the time of take-off.

I spoke with the Captain after initial climb and he informed me that ATC had advised him to take off as another aircraft was on 'short finals' and would hit us if we did not go immediately.

I have many years experience as cabin crew and I would judge that in this situation the Captain should have informed Tower that we were not ready to depart and that the aircraft on final approach should 'Go around'.

I am lucky that I did not decide to visit the flight deck after the initial three bells signal as I may have been climbing the staircase as we took off. It is also lucky that no passengers were unseated or in toilets as can happen.

*Consider whether this cabin crew would have been able to discharge their safety responsibilities in the event of an aborted take off and emergency evacuation?*

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#### ATIS CONFUSION

*Earlier this year we received a number of reports in which pilots approaching London Heathrow from the North had experienced difficulty in receiving the LHR Arrival ATIS because of interference from the Edinburgh ATIS. These incidents occurred shortly after the EDI ATIS frequency was changed to the same as that for the LHR ATIS. The reports were forwarded to the Directorate of Airspace Policy.*

*We have now been advised that the EDI ATIS transmitter has been changed to a new frequency.*

## Confidential Human Factors Incident Reporting Programme

CHIRP, FREEPOST (G13439), Building Y20E, Room G15, Cody Technology Park, Farnborough GU14 0BR Tel:(24 hrs) +44(0)1252 395013 Fax:+44(0)1252 394290

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## CHANGE OF ADDRESS?

If you receive **FEEDBACK** as a licensed pilot/ATCO/maintenance engineer or medical examiner you will need to notify the relevant department of the CAA of your change of address and not CHIRP, details as follows - [Relevant Department], CAA (SRG), Aviation House, Gatwick Airport South, West Sussex RH6 0YR

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## REPRODUCTION OF FEEDBACK

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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.

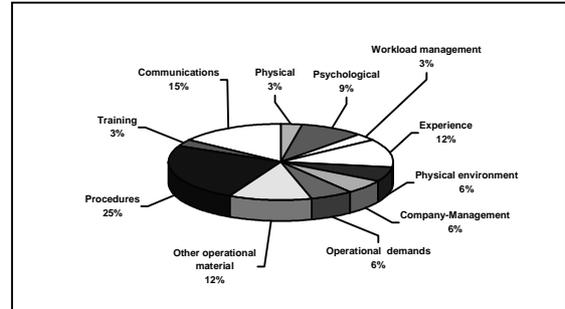
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# ATC REPORTS

ATC Reports received in Period: 12

Key Areas:



## ALTERNATING RUNWAYS

Prior to a recent change, the landing runway at night at Heathrow was preferably westerly alternating week by week between 27L and 27R. Between 0600 hrs and 0700 hrs, if the delay was in excess of 10 minutes up to 0630 hrs, or in excess of five minutes after 0630 hrs, both runways could be used. This was open to misinterpretation - did the delay include the holding time spent waiting for 0601 hrs to tick around? (Before 0601 hrs only exemptions can land). No it did not, we gave the first landing aircraft an EAT of 0554 hrs so that he landed hopefully at 0601 hrs. There were other complications like landing 09R in the morning when departures were starting to appear. Anyway we thought we had hacked it - until the change.

The Government then revamped the night preferential runway procedures. Instead of a choice of two runways, all four ends will now be used alternately week by week depending on the weather, although this finishes at 0600 hrs and we revert to the old system. (I think). Before 0600 hrs this can change depending on whether a non-exempt departure departs before or after 0430 hrs. The departure will always use a westerly runway and after 0430 hrs an arrival will have to fit in and maybe use a westerly runway as well, even if it's easterlies for landing. For exempt departures, the magic time is 0545 hrs. Before 0545 hrs the departing aircraft fits in with the landing aircraft. After 0545 hrs, the rotation of runways ceases and we use the westerly runways, as does the departure.

If anyone has followed me so far then the Government may have a case, but hopefully you are as bemused as I am.

Most of this is, of course, counter-productive to expediting traffic flow and probably to safety as well. 40 'heavy' aircraft land here between 0600-0700 hrs. If we land on one runway they are spaced four miles apart and obviously an odd blemish might appear (especially

during darkness) and a Go-around results - quite safe, but an added unit of noise. Sometimes because of the delays we use both runways. This is much easier, spacing does not have to be quite so accurate, you can even parallel during daylight. Result, no delays, the tower controller does work harder, but he does not have any "tight situations".

The Tower is under great pressure to use the proper landing runway. Recently at night we should have been using 09R for landing, but circumstances required 09L to be used. At about 0630 hrs it was agreed to revert to landings on 09R. The first aircraft in the sequence positioned to 09R called at around six miles saying that vehicles were still on runway 09R and could he switch to 09L. He couldn't, the last aircraft positioned to land on 09L was just three miles ahead. The aircraft positioning to 09R was asked to maintain 1,500 feet and turn right for a re-position - quite a few units of noise there. The pilot was very good about it, asking me if it was something to do with COMIC RELIEF. He was not a long way off the mark.

My whole purpose of this CHIRP report is to make pilots aware that when arriving and asking for the runway in use especially before the ATIS starts, there may be a delay in allocating the runway, especially if there is departing traffic anticipated.

This is not "having a go" at one's employers, as their hands are presumably well bound, but at the new regulations. I hope CHIRP can contend with this.

***NATS provided the following comment:***

Night preferential runway procedures were devised by the DETR, and agreed with Heathrow and TC Operations input. The following points are pertinent to the report:

Night rotation finishes at 0600 hrs.

Runway 09R is never normally promulgated for landings after 0600 hrs.

Departures do not always use westerly runways pre-0600 hrs.

Parallel approaches during daylight do not mean no delays.

If an aircraft does depart between 0430 and 0600 hrs, and use either 27L or 27R, then landing traffic also uses that runway to avoid 'opposite end' operations.

NATS has no record of the incident quoted in this report and would be surprised if it had occurred as described by the reporter. Runway selection is dependent on weather criteria. LATCC Terminal Control have issued an Instruction to simplify the application of Alternative Runway criteria".

***In their review of this matter, the CHIRP Advisory Board acknowledged that the co-ordination procedures between Approach and Tower functions are robust, but remained concerned at the apparent complexity in the new procedures and the consequent possibility for human error. On the Board's recommendation, the report has been forwarded to the Department for Transport, Local Government and the Regions.***

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**REDUCED VERTICAL SEPARATION MINIMUM**

Thursday 19 April 2001 saw the early introduction of RVSM in the London UIR. This was a fundamental change to the utilisation of airspace between FL290-410 requiring controllers to unlearn almost everything taught to them about semi-circular level allocation.

That was unless you were valid on a sector abutting a European ATC Centre, who will continue to operate at conventional flight levels until January 2002, where you would be operating in a 'mixed-mode' environment. As dictated by management, this comprehensive change to procedures warranted a 'training' programme of three hours (maximum) in an unrealistic simulator together with a couple of general, high level briefings. This familiarisation (it wasn't good enough to be called training), coupled with a 27-page instruction detailing the new procedures, apparently equipped all controllers with the capacity to use RVSM. If, however, an individual had failed to attend one of the all-important briefings, a period of observation would be required. This involved him/her observing another controller who had completed their familiarisation and who knew as much about it as the controller watching!

Pilots flying through London airspace may wish to note that they are unwittingly participating in the training sessions of ATCC staff, who are learning the RVSM procedures by picking it up as they go along in the day-to-day operation. There are no experts sat with us to offer advice or lend a helping hand or to remind us that all of our previous westbound levels are now eastbound ones. On the 'mixed mode' sectors, the old westbound levels remain westbound at the FIR boundary but then become eastbound after it, so you can have two aircraft at FL350, for example, quite legitimately flying in opposite directions.

Fortunately, the target sector flow (TSF) rates have been reduced by 15% for 14 days until we get the hang of it. The percentage reduction of the TSF after the 14 days has expired has not been issued, supposedly awaiting the controllers' reactions and requirements. Given that these reductions are designed to protect the controllers until we've got to grips with the new system, I hope that the reduced TSFs are in place for some time. I know it's not good on the delays front, but it's better than an airmiss!

Please bear with us, ladies and gentlemen, until we have time to overcome our inadequate training and find our way back to providing the high quality ATC service that you expect.

***In the follow-up to this report, it became apparent that whilst the introduction of RVSM was seen to be a worthwhile initiative, the reporter's concern about the adequacy of the familiarisation provided was shared by other ATCOs following the introduction of RVSM. The report was passed to NATS, who provided the following comment:***

The introduction of RVSM in UK airspace involved changes to a number of procedures in en route sectors but did not involve re-sectorisation. The LATCC Operations and Training sections developed a programme of briefing and familiarisation exercises on simulators to equip controllers with the skills to use the new procedures. This familiarisation package was approved by CAA (SRG).

Part of the introduction of RVSM involved the reduction of flow rates on various LATCC sectors of up to 20% for the first two weeks. After this period a regular review took place and flow rate reductions of up to 15% have remained in force.

***It is relevant to note that inadvertently reverting to a previously well-learned Standard Operating Procedure can lead to human error, even some time after the SOP change has been made. Controllers and pilots alike should remain alert to this possibility.***

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### PROVISION OF RAS/RIS

I work at an air traffic unit, which provides Radar Advisory Service (RAS) and Radar Information Service (RIS) for part of the UK. The service provided is effective and, due to the large numbers of military aircraft operating in the area, very necessary. However, my employer is actively considering the closure or at least the curtailment of these services, with the only mitigating factor being that it is hoped to link one main regional airport to the main airways system with CAS. However, aircraft operating on other routes and into other airfields would be left with a 'hotch potch' of radar services from airfields or military providers. The former would be operating without any centralised control in a very limited area and subject to radar serviceability, the latter may provide a service if their primary military task allows them the time.

This unhappy state of affairs has come about because my employer has very real worries of litigation if things go wrong. Don't forget that we attempt to separate our traffic on RAS from aircraft which may be making high energy manoeuvres, these aircraft may be squawking with

mode C or maybe not. If it is squawking we may be able to co-ordinate with its air traffic agency, but not if they are only giving theirs a RIS, as is often the case. Having said this, ours is still a far safer system, even though it may not be perfect, than everybody doing his or her own thing!

Provision of RAS has already been seriously downgraded elsewhere in the UK FIR; RAS is never given to off route traffic by one Area Unit despite a strong military presence.

To sum up I make six points.

- RAS should be reinstated where the service has been withdrawn.
- RAS and RIS within our own unit's area must remain as it is at present, unless of course it can be improved by the addition of CAS.
- The ATS provider is supposed to be a safety organisation, which looks after the welfare of all aviation, not only that which operates within CAS.
- If my employer is not prepared to provide a service because of litigation concerns, it is unreasonable for individual airfields or the MOD to be left to do the job.
- If RAS was withdrawn should commercial and scheduled traffic be operating into these airports when there is no certainty of a radar service through what may be busy airspace?
- The provision of RAS within the UK FIR should be mandatory (when it is reasonable and practical to do so).

***NATS provided the following comment:***

The classification of Airspace and the rules for RIS/RAS are the responsibility of the CAA.

NATS's primary task is the provision of Air Traffic Control Service to aircraft operating within Controlled Airspace. Where it is possible to provide further services to aircraft outside Controlled Airspace then NATS will do so, having considered issues including, safety, capacity and the likelihood of the controller being able to provide an effective service within the current rules.

***It is highly undesirable for a RAS to be withheld if the capacity exists to provide the service, since a RAS offers an additional safeguard for aircraft operating in the open FIR.***

***However, investigations into AIRPROX incidents have shown that, on occasions, controllers attempted to provide a RAS when their capacity to offer an effective service was limited by other tasks. In such circumstances a RIS, although more limited, would have been the appropriate level of service.***

*Similarly, some pilots have an expectation that a RAS will always be available to them, whereas in reality they should plan on the basis that this might not be the case.*

*If you are not clear about the availability or applicability of RAS/RIS, a copy of a recent article by Wg Cdr Mike Strong RAF - Directorate of Airspace Policy 6 - on this subject is posted on our website with the kind permission of the UK Flight Safety Committee.*

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## FLIGHT STRIPS

As 'O' date (Jan 2002) approaches, training enters its third phase (*at NERC*).

Firstly, I would point out that I am looking forward to working at the new Centre, a new modern building, in new pleasant surroundings, vertical radar displays etc, etc.

My main concern is the use of the Electronic Flight Strips (EFS); these are to be used in tandem with the current paper strips. The EFS font size is causing a lot of problems, in particular eyestrain and headaches. I passed my medical recently with eyesight better than 20/20, but within half an hour my eyes feel tired and strained and I am sure this will lead to damage resulting in the need for glasses to be worn.

This is the case for the majority of people involved. We have reported the problem but have been informed nothing can be changed before 'O' date.

I feel this must be a Health & Safety issue. I am not happy using a system that could lead to many people needing glasses.

Safety could be compromised as the figures are not clear and can be mis-read particularly under pressure with tired eyes.

I know that this 'O' date is very important for the industry, but surely the Health & Safety of the staff and the safety of the system are more important.

*The reporter's concern was passed to NATS, who provided the following response:*

The operating system at Swanwick was initially developed by a team of ATC staff and system suppliers with input from LATCC controllers. The system was prototyped at the Air Traffic Management Development Centre and has since been developed as a direct result of feedback from LATCC controllers.

Comments have been received from controllers new to the Swanwick environment regarding the legibility of text in some data display windows. These comments have been taken seriously and further prototyping work was carried out at the ATMDC in May/June. Some potential

changes to font size and background colour have been identified.

These changes will be further tested at Swanwick shortly, and a decision will be taken whether to progress the changes and over what timescale. Staff have been briefed on the process.

*The reporter's medical concerns have been made available to the Chief Medical Officer NATS.*

## ATC COMMENTS

### SPEED CONTROL - THE ATC PERSPECTIVE

(1)

(A response to the item in FEEDBACK 58 about Low Visibility Speed Control - I am an experienced operational Radar Director at a major UK airport).

The item about Low Visibility Speed Control is an extension of the frequently discussed matter of speed control. My answer to the writer is that ATC WILL accommodate non-standard speed requirements providing adequate warning is given, i.e. do not tell us that 160kts is too fast when you are fully established at 10nm with other traffic locked on behind.

A pilot does not have to "demand his right"; a simple polite advisory in good time is all we need and we are well used to crews of "light" B757s doing just that.

I would emphasise that the application of rigorous speed control is a function of the demand by airlines for the very best landing rate, especially in poor weather conditions when delays are inevitable. Given the chance ATC would gladly permit lower speeds, wider spacing and, hence, an easier life for all. However, if the writer was fielding the phone calls from his airline ops staff when the landing rate dropped below par he might understand that an easy life no longer exists for any of us involved in commercial aviation, especially in the busy terminals. I respectfully suggest, therefore, that he directs his concern to his Fleet Manager rather than to ATC.

Lastly, some pilots may not mind waiting an extra 10 seconds but in ATC that can be a lifetime - ask any busy tower controller and the guy closing from behind on final approach!

\*\*\*\*\*

(2)

I am an ATCO at a major UK airport valid in both Tower and Approach, with over 20 years experience in a variety of ATC environments military and civil, tower, approach and area.

Whereas I can understand your correspondent's concern at being asked to maintain 160kts to 4DME in adverse weather conditions, I would like to make a couple of observations:

1. He does not need to "demand his right to an early slow down". As controllers, we deal with any and every type of aircraft. Are we meant to know all their performance statistics for all configurations? Of course not - so therefore we need to be advised of the desired speeds so that we can provide the appropriate separation and sequencing to achieve our task of a safe and expeditious flow of air traffic. We are also under pressure to manage best runway utilisation whatever the conditions, (whether it be 50+ per hour or 24 per hour in LVPs).
2. Having landed safely and vacated the runway, he chose to grouch to the Ground Controller. That he chose to do so when he had completed his landing run safely, vacated the runway and had time to consider better options is completely understandable. However, especially in LVP conditions, ground control is the busiest, most complex and hardest position to work even if the R/T appears relatively quiet. It shows an unfortunate lack of appreciation of those of us on the ground trying to provide the best service in difficult circumstances, so I was not too surprised that the answer he got was somewhat unhelpful at the time.

May I suggest that a visit to a busy ATC tower working in marginal weather conditions may help understanding on any pilot's part. As your correspondent says, we are meant to be working on the same side of the fence. As ATCO's we are encouraged to know what goes on in the cockpit. It would be nice to see more than the very occasional pilot visit the Tower (and Approach).

**Contact details for ATC liaison visits are listed on Page 16.**

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### **MORE ON CLEARANCE CONFUSION (FB58)**

#### **(1)**

Your correspondent ("Clearance Confusion" in FEEDBACK 58) makes a very valid suggestion, that safety-critical clearances ("Line-up", "Take-off", "Land" etc) should be placarded on the flight deck.

It might be a sobering exercise to determine how ATC Units display the issue of such clearances on their data displays.

While a "runway bay" is used at some Units to indicate runway occupancy, I suspect that most do not differentiate between a line-up clearance and a take-off clearance.

Because of the absence of specified strip marking/positioning to indicate the two different situations at this Unit, my own method is to write in the current hour once take-off clearance has been issued, followed by the minutes when the aircraft is airborne.

\*\*\*\*\*

#### **(2)**

I am a controller at a major Regional Airport of many years experience, a Deputy Watch Manager and a Local Competency Examiner. I regularly take familiarisation flights and attend simulator sessions whenever possible with our local airlines, and am still somewhat surprised that modern flight decks do not have something along the lines of the clearance placard as suggested by your reporter. I remember during my early ATCO training in 1981 taking familiarisation flights with Dan-Air on the B727 and seeing the flight engineer operating a slide-button checklist located behind P2's right shoulder. All the sliders to one side meant checks complete plus take-off clearance received; all the sliders to the other on approach meant checks complete and landing clearance received.

As a tower controller I frequently get asked "Confirm we're cleared to land?" a minute or so after having issued a landing clearance, and this then worries me. Can the pilots see another aircraft on the runway, which I've overlooked? Has a vehicle strayed onto the runway since I scanned it prior to issuing the landing clearance? We are fortunate in having a very good Surface Movement Radar system which gives visual alerts if the runway is obstructed within 30 seconds of an arrival, followed by an aural alarm within 15 seconds of an arrival, but if pilots had a way of confirming for themselves that they had received their landing clearance it would make my job just that tiny bit easier.

*Some pilots use informal indicators that landing clearance has been given, although mechanical devices of the type suggested are not foolproof because they require a positive crew action in response to receiving the clearance.*

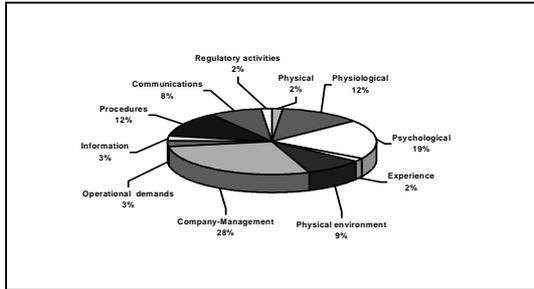
*Landing clearances are often issued between four miles and touchdown, a period when the flight crew's workload might be already relatively high, as for example, when transitioning from a speed control procedure to a stabilised final approach.*

*The safe option remains - if in doubt - reconfirm the clearance.*

# FLIGHT DECK REPORTS

Flight Deck Reports received in Period: 42

Key Areas:



**NATS LEAFLET - INCIDENTS AROUND STACKS**  
*A brochure giving the pilot perspective on 'Loss of Separation' Incidents is being distributed to all pilots on behalf of NATS with this issue of FEEDBACK. If you have any comments on the brochure or its content, please e-mail them to: [Brendan.Kelly@nats.co.uk](mailto:Brendan.Kelly@nats.co.uk)*

## RADAR HEADINGS

A couple of years ago, London ATCC started giving radar headings ending in "5". Apart from one or two controllers, this practice seems to have lapsed.

It seemed such a superb idea:

1. No possibility of level/heading confusion
2. It cost nothing to introduce
3. No expensive training of controller or pilot
4. No costly equipment needed
5. No extra admin or HR staff required.

Is there a reason why this has not been implemented as official policy?

***LATCC 'best practice' is to avoid issuing heading instructions that end in a 'zero', but this is not mandatory.***

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***We have continued to receive reports describing the fatiguing effects of some aspects of the current FTL guidelines in a small number of UK operators, two further examples of which are published below.***

***We anticipate that the results of the review of the current FTL guidelines that has been conducted by CAA (SRG) in response to CHIRP reports and other information will be published in the form of a consultation document shortly after this issue of FEEDBACK is distributed. When the consultation***

*document becomes available, we will publish details on our web site.*

## FTL INADEQUACIES

(1)

I have become increasingly concerned about flight deck crews in this airline being abused and worked to a point where I am convinced that a fatigue-related incident, with its potential for loss of life, will occur. European Legislation including the Humanitarian Act suggests that the CAA may be culpable by their inactivity by not enforcing existing legislation (written to try to avoid fatigue in crews) or attending to the 'old chestnuts' favoured by airlines that have been recognised as being not in the spirit of the existing legislation and therefore in need of review.

### CONSECUTIVE EARLIES

By night-stopping a crew in Europe with its 1hr time difference, a flight that appears to be an early (by my watch on UK time and my body clock also on UK time) ceases to be so. The one night away does not acclimatise me to European time and in fatigue terms offers no protection or relief from cumulative fatigue.

### LACK OF ROLLING 7 DAYS

My body knows little of a Saturday. My body however recognises day upon day of stress, minimum rest and maximum duty. Insistence by the Company that a roster of six days, say 65 hours or so of duty is legal because a Saturday falls within it when it would be illegal if contained within the same roster week is pure abuse of the individual. FACT: 65 hours of duty without a break is dangerous.

### OFF DUTY 30 MINS AFTER 'BLOCKS'

Waiting on our aircraft for passenger disembarkation and the eventual arrival of a crew bus often takes 25 minutes. The exit through security and following bus ride can often then be a further 45 minutes. 40 of these minutes would be considered rest, sitting in a bus, bumping our way to the hotel to often be processed to our rooms taking another 15 minutes. Queuing at reception and sitting on a bus is not rest, never has been, never will be, off duty is when you get to your room, have control over your movements and have the opportunity to shower, sleep, eat, etc.

### FTL NOT A LIMIT BUT A TARGET

FTLs used to be a limitation. Now they are seen as a target, i.e. Pilot A works 20 one-hour sectors on a compact roster. Duty - 40 hours out of a possible 55. Pilot B works 20 one-hour sectors on a shambolic roster taking 54 out of 55 possible hours. Pilot A worked 40 hours of a possible 55 - 15 "unused". Pilot B worked 54 out of a maximum 55 result 98% efficiency only 1 hour unused! (Must be desirable - NON!)

Fact is that unless the above are addressed the unthinkable is going to happen and THEN fatigue will be addressed. Let's get the CAA to act PRIOR to loss of life, clear them from the potential culpability due to inaction and make flying the safe occupation that it should be.

**CAA (SRG) has provided the following comment:**

CAA (SRG) is currently reviewing three of these issues and will shortly be promulgating the results of the review for consultation.

With regard the fourth, post-flight duties and Rest Periods, the Rest Period is defined as the end of post-flight duties to the report time for the next duty. That period must equal the length of the immediate previous duty or 12 hours, whichever is the greater. From CAP 371 Page 14 Para. 18 it can be implied that the absolute minimum Rest Period (even after a Commander's Reduction of Rest) must include 10 hours 'at the accommodation'. If the reported problems of transport, queuing, etc result in less than 10 hours in the accommodation then this should be brought to the attention of both the Commander and the company.

Furthermore, Notice to AOC Holders 6/94 Para. 9 requires that the time nominated must be a reasonable assessment of the actual time taken to complete that post-flight duty. When the "allowance" for post FDP duties is regularly exceeded then the company must revise that post FDP period stated to represent better the actual time taken.

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**(2)**

**MULTIPLE EARLY DUTY PERIODS**

Whilst outbound on the first sector of two, I calculated the fuel required for the return sector. Our operation produces a computed fuel plan, which we can then amend as required. After calculating fuel required, I confirmed with the First Officer what fuel he would like on engine start, and we agreed a figure.

The top of climb fuel check confirmed we were carrying the fuel allowance we had planned. A check half an hour later showed a big discrepancy. We double-checked our figures, and discovered that we had planned, and departed, with a tonne less fuel than we should have done. This despite the fact that the computed minimum requirement was written directly alongside my minimum requirement, and it is the habit of both of us to do a gross error check. The top of climb check was a classic case of me seeing what I thought I should see. Since we were carrying spare fuel, a re-calculation showed us to have some twelve minutes spare fuel above required reserves, sufficient but less than most of us like to be

carrying. Had we departed with minimum fuel, it would have been a different story, with an embarrassing technical stop required.

The reason? I was on the fifth early report in a row, the First Officer on the fourth of five, with in his case only a single day off prior to the sequence. This is within the company FTL scheme. Fatigue is becoming a major problem in another fleet within the company, and now it seems it could be creeping into this fleet.

**CAA(SRG) commented as follows:**

Whilst the reporter may well have been tired it cannot be assumed that the fuel planning error was purely because of accumulated fatigue caused by duties planned within the bounds of the company's FTL scheme.

As regards rosters, a CAA Letter to Operators 15/96 dated 19 December 1996, remains valid and quotes:

'..... Operators are reminded that it remains their responsibility to develop and administer rosters that are both effective in preventing fatigue, and practical in their application. The Flight Operations Department considers that there is a need for both Operators and Crew members to co-operate in the development of such rosters. Crew members should be aware that they have individual responsibilities under the Air Navigation Order 2000, in Articles 73 and 74.'

Article 73(1) of the ANO 2000 states:

"A person shall not act as a member of the crew of an aircraft to which this article applies if he knows or suspects that he is suffering from, or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue as may endanger the safety of the aircraft or of its occupants."

Companies are also reminded of their responsibilities in this respect as indicate Article 72(2) of the ANO 2000, which states:

"The operator of an aircraft to which this article applies shall not cause or permit any person to fly therein as a member of its crew if he knows or has reason to believe that the person is suffering from, or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from, such fatigue while he is flying as may endanger the safety of the aircraft or of its occupants."

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**I'VE GOT IT - BUT WHAT?**

The background to this incident is that I had recently joined Company A as a First Officer. I had come from Company B where I had been flying the same type. The difference in the company SOPs will help explain why the incident occurred.

We were about 3-4 mile finals to land at AAA, in good weather, daytime. It was my sector, therefore the Captain was flying the approach for my landing - in accordance with Company A's SOP.

ATC reported a helicopter somewhere over the airfield at about the same time as it is usual for the 'Landing Pilot' (i.e. me, whose sector it was) to take control again for the landing. A few seconds passed and then I said "Ahh, I've got it now", meaning I had the helicopter in sight. The Captain thought I had control, in fact I had completely forgotten that I was to do the landing - in Company B the SOP was to alternate sectors but not swap control unless it was LVP weather.

I noticed the aircraft go below the glideslope and the Captain do nothing about it. Eventually, (seconds later) I intervened and asked if he was alright, at which point all became clear.

For some time the aircraft had been flying with no-one in control and no autopilot or autothrottle engaged below 1500' and possibly as low as 600' or 700'.

It should be added that we had a jump-seat occupant, which, the Captain later said, made him unwilling to question what I was doing despite the fact that my hands were nowhere near the controls.

Both of us were at fault in different ways with the different company SOPs playing a major part in a potentially nasty incident.

***The time-honoured phrases "You/I have control" leave no room for ambiguity.***

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### **RUNWAY CLOSURE .....**

Perhaps it was the sixth flying day, and the tenth duty hour of the day concerned that this coloured my perception of events; but after a two-day deliberation I still feel that the arrival scenario into AAA (*A major UK airport*) was not as it should have been on the day in question.

We were in the descent, having been advised that no delay was expected, when without any prior notification the controller informed us that the runway was closed for emergency repairs for an indeterminate time and to enter the hold. There were several aircraft ahead, but we were perhaps not as badly placed as a number of other aircraft who joined behind us, the queries raised by several indicated that holding for some time would cause diversions.

The routes into AAA from most directions tend to have aircraft flying lower and slower than planned in the Plogs (*Route Plans*), and the Company Minimum Reserve is rarely far off unless due allowance is made. On this

occasion, the decision of the Airport Authority to close the runway without any warning would suggest that an event of some significance had occurred, the remedy for which could not wait. As a one-off event I would let this pass without too much comment. However, this scenario had been an identical repeat of one only several days earlier, in which we were also the unwitting subjects left to ponder dwindling fuel supplies with an indefinite closure. On this second occasion the airborne, and subsequent docking problems cost my company a ton of fuel, and potentially much more if a diversion had been necessary.

I am aware several possibilities exist of which the genuine need to carry out a repair in emergency is one. But is it possible that AAA might be being over zealous in its emergency repair work. Surely they must be aware that at peak times the work might be better put off if only for a few hours. If not, is it worth asking why emergency repairs are needed on this frequency?

***The report was passed to the senior ATC Manager at the airport concerned, who provided the following response:***

As I am sure you will realise any decision to close a runway at short notice by the Airport Authority is not taken lightly - I need hardly add that unexpected closures can just as easily spoil the day of those involved in ATC.

Whenever possible runway maintenance work is programmed well in advance of the actual event to allow everyone involved to make the necessary arrangements. At this airfield a detailed runway surface inspection a few weeks ago highlighted the fact that there was a problem with the sealant used on the runway surface that would require rectification - this is now taking place over the night period with the minimum of disruption.

Occasionally, during one of regular runway inspections, it becomes apparent that some of the sealant is starting to 'creep' out of the joint and would potentially present a FOD hazard. It is these instances that led to the short notice runway closure whilst the rubber sealant is removed.

Whilst this explanation will probably not make the situation any easier to deal with on the flight deck I hope that it has explained some of the background. The other point is that the programmed runway maintenance presently taking place should rectify this particular problem.

***As a reminder, when operating into UK terminal areas, delays of up to 20 minutes should be anticipated without an Expected Approach Time being issued on initial contact. This would include a delay due to a runway closure at short notice, which was anticipated to be less than 20 minutes.***

***Also, when a flight includes operation into a congested traffic area or where ATC delays are likely, operators should consider the carriage of an extra fuel allowance.***

***(UK AIP ENR 1-94 Para 4. 1 refers)***

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### **..... OR PERHAPS NOT**

Here is another tale of woe about AAA (*A major French Airport*). I have serious concerns about this airfield because of a host of incidents that have occurred over the last few years.

I was at the holding point for R/W ## and received clearance to line up after the landing traffic, which was at around two miles. As the traffic passed my holding point I received the following message from the Visual Controller:

"An aircraft that landed some time ago, has had "something" fall off it and we believe it is on the runway. We think it is a light. Do you accept the Take off?"

Needless to say I didn't. How anyone could even think about offering a possibly FOD contaminated runway for take off, never mind ask the question, just beggars belief. It may have been the case that the controller had reason to believe there was a low probability of FOD contamination, but that changes nothing.

Make no mistake about it, traffic flow is king at AAA.

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### **AN UNEXPECTED ARRIVAL**

***A routine flight into a familiar destination, in good weather. Not a problem you would think, and yet .....***

We fly to this European Airport almost daily. Consequently we have a "feel" for the airport and usually know fairly well what to expect on arrival. On this day the weather was CAVOK with light winds and no forecast of anything significant. Also, with no departure slot requirement, we loaded only the Computer Flight Plan fuel, plus a bit extra. After an uneventful departure from our UK base and transition through Area Control we were handed over to AAA. We informed them of the latest ATIS designator received, which was giving RWY 06 and proceeded along normally. After handover to the next frequency we were told to expect a hold at ###. This was surprising, since the previous controller had said nothing about this. We then slowed down accordingly and having received an EAT we calculated that there would be no fuel problems for us. At this stage we had already briefed for the approach and everything was set up for 06. After the hold we were cleared towards the field as usual, descended in steps as usual, until about 30 miles out, when the controller gave

us a RWY change to 09 and we were told to expect an NDB/DME approach.

This sent us into a flurry of activities in the cockpit, but valuable time was spent looking up the NDB procedure, which was nowhere to be found in our approach charts. I was about to inform the controller that we couldn't comply with this approach, when the next change of frequency occurred. This time the controller corrected the previous one by allocating the VOR/DME procedure for 09, which we indeed have among our charts. By now we were pretty close to the field but hadn't been able to finish the brief so far. Hurriedly I re-briefed the F/O for this approach, but due to the pressure of time we set up the wrong beacon for the approach. We were both happy with the brief but neither of us noticed this HUGE mistake.

We were then cleared to intercept the Radial and cleared to descend with the VOR/DME procedure. It being a very nice day, we could both see the runway in our 2 o'clock position even though we were now established on the required radial. We both felt that something was wrong but couldn't identify just what. The controller asked us whether we were visual with the runway and after confirming with him that that was the runway in our 2 o'clock, we continued visually. The runway had no PAPIS either so we still had to use the chart for height/distance verification. As the F/O was the Handling Pilot I was quite busy with the checks and configuration changes and at times I felt almost unable to cope with the workload.

We finally landed uneventfully, but with a strange taste in our mouths. Later on stand we reviewed the whole approach and only then discovered that we had set up the wrong VOR for this procedure. The plate itself is quite unfortunate, in as much as the VOR beacon used is not the one in the centre of the field but one that is several miles off it and in the hurry that we were embroiled in, this was too easy to miss.

This procedure allowed us down to a Decision Altitude of 450', if I remember correctly, and had we not been visual, there could have been a very nasty surprise at the end of the approach.

AAA is well known for their changes of runway and we are pretty used to this and most days it's not a problem. This time, however, it was a change to a totally unfamiliar runway (in more than 10 years of going there I have never used 09 for landing), and this change came at a most untimely point in our approach phase.

A number of points arise from this incident;

- Why were we not warned of an impending delay by the initial frequency? Are controllers not aware of any sequencing, between themselves?
- In the absence of a departure slot it is unusual to be sent to the hold. Most people would not have carried

much extra fuel and if the holding period had been much longer, most people would have ended up diverting somewhere else. A slot delay would have alerted us to the fact that there might be something going on. Since this was a lunchtime flight we were not anticipating a lot of traffic on approach.

- The controller that gave us the wrong procedure for 09 (that doesn't exist) gave the same to quite a few aircraft. This has caused valuable time to be lost and added to pressure and our workload.
- Most importantly I would suggest that once an aircraft has made contact with initial approach control and has verified the ATIS received and consequently the runway in use, the airport should not be allowed to change runway on that inbound aircraft, particularly at approx. 30 miles out. There must be some limits to work to in this respect. The controller MUST be made aware that changes this late in the approach create an unreasonably high workload, which does open a chasm of unexpected potential mistakes in the cockpit.

I have been flying commercially for over 10 years and almost daily into AAA, but even with this background I was caught out and was going under, due to the absence of some kind of safety limit as far as runway changes are concerned.

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### **CLEARED, BUT WHY?**

Approaching R/W 27L at a major French airport, transferred to Tower at about 2000' and six miles, in IMC. Tower advised "No 2, cleared to land". As this seemed odd, I asked for confirmation, and was advised again "Clear to land". Broke out of cloud base about 1000' agl, saw No 1 aircraft at threshold of runway. So I asked for re-confirmation of land clearance.

After landing, I asked Tower to explain how I could be cleared for landing, when I was in cloud. Gist of his reply was that this was normal procedure. How can this be so? In UK we have "Land after" procedure but this requires amongst other things the ability to continually see the aircraft in front and I believe certain met. conditions. What conditions do French ATC apply? Shouldn't we all know what they are?

***First, as far as the UK is concerned, the issue of a 'Land After' clearance by ATC requires the following criteria to be satisfied:***

- 1. The runway is long enough to allow safe separation between the two aircraft and there is no evidence to indicate that braking may be adversely affected.***
- 2. Daylight hours only.***

***3. The controller is satisfied that the landing aircraft will be able to see the preceding aircraft which has landed, clearly and continuously, until it is clear of the runway.***

***4. The pilot of the following aircraft is warned.***

***The Manual of Air Traffic Services Part 1 contains no specific weather conditions in relation to the 'Land After' instruction, although with a minimum of 2.5 nm separation, Requirement 3 above will require at least a similar visibility and a minimum cloud base of around 800ft.***

***Some major UK airports have special landing procedures when the runway is temporarily occupied by landing/departing traffic. These are detailed in AIP GEN 3-3-5 Para. 6.4 and are summarised on Page 11.***

***As far as can be ascertained, the Land After procedures in France are those defined in the relevant ICAO Recommended Procedures. The overall criteria are similar to those in the UK 'Land After' procedure except that there is no specific requirement for the pilot of the following aircraft to be warned.***

***The ICAO procedures also permit less stringent criteria to be used in that an ATC clearance to land after a preceding aircraft may be issued provided the 'weather conditions permit the pilot to make an early assessment of traffic conditions on the runway'. No specific weather limitations are cited and these procedures would not preclude a landing clearance being issued prior to becoming VMC.***

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### **LAND AFTER CLEARANCE**

I was the Captain on a flight departing from a major UK airport. Whilst at the holding point for Runway ##, ATC asked,

"ABC123 are you ready for an immediate departure."

I replied, "Affirm 123".

With the preceding twinjet commencing his take-off roll ATC transmitted,

"ABC123 cleared line up and wait - be ready immediate ...."

We expedited the line up, with next landing traffic in sight. There was a short pause to allow for spacing between us and the preceding twinjet then we received,

"ABC123 Cleared immediate take-off, Wind --/-- landing traffic at two miles". The F/O commenced the take-off roll, and after about 10 seconds ATC transmitted,

"XYZ456 Land after the departing aircraft Wind --/--". This was acknowledged by the following aircraft.

"Land after" clearances used to be the domain on general aviation airfields, but are now becoming more commonplace at larger airports.

My concern (and I would like a comment from CAA SRG on this) is that whilst a "Land after" clearance is safe when given to an aircraft landing after another landing aircraft, for which a perceived time to clear the runway can be calculated. Is it safe (or indeed legal) to issue a "Land after" clearance to an aircraft about to land after a departing aircraft? In my example above, if I had aborted the take-off for whatever reason, we would be in the situation of having stopped on the runway, with an aircraft behind that had already been issued a landing clearance. During the whole of our take-off roll, I was very alert to the fact that the aircraft behind us was already cleared to land.

In view of the press publicity recently to the BA747 and BMA320 landing/take-off incident, I thought it quite appropriate to bring this to your attention, where my example had the potential for the same outcome.

***AIP Gen 3-3-6 Para 6.4 details the special landing procedures that may be used at London Heathrow, London Gatwick (except for Runway 08L/26R at London Gatwick), London Stansted (Land after Departure only) and Manchester (Land after Departure only) when the specific weather, runway surface and other criteria detailed in the AIP are met.***

***When the runway-in-use is temporarily occupied by other traffic, landing clearance will be issued to an arriving aircraft provided that, at the time the aircraft crosses the threshold of the runway-in-use, specific separation distances will exist:***

***In the case of London Heathrow and London Gatwick, the separation required is:***

***(i) Landing following landing - The preceding landing aircraft will be clear of the runway-in-use or will be at least 2,500 m from the threshold of the runway-in-use.***

***(ii) Landing following departure - The departing aircraft will be airborne and at least 2,000 m from the threshold of the runway-in-use, or if not airborne, will be at least 2,500 m from the threshold of the runway-in-use.***

***Different criteria apply to the other airports.***

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### **R/T CONFUSION**

How many other pilots and air traffic controllers have noticed that 'two' and 'three' often sound confusingly similar in R/T transmissions? Again, on a training flight yesterday, my student read back his cleared altitude as '3,000' rather than '2,000' as required, but this was NOT

queried by ATC (until I requested confirmation from ATC) and even when 'three' is spoken correctly as 'tree', there is still scope for misunderstandings. Has anyone any suggestions for replacing 'too' or 'tree'?

Also, how about totally banishing the words 'to' and 'for' in R/T transmissions. I know that the correct R/T these days recognises the risk of confusion e.g. "Climb to altitude 3,000" instead of the old way of saying "Climb to 3,000" which could even more easily be interpreted as '2,000' '3,000' or '23,000' (it has happened!). In the same way any transmission of the word 'for' can be taken as the number 'four'.

***Use of the word 'to' is currently being considered by the CAA/NATS RT Working Group.***

## **FLIGHT DECK COMMENTS**

### **CLEARANCE CONFUSION**

I am an avid reader of FEEDBACK and a supporter of CHIRP, but I think that the CHIRP comment accompanying the report 'Clearance Confusion' (2) (FEEDBACK 58) that ATCOs' workload might prevent them challenging a crew's failure to read back an instruction was a bit wide of the mark.

The requirement for crews to read back instructions and for controllers to ensure that they do, is an essential safeguard against error. If controllers are not able always to perform this function, something should be done to ensure that their workload is such that they can.

***Several ATCOs pointed out that the requirement to challenge a failure to readback an ATC instruction is a fundamental safeguard.***

***However, the fact is that current procedures for the management of flow rates are not always able to prevent bunching of traffic and, although improvements are being actively pursued, ATCO workloads in and around the London TMA may, at times, be very high. Consequently, from a flight deck perspective, if an ATCO is extremely busy, don't rely on his challenge as a last line of defence. If in doubt, confirm the clearance.***

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### **FEEDBACK 58 - R/T DISCIPLINE - RESPONSE**

If we answer a conditional line-up clearance with our callsign first, it will be like issuing an instruction ourselves and feel wholly unnatural. That is why you can always expect to hear "After the landing white knuckle 737 line up, Speed Tape 208". So I'm sorry about the blood pressure rise but that is the way that pilot's brains work. Far from being a lack of radio discipline, it is in

good company with EVERY other R/T transmission that we make!

*This reporter misinterpreted my comment in relation to the item 'R/T Discipline' that was published in the last issue of FEEDBACK. Just to make sure that no one else did, I was referring to the order of the actual ATC instructions rather than the entire R/T message. This point is clear in the examples given in the CAP 413 'Radiotelephony Manual' reference that I quoted, one example being:*

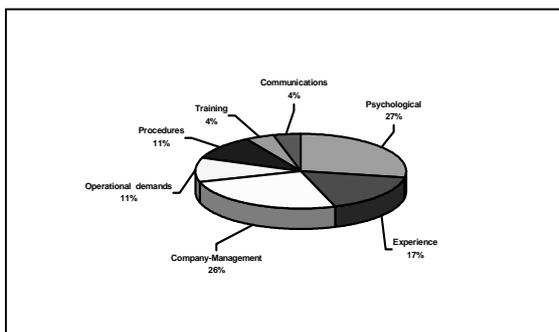
*"Fastair 345 cleared to Kennington via A1, at FL60, request level change en-route, squawk 5501."*

*"Cleared to Kennington via A1, at FL60, request level change en-route, squawk 5501, Fastair 345".*

## ENGINEERING REPORTS

Engineering Reports received in Period: 12

### Key Areas:



## ELECTRONIC TECHNICAL RECORDS

*With aircraft leases and exchanges being now common practice around the world, the following report highlights an aspect to which all licensed engineers should be alert.*

An Operator bought/leased an aircraft from a foreign operator and the Operator contracted aircraft maintenance to a UK JAR 145 Approved Organisation.

Prior to aircraft acceptance the Operator sent an employee of the JAR 145 Maintenance Company to carry out a documentation check with the foreign operator. The operator's maintenance records were electronic.

After a period of operating in the UK, one of the aircraft major components was sent to this company (JAR Approved) for scheduled work, service bulletin update etc. The component record supplied was a card box containing the following:

- The foreign operator's computer maintenance print-out

- Virgin (no entries) OEM supplied record
- Life limited parts records with no entries
- The foreign operator's life limited parts matrix signed, not dated
- UK JAR Approved Maintenance Organisation's life limited parts matrix, not signed or dated

We were unable to satisfy ourselves in regard to the true nature of these maintenance records.

The Operator's UK contracted JAR 145 Organisation are not capable of the 'electronic record' keeping.

In spite of pressure from the Operator, contracted JAR 145 Maintenance Organisation and my own company, I have returned all of these documents to the contracted company, requesting they produce a hard copy (duplicate) signed by a person in authority.

At the moment, as you can imagine, I am not too popular with the contracted organisation who feel that we should be "pleasing" the customer by producing the hard copy record.

*The general subject of electronic records was put to CAA (SRG) for comment who replied as follows:*

Over the past few years we have seen a substantial increase in the use of electronic documentation in place of the traditional paper format and, with the continued development in the area of IT, this will only continue. It concerns us that your reporter appears to have been put in such a difficult position.

The specific area of international leasing is also on the increase, and we are seeing new Organisations that make a living from this activity alone. Last year guidance notes for the use of Surveyors and Leasing Organisations were produced. Part of that document refers to technical records, and advises that all records should be in English, and as an extension of this, should be legible - which could be interpreted to include such IT issues. It is felt that it should not be necessary to define further the required format of records.

Our oversight of leased aircraft in particular, has increased recently, in response to the more frequent use of ICAO annex 6 transfers in the international operating industry. Oversight of leased aircraft to-date has not identified any findings related to record format.

In the case of written records, we insist on the use of the English language. It has not been necessary to emphasise this to Surveyors, and in the same way, we would expect electronic records to be in a readable format, without further expansion. In July 1996, a CAA internal procedure was published addressing electronic Maintenance records, and this remains essentially valid. This is now due an update for other reasons however, and as this report indicates, there may be value in

including information on transfer of records/compatibility of formats.

***Two other points are worth noting. When carrying out a check of electronic records the software of the originating documents must be capable of translation to that of the recipient organisation's system, computerised or not: the reporter is to be commended for refusing to accept uncertified documentation.***

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### CONTINUATION TRAINING

I am writing to voice my concern over my current employer's dismissive attitude towards recurrent training. I have been employed by my Company for in excess of 10 years and hold full avionics (B2 qualified) approval on multiple types. I qualified for most of these types several years ago, however, I have only ever had one short (two day) recurrent training course in that time, over three years ago! To address the problem the Company now propose to issue the engineers with a file for each aircraft type detailing the changes and developments applicable to that type to read up on - (presumably in their own time).

The Company takes pride in its investment in staff policy but I find it hard to accept that its present policy constitutes an effective training method (and if anything is a 'cop out').

***The Operator involved was apprised of this reporter's concerns and responded as follows:***

Since the requirement for continuation training came into being we have sought to develop a programme that staff would find effective. There has been a considerable amount of feedback on the continuation training accomplished to date and we have sought to develop the delivery of the programme to try and accommodate these views. Inevitably there are many varied views from maintenance engineers on how the delivery can be best effected and it is likely that we won't please everyone. In the initial years guidance material on what should be included and how it should be delivered was not very explicit and we experienced different viewpoints from CAA Regional Surveyors when submitting ideas for the programme. There are a number of issues which make the subject more complex with regard to currency. For example, the number of aircraft and engine types maintained and when people attended their last type course and the continuity of their experience.

The method of delivery that the writer refers to is not being introduced following discussions with our CAA Surveyor as they have deemed it not to meet the requirement.

In essence, the policy is for continuation training every two years with a content that meets the requirements of

AMC 145.35(c). The delivery is still likely to include an element of self-study, maintenance engineers have some responsibility in this process to keep themselves up to date, but the core of the programme will still be classroom based.

During this summer period a programme of training to catch up with the backlog is being drawn up.

The writer of your letter is encouraged to speak to the Quality Department if he has any further concerns.

***Amendment 3 of JAR 145 has up-dated the continuation training requirements to be found in JAR 145.35.***

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### LICENCE EXAMINATION STANDARDS

My licensed colleagues and myself have become increasingly concerned about the apparent lowering of the CAA AMEL examination standards. With the imminent changeover (in June) from BCAR Section L to the JAR 66 system, the CAA appears to be applying less rigorous standards to those taking BCAR Section L examinations recently.

What we find unacceptable is the number of exemptions that the CAA is now giving as standard when engineers are applying for a Licence Without Type Rating (LWTR). These include:

1. Engineers holding AMC, applying for LWTR exam in that subject, are being issued the extension to their licence without any examination.
2. Engineers applying for LWTR extensions to their licence are being exempted from essay-type question and oral examination. A simple multi-choice exam being all that is required.

These exemptions are apparently also being applied for engineers taking out-of-trade subjects (e.g. Mechanical Engineers taking Instrument or Auto-Pilot Licences and vice versa).

Not only is this devaluing the Licenses of those who already hold them under the BCAR Section L system, but it is encouraging people without the proper trade training and experience to apply for new licenses, in the knowledge they will only have to sit a multi-choice exam - for whom many have only learnt by heart a representative bank of multi choice questions and answers (instead of having an in-depth knowledge gained by proper study and practical experience). Even if a multi choice question is not understood they have a 1-in-3 chance of a correct guess. The essay type questions and oral examination would have prevented this from happening.

Due to these exemptions now being applied, there appears to be a mad panic of engineers to apply for any license they can get before the JAR 66 changeover date (knowing it would not have been possible for them to obtain under the old system).

The application system for Licences, Form AD300, is also open to abuse. For example Mechanical Engineers applying for Electrical (now part of JAR 66 Mechanical License) or Multi-X Licences who do not have the requisite practical experience, (reduced to 6mths for Electrical, 12mths for Multi-X), still have their forms signed by their managers.

These Mechanical Engineers are not seconded to the Avionics Engineers for these periods to gain experience/knowledge working the systems, but remain employed doing their normal Airframe and Engine duties. It is just a paperwork exercise. This is further devaluing the Electrical Licence and Avionics Licences.

I would appreciate your comments and the CAA's on these subjects.

***The following response was received from the CAA (SRG), Head of Personnel Licensing Department:-***

The reporter suggests that there is an apparent lowering of standards which support the issue of aircraft maintenance engineer licences under BCAR Section L. It is true to state that the CAA has revised the requirements for examinations. Of particular note is the decision to carry out essay and oral examination only at licence issue. This is the culmination of a review over a period of time because of the introduction of JAR-66 and the changes that requirement meant to the UK licensing system.

The purpose of the essay now is primarily to evaluate the individual's ability to express a technical opinion or report in writing. If an individual can do this for first licence issue, then what purpose does any subsequent essay paper provide? The decision to set essays only at licence issue was however dependent upon the introduction of revised question papers which were largely formed of new questions addressing the Section L syllabus and more rigorous than those previously set to engineers. Failure rates at present clearly indicate that guessing is not adequate to secure a pass and the previous questions, often available for study beforehand, are now largely obsolete.

Oral examinations likewise have developed over the years to move away from a full assessment of the individual's technical knowledge of a subject to an evaluation of the manner in which the prospective licensed engineer will conduct himself or herself within the current legislative environment. It is only a point in time assessment and cannot attest to an individual's total capability, nor any future tendency to act as would be expected of them.

We note the reporter's comments on managers countersigning forms without the individual holding the requisite experience. The need for a referee to countersign the form has been in place for some time. It relies upon the integrity of the referee to discharge his or her duties in a professional manner and is based upon trust by the CAA in both the actions of the applicant and the referee. Without it the process of validating experience and dealing with applications would be more onerous, prescriptive and consequently more expensive. Of course, if there is evidence to support any claims that the requirements are being circumvented we would be pleased to hear about it.

No doubt some engineers will benefit from this change. It should be remembered, however, that licences, particularly a LWTR, are only part of the equation. The more substantive element is the type rating or type authorisation that must also be gained to certify. The requirement for type oral examinations or approved training courses remain and of course under JAR-145 each organisation has a legal responsibility to establish the actual practical and theoretical competence of each individual that is authorised. It would be wrong to cast aspersions on one element when the whole system ultimately determines the fitness of individuals to certify.

## **ENGINEERING COMMENTS**

### **PERSONAL EXPERIENCE RECORDS**

I am a fully licensed Avionics Engineer, working on company aircraft. I have been an aircraft engineer since leaving school. I read with great interest the latest copy of FEEDBACK.

I have long held the opinion that aircraft engineers should only be able to certify that which they are knowledgeable and experienced about. I have also held the opinion that a number of companies are putting other concerns above that basic premise. The cabin maintenance Approval holders mentioned in the report may not have the initial previous experience but I believe with the correct level of experience can be converted to hold an appropriate maintenance Approval.

However, pay grade and status concerns mean that these engineers have been forced to convert or lose their pay and status. This has led to a widespread abuse of the Personal Experience Record (PER book). The principle behind this book is that the applicant takes an active interest in each task that the Approval covers, on a number of separate occasions. I agree whole-heartedly with this principle, however, this is where the abuse is at its worst. It is becoming a common sight to see engineers with PER books in hand walking around each hangar or bay and copying each task and Tech Log reference into their book. When they have a suitable number of entries filled in the book it is then presented

to the L.A.E. with the approval to stamp the last column for each entry.

At this point in an ideal world the LAE would then ensure that the applicant has taken sufficient interest in the task to be able to repeat it correctly and safely. However, because of the pay/status issue unreasonable pressure is brought to bear on the LAE. It goes along the lines of, "I'm only doing it for the money and I'm never going to use the Approval so it's only a paperwork exercise". While this may be true, it should not be allowed to degrade the Approval or to put the engineer in a position where he holds approval to certify a task for which he has neither the knowledge nor the experience to carry out safely.

I am lucky in that the safety concerns for avionics Approvals are very limited, however, the thought of a number of cabin maintenance Approval holders being asked to go and check and change wheels and/or brake units etc. when they may have only seen one actually being done really worries me.

The system is being abused to keep the engineers happy and the company covered under JAR 66 and JAR OPS while loosing sight of the first major principle of engineering and that is safety. I sympathise with the engineers involved but believe that pressure should be brought to bear on the company to adjust the pay/status issue so that the background reason for this abuse is no longer present and we can revert to awarding Approvals only to those that are deserving from an engineering standpoint and not from a financial one.

***While noting the comments that appeared in FEEDBACK 58, the following is also relevant to the issue of competence. In compliance with ICAO requirements, JAR 145.35 requires engineers to have at least six months (appropriate) maintenance experience in the last two years to maintain Approval(s). As a consequence of this and following recommendations in the Wooton Report of 1997, the CAA are developing requirements for engineers to record their employment history to aid the determination of an individual's ongoing competence. At least one operator is already known to be introducing a system of work records to assess competency of individual engineers to retain Approvals to comply with these requirements.***

#### FAMILIARISATION VISIT TO YOUR LOCAL ATS UNIT

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 5320	Watch Manager
LGW	01293 575271	Note: Visitors who utilise Gatwick Tower only please
STN	01279 669387	Watch Manager
BHX	0121 780 0901	Liz Barlow
EDI	0131 339 1888	
GLA	0141 840 8029	Duty Watch Manager
ABZ	01224 723714	
BHD	02894 422152	
CWL	01446 712575	

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

The following CAA (SRG) FODCOMS have been issued since April 2001:

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

##### 2/2001

1. Letter of Intent: Proposal to Amend Article 37 of the Air Navigation Order 2000; Regulations 9, 10(2) and 11(6) of the Air Navigation (General) Regulations 1993 and Paragraph 11 of the Schedule to Regulation 6 of the Air Navigation (General) Regulations 1993 for the Purpose of Clarifying the Texts to Reflect Existing Interpretations and Practices

##### 3/2001

1. Letter of Consultation: Proposal to Amend the Air Navigation (Dangerous Goods) Regulations 1994

##### 4/2001

1. Emergency and Abnormal Checklists - publication of CAP 708

##### 5/2001

1. Training Programmes for the Use Of Terrain Awareness and Warning Systems (TAWS)
2. Loose Articles: In The Cockpit and Migrating From Cabin Areas
3. Crew Training for Exit Operation
4. JAR-Ops Clarification - All enquiries to CAA (SRG)

##### 6/2001

1. Letter of Intent: Proposal to Introduce a System of Accreditation for Instructors of Crew Resource Management (CRM)

##### 7/2001

1. Authorisation of Flight Crew to Issue Certificates of Release to Service for Maintenance: Aeroplanes and Helicopters with a Maximum Take-off Mass of 5700kg and above

##### 8/2001

1. Confidential Reporting for Cabin Crew

##### 9/2001

1. Letter of Consultation: Proposal to Amend the Air Navigation Order 2000 and Civil Aviation Publications 360 and 371 for the purpose of introducing changes to operational standards and equipment requirements following the ICAO audit of the safety oversight provided by the UK.