

FEEDBACK

Issue No: 60

October 2001

EDITORIAL

CABIN CREW PROGRAMME

In the first three months of the Cabin Crew trial we have received 37 reports, almost all of which have concerned safety related issues. Many of the matters raised have been represented to the relevant company with the reporter's consent, in a manner that protects the reporter's identity. In a small number of cases, the matter has been passed to CAA (SRG).

From the initial response it is clear that some AOC holders have distributed information widely among their Cabin staff, others would appear not to have responded to FODCOM 8/2001 issued by CAA (SRG).

Unlike the flight crew/ATCO/engineering elements, we have no means of directly accessing cabin crewmembers with information/report forms. For this reason, we have printed a Cabin Crew Report form on the reverse of the Flight Crew Form distributed with this issue. If you don't need your form and are able to assist in spreading the word about the trial, we would be most grateful.

DEADHEADING OR DEAD-TIRED

Following a stopover on the East Coast of the USA, we (*cabin crew*) reported at 1900 hrs local (0100 UTC). The first two sectors were to two European destinations followed by a flight to AAA (UK).

The flight was over four hours late leaving and we were notified by company that we were required to operate the third sector, as they were calling this final sector 'deadheading'. However, although we had no passengers other than the two flight deck crewmembers who had operated the first sector (they were replaced), as we were the only operating crew, this was not deadheading.

We were extremely tired, over-tired by the time we arrived at our UK base, having been on duty for more than 16 hours and 30 minutes continuous duty. Several crewmembers had to leave their cars and phone relatives to collect them due to their extreme fatigue.

CAA (SRG) provided the following comments:

Having no passengers on board does not mean that the sector is not counted as forming part of the flying duty period. 'Deadheading' (or positioning) as passengers can only be claimed when the crew are 'looked after' by at least one cabin crew member and they are not required to take part in any activity associated with cabin safety or cabin service duties.

FTLS - AN UPDATE

After completing the review of the existing Flight Time Limitations Guidelines contained in CAP 371 - 3rd Edition, CAA (SRG) issued a Letter of Consultation in the form of a Flight Operations Department Communication (FODCOM) No. 12/2001 dated 1 August 2001 detailing a Regulatory Impact Assessment (RIA) for a proposal to amend CAP 371 in a number of respects.

The Letter of Consultation invites comments on the proposals contained within the RIA to be forwarded to CAA (SRG) to arrive not later than 30 November 2001.

The contents of the FODCOM are available on the CAA (SRG) website at www.srg.caa.co.uk. A copy may also be found on our website at www.chirp.co.uk.

The proposals contained in the RIA, if adopted, will address several of the principal FTL related issues raised in confidential reports over the past two years or so, some of which are detailed in the reports on Page 8 of this issue.

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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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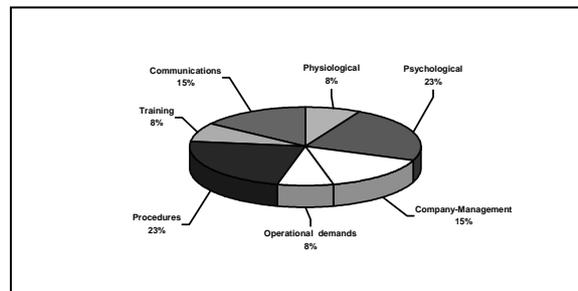
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ATC REPORTS

ATC Reports received in Period: 7

Key Areas:



A HANDOVER ASSUMPTION

On the particular day in question, an area of airspace in the sector I was working was unavailable to civilian traffic. It had also been unavailable for several days previously and was planned to be for several days more. The area was NOTAM'd and a Temporary Operating Instruction had been issued.

A short while before this incident, I handed over my duties to a colleague. As the reservation was NOTAM'd, and was unavailable for several days, I assumed that everybody would be aware of the fact.

Some time later, after having a break and working on another sector, I came back to the same sector to discover an aircraft cleared (and in!) the exercise area! As I pointed this out to the controller I was about to takeover from, he lamented, "Why didn't you tell me? I thought it had been deactivated!" I then realised that the reservation display information, on which NOTAM information is displayed, was temporarily unavailable. A quick panic-check with the adjacent military sector revealed the area still active but clear of exercise traffic at that time! In fact, they hadn't even noticed "our" aircraft had strayed into the exercise area!!

Fortunately, no harm was done this time but several points need to be raised -

1. Never assume the controller, who you handover to, knows all the airspace reservations, etc.
2. Why did the previous sector on handover not question the route clearance through the exercise area?
3. Why didn't the crew question the route clearance through the NOTAM'd area?

The following comment from NATS may be of interest to other NATS/non-NATS units

NATS have developed a systematic handover process at LATCC TC with the mnemonic 'PRAWNS'. This checklist displayed at all positions, introduces structure and best practice into the transfer and assimilation of information during a handover.

This more structured approach ensures that important information is not forgotten, and ensures that handover procedures are the same from controller to controller and watch to watch.

Since the introduction of 'PRAWNS' at TC a number of other NATS units have developed and introduced similar schemes, they include, LATCC AC, Heathrow, Manchester Tower, Approach and Area as well as Birmingham.

from ICAO standards in a number of respects. One difference is the provision of increased approach separation at selected UK airports for the B757 and several other types (AIC 17/99 refers). The UK wake vortex incident database contains no reports involving B757s on departure.

ICAO European Air Planning Group (EANPG) will be commissioning a study with the objective of establishing common wake vortex separation standards in Europe, which will include the B757.

ATC COMMENTS

RE: FB 58 - MINIMUM HOLDING LEVELS

Regarding the suggestion in FB 58 (*Page 3 - Minimum Holding Levels*) to retain the minimum holding level at FL 70 until the QNH has dropped significantly below 1013mb, I would doubt that there is a single ATCO who has not, at some stage, been caught out by this problem.

I would suggest that your writer's proposal is almost the correct solution but would suggest that a better one might be to make the change at 1011mb and GOING DOWN or 1015mb and GOING UP. The height difference is negligible being a mere 66 feet from a Flight Level.

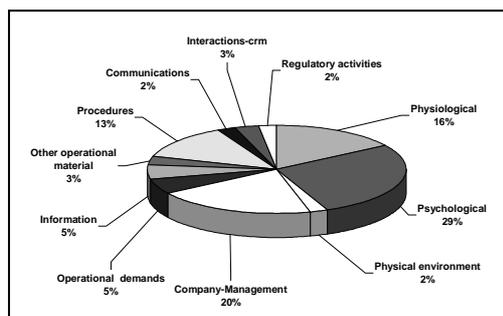
If SRG quakes at this suggestion, I should tell them that I worked ### Radar recently with a QNH of 1011mb while London (Heathrow) had a QNH of 1013mb.

As an adjunct to that, I think that it should be the case that all airfields in the London TMA use the Heathrow QNH. That way we are all playing the same game. As I work ### Radar and am positioning traffic to London (AAA) at an altitude, I frequently get queries from the flight crew about the QNH I have issued for a descent clearance, as they are expecting the London (AAA) QNH.

FLIGHT CREW REPORTS

Flight Crew Reports received in Period: 43

Key Areas:



TRANSITION ALTITUDES

I have long considered that the Transition Altitude should be much higher than is currently the case and should be a universal 18,000 feet, or thereabouts, as in the USA.

The ridiculous situation where the Transition Altitude is 6,000 feet in the LTMA and 3,000 feet for the rest of the UK should be changed.

This is one of several comments/queries that we have received regarding the policy for Transition Altitudes within the UK FIR, as a result of which the matter has been raised with the Director of Airspace Policy.

We have been advised that it is UK policy to harmonise progressively the Transition Altitude within Controlled Airspace at 6000ft amsl as soon as it becomes operationally feasible to do so, although no timescales for a common Transition Altitude have been offered.

We will continue to represent reporter's views on this topic.

WAKE VORTEX SEPARATION

Are you able to assist ATCOs and pilots in standardising the vortex wake requirements surrounding the B757?

Different airlines, nationalities and ATC providers all categorise the B757 in a different way, which means that separation standards for both arriving and departing behind a B757 vary greatly. I, and it seems others, believe that a review of the situation is needed to alleviate confusion amongst ATCOs and pilots.

Something that carries a potential safety risk should not vary solely on who you fly for and where.

UK wake vortex separation standards are based on an analysis of reported wake vortex incidents and differ

(1) EXCESSIVE RATES OF CLIMB

Having read various articles about level busts and following the enclosure sent with FEEDBACK 59 one aspect that may be relevant appears to be being overlooked, vertical speed or rate of climb/descent.

Given the performance now available in a number of types, I feel it is time that a review is made of its effect on altitude busts and its effect on the operation of TCAS. I seem to recall that continual nuisance alerts are likely to lead to delayed or incorrect response.

Since changing aircraft types, I have rates of climb available that were previously an exception rather than the norm, as well as seeing an increase in the number of traffic advisories generated, as a result of closure rate of other similarly powerful aircraft (often from the same company). To avoid being the source of alerts I felt the use of aircraft flight management systems was appropriate and therefore began using Vertical Speed (V/S) when operating in controlled airspace particularly when climbing under holds. This was quickly brought to my attention as being contrary to SOP and I was reminded that FMC flight profile was to be used as the normal mode of climb, this can easily generate rates in excess of 3500ft per minute and consequent alerts.

All pilots believe minimum rates of 500' per minute climbing apply (though I cannot find the source of this) but perhaps it is time that a maximum of 2000' per minute in TMA's should apply unless advised otherwise by ATC e.g. "No speed or rate limits".

This is a simple measure but it may help to avoid level busts, nuisance alerts or worse!

The issue of the high rates of climb that are possible in some twin turbojet aeroplanes is one of the issues being considered by the ICAO Operations Panel.

Typically, high rates tend to be associated with the use of 'climb' thrust and indicated air speeds (IAS) of 250 kts and below when climbing at altitudes up to FL 100, and have given rise to a significant number of 'nuisance' TCAS/ACAS Resolution Advisories (RAs). An 'open' or 'FMS' climb may not be appropriate in all circumstances, especially where the change in altitude or flight level is relatively small (a difference, say, of up to 4,000 ft), such as regularly occurs below FL100.

The solution is for pilots to so arrange their climb (or descent) that the aircraft's vertical speed is not excessive in the last 1,000 ft or so. Whilst this can probably be achieved in various ways, it is important that operators should decide which procedure is most appropriate for each aeroplane type operated, and instruct their crews accordingly.

Use of Vertical Speed mode throughout the climb or descent with a rate of between 500 and 1,500 ft/min selected will result in a modest change in thrust and

pitch angle, both smoothly applied, producing a more comfortable environment for the passengers, easing tasks carried out by cabin crew, and giving more time for the flight crew to complete checklists, change frequencies/channels, make anti-icing selections, and monitor flight progress. Alternatively, in a climb, it may be possible to employ a lesser thrust datum or to accelerate to a higher IAS determined by the FMS – if ATC has advised that the 250 kt speed constraint need not apply: both methods will result in a reduced vertical speed.

One other option for avoiding high vertical rates of closure with proximate traffic is that the pilots should change from the 'open' or 'FMS' climb or descent mode to the Vertical Speed mode as the aircraft approaches 1,000 ft to go to the cleared altitude or flight level. However, this is not without the risk that in so doing the Altitude Capture mode may disarm, which if not observed could result in a level bust once the aircraft reaches the cleared altitude or level, and it involves an increase in pilot workload (and, possibly, distraction from other tasks).

The combination of busy airspace, high performance twin-jets, restricted IAS, together with a frequent need for climbs and descents to be made in a number of steps suggests that – if they have not already done so - operators should give thought to what procedures they would wish their flight crews to employ when the change in vertical interval is not large, and instruct accordingly.

(2) SPEED CONTROL ON DEPARTURE

Although I retired from active operation recently, my own experience, and that of active colleagues and friends, causes me increasing concern over the continuing practice of LATCC cancelling speed control immediately or shortly after take off.

This is routinely done regardless of time of day or night, weather conditions, or aircraft type.

The most obvious effect is a considerable and unnecessary extension of the noise footprint, which has a negative effect for the industry.

My concern, however, is that this practice is seriously reducing safety margins.

It is stating the obvious that, in the event of any conflict arising, aircraft maintaining the mandatory 250 KIAS below 10,000 ft are much more able to take successful avoiding action than those indicating 300 to 350+ Knots.

Unless this statement is shown to be invalid, or ATC can GUARANTEE no conflicts will arise, then I believe it is proven that the LATCC practice of cancelling speed

control is an unnecessary erosion of safety and should be ceased forthwith.

The mandatory '250 below 10' (or min safe/V_{turb} when appropriate) is maintained throughout the United States, Germany, and Scandinavia, without any apparent difficulty. I see no reason why LATCC should be allowed to continue to breach this important safety rule.

I am not alone in believing that this practice will inevitably be the primary cause of a mid air collision at some time and I propose that the matter should be discussed as widely as possible in the hope that it may be recognised for the serious threat to air safety that I believe it is.

In the UK, the application of speed control on departing traffic within a TMA is principally for the purpose of maintaining separation based on timing. As soon as radar separation can be given, speed control will be normally removed.

The removal of the speed constraint does not imply that the flight crew must accelerate the aeroplane, only that they may do so if they wish. In this respect, SID horizontal profiles must be complied with and the speed should be such as to ensure that the correct profile can be followed.

NIGHT STANDBY DUTY

My company is contractually committed to provide emergency cover for North Sea operations every night between 2100 and 0600. Under this commitment the night crew has been called out on many occasions. An individual pilot will be rostered to cover the night duty for up to four days approximately every six weeks.

Radar closes at 2030, so any flights after that time will usually be covered by a flight information service from ###. This is only during transit to and from the offshore locations. After descending prior to approach and landing, the flight watch will be undertaken by the radio operator in the appropriate nodal (i.e. manned) platform.

Using radar/NDB/GPS for non-precision approaches we can descend to 300ft and 0.75 mile to an installation, and thereafter shuttle visually between installations in visibility down to 1500 metres. Shuttling between installations is carried out at 500ft, which is usually below shore based radar coverage anyway.

On occasions these flights can last for several hours or even the entire night, and are almost invariably used for rectifying problems on the NUIs (Normally Unmanned Installations). Crews can therefore be returning to base having been awake since they got out of bed about 22 hours ago the previous day. This is because it is not normally possible to sleep during the day prior to a night

shift, and there are obviously not enough night duties to get one into a nocturnal body rhythm. Likewise it is not normally possible to go to sleep significantly before one usually does, much as one might try!

Any unbiased risk assessment could not fail to conclude that there is a reduction in safety standards because of the risk of fatigue, lack of ATC, met. information etc. These risks might be acceptable for genuine emergency reasons such as injury, sickness etc. They would surely not be deemed acceptable for multi-sector commercial flights.

The reporter's concern was brought to the attention of the contracting agency, who has undertaken a review of the criteria for night operations under the referenced contractual commitment.

POOR RADAR SERVICE

It has become common practice for us to have our Radar Information downgraded to a Flight Information Service by Scottish Control when operating to the rigs to the west of Shetland. Sometimes this is because of us dropping in and out of transponder cover, but increasingly it is because Scottish, through no fault of their own, is having to prioritise the services to airline traffic when they get busy during the summer rush. This puts our passengers (the offshore oil worker) into a second-class citizen category, which I feel is unacceptable.

We fly published routes to as close to scheduled timetable as helicopters operate to, with passengers that produce a significant amount of wealth for the country; whose employers published record profits (and presumably paid record taxes) for British companies last year. Yet the level of service they receive from ATC (due to poor communications and radar coverage) could be described as third world standard.

It was understandable when these oilfields were first being explored. However, approaching a decade later operating to by no means marginal fields the improvement in service has never materialised as promised. I appreciate that improved coverage costs money, but surely in the interest of safety the Authority can urgently discuss the matter with UKOA knowing the importance of these fields to the country for years if not decades to come. The delay encountered in an emergency, if a helicopters ditches in one of Britain's most treacherous stretches of water, (whilst only receiving such poor coverage) could well prove fatal to those involved.

On the advice of the Advisory Board, this report has been passed to CAA (SRG).

TOO QUICK ON THE BUTTON?

Following a visual base join to RW ## a visual approach was flown with ILS as back up. The First Officer was flying. At about 1400ft we received a GPWS 'Glide Slope' warning. The visual and PAPI indications were correct, but the G/S indication was one dot low. We de-selected the ILS to stop the warning.

The problem was that the ILS was de-selected almost subconsciously to stop the warning, when the visual cue (PAPI) and visual picture looked correct.

Afterwards we discussed the approach and realised what we should have done was to capture the G/S to stop the warning.

A good lesson learnt in good weather.

SPECTACLES - A REMINDER

I recently attended a flight safety seminar overseas. One of the speakers described an incident during which the Captain's glasses became dislodged.

Twice recently, two Captains whom I fly with have experienced "spectacle failure". In both cases screws had fallen out.

Many years ago I purchased a "specs repair kit" (screwdriver, spare screws and magnifying glass). In both cases mentioned, I was able to assist by "repairing" their glasses.

I guess there are a lot of us out there with a screw loose!

99% of opticians will tighten/repair lost screws free then a tiny blob of non-toxic adhesive prevents slacking.

Would it not be a good idea to remind readers of the specs incident and my experiences?

ENGINE INDUCED UPSET

I originally raised the matter of high by-pass engine jet upset last year. This is a matter that continues to cause me some real concern.

For more than 15 years I have been flying jet passenger aircraft in and out of the UK, at present I am flying modern twinjets (just under 80 tonnes MTOW). The mass of air that large fan engines move backwards is tremendous and with aircraft and engines getting even bigger - thought and safeguards must be given to this problem.

This phenomenon seems to be increasing, probably as a result of striving to make runways more profitable - quite rightly so. However a further recent occurrence has again made it necessary to contact you. Over the years I

have brought the matter to the attention of various Company Safety Officers with no real satisfaction.

Last night on final approach to AAA with a light headwind (6 kts) we were established on finals at about six miles. The controller cleared a departure to line up, the visibility was good, and although I am not absolutely sure what type it was, it could be seen it was a widebody. As we approached approx four miles this aircraft was cleared for Take Off. It seemed to take an age to start its roll and we were finally given landing clearance at about one mile. At approx 50 ft all hell broke loose - a violent oscillation in roll accompanied by a rapid increase in airspeed of about 10-15 kts followed by a decrease, as we commenced the flare. The trainee First Officer handling did a good job in controlling the aircraft and made a good landing.

As we vacated the runway I did ask the tower what aircraft type had just departed and was informed it was a B747-400.

In the interests of Safety please can some research be done on this phenomenon, before we have a major incident. In the meantime, perhaps more Controller awareness is required.

There is anecdotal evidence to suggest that this type of incident may be occurring more frequently than the number of formal reports submitted by pilots would indicate. We would be interested to learn of other similar unreported incidents.

If you encounter wake turbulence or the type of upset reported above, it is important to make a verbal report to ATC and follow up with a wake turbulence report to ensure that the incident is recorded.

This report has been passed to CAA (SRG) for consideration by the Runway Occupancy Working Group.

SOME THOUGHTS ON WINTER OPERATIONS

Two serious icing related incidents occurred last year in the UK. The following two reports provide food for thought for the coming winter season.

(1) ANTI ICING PROCEDURES

Recently, I was positioning as a passenger to London from a UK regional airport. The day had started with a temperature close to freezing with snow flurries, which continued throughout the morning.

Prior to departure the commander of our aircraft anticipated the flying surfaces, however, during the time that I was waiting to depart I noticed few others doing the same.

I was not privy to the latest ATIS so I do not know what the actual temperature was, however, AIC99/2000 gives a definition of Freezing conditions as "an OAT below +3°C and visible moisture in any form or standing water slush ice or snow on the runway". As an observer I would suggest that icing conditions existed and all aircraft should have been preventively de-iced.

AIC99/2000 gives no guidance on anti-ice and the use of fluids for the same, and my company's instruction is similar. The FAA's AC135-16 is more specific with the "Clean Aircraft" concept and its instructions that "no person may takeoff an airplane when frost, ice or snow is adhering to the wings, control surfaces or propellers of the airplane"

It is my understanding that in the case of most aircraft it is impractical for pilots to physically check the flying surfaces prior to take off and the use of de-icing fluids and the departure of an aircraft within the holdover time is considered a suitable alternative.

It would be interesting to know what percentage of aircraft used de-icing fluid at ### on the day in question, in what was clearly moderate to severe icing conditions. If the figure was not close to 100% it would indicate that there was a lack of proper information reaching the operating crews.

The key to maintaining winter operations awareness is the development of sensible procedures for de-icing/anti-icing by operators that are made available to flight crew in the form of a simple chart, backed up by appropriate refresher training

(2) DE-ICED ALL OVER

On arrival at the aircraft in sub-zero conditions we found that the aircraft had already been de-iced. De-icing was obviously carried out with pax door 1L open and the air stairs down as the entrance vestibule and stairs/handrail were covered in de-icing fluid. (As an aside, this is very poor practice from a commercial point of view, I would imagine that any passenger getting fluid from the handrail on an expensive suit would be very annoyed). I was PNF for the sector and having climbed aboard did not thereafter leave the flight deck until after the incident.

Having called for taxi, upon attempting to release the parking brake, my feet slipped sharply off the rudder pedals in an upward direction causing me to injure my shin (a small cut) on the sharp edge of the control column lock.

I delayed taxi whilst attaching a plaster to my shin and drying the soles of my shoes and the rudder pedals/floor with toilet paper. There was no further incident and in future I shall have the rudder pedals two notches further

back, which felt strange for my long legs at first, but improves the angle of my feet on the pedals reducing the risk of a similar occurrence and removing the chance of injury in future (increased gap between sharp protrusion and shin!)

My grave concern is that had this not happened when it did (with no pressure on me) and I had subsequently had to abort the take off, I would have been unable to apply the brakes!! I will wipe my feet in future after going anywhere near de-icing fluid before flight!

Not only is de-icing with the door open poor practice from a commercial point of view but the potential flight safety and passenger safety implications are obvious.

AN ASSUMPTION TOO FAR?

I was the Pilot Flying (PF) on the last sector of a four-sector day (a double rotation to the same destination). It was my last flight before two days off and I had been flying rostered duties for the last six days, the last four flying the same route. This is a fairly normal pattern of work, so it is a route I am very familiar with.

Departure and climb were uneventful, and once in the cruise the PNF had obtained weather for two alternates and the destination from the Volmet. We then entered into a protracted conversation about performance calculations. I had glanced at the weather he had obtained for the destination airport, which did not give the runway in use, so I assumed a landing on the north westerly runway, as this had been the runway in use on the previous three sectors (the wind direction had not changed substantially from what had been mainly crosswinds throughout the afternoon).

Both pilots then selected the ILS/DME approach plate appropriate to the north westerly runway, and I briefed for that approach prior to the Top Of Descent, and then gave a PA to the passengers, which also described an approach to the north westerly runway.

Descent was commenced and responsibility for ATC communications was transferred to me, whilst the PNF spoke to the ground-handling agents and obtained the ATIS arrival information. There was considerable congestion on the common ground handling frequency and the PNF had to work quickly to make this call and still get the ATIS prior to first contact with approach.

Meanwhile, whilst still being given radar headings by an adjacent (preceding) airspace authority, both pilots set the nav aids and course bars for the ILS that had been briefed. The PNF then took back control of the radio at the same time as we were transferred to our destination aerodrome approach frequency. On initial contact with approach, however, the PNF failed to reselect his audio,

so although a transmission was made, he could not hear the response. I then realised what had happened, and read back our cleared altitude and the QNH. The PNF then apologised to the controller and acknowledged receipt of the latest ATIS.

We were given further vectors, and our mistake became obvious when we were cleared to intercept the localiser (for the South Easterly runway) at about 9 DME. Both course bars were then realigned and altimeter bugs reset to the new Decision Altitude. The localiser was captured, and we became established and configured for landing prior to the FAF (*Final Approach Fix*). A normal final approach and landing was then flown, despite my obvious shock at what had happened.

The chain of events started in the cruise, with my wrong assumption regarding the runway in use. This was reinforced by having the wrong approach plate visible on the control columns for the remainder of the flight.

The continuous conversation in the cruise distracted both pilots for long enough to ensure that the briefing had to be 'fitted in' prior to TOD and the workload on both pilots thereafter increased substantially.

During critical radio transmissions, satisfactory responsibility for operating the radio had not been completed e.g. on initial contact with approach, the landing runway was given, but not heard by either pilot. No runway was read back to ATC, so they too must have assumed we had heard correctly.

The PNF failed to notice the correct runway in use from the ATIS, and therefore to realise that the briefing and bugs had been reviewed and set incorrectly. He also had a fairly high workload involving checklists, calling handlers and updating the ATIS, which affected his ability to monitor the progress of the flight.

In the later stages both pilots showed a classic lack of situational awareness, due to the fact that we were being vectored around 'fat dumb and happy', fatigue and over familiarity with the route may have also played a part. As PF I knew the 'picture' looked wrong on the EADI, but despite my better judgment I maintained my false assumption until the last moment.

FLIGHT CREW COMMENTS

FTLs (FB59)

Re: FTL's Feedback Issue No. 59 July 2001 Pages 7 & 8

I would endorse the comments made in FEEDBACK recently.

1. Lack of rolling 7 & 14 days

My company, ### has a fixed day nominated for one-week and two-week duty limits. I have been regularly coming up to 95hrs in two weeks on rosters. Any delays

mean I am illegal very quickly. This is dealt with if I raise it.

However, as my recent experience demonstrates, it is considered fine to be operating at 97hrs or more duty on a rolling total. With all my rostered commitments, I was at or over 95hrs in a rolling 14 days from Monday to Friday inclusive. But that is OK as it comes down again for Sunday. So I can be over the maximum for five out of seven days. Surely this is not what the CAA intended with its legislation?

2. FTL not a limit but a Target

This targeting is bound to be happening in companies without a more restrictive private agreement. You must recognise 'its OK because its legal' is a normal response to any concern raised over hours and fatigue in most companies. It is a sad fact that legislation is necessary to limit commercial excess, so lets have improvement please.

3. CAA (SRG) Response to Item (2) Page 8

One comment in line with the above CAA (SRG) comment. If a pilot says he is fatigued and will not fly, yet the totals on paper are legal by the FTL, the Company response is normally to ask what is wrong with you. A colleague was asked to visit an Authorised Medical Examiner for assessment as a result of raising this very issue. I endorse the ANO principle and hope I would be strong enough to live by it. But to do so invites a potentially high cost. Again, improvement in the law please.

See Editorial item 'FTLs - An Update' on Front Page.

HASTY DEPARTURE (FB59)

Further to the article "Hasty Departure" (FEEDBACK 59) the cabin crew member concerned should have no hesitation in filing a safety report or contacting a member of management regarding the incident. The behaviour of the Captain, in taking-off without confirmation that the cabin crew are ready, cannot be viewed as acceptable by any airline. The fact that another aircraft may have to go around should cause the Captain to question why he accepted a line-up clearance when not ready to depart. Clearly this Captain had a lack of situational awareness not to mention very poor CRM.

How many times have we heard crews who are lined-up say "We are just waiting for the figures to come through"?

If you are not ready - Do Not Line Up!

SPEED CONTROL (FB59)

I feel I must comment on Issue No 59 to the ATC view on Speed Control (1).

I am a senior Captain (and trainer) in a UK airline flying the B757/767. I have two comments:

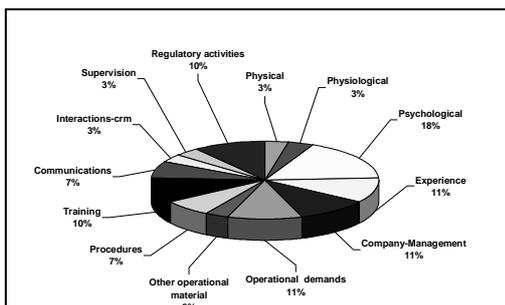
1. In low visibility conditions ATC cannot expect large jet aircraft to maintain 160 Kts to 4 DME. Flying a Low Visibility Procedure (LVP) profile on a modern large twinjet is complex, with crew procedures designed to ensure that the aircraft, the flying pilot and the automatics are properly monitored. Most companies require that the aircraft be fully configured at glide slope capture. This means about 130/135 Kts and full flap, at 8 miles or thereabouts on a B757/767. Higher speeds can unbalance the approach, lead to unrepresentative Rad Alt closure rates at low altitude, which can affect the landing flare, and are not recommended.
2. On a non-precision approach (if the ILS is not available) then once again in poor weather, the aircraft will be fully configured at the FAF - typically 8 miles out. On the B757/767 this means Full Flap and 130/135 kts. Once again I would expect ATC to be aware that if a non-precision approach is being flown the speeds will be much lower than for a ILS approach. Time and time again accident reports on non-precision approaches cite "rushed and unbalanced" approaches. This is why all the companies I have worked for have required the aircraft to be fully configured and on speed by the FAF. 160 Kts to 4 DME is asking for an unbalanced approach.

Yes, pilots will tell the controller at 10 miles that they cannot maintain 160 kts to the marker. In LVPs or for a non-precision approach they expect ATC to be fully aware of the speed control issue. Landing rates for an ILS flown in good weather cannot be maintained in LVPs or if a NPA is being flown. LVPs and NPAs require much slower speeds by their very nature. The controller should be well aware of this.

ENGINEERING REPORTS

Engineering Reports received in Period: 11

Key Areas



SHORTAGE OF AVIONICS COVER

The aircraft I am working on is currently undergoing a heavy check and is expected to take several weeks. The Avionic input into the check has, however, only just started - two weeks after the commencement date. There is minimal avionic cover and no certifying capability, although it is estimated that the inspections alone will take three weeks to complete. This timespan does not include the component replacement, defect rectification and functional checks called for on worksheets and non-routine work-cards such as radio rack removal and replacement for access.

When this latter task is finished, minimal time will be left available in which to complete the Avionic input. None of the Avionic Check work has been certified or completed so far. To give an approximation of the amount of manpower required for this level of maintenance, I believe on a previous check of this type it took twice as many Avionic tradesmen to complete.

These concerns have been raised with supervisors or junior managers, however, the former say, "it is none of their business"; the latter do not seem concerned. The inference is that the Avionic input into the check is minimal, and can be 'signed off' - a practice that (obviously) none of us will comply with.

I hope you can assist in achieving a solution to these concerns, and must add that I find it even more worrying as the Company normally place great emphasis on maintenance.

The reporter was advised to take the matter up with a senior Engineering manager of the Company. This action, combined with some other actions taken, eventually resulted in adequate coverage being made available to cover the required certification.

... AND 'HEAVIES'

I'm a licensed aircraft engineer. I am part of a structures modification team and I am very concerned at what the Company is doing to make up for the shortfall in manpower.

Because we are short of manpower to run two teams, we are having to use technicians of non-mechanical trades to drill holes in primary structures and carry out the mechanical part of a mandatory modification. They then stamp their own work which will not require an over stamp, all because the company has given them authority without any proper training in repairs to primary structures and no training in the use of drawings.

Now tell me if I am wrong or not, maybe I have got it wrong all along, but I believe that this sort of work should be in the hands of trained mechanical engineers

and then supervised by a licensed engineer of the same trade, but every time anyone brings this up we are told that this will be done no matter what, and I feel that this should be brought to the attention of the CAA.

Subsequent to this report, appropriate action resulted in the situation being reviewed and rectified with co-operation between the Company and the CAA.

MEL ADDS TO PROBLEMS!

Maintenance errors are often a combination of circumstances and pressures; the following is a prime example.

The aircraft involved was owned by one Company, leased by another and serviced by my Company.

I started work in the evening ready for a 12-hour shift as a supervisor. As I stepped through the door I was instantly drawn into a crisis involving the subject aircraft. Apparently the operator had just received this aircraft from the leasing Company. While preparing the aircraft for its first revenue flight a problem was found with a major component and there was a major panic to swap the aircraft around to another aircraft, which also had to be re-configured, and a number of defects rectified, before it could be dispatched. Between all the trades involved we managed to dispatch the aircraft, but later than scheduled, much to the annoyance of the operator. As for the unserviceable aircraft, we were instructed not to work on the unserviceable item as it was still under the guarantee from a previous service.

The rest of the night, proved to be extremely busy with our own fleet of aircraft, problems being made more acute by the shortage of experienced personnel; I was the only A&C certifier on shift. Two and a half hours before my shift was due to finish, I had a telephone call from Ops informing me that they wanted the defective aircraft for a flight in three and a half hours time. I sent two mechanics to carry out the daily inspection with no problems. I then inspected the unserviceable unit, to ensure it was in a safe condition for dispatch. By this time it was time I should be leaving for home. The only job left to do was to raise the ADD for the defective item, as this defect was transferred and cleared from the Tech Log. However, while raising the ADD it became apparent that the effectivity of the MEL in our office did not cover the latest aircraft. I phoned Ops and they showed much irritation that this had been found less than one hour before dispatch and they then passed me on to the Chief Engineer, who assured me that all such units could be deferred, which I knew.

The oncoming shift became involved and I asked the supervisor and the engineer who was looking after the aircraft, if they would transfer the MEL details from the onboard MEL to the ADD. I believed that the onboard

MEL was of the correct effectivity. As I had already inspected the component, I signed the ADD in advance to try to save time believing that all entries would be completed. Unfortunately no applicable MEL could be found on the aircraft, so no details were entered on the ADD.

Ops by this time were agitated, so the aircraft was dispatched, only to land at its next destination where it was determined that the aircraft should not proceed due to incorrect paperwork.

To conclude, I do know that I should not have assumed that other people would complete the ADD form for me or that the aircraft MEL was of the correct effectivity. I believe that the attitude of Ops placed extra commercial pressure on me to release an aircraft against my better judgement and also my own Company has steadily increased our workload without raising the manpower levels to compensate.

It is the Operator's responsibility to ensure the aircraft MEL is up-to-date; the reporter highlights the dangers of 'assumptions' and signing for work before completion.

This incident also highlights the need for a written handover from one shift to another so that a record of work carried out and outstanding work is readily available and can be used to ensure the correct completion of all work, including certification.

ENGINEERING COMMENTS

DUPLICATE INSPECTIONS

Following on from the previous report, the need for comprehensive additional work sheets to catalogue work carried out in addition to or complementary with other work being undertaken, although not specifically mentioned, is relevant to the following comments.

I could not help noticing the above article in FB57. Having completed 22 years in the Royal Air Force and 24 in Civil Aviation as a Licensed engineer, I feel at times I could write a book about the above subject.

One incident comes to mind more than others. I had noticed a heavy landing one night shift on an incoming aircraft. Once the aircraft was in the hanger we did the usual overnight checks. I personally decided to do a heavy landing check, all noted in accordance with Quality procedures.

The findings of my inspection were as follows:

1. The primary flap drive system was found disconnected in the port wing trailing edge. This I thought being the result of severe wing flexing as the drive control / shafts were of the push to fit type into the gearboxes.

2. Secondary damage had been caused by the rotating drive shaft to the trailing edge structure.
3. The secondary drive system had been 100% secure and this system looked as if it had ensured that the aircraft system had performed correctly. We did not know at that time the aircraft had been in service for over a week or more carrying fare paying passengers and crew and cargo.
4. The Quality findings were: At some time previously a flap gear-box had been changed on the starboard wing and whoever connected up the drive shafts did not realise they had pulled the shaft from the affected gearbox on the port wing when connecting up their gearbox replacement.
5. I did make sure that the defect was all rectified and the aircraft was fit for service after initial and duplicate inspections.

True, this design was not Murphy proof, but I still think that whoever does an initial and duplicate inspection should always think of the unknown i.e. on the opposite wing or side.

Specific requirements for carrying out duplicate inspections are contained in British Civil Airworthiness Requirements, BCARs, Chapter A62 and Civil Aircraft Airworthiness Inspection Procedures, CAAIPs, Leaflet 2-13.

equipment changes that have occurred in the last two-three years should be covered in this training. Dedicated refresher (system) courses should surely only be considered to address particular, identified, (perceived?) problem areas.

The writer seems to feel the need of recurrent/refresher training on the aircraft types/systems concerned, rather than an update on any changes on the aircraft. The commendable honesty displayed needs to be encouraged, however, training on that scale is not a statutory requirement! Do the majority of License holders agree that refresher/recurrent training is necessary every two years?

I entirely agree with the comments of the Quality Department involved, (especially with the variations of individual surveyors!) and congratulate them on their common sense approach and answer. They appear (to me) to be addressing the JAR-145 requirements well.

Amendment 3 of JAR-145.35, issued in April of this year has reworded and redefined the wording for Continuation and related training

It is understood that the JAA are also considering the need for more specific requirements for refresher training and re-training for certifying staff and these will be promulgated in due course.

CONTINUATION TRAINING

I would like to comment on the letter, "Continuation Training" in Issue 59, July 2001.

The writer has intentionally (or unintentionally) highlighted a problem of English with the terms Continuation Training and Recurrent Training. (We often hear also of Refresher Training). He/she seems to imply that Continuation Training is recurrent (refresher?) training of the different Aircraft types he/she holds authorisations for.

The Continuation Training terminology as used in the JAR 145.35 refers to, "Procedures, human factors and technical knowledge", and also refers to the use of feedback to ensure the procedures are accurate and working. Para 2 is specific, in that it refers to, " Changes in... requirements...JAR-145, Changes in Organisation procedures and the Mod standard of the products being maintained plus human factors issues."

It seems to be a common view amongst Licensed Aircraft Engineers that this means "a recurrent or refresher training session", where the aircraft system(s) are "refreshed" in the student's mind. I do not believe this is the correct interpretation. I do believe that aircraft modifications, Service Letters and other technical

JAR 66 LICENCES

I have been reading over the last few issues the seemingly increasing number of reports targeted at the transition of BCAR to JAR 66 licences, in relation to which I would like to bring up two points.

1. The first is the question that Avionic LAEs after May 31 2001 are unable to get 'Daily' or 'Limited and Simple' cover without first holding a JAR 66 'A' licence. Quality make it sound so simple! Of course the company QA are only following written down rules and regulations published by the CAA. This situation has effectively halved the number of line personnel at my place of employment, who can hold Daily authorisation, bringing greater pressure on the employees that do. On approaching the subject to Quality, Management and the CAA they all seem to have the same, "Go and get an 'A' licence", reply. I can't seem to get my head round the fact that in a recognised time of a shortfall of aircraft engineers the National Aviation Authority is introducing even more pressures on the few engineers that are around. This brings me nicely to my second point.
2. A good few months ago I read an article in Flight International, written by the CAA, recognising the shortfall in Aircraft Engineers, rising to 25% in avionics Engineers. It seems to me as if the

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

implementation of the JAR 66 licence is effectively pushing the avionics discipline onto the back burner. For example, for somebody to be employed on the 'future' line the basic requirement will be a 'B1' licence ('A', 'C' and 'X'), being able to do basic line maintenance including black box replacement. I cannot see that anybody that first gains an 'A' licence followed by a 'B1' Licence will continue on to a 'B2' licence, thus promoting the shortfall in avionic tradesmen. To put it into context, I hold all avionic disciplines except electrics. Just from observing the attitude at work, I have decided that if I wish to remain in the industry within a line environment I am to gain a 'B1' licence, with that, there is absolutely no point in me rushing out and getting the required modules to gain a full 'B2', I may as well put my efforts into Electrical Systems and 'A' and 'C' categories. Then, as happens now, an experienced mechanic's work will be signed off by an inexperienced but authorised certifier.

I realise that the CAA (SRG) is having a hard time with the introduction of the whole JAR set up, I also realise that at my stage of my career I don't need to worry about the outcome of the transition, or indeed, me personally holding a 'B1' or 'B2' licence but it is my professionalism that brings me to put my feelings on paper.

There have been 14 reports received on the subject of licences and Approvals so far this year, six since June. The debate on the new requirements is outside the remit of CHIRP, as there are no direct Human Factors implications, except insofar as the new requirements might result in too few qualified staff, which could lead to HF related incidents; an aspect clearly within the scope of the Programme.

The reports received on these topics have been forwarded, after disidentification, to CAA (SRG) for their consideration.

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

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

10/2001

1. RNAV Procedures
2. B737 Rudder Malfunction Training
3. Document 24, "Guidance to Examiners for Type Rating Skill Tests and Proficiency Checks on Multi-Pilot Aeroplanes".

11/2001

1. VMC Public Transport Helicopter Flights at Night

12/2001

1. Letter of Consultation: Proposal to Amend Civil Aviation Publication (CAP) 371 for the Purpose of Clarifying the Texts to Reflect Current Interpretations and Practices

13/2001

1. Designation of Hostile Environment - JAR-OPS 3
2. Coastal Transit Operations by JAR-AOC Holders - Performance Class 3 Helicopters

14/2001

1. AAIB Recommendations Following Two Serious Incidents Involving British Registered Aircraft Undertaking Public Transport Flights: One Relating to Strobe Lights, The Other Relating to Oxygen Masks Selected to 100%
2. CAP 712 Safety Management Systems for Commercial Air Transport Operations

15/2001

1. CRM Instructor Accreditation