

CHIRP FEEDBACK

Issue No: 80

Autumn 2006

EDITORIAL**SECURITY AND SAFETY**

It has been and remains the policy of this Programme not to publish or to comment on confidential reports that are related to specific security issues; however, all such reports on this topic are represented to the appropriate agency on behalf of the reporter.

the CHIRP Air Transport Advisory Board, which is comprised of nominees representing all of the principal professional groups in the UK air transport industry, recently reviewed a selection of safety-related confidential reports submitted by flight crew members concerning the additional restrictions imposed following the alleged terrorist threat in August. The Board reflected on the impact on flight safety of some of the revised security arrangements and the manner in which they were imposed in some instances.

It is pertinent to note that flight crew and cabin crew members are in the 'front-line' as far as any terrorist threat involving an aircraft in flight is concerned, in that their exposure to any such threat is much more frequent than most, if not all, passengers. Thus, it is not unreasonable to assume that the vast majority of flight/cabin crew members would be supportive of rigorous security checks, sensibly applied and based on the perceived risk.

Regrettably, some security restrictions have not been perceived by the professional groups as meeting these criteria; an example often quoted, with some substance, was the restriction on flight crew members carrying small screwdrivers/pen-knives in their flight-bag for professional purposes when the emergency equipment readily available to any flight crew member on the flight deck could represent a much more significant threat.

The most recent reports are similarly indicative of an apparent lack of forethought in applying the new restrictions to flight crew members and passengers alike, compounded by inconsistencies in the application of the new restrictions, both between UK airports and individual security agents; the latter reportedly being the source of considerable frustration to flight crew members, who were exposed to these variations on a daily basis.

One such example involved the ban on fluids. This included not permitting licensed flight crew members to carry contact lens fluid and/or eye drops through security. Whereas this restriction might possibly be justified in the case of a significant amount of liquid, and only an inconvenience to a passenger making a single flight, some airports confiscated quantities of 10ml or less from pilots who were subject to low humidity, air conditioning systems for extended periods of duty; this led to some pilots, who were accustomed to wearing contact lenses, having to resort to wearing their standby glasses (a regulatory requirement). However, they were not permitted the opportunity to clean the lenses of their glasses on the flight deck, as at some airports spectacle cleaning wipes were also confiscated from pilots! The evidence available to this Programme suggests that there was little pre-planning or consultation with the Civil Aviation Authority on this and other matters with possible flight safety implications.

Restrictions imposed on flight crew meals were another example of poor planning with potentially adverse effects on flight safety arising from the inadequate provision of food and liquids for some flight crew members. For pilots employed by those operators with agreements that flight crew members provide their own meals during a duty period, the introduction without notice of the ban resulted in pilots attempting to replace confiscated meals airside/on-board in competition with all of the passengers similarly affected, with only limited success. Subsequently, reports detailed practices such as draining gravy/liquids from prepared meals carried by crew members and, several weeks later, a total ban on pre-prepared hot meals resulted in some flight crew members operating multiple duties on several consecutive days with only crisps, sandwiches and other cold foods permitted throughout their periods of duty.

The Advisory Board concluded that the perceived lack of planning, the apparent lack of co-ordination with the Civil Aviation Authority prior to these security restrictions being imposed on flight crew, the alleged inconsistent application of the restrictions between agencies/individuals and the reports of aggressive/overbearing treatment of flight crew members in the course of their duties were significant areas of concern and a source of considerable frustration to the professional

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An Air Transport Safety Newsletter

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

pilot/cabin crew communities. As such they merit a detailed review to avoid similar safety-related issues arising from any future changes in security arrangements.

The Board endorsed the publication of this summary of the issues raised and recommended that a summary of the reported concerns be forwarded to DfT (Transec).

SELECTION OF EMERGENCY TRANSPONDER CODES

Several reporters have noted that CAP413 [Chapter 8 Para 4.1.3] advises that pilots in communication with a civil or military ATSU before an emergency arises should retain the existing code until instructed to change by ATC, only if the code is not 7000.

The CHIRP comment in FB79 (Page 3) was specifically related to air transport operations in Controlled Airspace; however, it has been suggested that this point be clarified for the benefit of the many GA pilots who also read this publication.

AIR -TO AIR COMMS ON 123.45MHZ

In FEEDBACK Issue 78 (Page 6) a report referenced the use of 123.45MHz for air-to-air communications. Although this frequency is allocated for air-to-air comms in some ICAO Member States, this is not the case in the UK as this frequency is assigned for discrete ATC use. [AIP GEN 1-7-37 refers].

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Number of Reports Received Since the Last Issue:

ATC - 9

Report Topics Have Included:

- Airfield Lighting Deficiencies
- VHF Interference from Aircraft Transmissions
- Inappropriate Use of a FIS
- Poor Understanding of English

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**Flight Crew - 64**

#### Report Topics Have Included:

- Rostering of 18-30 hour Rest Periods
- Roster Disruption
- Alleged Poor Maintenance Standards
- A/c Dispatched with Technical Defect
- Use of Monitored Approach Procedure
- ATC Pressure to Vacate Active Runway
- ATIS Phraseology for Variable Wind Conditions
- Airport Security Procedures

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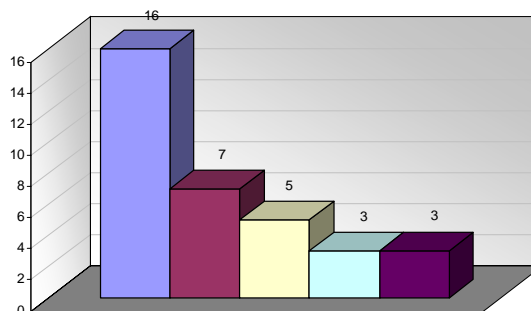
Engineer - 12

Report Topics Have Included:

- New Grading for LAEs
- Inadequate Staffing Levels
- Alleged Use of Uncertified Parts
- Unwanted Distraction

ATC REPORTS

**Most Frequent ATC Issues Received
12 Months to 30 September 2006**



- Communications - External**
(Pilots)
- Procedures**
(Use by Others, Adequacy, Use By Reporter, Lack of)
- Handling/Operation**
(Operation of Equipment, Airmanship)
- Training**
(Technique, Adequacy, Examination/Assessment)
- Air Traffic Management**
(Separation)

AIRFIELD LIGHTING WOES

Report Text: The taxiway lighting system at this airport is, quite frankly, a joke. Every time the system is switched on there are failures somewhere. This

has been going on for years, and is getting worse. Nothing seems to be done about it. The response is frequently "no spares/lack of people". I seriously doubt whether this airport complies with CAP 168.

On the night in question there were so many red stop bars which could not be suppressed that the R/T loading was at least doubled. The airport operator is quick to provide money for shops in the terminal - a different story when it comes to critical safety systems.

As I write this the Rapid Exit Taxiway lighting (RETILS) at one runway turn off has been unserviceable for more than two weeks. The sub centre for the runway lights suffered a fire in March of this year, as a result of which ATC's control of the main runway lighting intensity was limited, changes having to be made by engineers and taking up to 15-20 minutes; this is still the case and it is now September!

Staff are totally fed-up with this situation and have NO faith in the system/airport operator.

CHIRP Comment: The report was forwarded to CAA (SRG) Aerodrome Standards, following which an airfield inspection was promptly carried out.

The inspection revealed that some of the deficiencies identified by the reporter had been or were in the process of being rectified by the airport operator.

Remote control of the runway lighting intensity has now been restored.

A LACK OF UNDERSTANDING?

Report Text: The aircraft was operating a regular mail flight and failed to follow ATC instructions by establishing on the ILS after having been informed that he would be vectored through and back on from the north. This incident was reported

My colleagues and I are concerned that there is a language problem with some of the crews operating both this and other flights. The aircraft involved are registered in Eastern Europe and, whilst there seems to be no problem generally with the airmanship of the crews, it is often difficult to understand their radio transmissions due to heavy accents and sometimes poor radios. In the above case the controller had issued a slightly non-standard instruction, which had been acknowledged by the crew, who then flew what they had expected to hear, and established on the ILS from what was a 90° closing heading!

There usually seems to be no problem in them understanding our ATC instructions, but often we have problems with what they say to us. Quite often, usually when the aircraft is on the ground, the pilot will transmit a message that has us asking each other, "What did he say?" Asking "Say again", often leaves us none the wiser.

Whilst we manage on a day-to-day basis, we are concerned that we would not understand them in the event of an emergency. Recently we had a UK crew with smoke in the cockpit and the crew on oxygen

masks. The crew were both natural English speakers and we had difficulty copying their RTF messages; with these non-UK crews we would have no chance.

CHIRP Comment: Concern over the role of language in aviation accidents has prompted ICAO to introduce new international requirements and establish minimum English language proficiency levels. The requirements include testing and certification of the proficiency of air traffic controllers and pilots in the English language and corrective training for those who are unable to meet the ICAO standards. All member States of ICAO are required to meet these new English proficiency standards by March 2008

The common European licensing standards will most probably result in an increase in the number of pilots, for whom English is not their native tongue, flying Commercial Air Transport operations within the UK. Therefore, it is important that incidents involving miscommunication are formally reported, as was done in the case reported above, to permit the matter to be followed up and, in the small number of cases where an adequate knowledge of aeronautical English is found to be in question, appropriate action taken.

PLEASE DON'T DROP ME IN IT

Report Text: Pilot (UK Airline A) (foreign sounding), checked in at FL360 but due to workload I erroneously told him to "Maintain FL340" instead of FL360. Pilot (UK Airline B) checked in at FL340 and I told him to "Maintain".

My attention was then taken up with other traffic on another part of the sector and when I looked back at the subject aircraft, the Airline A aircraft had descended to FL340 and come into conflict with the Airline B aircraft. When asked why he was now at FL340, the other pilot of the Airline A aircraft (British sounding) stated that I had instructed him to.

When I replayed the tapes and discovered that I had made an error, not only by using the phrase "Maintain FL..." in the first place but also by issuing the wrong flight level, I felt a complete chump and was rather depressed for days. Then you think about the 'Sod's Law' aspect:

1. I probably said the incorrect phrase to the wrong aircraft of the pair as this aircraft had the foreign pilot.
2. The pilot of the other aircraft would possibly have challenged my instruction if I had given him the erroneous instruction.
3. I didn't watch the aircraft on the radar as carefully as I should have done - my attention was elsewhere on the sector.

While we all make mistakes (and hopefully learn from them), I'd like to remind aircrew that if we want them to climb, we say "Climb" and if we want them to descend, we say "Descend". The word "Maintain" means 'to continue' and if it is used in conjunction

with a different flight level than the one you are already at then an error has probably been made and you should challenge the instruction. I'd rather you challenge me than drop me in it.

CHIRP Comment: The reporter is to be commended for submitting details of his error.

The incident raises two points. First, it is a reminder to flight crew that in the UK the phrase 'Maintain' does not imply a clearance to climb or descend, as it does in some other States. As the reporter notes, if an ATC instruction to 'Maintain' is issued with a Flight Level different to that already established, always query the instruction.

From an ATC perspective, NATS 'best practice' is that if a pilot checks in and reports a correct level, either issue an executive instruction or acknowledge with the phrase 'Roger', do not repeat the flight level as this increases the opportunity for an error, as happened in this case.

VHF INTERFERENCE - AN ATC VIEW

Report Text: With the increasing expansion of aviation and new airfields there has been a consequential increase in frequency sharing with adjacent units.

The power of airfield radios is mitigated depending on the function of the ATC position associated with that frequency - for example, tower radios are far less powerful than approach radios and there is a protected range of varying heights and ranges depending on the function of the particular frequency being used. (The information on protected ranges is available in the UK AIP.)

It appears that many controllers and pilots are oblivious or unthinking of the power of aircraft radios; it is becoming more common for crews in the cruise to call the tower or approach frequency of their destination or alternate and have detailed conversations with ATC, oblivious of the fact that they are probably transmitting (and blocking) the frequencies of 2 or more other airfields sharing that frequency.

As airfield transmitters are less powerful than an aircraft's, the controller is unable to transmit to an aircraft that is a long way away and ask the crew to shut up! Some controllers are compounding the problem by not advising crews not to transmit when it is obvious that the transmission is being made from an aircraft well outside the protected range.

I have nearly had a go-around at AAA because I was unable to issue a take off clearance due to another aircraft at FL270 at Polehill chatting to BBB Tower.

Maybe there needs to be an education campaign - and not just in UK - This airfield also shares one of its frequencies with Eindhoven.

CHIRP Comment: As the reporter notes, the designated operational coverage (DOC) values for ground VHF transmitters are published in the UK AIP -

Aerodrome [Vol 1/2]. In the case of the aerodrome in this report, the Approach frequency DOC is 25nm/10,000ft and the Tower DOC is 25nm/4,000ft.

Except in an emergency or unless otherwise instructed by ATC, pilots should observe these limits when making airborne transmissions to avoid interference similar to that described. [AIP GEN 3.4.3 Para 2.2 refers].

Flight crew members should also note that most ATC standing agreements for the transfer of aircraft are on the basis of a silent handover (no co-ordination between ATCOs); incidents have occurred where a pilot has called on a Tower/Approach frequency and the controller has issued inappropriate instructions, believing the aircraft had been released from the previous ATSU.

In cases where Arrival ATIS is not available, aerodrome information can be obtained from the Flight Information Service. Adding runway information to Volmet broadcasts, if feasible, would also provide flight crews with the required information prior to commencing the descent.

Several Flight Crew Reports in this issue involve topics that might also be of interest to ATCOs

CAA (SRG) ATSINS

The following CAA (SRG) ATS Standards Department ATSINS have been issued since July 2006:

Number 88

Provision of Emergency Frequency 121.500MHz

Number 89 (Superceded)

Controller Responsibilities for Ensuring the Type of Air Traffic Service Provided to Pilots is Acknowledged and Understood

Number 90 (Replacing Number 89)

Controller Responsibilities for Ensuring the Type of Air Traffic Service Provided to Pilots is Clearly Stated and Acknowledged

Number 91

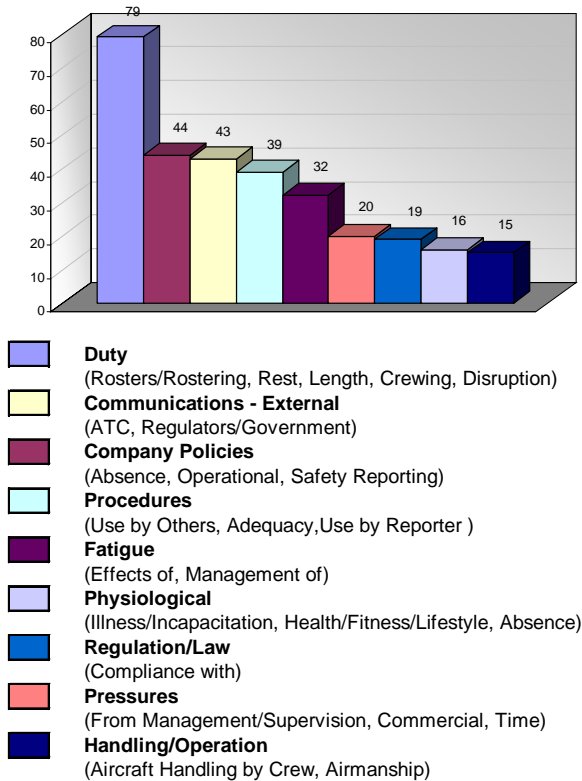
London Flight Information Service - Introduction of SSR Code 7401

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

www.caa.co.uk/default.aspx?categoryid=33 and click on the link 'Search for a CAA Publication'

FLIGHT CREW REPORTS

Most Frequent Flight Crew Issues Received:
12 Months to 30 September 2006



ZONE CROSSING REQUESTS

CHIRP Narrative: This report was submitted by a GA pilot but has been included in this issue because it is particularly relevant to ATCOs involved in issuing zone crossing clearances:

Report Text: Approaching AAA, receiving a Radar Information Service. At 20 miles requested IFR transit. Told to report at 10 miles but ATC then changed this to reporting at five miles. This caused me some anxiety that clearance had not been absolutely given and, at 130 knots, asking for clearance at the zone boundary seemed silly. My colleague asked at six miles and was immediately given clearance.

Conclusion - Some ATCOs need to do a bit of bad weather flying to understand the high pilot workload and give an early clearance where possible. On this occasion the traffic was very quiet but another aircraft could easily have called up at the wrong time.

Please remember the huge number of reports of zone breaches by GA pilots.

CHIRP Comment: Reports on this topic suggest that some ATSU's frequently delay the issue of zone clearances, as described in this report, whereas other ATSU's with similar traffic levels consistently issue clearances to GA aircraft as soon as practicable.

Pilots should note that a controller's ability to sequence a zone crossing between IFR arrivals/departures may be limited at ranges greater than 5-10 miles, in which case a 'Standby' instruction, although perhaps frustrating for a pilot, may be the safe option. In such a case, it would be helpful if the controller, where possible, was able to indicate whether a crossing clearance would be likely to be forthcoming or not.

RUNWAY OCCUPANCY

Report Text: We were positioning empty to AAA with a fairly new co-pilot flying. After initially being directed to hold, we were vectored off and sequenced for an ILS to the easterly runway. There were quite a few aircraft in the traffic pattern but we were sequenced very professionally by ATC.

On landing, however, we were almost immediately pressurised into attempting to take the first runway exit. As there was no way we were going to make that exit safely, I advised this and was told to attempt the next exit, which was orientated backward ie we had to make a turn of some 140 degrees to get off. I advised we would try for that exit but this was followed by what we took as being almost a reprimand for not being able to get off the runway sooner. I can't remember the exact words but it was something along the lines of 'reducing our time on the runway'. I assisted my colleague in braking and we did make the exit, however it was not comfortable and I certainly would not have attempted doing so if we had passengers on board and we would have gone for the next exit, no matter what was behind.

My point is that I know that the airport is busy and every operator is waiting for their turn on the strip of tarmac but I think it very unprofessional to almost badger crew in to attempting exits which are unrealistic at best and unsafe at worst. I thought about it afterwards in the cold light of day and wished I had said I will exit where I feel it is safe to do so and not before. My fellow crew member made a fairly good landing but if he had landed long we would have had no option but to have exited further along the runway, a fact that surely should have been in the back of the controller's mind when planning his next arrival or departure.

CHIRP Comment: When controlling close to the maximum runway occupancy rates there will be occasions when ATC request an aircraft to expedite vacating the runway; this is not in itself unreasonable. Giving a pilot as much notice as possible will often assist him/her in complying, whereas haranguing pilots if the circumstances are such that they are unable to make a specific exit is not helpful and does not promote co-operation.

WORKLOAD, RTF CONGESTION AND FUEL PLANNING

CHIRP Narrative: One of the consequences of re-sectoring some areas of UK Controlled Airspace both laterally and vertically is that additional ATC Standing Agreements have been established for the handover of climbing/descending aircraft between adjacent sectors. The following reports are some of the flight crew comments received since these procedures were introduced:

(1)

Report Text: What is it with ATC these days? We seem to be getting more and more requests to be at a level 'x' miles before a waypoint e.g. "65 miles before Goodwood", "100 miles before Monty"

The first point equates to about 'Kibli', the second about 'Exmor'; so, why can't we just say 'abeam Kidli' or 'abeam Exmor'.

Climb and descent is no place to be getting charts out to find a waypoint as the reached waypoint has often been cleared from the FMGC before the climb or descent restriction is given.

(2)

Report Text: Not an event but an observation/suggestion regarding RTF congestion.

If we wish to reduce RTF congestion perhaps some thought could be given to the altitude constraints used at ATC sector handovers. If the use of a "Level at a point before a waypoint" restriction is required e.g. "10 miles before Avant", "35 miles before Lambourne", "40 before Biggin or even, if on a heading, "Abeam 10 miles before etc etc"; if the present waypoints available are unsuitable, why not create new ones; this would not only reduce confusion for flight crews who are unfamiliar but also the workload in calculating if you will be able to comply.

(3)

Report Text: Climbing out of AAA, handed over to 'London'. The controller appeared busy, constant transmissions from ATC. Every time an instruction was given to an aircraft and after the aircraft replied the controller immediately started another RTF transmission.

There was no opportunity for any aircraft to make a call to the London Controller. Everyone was getting stressed. This combined with the ATC instruction "Make FL270, 'x' nm before MID" etc., (which on most occasions the aircraft type that I fly cannot make) led to extra two-way conversations, if you could get a word in!!

Everyone talking very quickly and no two-way communication possible. This is not an isolated event.

(4)

Report Text: Increasingly we are experiencing difficulties in fuel management/planning due to ATC requirements for early (non-economic) descent points to meet ATC 'standing agreements' for levels in various sectors.

There are two issues, Firstly, the control around the 'Midlands' seem reluctant to issue full descent profile clearances unlike London, who in general do, and Maastricht who are excellent in this. I often find myself being challenged on descent rate and told I have to be level within xxx nm, requiring fairly drastic action! Secondly, I am using a significant 'chunk' of 'contingency' in these non-economic descent profiles, and company planning does not know of these.

I wondered if you could find a way to speak to NATS/CAA (SRG) to see if there is some way things could be resolved.

CHIRP Comment: For Airfields with published STARS (Standard Instrument Arrivals), a number of descent planning levels are promulgated on the relevant chart in the UK AIP and thus this information is available for publication on the relevant Approach Chart; with prior knowledge of these levels, it should be relatively easy in most advanced flight deck aircraft to 'work around' the absence of a specific waypoint without a significant increase in flight deck workload.

As noted in (4) above, some operators have adopted descent procedures based on an optimum fuel cost index; these normally require slower descent speeds of around 250kts and can complicate ATC traffic sequencing, if not adopted by all operators.

From an ATC perspective NATS has welcomed the comments in the above reports and has commented that working with pilots, airlines and, where appropriate, using flight simulators will help to ensure that new routes and airspace designs consider all users and the implications for workload both from an ATCO and a flight deck perspective. More specifically, with respect to designating additional waypoints, NATS has pointed out that current rules do not allow all points (such as those defined by DME distances) to be named as a waypoint.

We would be interested to learn of any specific problems with any current UK descent profiles procedures and will represent any received, appropriately disidentified, to the relevant agency to permit the matter to be assessed.

VHF INTERFERENCE - FROM THE OTHER SIDE

Report Text: Once again, there seems to be an increasing number of ATIS frequency conflicts. The one you might be able to assist with is 128.17 (MAN ATIS) which is blocked by a French ATIS (Unrecognisable location), which tells me that the airfield is closed and I should contact ATC for info.

The interference was such that we could not get MAN until 120 NM at FL410 inbound from the LAM direction.

Even a lazy git like me likes to brief before TOD. Surely there are enough frequencies and/or a clever computer programme to stop this?

CHIRP Comment: The designated operational coverage for the MAN ATIS is 60nm at 20,000ft [UK AIP - Aerodrome Vol 2]; thus, there is no protection against interference at heights/ranges greater than the DOC.

Given that most UK operators SOPs require the approach briefing to be conducted prior to commencing the descent, interference of the type described that prevents the ATIS information being received at this time is operationally unsatisfactory.

NATS have stated that the likelihood of changing the Arrival ATIS frequency is remote due to the lack of available VHF RTF frequencies in the UK. In view of these difficulties and the reported interference, NATS is investigating the possibility of transmitting the Arrival ATIS information on the MAN VOR frequency; the LHR Arrival ATIS was made available on the BNN VOR frequency for similar reasons.

Also, Digital ATIS, which is not subject to interference, is currently available at MAN for uplift by ACARS equipped aircraft.

QRH SMOKE DRILL

Report Text: Our QRH SMOKE drill used to be:

**IF PERCEPTIBLE SMOKE APPLY IMMEDIATELY:
CREW OXY MASKS ON/100%/EMERG**

Etc.

This has now changed to:

IF PERCEPTIBLE SMOKE APPLY IMMEDIATELY:

BLOWER OVRD

EXTRACT OVRD

CAB FANS OFF

GALY & CAB OFF

SIGNS ON

*** IF REQUIRED:**

CREW OXY MASKS ON/100%/EMERG

The First Officer and I practiced the revised drill the other day using touch drills only. Whilst doing the drill itself only takes 10-15secs, establishing communications with the Cabin Crew could take much longer. All the while we could be inhaling potentially harmful substances.

I think this drill is potentially dangerous - the first and over-riding priority for the crew should be to ensure that the oxygen masks are donned without delay. Everything else is secondary to that crucial task. All of my career I have been taught and understood that principle.

This new drill defies logic and good airmanship. We are being taught in our latest simulator check to 'Follow the drill', but 'Do as you see fit' on the line. This is unprofessional and wholly unsatisfactory. It is apparent that many of my colleagues share my concerns.

I wonder if CHIRP would care to comment?

CHIRP Comment: This report was forwarded to CAA (SRG), who subsequently advised that the amended drill had been issued by the aircraft manufacturer and applied to more than one aircraft type. The CAA elected to discuss the rationale for the change with the manufacturer.

An Air Accidents Investigation Branch (AAIB) investigation into a crew incapacitation incident in 2000 reviewed a number of similar incidents involving the presence of smoke/fumes in the flight deck/cabin; the AAIB report was published in 2004 [AAIB Accident Report No.1/2004] and states:

2.3.3 Donning of Oxygen Masks

A review of the incidents which have occurred, indicates that not only are operating crews abilities likely to be impaired, to varying degrees, but that they may not be able to judge this for themselves and hence take appropriate remedial action. For example, both flight crew members did not always don oxygen masks when there was an indication of an unusual smell or fumes, or deterioration in performance, or seek assistance from cabin crew members or any other flight crew on board the aircraft. During the incident involving G-JEAK, a positioning crew seated in the passenger cabin were not made aware that one of the operating crew was incapacitated.

On 28 December 2000, the CAA issued Flight Operations Department Communication (FODCOM) 17/2000 which addressed those situations in which smoke or fumes are detected on a flight deck or when one pilot appears to be in any way incapacitated, and required operators to instruct flight deck crew to don oxygen masks as their first action in such circumstances.

The following Safety recommendation was made in May 2001:

'It is recommended that the Civil Aviation Authority should consider issuing additional advice to the crews of jet transport aircraft on the best operational practice when there is a suspicion of flight deck or cabin air contamination. The advice should include the necessity for all flight crew to use oxygen masks selected to 100% and the importance of cabin crew taking an active part in monitoring the flight crew in such circumstances'.

[Safety Recommendation No. 2001-47 (made May 2001).]

In response to this recommendation the CAA have issued various FODCOM including 14/01, on 24 August 2001, emphasising the use of 100% oxygen and asking for amendments to the operations manual procedures. This was followed up with FODCOM 21/2002, on 29 August

2002, which reiterated the need to don oxygen masks whenever contamination of the air is suspected. Most operations manuals now contain information on the donning of oxygen masks when contamination is suspected.

The research so far indicates that substances acting as an irritant(s) may be the cause of the effects experienced by the flight crew on G-JEAK, and possibly during other incidents. The donning of oxygen masks at the first indication of the problem would have reduced the exposure time to these suspected irritants, reducing their effects, and may have prevented the apparent incapacitation of the first officer and the reduced capacity of the commander to operate normally.

CAA FODCOM 21/2002 States:

Para 1.5.1 Operators should ensure that flight crews are aware that the first action in the event of smoke or fumes on the flight deck should be for the flight crew to don oxygen masks and establish communications.

Whilst the majority of smoke/fume incidents are of a relatively minor nature and thus might be safely and effectively mitigated by the manufacturer's amended drill, the failure to don oxygen masks as an automatic first action in response to perceptible smoke/fumes could place flight crew members at significant risk in a small number of cases. If the design of the O₂ mask is such as to inhibit significantly vision and/or communication, its suitability for its intended emergency function might be open to question.

The evidence available would suggest that the immediate donning of masks still represents 'best practice' in protecting flight crew members from the effects of smoke/fumes. This remains the current UK AAIB position and is also that reflected in the most recent advice issued by the CAA.

The CAA Flight Operations Department is currently reviewing this matter with the aircraft manufacturer.

UK PHRASEOLOGY & 'LEVEL BUSTS'

Report Text: I am a UK licensed pilot and TRTO instructor responsible for training both UK and non-UK flight crews. It seems to me that the adoption of country-specific RTF phraseology potentially contributes to the problem of 'level-busts'.

Well-intentioned though such refinements as 'descend flight level one hundred' (in place of the ICAO 'descend (to) flight level one zero zero') may be, they are doubtless unexpected to the average foreign UK airspace-user's ear.

The UK's 'Closing the localizer from the left, report established' (with its unlikely reply, 'ILS wilco' - CAP 413 1.6.3) in place of ICAO's 'cleared for ILS approach' does confuse many of the multi-national crews with whom I conduct LOFT (Line Operations Flight Training) (and they are usually aware that GS descent before establishing on the LOC is forbidden).

Conversely, how many times a day do UK aircrew commit unintentional RTF faux-pas in, say, Spanish or

German airspace? Every time we say "flight level wun hundred" for a start, I imagine - how they must complain about us. We should all read each-others' AIPs but probably don't.

Instead of notifying differences to ICAO phraseology, wouldn't national Authorities be better employed negotiating changes to PANS then enforcing Doc 4444?

CHIRP Comment: The CAA in conjunction with NATS has reduced the number of phraseology differences from ICAO significantly. The small number that remain have been assessed to be significant enhancements to safety.

The UK has also sought to promote change within ICAO, as the reporter suggests. As an example 'Flight Level Wun-Hundred' was introduced in the UK in 1996 and NATS compiled clear evidence of a reduction in misheard clearances following its introduction. In spite of the term having been adopted by several other European States and Eurocontrol agreeing to adopt the terminology next year, the anticipated change to ICAO phraseology is understood to be still some time away.

CONDITIONAL CLEARANCES - BETTER READBACKS

Report Text: Conditional clearances are often used nowadays, and whilst we have had it drummed into us that the condition is read back first before the clearance, it seems that for some of us, the condition that we read back is often ambiguous which could lead to potentially serious safety consequences.

For example, how many times have you heard 'After the departing traffic line up'? It is a readback that we all hear very often and we probably won't think twice when we hear it. However, after pausing to reflect about that situation, it is worrying to think that, without a readback with any reference to the aircraft, the ATCO must be in a position where he/she is assuming that the flight crew have identified the traffic that they are lining up after? Surely assumptions can't afford to be made in a situation where runway incursions are possible? Better readbacks are needed from flight crews to ensure that no ambiguity exists. Ultimately, what we are doing is subconsciously eroding the last safety net that we have in preventing some runway incursions from occurring.

My previous airline's Ops Manual had an item of guidance on conditional clearances, which said that ideally the operator and aircraft type should always be readback. This would leave the ATCO in no doubt that you have positively identified the aircraft that you are waiting for. Arguably a sound practice however one that MATS Part 1 seems to suggest being used only where necessary in busy traffic environments.

My home airfield has a large number of commercial helicopter movements and phraseology such as 'After the landing/departing fixed wing' is used frequently.

That example is vague in establishing that the helicopter crew have identified the traffic that they will be waiting for and this could easily have safety implications. Readbacks from foreign operators are also often not as accurate as they could be in eliminating any confusion.

The A320 family of aircraft types is probably a good example of how type confusion could easily occur, however they are also the main types which are generalised at smaller airfields and are often referred to as simply being an 'Airbus'. You never hear 'after the departing Boeing'... do you?? Obviously ATCOs at congested airfields are 'primed' to ensure that clear instructions are used to differentiate between similar types when issuing conditional clearances. Double standards are creeping in at quieter airfields where type accuracy is often not as exact as it could be. For example, if the ATCOs flight progress strip has A319 on it, then surely it would be more accurate to refer to the aircraft as an A319 or an Airbus 319, rather than just an Airbus? It may seem like it is nitpicking, however as airfields get busier, it seems prudent to keep the phraseology as exact as possible.

That way at least as ATCOs and flight crew, we have done our best to reduce the chances of runway incursions in the future.

As flight crew, we need to be stricter in our adherence in making sure that what we readback is an exact replica of the condition that was stated by the ATCO. At face value, this topic seems rather benign but after pausing to think about what we are allowing to happen and the potential safety knock on effects, it starts to appear in a different light altogether.

CHIRP Comment: NATS has advised that from an ATCO perspective, best practice is that any conditional clearance should be totally unambiguous with regard to the pilot identifying the landing traffic. It follows that the pilot readback should be equally unambiguous to the ATCO.

Using the operator's identity to assist in identification, as suggested in the report, might be useful in some circumstances, but at those airports where sub-charter operations are routine, this might introduce a further source of potential confusion.

It is widely perceived that, whilst being a significant contributory factor in runway incursion incidents, conditional clearances contribute to increased arrival/departure traffic rates. NATS is conducting a series of trials at UK airports to assess the effect of eliminating/limiting the issue of conditional clearances. Pilot feedback on any impact, whether positive or negative, that these changes might have on flight deck operations will be a valuable contribution to the analysis of the results of the trials.

MORE DISCRETION - PERHAPS NOT!

Report Text: During a recent briefing we were given two presentations by senior Flight Operations

managers. Both emphasised the need for commercial awareness which seemed reasonable.

However, I became concerned when the subject of flight time limitations was discussed, specifically the use of Captain's Discretion. Both Managers suggested that the absolute three-hour FTL limit could be broken if it meant getting an aircraft back to base and I quote, "Don't worry about the report to the CAA; we are good friends with them and will sort it out". I felt that I was being unduly pressured to operate outside of legal duty periods, and that the company felt that commercial interests overrode legality and safety.

CHIRP Comment: The report was passed to CAA (SRG) who provided the following response:

The CAA will not countenance an extension of discretion beyond that specified in an AOC Holder's Approved FTL scheme, except in a life-threatening situation.

TIREDDNESS - A CONTRIBUTION TO HUMAN ERROR?

Report Text: A long series of changed duty report times from very early starts to late finishes and night flights mean rest is a premium. Days off rostered as minimum and rest periods more often in the 18-30 hour bracket than not. Days off are not respected with regular calls asking to operate on them even when it would be a legal day off. Also getting calls on a day off to change a standby for the next day to a duty.

On this occasion, a night flight after a 26-hour rest period, we had an unserviceable APU. Previous crew had reported trouble starting an engine. Engineers turned the engine over on ground with no trouble and signed it off. Two normal starts ex AAA (UK). On start-up in BBB (Southern Med), symptoms reported by previous crew experienced; the reason was that we had not turned the packs off.

With an unserviceable APU and therefore no bleed air the EICAS shows L and R Packs OFF. The time that all EICAS messages are checked and cleared is when the air start unit is attached on preparation for start, as they were in this case. When air was applied, the majority of the airflow was into the packs rather than to the starter.

I feel this highlights a number of issues; one of which is the reliance on EICAS messages as opposed to system selection at a critical phase. Despite 1,000hrs on the B757 and nearly 5,000 on the B767 I can still forget this crucial stage. Secondly, rostering practices that consider CAP 371 as targets rather than absolute limits, and the guidance given in CAP371 is only worthy of being ignored, results in some very tired pilots, particularly when days off are not respected and arguments and threats occur as a result.

CHIRP Comment: Following representations to CAA (SRG) on roster instability and the scheduling of rest periods between 18 and 30 hours, these matters are

being discussed between the Authority and the operators concerned. It should be emphasised that some 18-30 hour rest periods are acceptable when a crew is acclimatised, whereas others give rise to some individuals experiencing difficulty in achieving adequate rest prior to the subsequent duty.

Please note that this report contains two commonly held misconceptions related to FTLs. First, there is nothing to prevent an operator from attempting to contact an individual on a scheduled day off, except where this is covered in a company scheduling agreement [pre-flight rest periods are required to be protected from interruption]. Second, CAP 371 provides guidance to operators on how to draft a FTL scheme. Each operator's scheme, when approved, is the definitive document and may contain some small differences in some respects, although many schemes are identical to CAP 371.

The reporter's error is a useful reminder that even pilots experienced on a particular type can make mistakes. Most non-normal procedures are detailed in either the Quick Reference Handbook or the 'less quick' Flight Crew Operating Manual and should be used to minimise the opportunity for errors of this type.

CABIN CREW REPORTS

NOT WELL PREPARED

Report Text: Our wake up call had been changed to 'indefinite' delay; we were called approximately one hour after our original wake-up time.

At the airport, the engineers told me that there was a problem with the hydraulics but they had not found the cause. When I asked the Captain what procedure would be, he stated that an engine run would be carried out. We commenced boarding and nothing was mentioned again about hydraulics either prior to our departure or during my routine in-flight visits to the flight deck.

Our usual practice is that 20 minutes prior to landing seat belt signs are put on and cabin crew informed. However, only 10 minutes prior to landing, Captain made an announcement that we were landing. (A full wide-bodied aircraft does require 20 minutes, unless there are exceptional circumstances which prevent this.)

As we landed I saw that the fire tenders and emergency services were in attendance and wondered who they were for? I realised that they were for us when the passengers seated in the premium cabin began to panic.

Following the landing, the Captain made an announcement explaining that some passengers may have seen some of "our friends" surrounding the aircraft but that this was normal as we had had a little technical problem. He did not use the words

describing fire tenders, which led to passengers asking me further questions about the situation. We were then parked on a remote stand and the offload then took nearly an hour.

Why wasn't I informed that we were going to be escorted by emergency services? I could have prepared the crew for this as well as alerting them to the possibility that we might experience an emergency situation. The Captain may have considered the issue of hydraulics of no consequence but the emergency services were there for a reason!

After landing, during the next 1 hour 20 minutes, the Captain made no attempt to ask me about the passengers' reaction or if the crew were OK.

I understand that the pilots have an extremely heavy work load in unusual circumstances but I feel that as the flight crew had not been concerned that there was anything wrong with the aircraft, they had left the cabin crew out of the equation. I have operated many times over the years with precautionary landings and understand that this may have been a minor incident but I had never landed previously without full knowledge of the conditions we might meet on the ground.

I feel that flight crew need to be reminded that cabin crew only possess the knowledge about the circumstances of the flight if they keep us informed.

CHIRP Comment: In situations similar to this, there should be a process between the flight deck and the cabin to ensure that each member of the cabin crew can be alerted discretely to the situation and be made aware of the aircraft commander's intentions, so that they are mentally prepared to deal with any problem that might arise. It might be appropriate in some circumstances to delay briefing the passengers until after landing to avoid unnecessary stress.

CAA (SRG) FODCOMS

The following CAA (SRG) FODCOMS have been issued since July 2006:

11/2006

1. Reinstatement of Generic Requirements 2 and 3 (Previously Airworthiness Notices 64 and 79) - "Minimum Space for Seated Passengers" and "Access to and Opening of Type III and Type IV Emergency Exits" -in CAP 747 "Mandatory Requirements for Airworthiness".

12/2006

1. Nicosia FIR Operating Procedures

13/2006

1. Passenger Safety Briefing Cards

14/2006

1. Carriage of Cigarette Lighters in Checked Baggage

15/2006

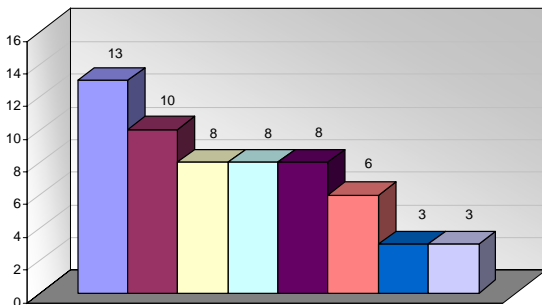
1. Use of Thickened Anti-icing Fluids with Potential to Accumulate, Re-hydrate and Freeze

CAA (SRG) Flight Operations Department Communications are published on the CAA (SRG) website

www.caa.co.uk/default.aspx?categoryid=33 and click on the link 'Search for a CAA Publication'

ENGINEER REPORTS

Most Frequent Engineering Issues Received:
12 Months to 30 September 2006



AN UNWANTED INTERRUPTION

Report Text: During the turn-round of a company aircraft I was tasked with the second re-torque of the P2 Windshield following the replacement of the item the previous evening due to arcing/de-lamination.

Prior to the arrival of the aircraft, I had requested the use of a set of B747 air-stairs to provide safe access to the work area. I had informed my company maintenance control that a slight delay might occur due to the anticipated time taken to carry out the re-torque task. This was accepted without question. After completing the required scheduled maintenance items, I proceeded to begin the task of re-torquing i.a.w. the requirements of the relevant AMM Chapter, using the B747 stairs to provide safe and convenient access to the work area. I slid the

side barriers of the stairs across to further enhance my security whilst leaning over to torque the outboard vertical row of fasteners.

After having completed approx 60 of the 72 fasteners, I was requested to halt work by a member of Airfield Operations personnel who deemed my working practice to be unsafe. After trying to explain that these steps had been used, without any problem, by my colleagues the previous evening, I discussed the matter with the aircraft commander who liaised with Airfield Operations. It was agreed that the use of a safety harness would be satisfactory to allow myself to continue as long as I clipped the harness to the rail of the steps.

Whilst agreeing to the request of the H&S Rep of the Airfield, I felt very frustrated by the attitude of the Airfield Operations member as I had been interrupted in the course of a technical procedure which required concentration to complete the torque sequence. To ensure that I had not missed any fasteners, I backtracked to the previous 10 fasteners and continued the torque sequence to completion.

Interestingly, my colleagues informed me that on the previous evening, a member of Airfield Operations had been observing them 'out of interest' in the task that they were carrying out. My concern is that whilst carrying out a safety critical task, I was disturbed, the consequences of which could have been a potential failure of the windshield.

CHIRP Comment: Some windscreen maintenance tasks are difficult to undertake without the availability of access equipment; thus, it is not possible from the details given to assess whether the intervention of the airfield operations individual was justified.

Notwithstanding this, the report is a good example of how frustrating an unexpected interruption can be, when attempting to complete a maintenance task as expeditiously as possible.

The reporter very sensibly backtracked sufficiently to ensure that in spite of the interruption the task was completed correctly.

INCREASED PRESSURE?

Report Text: My company management has informed its Licensed Engineers that it is introducing a new certifying level, the Aircraft Maintenance Supervisor (AMS).

Whilst a proper supervisor level within our organisation is welcome and long overdue, the new level is to be included in a performance-based management grade; this has caused concern to myself and others as it means that the pay and career prospects of the AMS Engineers will be related to their individual performance, particularly the amount of deferred defects they clear and the amount of flight departure delays they incur. We believe that they could be put under pressure, real or

imagined, to clear or allow a defect or damage that would otherwise be investigated further.

At management briefings on the subject of AMS it was stated that there are certifying Engineers within this management grade already, but these are relatively few line station and NDT (non-destructive testing) engineers and not an unknown amount at main base. Most certifying Engineers who join this grade have their authorisations and approvals pacified (*retained but not usable*). We believe this is due to a possible conflict of interests.

The replies to questions on this subject at the briefings were vague, insufficient and possibly incorrect, The reactions of those staff members within my section, who are already in the management grade, to delays and ADDs leaves me in little doubt that undue pressure on AMS Engineers will become an issue.

This is not the case at present as the certifying Engineers are on a craft grade and pay is not directly related to performance; their main concern is therefore the serviceability of the aircraft and its passengers.

CHIRP Comment: This is one of a number of reports received expressing similar concerns about a perceived conflict of interest for individuals entering the new grade. These concerns were represented to both the company concerned and the CAA.

The company noted that the policy for this new senior grade for LAEs to be performance managed was consistent with that for other senior managers with key safety responsibilities. A major objective of the new grade for LAEs is to improve the oversight of maintenance activities and to raise overall maintenance standards. The key performance parameters established for LAEs in the new grade will focus on airworthiness and safety criteria.

The CAA Survey Department has been briefed on the proposed changes and are content with the objectives of the changes.

One of the important safety checks in air transport operations is the role of the LAE in the objective assessment of defect rectification and maintenance tasks. Providing that the performance parameters for the new grade are established on the basis of enhanced airworthiness and safety standards, and individuals are placed under no financial penalty for operational consequences that might arise from them exercising their professional judgement, no conflict of interest should arise.

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CHIRP DEPUTY DIRECTOR (ENGINEERING) APPOINTMENT

Earlier this year following David Innes's decision to seek a different career path as an aviation consultant, the Trust commenced a recruiting process for a replacement Deputy Director (Engineering).

Following a successful advertising campaign in April/May, a Selection Board chaired by Ken Smart, who recently retired from the post of Chief Inspector Air Accidents, reviewed the applications and short-listed two candidates, both of whom had eminently suitable backgrounds and experience for the post.

After careful consideration, the Trust has appointed Mick Skinner as the new Deputy Director (Engineering). Mick recently retired from the post of Manager Quality, Engineering Operations, British Airways after serving more than 40 years in engineering related posts with BA; Mick will be joining the Trust on a part-time basis with effect from 1 November 2006.

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