CHIRP FEEDBACK

Issue No: 77   **Winter 2005/06**

EDITORIAL

ALCOHOL AND THE WORKPLACE

Recently we received a report alleging that an individual regularly undertook assigned duties while under the influence of alcohol, with potentially serious human factors implications.

Reports of an interpersonal nature such as this are relatively rare and provide a significant challenge to confidential reporting programmes, particularly when the reporter's perception is that the matter has not been adequately addressed by the internal company reporting procedures available, but for whatever reason he/she feels unable to pursue the matter openly. On this occasion, after careful consideration of the reported circumstances and with the reporter's consent, the concerns were represented in general terms to the relevant CAA (SRG) senior manager, who elected to make further enquiries; these enquiries led to the allegations being substantiated.

As a result of the investigation, the CAA has provided the following information as a reminder of the current legislation on the subject.

CAA (SRG) Comment: Both the Air Navigation Order (ANO) and JAA/EASA requirements contain provisions regarding intoxication of personnel in the workplace. Whilst these mainly focus on licensed personnel, the potential consequences of errors being made by unlicensed personnel, whilst intoxicated, are equally important. In principle, the consumption of alcohol, drugs or any other intoxicating substances prior to going on duty is unacceptable. Should any person be found to be intoxicated, the CAA will expect the organisation to take appropriate action. Some organisations may consider this as gross misconduct and grounds for dismissal.

For licensed personnel, the CAA would expect any privileges of the licence to be suspended pending assessment. If treatment is necessary the CAA will agree a recovery protocol, with the support of the individual's medical practitioners, to address the issue. The Railways and Transport Safety Act (2003) introduced prescribed alcohol limits for pilots, flight navigators, flight engineers, flight radio-telephony operators, cabin crew and other personnel attending the flight deck for specified purposes during a flight of 20mg/100mls blood. ATCOs are also subject to the 20mg/100mls blood limit. The blood alcohol limit for licensed aircraft maintenance engineers is 80mg/100mls. Employers and the industry at large have a responsibility and duty of care to report any individual suspected of being intoxicated. An investigation under this Act is not a matter for the CAA; it is the police who are empowered to investigate and take action, observing the usual protocols associated with the Police and Criminal Evidence Act (PACE). Breathalyser kits can be used for initial testing followed up by blood/urine sample testing for confirmation. The police may recommend prosecution if found over the limit, as for drink driving. In addition, the CAA will consider the need to take any licensing action. In exceptional cases, the CAA may consider prosecution under the ANO.

Clearly these sort of issues need to be set in context. They represent potential for human error, misjudgement and a risk to safe operations. It is in everyone's interests, operator, regulator and the licensed personnel themselves, to highlight this issue and address any suspicions at the earliest possible stage so that flight safety is not compromised and the best outcome is obtained for the individual concerned. The CAA Medical Department and the BALPA Pilot's Advisory Group may be contacted for further advice.

Further guidance may be found in the following CAA publications:

Flight/Cabin Crew - FODCOM 28/2003: Issued 22 Dec 2003.
                       - AIC 99/2004

ATCOs   - ATSIN Number 40: Issued 8 Jan 2004.
                     - AIC 98/2004

Engineers   - AWN No. 47: Revised 28 Sept 2005

A final comment - Remember that help is available. If you need it - make the first move.

NORTH SEA HELICOPTER MAIN ROUTES

CHIRP Narrative: During the past year, it has become apparent from ***CHIRP*** reports that concerns continue to exist among helicopter flight crews using Helicopter Main Routes (HMRs) in the northern North Sea about the potential for a serious confliction with military fast-jet aircraft operating below the Military Danger Areas in the vicinity of the HMRs. These concerns have continued to be expressed in spite of an agreement signed in November 2004 between the relevant military and civil ATC agencies responsible for controlling traffic in this airspace with the objective of improving the integration of military and civil operations.

AIR TRANSPORT FEEDBACK is also available on the *CHIRP* website - www.chirp.co.uk

An Air Transport Safety Newsletter

from *CHIRP* the Confidential Human Factors Incident Reporting Programme

CHIRP, FREEPOST (GI3439), Building Y20E, Room G15, Cody Technology Park, Ively Road, Farnborough GU14 0BR   *Free*fone:(24 hrs) 0800 214645   Fax 01252 394290
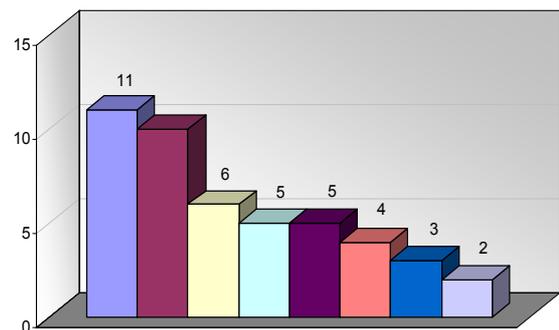
confidential@chirp.co.uk

In 2005, a review of commercial air transport and military operations in Class F/G Airspace in the Northeast of the UK, jointly sponsored by CAA and MOD, was concluded. One of the recommendations of this review was to set up a joint CAA/MOD HMR Working Group to review the airspace classification of HMR routes in the London and Scottish FIRs. The Working Group has now been formed and it is anticipated that external stakeholders will be consulted; the Group is scheduled to report its findings in mid-2006.

The concerns expressed through this Programme have been forwarded to the Chairman of the HMR Working Group.

WHAT'S IN THIS ISSUE?

Number of Reports Received Since the Last Issue:

ATC - 9

Report Topics Have Included:
R/T phraseology and discipline
Approach sequencing
Airfield operating limits

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Flight Crew - 46

Report Topics Have Included:
Rostering - Multiple earlies and 18/30 rest periods
Absence Management Policy

ATC - R/T phraseology and clarity of instructions

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Engineer - 5

Report Topics Have Included:
Re-organisation having effects on morale and standards
Company policies on safety and error management

ATC REPORTS

Most Frequent ATC Issues Received

12 Months to December 2005

■ (Purple)	**Pressures** (Commercial, From Management/Supervision, Time)
■ (Dark red)	**Procedures** (Application by others)
■ (Yellow)	**Company Policies** (Operational)
■ (Cyan)	**Regulation/Law** (Compliance with)
■ (Dark purple)	**Aircraft Technical** (Propulsion, Systems, Structures)
■ (Salmon)	**Resources** (Manpower/Personnel)
■ (Blue)	**Training** (Adequacy)
■ (Light purple)	**Communications - Internal** (Managers)

OPERATIONS DURING ATC COMPUTER UPGRADE

Report Text: We arrived on the night shift for a planned shutdown to allow a computer upgrade to take place.

All operations are undertaken manually and in the middle phase all radar information is background, giving controllers no indication of which aircraft is in their sector.

My colleagues and I agreed it was too busy and we only "muddled through" without an incident because of teamwork, hard work and luck.

Specific problems in no particular order:

Conflicting instructions from engineers and others as to DM (activate) or not; individuals were in some instances using the computer when others had been told not to.

Outside agencies need to know we are 'manual'; they always seem surprised when the first estimates are called through.

Phone congestion - estimates revert to phones or running (literally) across the room. When we had phones they could not be answered for some moments while we sorted out another one. Planners finally realised they had to take estimates from foreign agencies because the panel rings on all phones. This is regardless of it being an estimate or a co-ordination.

Inexperience - although shutdowns have been scheduled on a regular basis, not all staff have experienced a shutdown. Another aspect of inexperience is a lack of practice with the old fashioned manual way of doing things. Strip production is automatic normally and takes 15secs to get on the radar board. During a manual period it takes three minutes or so. Therefore, if it is busy, aircraft are calling before strips arrive on occasions.

Night time - personnel are inevitably less dynamic given that no matter how well one prepares, a body expects to be asleep at night.

I have condensed this report from a number of points that were discussed, so that a picture of the activities can be gleaned and perhaps reviewed prior to future similar upgrades. One of my colleagues filed a report reflecting the overall view that the immediate tactical operating needs were ignored by the strategic requirements of the software engineers to get a new version running before the 5am rush the next morning.

CHIRP Comment: **The reporter's concerns were made available to the Unit management.**

From a management perspective the process for upgrading the computer system overnight, which is scheduled on approximately a six-week basis, and the operating procedures employed during upgrades are carefully planned, employ a specialist team of managers/support staff to assist the operational staff and are monitored closely. Also, dates on which upgrades are undertaken are published in advance to allow rostered individuals to familiarise themselves with the procedures.

From the reporter's perspective, whilst individuals receive training in the manual processes, each individual's exposure to the upgrade process is relatively infrequent; this, in combination with the requirement to operate the manual procedures through the low-point of their circadian rhythm would appear to be the basis for the concerns expressed in this report.

The Unit management have emphasised that any individuals with safety-related concerns about any aspect of the upgrade process are invited to raise these with their respective managers to permit the issue to be reviewed.

LOCAL COMPETENCY SCHEME

Report Text: Following a couple of serious incidents at this unit, the Local Competency Scheme (LCS) was changed to become more "robust". While I have no difficulty with the Scheme, what does concern me is the manner in which a small number of the Local Competency Examiners (LCEs) now operate.

Every minor mistake or variation from what they consider to be "best practice" is immediately pointed out to the "offender" in a loud voice in front of other staff, and is then reported to the Tower Supervisor at the first opportunity.

This results in a very unpleasant atmosphere with everyone watching their backs. Recently the individuals concerned were absent at the same time; everyone remarked on how much better the working atmosphere had been.

In spite of several complaints to line managers nothing has been done. This resulted in ALL the staff except one, who was due to leave the Unit, signing a letter to our union voicing their concern over the manner in which the LCS was operated on our watch.

Our line manager still refuses to accept that there is a problem!!

I have two major concerns:

1. Staff working alongside the LCEs are often too busy worrying about what they will be pulled up for next; this is to the detriment of carrying out their main duties and might result in a major incident.

2. One of the LCEs will have an incident that could have been avoided by the intervention of another controller, but that controller will not bother to "teach them a lesson".

I hope that I am wrong on both counts but only time will tell.

CHIRP Comment: **With the reporters' consent, the concerns about the manner in which the new scheme had been implemented were made available to the senior manager of the unit concerned, who elected to conduct an informal survey of the relevant staff.**

The survey indicated that major concerns about the scheme were not widely held, although some minor difficulties had arisen. A pre-planned review of the LCS and rotation of the LCEs is scheduled for early 2006; in addition to this, the Unit management has elected to adopt a suggestion to introduce a process to monitor the scheme across Watches.

MORE ON AUTOMATED ATIS BROADCASTS

Report Text: I am a controller at a very busy northern UK airfield and was amazed to read in FEEDBACK No. 76 [Page5 - Item (2)] about companies precluding pilots listening to the ATIS. I feel that we in ATC are being asked over and over again (with the exception of emergencies) to take on duties for the pilot. We

too are very busy and, just as pilots are encouraged in the latter stages of the approach by these rules to fully concentrate, so are we. Whereas there are two people on the flight deck to fly the aircraft in most cases, we have no such help. At my unit the Approach Controller has no assistant and has to answer all telephone calls, carry out any co-ordination with other agencies, as well as write on strips monitor radar and form a tactical plan. Whilst it may not sound very busy on the RT, the work on the ground never stops; there is no 'cruise segment' at our airport.

Perhaps the pilots should look at the policy again as controllers don't always know what is on the ATIS, as the arrival ATIS is broadcast upstairs and there is no copy added text to the digital weather data. Also any changes in the weather conditions are highlighted only briefly to the controller and then reverts to the normal met display. The last weather can be found on the ADIS display but this is on a different page to regional pressure and the activation information on danger areas glider sites etc, more often used.

On the ground we have one pair of eyes and ears to read and listen with; our time is precious and scrolling computer pages to find information takes 100% of the attention of the job not 50% as would be the case on the flight deck.

CHIRP Comment: **The reports from flight crew and ATCOs have revealed some significant differences in understanding between the two groups of what ATIS information is available to approach controllers and the way in which the information is accessed and used by Flight Crew.**

Following the publication of the last issue of FEEDBACK, we were notified that CAA (SRG) Air Traffic Standards Department is to conduct a review of ATIS broadcasts during the first quarter of 2006.

CAA (SRG) ATSINS

The following CAA (SRG) ATS Standards Department ATSINS have been issued since October 2005:
Number 73 - Issued 26 October 2005
Air Traffic Control Watch Logbooks
Number 74 - Issued 26 October 2005
Communication on Air Traffic Service Matters With the CAA
Number 75 - Issued 26 October 2005
Winter Break 2005/06 (Christmas and New Year)
Number 76 - Issued 26 October 2005
Single European Sky (SES) - The Interoperability Regulation
Number 77 - Issued 4 November 2005
Changes to Medical Certification Procedures for Holders of FISO Licences
Number 78 - Issued 15 November 2005
Changes to Communication Procedures - VHF Channels
Number 79 - Issued 11 January 2006
Vortex Wake Separation Requirements for the Airbus A380

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: Jan 05 - Dec 05
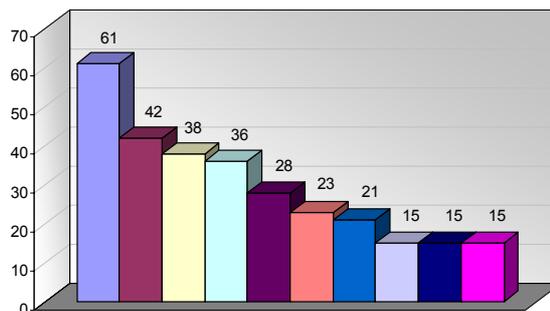
	Duty (Rosters/Rostering, Length, Rest)
	Company Policies (Absence, Operational)
	Procedures (Application by Other Parties, Adequacy, Application by Reporter)
	Communications - External (ATC)
	Fatigue (Effects of, Management of)
	Pressures (Time, From Management/Supervision, Commercial)
	Regulation/Law (Compliance with)
	Aircraft Technical (Systems, Propulsion)
	Communications - Internal (Crew, Managers)
	Handling/Operation (Aircraft Handling by Crew, Operation of Equipment)

AUTOMATED ATIS - ANOTHER THOUGHT

Report Text: Have just watched the excellent DVD from NATS on Level Busts.

One thought occurs: towards the end of the presentation, mention is (rightly) made of the need to include in Climb/Descent briefings, the Transition Altitude or Transition Level.

Entering the London TMA, our SOP is to collect the latest ATIS information, however, the LHR information never includes the Transition Level, and so is very often noted in the briefing as "State secret" or some similar pithy comment.

May I suggest consideration is given to including this important information in the LHR ATIS?

CHIRP Comment: **The reporter's comments were discussed with NATS.**

NATS point out that the UK AIP states that when a pilot is cleared to descend from a flight level to an

altitude the pilot shall set the QNH on departing the flight level except in specific circumstances [AIP ENR 1-7-3 Para 5.3 refers]. Both CAA and NATS have assessed this procedure to offer the best protection against a level bust incident.

If airline SOPs comply with the AIP, there is no need to know the Transition Level when descending prior to an approach in Controlled Airspace. For this reason NATS have elected not to include the Transition Level on the LHR ATIS.

CONDITIONAL CLEARANCES - AIRCRAFT IDENTIFICATION

(1)

Report Text: An old chestnut - I am not happy with the "line up after" or "cross the (active) runway after" conditional instructions. There is always plenty of time to line up if given the instruction to do so as the landing aircraft crosses the "hedge" and be ready to cross after the landing aircraft has passed.

In both of the above cases I am often given the added instruction "... after the next 'Scruggs Bearcat 420'". This is rather presumptive that my aircraft recognition is to such a level that I know what a Scruggs Bearcat 420 actually looks like as opposed to a Scruggs Bearcat 419 and can then comply with the ATC request. Years ago I was given the instruction to "Line up after the next landing DC8" which I duly repeated to ATC. As the aircraft came into visual contact I saw it wasn't a DC8 but a Viscount or VC8. Supposing it had been a DC8 followed by a VC8 and I had lined up after I saw my DC8, I would have entered the runway contrary to the intended instruction ahead of the following VC8.

OK, so you will tell me that I will never be given a conditional instruction based on a second event, in which case why do I need to know the type of aircraft? Just say "the next landing" or "passing" aircraft. But better still wait until it has landed or passed and then say, "Line-up" or "Cross". Keep it simple! To confuse the issue, ATC refer to a certain aircraft as the RJ100. It entered service as the BAE146, which is how I always remember it.

Not too long ago I was waiting to cross Runway ##R on the way to Runway ##L and instructed to "cross ##R after the next landing A320". Looking out of the window to get the picture and hopefully see the same picture that the controller was seeing, I noticed an aircraft with main wheels on the tarmac and the nose wheel about to join them. Was this the "next landing A320" as it seemed to me to have already landed; was it an A320 (or a 319?) or was the A320 in question still on finals? In my mind so many questions about an instruction that in the controller's mind was probably ever so simple. Trying subtly to make a point, I replied that my aircraft recognition wasn't that good and was that an A320 that I saw on the runway and the same A320 to which the controller was referring or was he referring to another

A320 yet to land? The controller's attitude was not to see my point but to take a rather castigatory, petty and retaliatory stance by cancelling my instruction to cross the runway, making me wait for the next landing traffic.

You might believe I am rather stretching the point and making an issue out of nothing. I must stress however that in all forms of communication (written and verbal) it is important to understand that others comply with what they think you said and not what you intended to say. The meaning of your instructions therefore lies in the mind of the receiver. If there is any doubt or confusion it is here that it will be misconstrued. Instructions should therefore be given such that they could not be open to misinterpretation or be ambiguous. Do controllers receive any training that introduces this philosophy?

(2)

Report Text: We were cleared to cross the runway "after the landing Embraer". Actually it was a Bombardier. A little more precision from ATC would be appreciated with such clearances. Perhaps they should include the airline too, to assist identification.

(3)

Report Text: Whilst taxying along a grass taxiway/runway in an Islander aircraft, a Trislander was cleared to taxi to the same holding point behind me. A light aircraft carrying an "N" registration operated by a person whose first language was obviously not English called for taxy. This aircraft was parked alongside the taxiway it was on. The aircraft was cleared to taxy to the same holding point as both the Islander and Trislander. The actual phrase used was "N ... to holding point XX behind the Trislander".

The light aircraft then proceeded to follow me, in the Islander, not looking down the taxiway where I had come from to see the Trislander. This resulted in, from where I was looking, a very close call. The Trislander came to a complete stop as did the light aircraft.

I am unsure of how the situation was resolved as by now I was back-tracking the runway. Before I left the frequency, I could hear the tower controller giving the light aircraft pilot a telling off, for a problem which could have been solved simply by saying "N ... follow the second aircraft, a yellow Trislander", since the term Islander and Trislander could be so easily confused over the radio as was evident in this situation.

I have received many ambiguous clearances as I'm sure most pilots have, but an event as silly as this, especially on a relatively quiet airfield just shouldn't happen.

CHIRP Comment: The ATC view is that conditional clearances are required to achieve arrival/departure rates at many UK airports, and are safe provided that

they are used correctly. One of the conclusions of a recent trial in the UK, in which conditional clearances were not used, was that flight crews reported that their situational awareness was adversely affected.

As with other RTF messages, the vital point is that the recipient understands clearly the instruction. For this reason, the correct sequence of a conditional clearance instruction and the readback should be always to state the condition prior to the clearance.

Also, the use of aircraft types and company identifiers as the basis for a conditional clearance can contribute to uncertainty as two of the reports indicate; one example being when an aircraft's paint scheme does not accord with the flight callsign.

As noted, conditional clearances against landing traffic should only be given against the first landing aircraft; if this is not the type stated by ATC in the clearance instruction, the logical and safe option is to hold position and query the clearance.

EXCESS PAYLOAD

Report Text: During the turn-round, we were given an expected payload that exceeded our MZFW by 1,400kgs due to additional passengers being transferred to our flight.

I was to be PNF on the return sector so was outside doing the walkaround etc. On return to the flight deck I found the other pilot discussing with the dispatcher how to amend the bag weights to make the 'actual' payload equal the MZFW, even though actual bag weights had been used originally. I queried what was going on and got the answer - "That's what Operations want us to do".

I declared that I would not operate the flight unless the excess payload was off-loaded. Then began a long debate as to the best way to reduce the payload; the end result was that 5 passengers and bags were offloaded.

My concerns are that:

1) Operations apparently gave direction to fiddle the figures.

2) The other pilot was prepared to do it.

However, once my position was expressed, there was no argument.

CHIRP Comment: In a significant number of serious incidents a lack of assertive action by the PNF has been identified as a contributory factor in not breaking the chain of events.

This report is a good example of how effective appropriate assertive behaviour can be; the reporter was entirely correct and is to be congratulated.

STANDARD PASSENGER/BAGGAGE WEIGHTS

(1)

Report Text: The departure from AAA (Eastern Mediterranean) was calculated to be at maximum take off weight. When established in the cruise the First Officer and I started to discuss/contemplate our actual take off weight.

In our performance calculations we use standard weights for passengers & baggage, as approved by the CAA/JAR. The standard weight for baggage is 13kgs. However in our company's holiday brochures passengers are allowed to check in baggage of 20kgs & 30kgs if they are premium holiday passengers. In addition, in order to increase revenue we have an active policy to charge for excess baggage, with targets being set at each base. By implication the company is aware we are carrying more than the standard baggage weights.

By our calculations, our actual weight could have been up to 2,000kgs above our calculated weight. Safety is being compromised, as the practice of using standard weights impacts on take off performance; the maximum flight level that can be achieved with regard to a safe cruise speed/Mach No; fuel flow calculations; landing weights.

I accept that the CAA/JARs ensure that there is a contingency allowance in performance calculations, but this actual scenario of knowing you are most likely over maximum take off weight must be unacceptable. Is it not time that the operators, or ultimately the authorities reviewed standard passenger & baggage weights to a more realistic weight?

(2)

Report Text: I am writing to voice my concerns over the use of standard mass values on aircraft load-sheets. On this particular flight the poor climb performance and characteristic speeds which are derived from AOA measurements indicated that we were significantly overweight in comparison to the estimated payload.

The load-sheet had been completed correctly using CAA approved standard masses. I understand that using standard masses will give a reasonably accurate total MOST of the time, perhaps 99.9% of the time, but it's only ever an estimate. We are expected to operate within the aircraft's performance limits 100% of the time, surely that requires that actual masses be used.

Airlines have no problem weighing baggage when it enables them to levy a passenger surcharge, but find it inconvenient to use that data for loading purposes when heaven forbid it might reduce revenue. I don't blame them, but I do find the loading regulations inadequate with the potential to contribute to an accident.

CHIRP Comment: With the reporters' consent, both reports were forwarded to CAA (SRG), who provided the following response:

JAR-OPS is clear that if an Operator has cause to believe a significant number of passengers or checked-in

baggage exceeds the standard weights, they must either weigh the passengers/baggage or use an increment to the relevant standard weight. [JAR-OPS 1.620 (h) & (i) refer].

The JAA has recently reformed the Standards Weights Working Group to review standard passenger and baggage weights and to make recommendations. The UK CAA is represented on this group. The group has studied evidence from health data and other surveys that appears to justify a recommendation that existing standard weights should be verified by an airline weighing survey. Such a survey will take some time to conduct, but in the interim the current figures are considered conservative enough to cater for any variations in actual weights. Notwithstanding that it is always the operator's responsibility to weigh or increment if necessary.

The JAR-OPS requirement should be clearly stated in the Operations Manual and the Ground Handling Manual. Also, in order to meet the JAR-OPS requirement, a procedure should be in place for determining the criteria for triggering and implementing a change from the use of standard weights to actual weights for baggage and, where relevant, passengers.

In the above two cases, it would appear that the captains concerned, who hold the ultimate responsibility for the safety of the aircraft, were not confident that their company procedures permitted the JAR-OPS requirement to be met.

IS A PICTURE WORTH A THOUSAND WORDS?

Report Text: Having just landed at ###, an Island with a short, narrow runway, I noticed to my amazement aircraft tyre tracks which continued beyond the end of the runway onto a small area of stopway.

The tracks were made quite clearly by all 4 mainwheel tyres skidding, leaving dark black lines, and even the nosewheel tyre marks could be seen, the skid marks commenced approximately two thirds the way down the runway from the threshold, veered sharply off to the left of the centreline, returned to and crossed the centreline at the end of the runway and stopped in a curving arc, with the final nosewheel imprint roughly 5 metres before the end of this small piece of stopway. Beyond this point there is a steep drop onto a small beach.

On enquiring as to what had happened to cause this near disaster, I was told that the aircraft in question was a ### (twinjet) operated by a non-UK airline on charter to a UK company and routing from AAA (a UK regional airport). The aircraft had been seen landing 'half-way' down the runway, then (as the end of the runway is not visible from the apron) had re-appeared, with smoke pouring from its brake units, as it back-tracked the runway to the apron. I was also told that this aircraft came in each week with a different Captain (of differing nationalities) and always had some sort of technical problem!

In my company this destination is classed as one of the most challenging and requires special training and recency, with Captains only landing, and experienced Captains at that. In my judgement, from the evidence available, this was an extremely serious incident that only narrowly avoided becoming a disaster! Should British subjects be unwittingly exposed to the dangers of non-UK registered, third-party operators such as these, who may not have the rigorous training and standards that traditional British airlines enjoy?

(1)

(2)

CHIRP Comment: The tyre marks described by the reporter were consistent with those resulting from a maximum braked landing, during which the anti-skid system modulates the brake pressure at each wheel to the maximum for the conditions throughout the landing rollout. In the aircraft type involved, as the ground-speed reduces to around 15kts, if the brake pedals remain fully depressed, one or more of the mainwheels are liable to lock as the anti-skid protection is removed. The tyre marks in the stopway indicated that this had occurred.

Details of the incident and the aircraft allegedly involved were passed to the UK Department for Transport (Aviation Sector) and CAA (SRG), following which the relevant National Aviation Authority was informed. Enquiries by the NAA confirmed the

incident had involved the aircraft in question but there was no record of the occurrence having been reported. Following an investigation by the NAA appropriate remedial action was agreed with the operator.

As the reporter notes, UK operators apply special procedures for operations into/out of difficult airfields; these may include familiarisation training, experience levels and recency requirements. This report illustrates the wisdom of such practices.

MORE ON LEVEL BUSTS

LESS PREDICTABLE + MORE LEVELS = MORE BUSTS

Report Text: Level busts have become a major issue of late, with lots of advice on how pilots can prevent them. However, in all of the literature, the pilot's perspective is not mentioned and it would be a better solution to address the cause and not just apply a band-aid to the wound.

I think much of the problem is symptomatic of the vast increase in complexity of Standard Arrival procedures (STARs), Standard Instrument Departure procedures (SIDs) and the transition to and from the cruise. Back in the good old days I could climb out of Birmingham and fly direct to SAM, often in one continuous climb and probably two frequency changes. Now it is a nightmare of headings, levels and frequency changes. The SID is not worth the paper it is written on and I have not stayed on the Cowley departure as far as Cowley in the past five years. The first action of the London Controller is to put us on a heading. This cannot always be necessary, so I can only assume it is habit forming, but I do not want to illicit a negative response from ATC.

I think the volume of traffic has reached a critical point, where the increased intervention by ATC in dragging us off a SID and STAR onto headings combined with numerous level-offs, has a self-generating overload effect for controllers and pilots alike. I have nothing but admiration and sympathy for ATC and the job they do threading us through the 'space invaders' TCAS screen that I see all the time in the UK. The level bust increase is simply a function of statistics. It does not take the brains of Britain to know that the more you repeat an action, the more chance it has of going wrong, especially when information passed by voice is so weak and open to error.

This is the first sign of system overload. It is not an excuse for pilots making mistakes; it is an observation to which I have no answer since it is impossible to reduce the volume of traffic back to a safe and manageable level.

The whole structure of the airspace is now becoming unrecognisable to pilots. Instead of working within a structured environment, it is a case of "make it up as you go along." Unfortunately, this removes a level of

predictability and familiarity, which is dangerous. I would not have the ATC job for any money, but keep on looking after me for a little longer, guys. Roll on retirement!

(2)

Report Text: I am usually very careful but recently I nearly had two level busts in two days. Both events occurred descending into AAA (UK major regional airport) with a fairly inexperienced First Officer (F/O).

1. Held high by ATC, passing FL114 descending FL110, I asked the F/O to request further descent and the response came back "Cleared FL90, but expect no lower for 8 miles".

I became fixated on where we would be in 8 miles time, so I didn't notice the lack of a callsign. In fact it was for someone else and we had 'stepped on' the first part of the transmission. Meanwhile, I had set FL90 and was passing FL110 when the F/O casually mentioned "I don't think that was for us". Autopilot out, rapid pull, reached FL109 - all the power then came on, so the aircraft pitched up and we went up to FL111 before stabilising at FL110. Though very grateful to the F/O, I later debriefed that I would have welcomed a more assertive warning!

2. Hand-flying, descending to FL80, not busy and the "1,000 to go" call was made and acknowledged. At about FL84 I thought that LNAV was taking me to the AA fix, not the BB fix as ATC had instructed. The map scale was inappropriate and the range knob difficult to reach so I had difficulty making out exactly where we were going and I became fixated on the map. At FL81, the F/O said "100 to level", which brought me back into the loop.

Fixation may be the clue here. The PF becomes fixated, and if the PNF doesn't notice and/or fails to take assertive action an error can occur.

CHIRP Comment: As regards the first report, as the reporter suggests, many of the significant changes to TMA sectors, approach and departure profiles were validated in respect of the ATC workload, but the effect of these changes on the flight deck workload were assumed not to be significant. The evidence would suggest that this assumption was not valid.

As a result of analysing recent level bust incidents, NATS acknowledges that the increased number of stop-off heights in some approach/departure profiles is a significant contributory factor to such incidents and are actively looking at ways of reducing the complexity of some profiles, including R-Nav routings.

The second report is a useful reminder of two of the more common causes of level bust occurrences; receiving and acting on another aircraft's clearance, and becoming fixated on a particular matter at a critical time. In both cases, effective monitoring by the PNF prevented a more serious outcome; a point well worth noting.

WHICH APPROACH?

Report Text: On receiving the ATIS for LGW was informed that the ILS/DME for RWY 08R was U/S and pilots would be vectored for an NDB approach.

The only approach I could find in the Approach Plate booklet was the NDB/DME approach. Fortunately for us, the weather was fairly clear and the DME seemed reliable – however, we had been unable to ident the DME as anything other than "TST" and therefore shouldn't have really used it.

CHIRP Comment: The only NDB approach for RWY 08R published in the UK AIP Aerodrome - Volume 2, is the NDB(L)/DME, as referenced by the reporter. However, the AIP approach chart includes a note for aircraft unable to receive the DME I-GG; the wording of this note effectively changes the NDB/DME procedure to an NDB procedure, as was broadcast on the ATIS.

As the reporter notes, any navaid broadcasting a 'TST' identifier should not be used.

EN ROUTE WAKE ENCOUNTER

Report Text: Approx 1½ hrs out of AAA (East coast USA) , NE bound for Europe (Atlantic Crossing and tracks) having slowly caught up with a B777 6nm ahead at same level, ATC requested that we descend 1,000ft. At approx 300ft into the descent the aircraft rolled 25°-30° to port and then 25°-30° to starboard.

As we were tracking exactly behind the B777 and the only wind was very a light tailwind, I assume we caught the wake turbulence from the B777, which would be drifting down very slowly. What is unusual is that normally you would climb through wake turbulence, but we descended with the turbulence; and a following wind meant the turbulence was not dissipated away from our track.

CHIRP Comment: This report serves as a reminder that wake vortex encounters are possible at times other than the approach/departure phases.

Wing tip vortices descend slowly behind an aircraft to a height of between 600 and 1,000ft below that of the aircraft, progressively expanding and weakening. The wing tip vortex strength is dependent on the angle of attack, thus it is likely to be more intense when cruising at a high AUW and depending on the ambient conditions may persist up to 10nm behind a large aircraft.

In Oceanic airspace ICAO permits pilots to fly one mile to the right of the assigned track to avoid the possible outcomes of flying exactly above/below other traffic on the same route. A survey by NATS in 2004 indicated that around only 4% of the traffic surveyed was flying an offset track in Oceanic airspace.

SIMULATOR TRAINING - UNSOCIABLE HOURS

Report Text: I am a captain with ### undergoing an initial type rating course. I want to bring to your attention the unsociable times crews are routinely rostered for simulator training.

We have done approximately half of the simulator details between the hours of 2300-0300 including our final LOFT assessment and zero flight time. We feel that the value we got out of the training was very much less than the daytime slots. On top of our own tiredness, we did not get the benefit of a fully awake instructor at these times of night (trying to sleep in a hotel during the day also doesn't help).

I understand that a UK Type Rating Training Organisation is not supposed to schedule simulator times at these hours. Yet everyday ### is using late slots for conversion training and rostering daytime slots for recurrent checks, presumably for ease of rostering the crews flying the line. I don't think this is an acceptable excuse for the late training.

Any feedback will be welcome from the many crews that are affected by this.

CHIRP Comment: The reporter's concerns were discussed with CAA (SRG) who provided the following response:

Whilst there are no regulations that prohibit type rating training being conducted in unsocial hours the Personnel Licensing Department (PLD) of the CAA discourages training in the 2300hr to 0500hr period. Where Type Rating Training Organisations need to utilise training slots in this period they are expected to ensure the training regime is based on a regular routine with sufficient time between details to permit adequate rest. PLD should be notified by TRTOs when they make use of training sessions during unsocial hours."

RTF PHRASEOLOGY

Report Text: I departed AAA (A UK regional airport) recently and was handed over to BBB (Area Radar). We were quite light and climbing rather quickly. We made contact and were soon cleared to a higher level. When just less than 2,000ft below this new level and still with a high rate of climb I called "Reaching FLXXX". The controller gave us a frequency for the next sector and we changed over. After I had checked in, the previous controller came on the frequency and admonished me for calling "Reaching the FL" too soon.

I accepted his criticism at the time but would like some clarification about this. I have a copy of CAP 413 Radiotelephony Manual edition 15 dated 1st September 2004 from the CAA Safety Regulation Group and looked to see what it says about "REACHING". There are a few references, but in short it says nothing about using REACHING in this context. It gives no guidance as to the level you should be passing when using REACHING - or even a definition

of the word REACHING. There are in fact no definitions of any words!

As far as I was concerned we were climbing rapidly and would be at our assigned level in about 20 seconds. To me this means "almost there" and within the general sense of the word - REACHING. I don't think the controller thought I said PASSING - in which case he would have a point. We talked about it on the flight deck and agreed that it wasn't a big deal, but I wanted some further clarification/advice from CHIRP and to raise the issue within the CHIRP forum. What does REACHING mean? Are there any conditions about using REACHING? Is there such a word as APPROACHING? Does LEVELLING exist? When do we use MAINTAINING? When does CLIMBING/DESCENDING cease to be appropriate and superseded by some other terminology? On initial contact with ATC should we always call our PASSING level (not just on departures) or just our cleared level in the format CLIMBING/DESCENDING FLXXX?

I looked through CAP 413 edition 15 and have to make the observation that it is a very mediocre document. Considering this is an official CAA publication where pilots go to learn the correct R/T, it is nothing to be proud of. It is too long-winded and seemingly pitched at light aircraft aviation. Is there another version for commercial aviation? Whoever wrote CAP 413 version 15 has mastered the knack of drawing pretty diagrams on a computer but the whole document lacks substance, quality and authority. It may be trying to describe the framework for an R/T standard and perhaps to provide a skeleton for us to understand the basics, but if so, then I reckon there are several bones missing and others have osteoporosis. What we need is a better-written document with some flesh on the skeleton's bones in the form of WHY we should adopt certain phraseology and avoid using particular words. Examples of bad R/T can be more useful in demonstrating the correct way.

CHIRP Comment: There would appear to be no formal definition of the term 'reaching' either in ATC or aeronautical manuals, although the term is referenced in both CAP 413 and the Manual of Air Traffic Services Part 1. The consensus view of ATC specialists is that they would expect an aircraft to be within 500ft of the cleared altitude/flight level.

The suitability of CAP 413 for commercial air transport operations has been questioned previously; the current document has a number of shortcomings in respect of the presentation, grouping and sequencing of the key items of information/ phraseology that are applicable to Public Transport/ commercial flight operations. A review of CAP 413 is currently being undertaken by CAA (SRG).

The publication of a concise summary of the standard RTF phrases/acknowledgements used in IFR operations, logically sequenced, would be of considerable benefit in improving awareness among holders of professional licences. It is understood that the publication of such a document is currently being considered.

CABIN CREW REPORTS

ON TIME DEPARTURES (FB76)

CHIRP Narrative: In the last issue, we published two Cabin Crew reports concerning the pressure under which cabin crew members sometimes perceived themselves to be in preparing the cabin to achieve an on-time departure. We received a number of comments from flight crew members in response to these reports, all of which made similar points to the following:

Report Text: The first report I do understand. However, on about half the occasions I have made an "Is the cabin secure?" call to the CC, they apologise and say they forgot. On half of the others it is me that has forgotten to put the slider over (men are not good at multi tasking).

On the other 25% of occasions I have called to ask how long it will be. This is not impatience on my part, it is because ATC want us to line up and take off immediately and I do not want to block their runway if we are not ready.

It is not a reminder to hurry up, it is a request for information.

CHIRP Comment: This comment has also been published in CABIN CREW FEEDBACK together with a reminder, as noted by many respondents, that effective communication - in both directions - is the key to good crew co-operation and would overcome the reported problems.

FLIGHT DECK ABSENCES

CHIRP Narrative: We have received a significant number of reports from cabin crewmembers on the topic of flight crewmembers leaving/being absent from the flight deck for extended periods of time, leaving the flight deck manned only by a single pilot. In some cases these absences have coincided with other flight crew members taking rest.

The periods of absence have been 30 minutes or more; a number have involved visiting wives/family members travelling as passengers.

Such situations incur the risk that even in normal circumstances the sole occupant of the flight deck has no effective monitor, as is required by operational and certification regulations. Absences from crew seats by on-duty pilots should only be for as long as operational tasks or physiological needs dictate.

CAA (SRG) FODCOMS

The following CAA (SRG) FODCOMS have been issued since October 2005:

28/2005
1. Permit to Fly requirements for the Recovery of Damaged or Unserviceable Aircraft - Non-revenue Ferry Flights

29/2005
1. Variable Maximum Take-off Weight

30/2005
1. Winter Operations

31/2005
1. CAA Winter Break - Superseded

**32/2005**
1. Communications Procedures for VHF Channels

1/2006
Radio Telephone (RTF) Usage

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: Jan 05 - Dec 05

Bar chart values: 15, 14, 10, 9, 8, 6, 6, 4, 4, 3
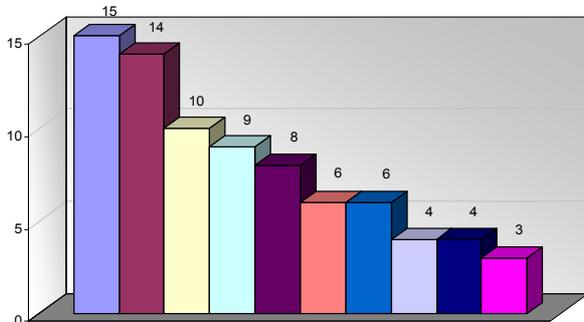
- **Pressures** (Commercial, From Management/Supervision, Time)
- **Procedures** (Application by others)
- **Regulation/Law** (Compliance with)
- **Company Policies** (Operational)
- **Aircraft Technical** (Propulsion, Systems, Structures)
- **Resources** (Manpower/Personnel)
- **Training** (Adequacy)
- **Communications - Internal** (Managers)
- **Documentation** (Currency/Validity, Suitability/Adequacy)
- **Handling/Operation** (Operation of Equipment)

THANKS FOR YOUR SUPPORT!

Report Text: This report will not help me, but may help to stop other engineers falling into the same trap.

I am a licensed engineer with many years experience including apprenticeship and military service, with aircraft ranging from small single engine to multi engine fixed wing aircraft, and both civil and military rotorcraft. I have held various positions, in project engineering, planning, quality assurance and as a Chief Engineer, but working in my last company was like walking on a tight rope.

I was working with a small M3 company looking after single and twin piston fixed and rotary wing aircraft, as well as small turbine aircraft, as a licensed engineer also providing oversight of a small number of trainees. In addition, although employed as a licensed engineer, I was frequently expected to run the hangar.

The company did have a "chief engineer" for a short period, and other engineers have been approached, but have refused to take up the position permanently.

The work load was constantly 'pressure on', with the boss being in a constantly stressed state, pushing, looking over your shoulder, and often referring to his staff in a derogatory manner; the whole situation was quite stressful, especially trying to complete aircraft in time to meet customers' needs. On several occasions I had threatened to walk out, and looking back, should have done so.

Although I was continually trying to teach the trainees to record on the worksheets all work performed on an aircraft, e.g. any items removed or disconnected, even for access, seats, panels etc, rigging pins, control locks or blanks fitted, items were still being left unrecorded and the not re-fitted to the aircraft.

There have been other occasions where aircraft safety or health and safety have been put at risk, and regulations have not been kept.

Realising that the whole environment was one that could easily lead to a serious safety issue, I tried frequently to introduce procedures to reduce the risk, but was met with the usual answer that "We are only a small company and the procedures are not necessary".

Working in this environment it was almost inevitable that maintenance errors would be made.

After a maintenance repair task on an aircraft, I checked the installation concerned and over signed the worksheet. Unfortunately, I missed the fact that some fasteners, which had not been recorded on the worksheet, were missing from an adjacent panel. This was later discovered by the pilot during a pre flight.

The result was that I was 'invited' to a disciplinary hearing. Despite my pointing out the circumstances, and my frequent requests for procedures, no proper

assessment was carried out in accordance with any of the Maintenance Error procedures (AWN 71 MEMS), MEDA system, or HF recommendations and I was dismissed for Gross Misconduct.

CHIRP Comment: **The "trap" into which the reporter fell was that of assuming that the organisation for which they worked would provide adequate management, oversight and support to its licensed engineers, whereas the M3 organisation approval has not historically required this. The implementation of EASA Regulations "Part-M" for "private" aircraft in September 2008, will require all such organisations to be approved in a manner similar to "Part-145", including the need for a Maintenance Organisation Manual defining management accountability and chains of responsibility. Whilst not necessarily a "panacea for all ills", it at least aims to establish a more level playing field in this sector of industry.**

AIRWORTHINESS NOTICES

The following Airworthiness Notices (CAP 455) have been issued or revised with effect from 28 September 2005:

No. 3, Licensed Aircraft Maintenance Personnel - Certification Responsibilities of Type Rated/Authorised Personnel

No. 6, Airworthiness Publications - General Information, and Appendix 3

No. 7, Implementation of European Parliament Regulation and Council of the European Union Regulations, Appendix 2

No. 9, Issue of EASA Permits to Fly, Replacing ANO 'A' and 'B' Conditions and some BCAR Permits to Fly for Test or Ferry Purposes, and Appendix 2

No. 10, Aircraft Maintenance Engineer's Licences - Type Ratings.

No. 12 Experience From Incidents, and Appendices 64, 68, and 69 (First Issue)

No. 13, State Aircraft

No. 17, The Acceptance of New Aircraft Components

No. 21 Changes affecting Design and Production Organisations after 28 September 2004, and Appendices 1 and 2 (First issue)

No. 24, UK Airworthiness Course

No. 26, Information For Continued Airworthiness of UK Manufactured Aircraft, Appendix 3

No. 29, Safety Regulation Group - General Information, Appendix 2

No. 46, Aircraft Maintenance Engineers Licensing - General Licensing Information, and Appendix 1

No. 47, Licensed Aircraft Maintenance Engineers - Personal Responsibility When Medically Unfit or Under the Influence of Drink or Drugs

No. 60, Continuing Airworthiness and Safety Standards of Passenger Service and In-Flight Entertainment Systems.

You may register for e-mail notification of amendments at www.caa.co.uk

UK AIRPROX BOARD

CHIRP Narrative: **The following text has been submitted by the Director UK Airprox Board:**

We are very pleased to advise you that our newly-updated Internet website is now 'live'; we hope that you will pay it a visit. There is much new material and we will be continuing to develop the website in the future to promote Airprox flight safety. For example, the Airprox Board identifies lessons that warrant wide dissemination; in the future we will highlight these on our website, guiding the reader to the appropriate Airprox events.

Also on the website we aim to provide up-to-date information about progress with the Board's Safety Recommendations as well as statistics, links to our publications and background information to answer questions such as 'what happens after a pilot or controller files an Airprox?'

We would like our website to be a valuable source of reference, so do please advise us of any changes/ improvements that you would recommend: all ideas will be fully considered. To access the site, please 'copy and paste' the following link into the 'Address' bar of Internet Explorer and hit 'Go'.

http://www.airproxboard.org.uk

Finally, please note that my colleagues and I have new e-mail addresses. The new format is:

firstname.lastname@airproxboard.org.uk

so for example my new address is:

peter.hunt@airproxboard.org.uk

The 'old' address for the UKAB website and/or the 'old' e-mail addresses will be active for a few weeks, with automatic redirection.

Peter Hunt - Director UKAB

CHANGE OF ADDRESS

If you receive FEEDBACK as a licensed pilot/ATCO/maintenance engineer you will need to notify the department that issues your licence of your change of address and <u>not</u> *CHIRP*. Please write (including your licence number) to Personnel Licensing, CAA (SRG), Aviation House, Gatwick Airport South, West Sussex RH6 0YR:

Flight Crew
Post - as above
Fax: + 44 (0) 1293 573996
E-mail: fclweb@srg.caa.co.uk

ATCO
Post - as above
Fax: + 44 (0) 1293 573974
E-mail: maggie.marshall@srg.caa.co.uk

Maintenance Engineer
Post - as above
Fax: + 44 (0) 1293 573779
E-mail: eldweb@srg.caa.co.uk