FEEDBACK

Issue No: 66 April 2003

EDITORIAL

MARITIME CHIRP

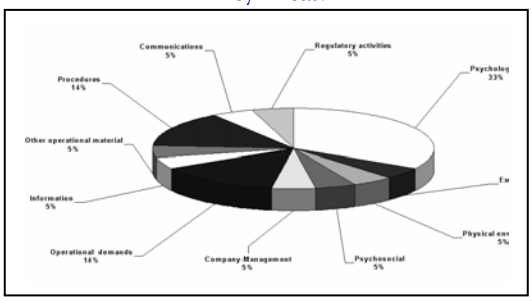
In November 2002 the Department for Transport extended the availability of an independent confidential reporting system to include seafarers and maritime personnel. The CHIRP Maritime programme is to be managed by the Trust and a Director (Maritime), Captain Michael Powell, a former ship's master and solicitor, has been appointed.

The Maritime Industry is being consulted to ensure that the initial scope of the Maritime Programme will meet the needs of the industry and that the processes and procedures will be appropriate for the maritime communities. A Maritime Advisory Group is to be formed to assist in the development and operation of the Maritime Programme. The Programme is expected to become operational in July 2003.

ATC REPORTS

ATC Reports received in Period: 7

Key Areas:



SAFETY MANAGEMENT - OR MAYBE NOT?

ATC services at this Unit are provided by a contractor. Until recently all incident/accident/occurrence reporting was done using MATS Part 1 procedures and paperwork. Some time ago the company introduced a safety management system, one of the requirements of which is that having completed all the CAA forms following an incident, a controller then has to complete a company safety report. All the details on this form are already included in the CAA Form CA1261, but in a different order and format. The result is that controllers are now not bothering to report non-mandatory occurrences because of the increase in paperwork.

So a system that is supposed to increase safety actually has the opposite effect by reducing the total number of reports. It has been suggested to the company safety manager, that the company could extract the information it requires from a copy of the CA1261, but the reply was management jargon seemingly from another planet. The same "fill in the form, tick the box" mentality (management covering its 6 o'clock to avoid corporate manslaughter charges?) is pervading our safety training.

Controllers were previously quite happy to have practice emergency callouts, but the amount of paperwork now required means that staff have to be forced to carry out even the bare minimum of training. It seems that managers at all levels would be well advised to think their systems through properly, to see whether a procedure which may get full marks on a management course is actually producing the desired results in the real world.

My report is not directed against the company Safety Management Scheme or the CAA TRUCE scheme per se. Anything that actually improves safety has got to be applauded. My complaint is that maybe these schemes, and probably many others in the aviation world, try too hard to conform to the theoretical model of a 'Management Tool' espoused by modern management gurus, completely ignoring the human aspects of the problem. It has to be accepted that pilots and controllers don't like writing reports - fear of management reprisals, worries about inadvertant self-incrimination, or just pure laziness. It's human nature. So any scheme, however grandiose, which relies for its success on an increase in paperwork is doomed to failure.

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An Air Transport Safety Newsletter

from the Confidential Human Factors Incident Reporting Programme

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CHANGES OF ADDRESS

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

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REPRODUCTION OF FEEDBACK

RE-SECTORISATION PROCEDURES

Recently, re-sectorisation has taken place on the Lakes (S3, S4 and S7) airspace. However, due to staff constraints, which management assured us would not affect operations at this Unit, we cannot split S3 and S4, as was previously the case. We are now being asked by management with the help of some willing Local Area Supervisors to trial combining the sectors S3 and S7, split from S4. Although we work S3, S4 and S7 band-boxed *(combined)* we have never in simulations tried the geographical (S7) combined with a vertical sector (S3) split from S4. Pressure is being put on us to experiment with this split and also a S3 versus S4 and S7 split. I feel very uncomfortable as do a fair number of my colleagues, in being asked to work an experimental split in a live traffic environment.

The drawback of S3 and S7 bandboxed is that i) it still doesn't solve the massive range required and ii) the #### departures all work S3 on the standing agreement and, with the new route across the North Sea at FL330, are likely to target a S3 level of FL320 if there is any doubt about an aircraft making a S4 level. I believe this will give the controllers working the S3/7 sector a difficult workload.

I fear that this split will be introduced without adequate simulation and without unanimous agreement between the Watches and the ATCOs on them.

The reporter's concerns were passed to the relevant organisation for consideration.

CHIRP was advised that the practice of combining sectors when traffic levels are low is not unusual. Following the introduction of the new sectors described in this report, the actual traffic levels through one of the new sectors did not accord with the simulations that had been conducted prior to the change. This led to a review to consider whether there was a more efficient method of combining the sectors; operational staff were consulted in this process.

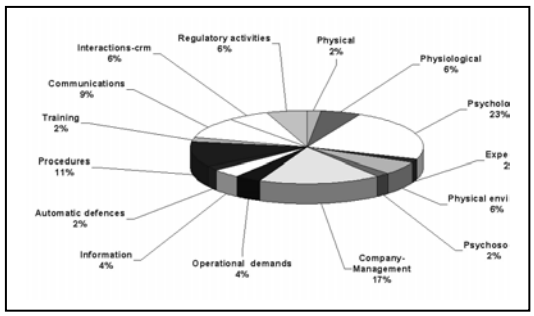
Further revisions in the management of the new sectors have been simulated using Watch representatives and a safety analysis has been carried out on the new configuration to identify any potential hazards. Those identified have all been mitigated. The issues raised by the reporter were among those considered during the simulation.

The results of these further simulations are currently being discussed with CAA (SRG).

FLIGHT CREW REPORTS

Flight Crew Reports received in Period: 22

Key Areas:



DEPARTURE RTF PROCEDURE

I am a Training Captain with ### based at a UK Regional Airport.

Like many airfields, the standard instrument departures (SIDs) at my home base also include the preferred noise routes (PNRS). Again, in common with many airfields, there are punitive measures (commonly fines) for aircraft that stray outside the PNR boundaries. I have no problem with this; apart from living near the airport, I

also believe it is my professional responsibility to keep noise nuisance to a minimum. But many of these PNRs - not just at this base - are, to say the least, fiddly!

Part of the solution comes from suitable standard operating procedures (SOPs) that allow aircrew to comply with recommended operating techniques and also satisfy local noise requirements. However I feel that a change in ATC procedures could also significantly impact on crew performance and accurate flying of PNRs.

It is common practice in the USA for departing aircraft to automatically call the departure frequency at the earliest, suitable time after take off. This practice is becoming increasingly common in Europe (both officially and unofficially), but in the UK, I believe that only AAA ATC operates such a procedure. (It is some time since I last flew out of AAA, but I believe the SID charts state: "contact AAA radar ASAP after passing 2,000ft").

Typically, at my home base, after passing 1,000ft AAL, we start to accelerate and retract flaps, this requires instructions from pilot flying (PF) to pilot not flying (PNF), who, having been satisfied that the instruction is not only correct but given at the correct stage, carries out the required action. According to 'The Law of Sod', this is also the time when Tower instructs us to call Departure. Even with the autopilot engaged, PNF has his hands (and ears) full, dealing with two separate instructions from two separate sources. From practical experience, as both operating pilot & observer during line checks, this is when these 'fiddly' manoeuvres can get messy! It is also my experience that PNF will complete the initial 'manoeuvring' duties (acceleration, flap retraction, climb power etc.) before calling departure control, thereby creating a built in delay between changing frequency and contacting the ATCU.

The change to automatically calling departure (as opposed to remaining on Tower until instructed to change) has I believe, clear benefits; it would cut out one call, thereby freeing up both ATC and pilot workload. The improvement in the latter would, I suggest, lead to significant improvements in PNR track keeping,

I can see one objection at some airfields, when dual runway operations are in progress and ATC may want to instruct a departing aircraft to turn in the opposite direction to the SID turn because of a missed approach on the landing runway. But surely this is not insurmountable? E.g. The departure chart could include an instruction to "maintain listening watch on Tower until passing (geographic point/altitude), thereafter contact departure radar on...."

I am interested to read other views on this subject, especially those of ATCOs and NATS/CAA.

The procedure proposed by the reporter has obvious benefits for flight crew as the period shortly after take off can be a period of high workload for flight crew members. However, there can be ATC considerations, such as dual runway operations, and the present general policy in the UK is to retain the aircraft on Tower frequency, as only the Tower controller knows the immediate traffic situation.

The policy is regularly reviewed and the experience of the UK Regional Airport AAA, quoted in this report, is to be assessed in response to this report.

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HUNDREDS OR ZEROS?

When I learnt to fly we used "Flight Level One Zero Zero" and "Flight Level Two Zero Zero".

After going to live in France for several years, I came back to find we had "FL Wun Hundred" and "FL Two Zero Zero".

With the introduction of RVSM airspace I expected FL 300 and 400 to become available. I was somewhat surprised to be cleared to "FL Three Hundred". My subsequent enquiries down the line tended to agree with the "FL Three Zero Zero" phraseology but I have noted that 99% of the time I receive a clearance out of AAA of "FL Three Hundred" and have long accepted that it is not a very tidy situation. I was intrigued to be cleared in Southern Europe to "FL Three Zero Zero" the other day.

I am married to a non-UK national and am more aware than most that we do not all speak the same English. Perhaps the correct phraseology should be stressed to the various airlines and their training departments be invited to pick up on it?

The phraseology 'Flight Level Wun Hundred' was introduced in the UK FIR as an initiative to reduce level bust incidents caused by misheard instructions, and proved to be effective. More recently, similar phraseology was introduced for 'FL Two Hundred', 'Three Hundred' and 'Four Hundred'. (CAP 413 Radiotelephony Manual 2002 Chapter 2 Para 4.2 refers).

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A PERFECT DAY - BUT ALMOST RUINED

Fatal accident investigations usually establish what happened, but frequently are unable to establish why the accident occurred.

This very honest report provides an insight into 'why'; the lessons learned by the author are worthy of wider consideration

It was the first flight of the day, the previous shift having been on standby, so it was a relief to get airborne. The weather was clear and bright aided by a light covering of snow from the night before.

We were tasked with locating recently stolen vehicles and on completion of the task we were en-route back to base via XXX for another task. Throughout the journey various remarks had been made with respect to the scenery and how picturesque it all looked. With this in mind I made the decision to lose height and get a closer look. The chosen location was a reservoir surrounded by snow covered fir trees which then narrowed at one end, finishing with a gentle right hand bend and rising ground.

By this time I was very low and concentrating on clearance from the trees when the front observer suddenly drew my attention to power cables ahead. Due to my height going over them was not an option, so I pushed the stick forward and we flew under them. By coincidence the following sortie was in the same area, which enabled us to re-visit the cables and see just how lucky we had been.

The causes and the lessons learnt are numerous and include:

1. Lack of crew brief beforehand to determine what was about to happen and whether or not the crew as a whole felt it was a good idea.
2. Poor recce of the area to determine the hazards and layout of the route.
3. Once low level, poor airmanship and crew co-ordination with regard to lookout and updating of surroundings.
4. The realisation that regardless of how experienced or safe a pilot I might consider myself to be, because of the environment I work in, even the smallest lapse of concentration can lead to a serious incident.

Not the proudest day in my long flying career, but one that has taught me several lessons. Lessons that have injected some renewed and perhaps much needed professionalism into the way I operate in what had become a very comfortable and unchanging environment.

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MORE ON EARLIES/LATES

(1)

I am becoming increasingly concerned about the issue of successive early/late duties being used by my airline and others within the industry. Constant use of three earlies (0500 - 0530) then going to two/three late reports (2000 - 2100) arriving home 0300 or 0400 has clearly got to be monitored or restricted by the CAA, in order to protect crews from serious levels of fatigue and chronic sleep depravation problems.

I read your article in issue no 65 on Early/Late Duty Periods. I feel that we are not being protected enough by the CAA from this now very common scheduling pattern. This must be addressed by the CAA not just in a recommendation, but by regulation before a serious accident occurs due to serious pilot fatigue!!

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(2)

My report time was 0455L at AAA (UK airport) for a two-sector day, finishing in BBB (UK regional airport) followed by a taxi to CCC (a second UK regional airport) on a Friday afternoon.

The scheduled sector times in/outbound appeared to be based on still air and there was no allowance for taxiing in/out on either sector. The normal one-hour turnaround had been reduced to 50 minutes, thus achieving an exact 10hr 15min Duty Day.

In reality the aircraft left AAA 1 min early and arrived at BBB 29 minutes LATE at 1434Z. At this point we had exercised 29 minutes of Discretion. We then taxied to CCC arriving at the hotel at 2035L. A total Duty Day of 15hr 40min.

Our report time for Saturday was 1805L, which gave a Rest Period of 22hr 30min. We then operated CCC - Mediterranean - AAA, arriving AAA 0145L. I believe this type of Rostering/Crewing will lead to deep fatigue, this is not a singular occurrence and it has been reported to company management several times in the past few months, yet it still goes on.

Yesterday, I reported for a 0600L AAA - Canary Islands - AAA. I was given a Roster Change for today with a Report Time of 1900L to operate AAA -Eastern Mediterranean - BBB then airline back to AAA arriving at 0745L on the following morning. Again a Rest Period of 26hr 25min and a change from day to night.

What will it take for Companies to act responsibly? People are not machines that can be switched on and off at will.

CAP 371 (Section A Para 2.2) states that the planned schedules must allow for the flight to be completed within the maximum permitted flying duty period, and should take account of the time allowed for pre-flight duties, taxiing, the flight and turn-round times.

One of the considerations when planning duty periods in Section A, Para 2.3 is avoiding the undesirable practices of alternating day/night duties and scheduling rest periods of between 18 and 30 hours.

It is regrettable that in a relatively small number of cases, operators would appear to be able to ignore these

guidelines for the avoidance of fatigue on a continuing basis.

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CABIN SECURE?

During the short taxi the Senior Cabin Crew Member (SCCM) asked for the cabin temperature to be reduced. During this busy period the SCCM would normally only enter the flight deck to confirm 'cabin secure'. After copying our departure clearance we transferred to the Tower frequency and were cleared for immediate take-off.

The Pilot Flying (PF) called for the 'Before Take-off check list'; when I called 'Cabin' he replied 'Secure'. I did not query his call and we took-off. At the time the No 3 was strapped in and the SCCM was at her station waiting for confirmation that the rear cabin was secure. The No 2 was lifting a passenger bag into an overhead locker and had to make a swift dash to his station during the take-off roll.

After we were informed of the incident, we analysed the event and came to the conclusion that it had been a human factors issue, triggered by a flawed procedure. The SCCM had entered the flight deck and said something, so the cabin must have been secure. Everything had happened in the same way as the previous sector, so although we were being rushed the alarm bells didn't ring.

My first reaction was to file a Flight Safety Report. This would be required anyway since an incident had occurred, but in addition the Company had recently changed the procedure for announcing 'Cabin Secure' so that the active involvement of the pilot non-flying was removed. We felt that this had contributed to this incident and that lessons could be learnt from our mistake. However, I was reminded about the anecdotal evidence regarding disciplinary action taken against flight crews. The company line is 'Safety First', but its heavy handed, knee jerk responses to previous events have created an atmosphere that puts its employees on the defensive.

We discussed the incident with the whole crew and agreed that a report would not be filed, although I would ease my conscience by filing a CHIRP report.

As it happens the procedure has changed again following the fitment of armoured cabin doors, but in different circumstances we might still be flying with flawed SOPs in order to protect our jobs.

We have received reports of similar occurrences from cabin crew members in the recent past - see Page 7.

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SEPARATED BY LANGUAGE, AGAIN

When cleared to descend to FL110 approaching ##### on the arrival into AAA (major French Airport) TCAS traffic was seen climbing on a steady bearing. Aircraft cleared to climb on frequency was being instructed in French. The aircraft on a constant bearing of 030 ish did not appear to maintain FL100 and we were just reaching FL110. An RA resulted and at this point the ATC frequency was busy. When we were able to call ATC, they checked and saw that the other aircraft (ABC123) was not maintaining FL100. An altimeter mistake had been made and 1013.2mb not set, resulting in reduced separation. An ASR was filed. However, if ATC had spoken to French pilots in ENGLISH it may have been easier to build up a picture of what was going on. Apparently French ATC have an ICAO exemption which allows them to speak to French pilots in French. Please can we ask ICAO how many more pilots have got to be involved in incidents, before it is required that ATC speak English to all aircraft. Everybody else in the world seems to manage.

With two aircraft coming together on CDG's runway and two aircraft meeting over Germany's skies horrifically causing a mid-air collision we must apply basic rules of the air to maintain safety standards.

Although the benefits of using a common language between aircraft and ATC on a specific frequency are self-evident, currently there is no international requirement/recommendation that this should be the case. The proposed amendments to ICAO Annexes 1,6,10,11 and PANS-ATM prompted by major accident investigations relate only to language proficiency and comprehension, not its use.

It is important that any incidents involving a loss of separation or a loss of situational awareness resulting from the use of different languages continue to be formally reported, as was done in this case.

FLIGHT CREW COMMENTS

EXCESSIVE RATES OF CLIMB (FB64)

Thank you for Issue 64 and I read with great interest the enclosed plea from ATC on the subject of Altitude Busts. In particular, I was taken by the suggestion that I take into account the performance of my type of aircraft with a view to minimising such busts.

I would be delighted to oblige but the Authority would appear to forbid me. I am sure they will be pleased to explain to you their logic in the situation described below.

I find my B757 to have an anti-icing (engine) problem which is dispatchable under the Minimum Equipment List (MEL). Under normal circumstances, switching on

two engine anti-ice systems would impose a weight penalty of 300kg. Under the MEL, the penalty for having one only switched on is in excess of 4 tons! - and there is a change in the V speeds (1kt). This really does not collate. In its wisdom, the Authority now specifies that no thrust reduction take-offs are possible. I am positioning an empty B757 from UK to a Mediterranean destination. Its take-off weight is in the region of 75 tons while its max take off weight on this runway is in the order of 110 tons and its max certified take off weight is 102 tons which would be performed with a derate!

We apply full power, are calling rotate very shortly afterwards, the First Officer rotates to the SOP 15 degrees (before the 757-300 appeared this would have been straight to 23 degrees; a more realistic starting point), before vainly increasing the pitch to try to contain the acceleration. Even after selection of climb power the speed is rushing away so I am trying to retract flaps, make an automatic frequency change and endeavouring to avoid an altitude bust with a slightly low QNH, transition 4000 and SID level off at FL 60.

I am also aware that one of the less endearing features of this machine is the early (low Level) altitude capture and that an engine failure under these circumstances can be fatal unless the autopilot is disengaged.

I would love to accommodate ATC on this subject; it would be much safer for all but the Authority will not allow it. A full power take-off in a 757 at ultra low weight is high workload and a recipe for a disaster so why does the Authority wish to compound the problem?

This report was forwarded to CAA (SRG); the matter is being discussed with the aircraft manufacturer.

Unusual performance aspects should be included in the type-specific training to highlight potential traps such as that described.

Crews need to be alert to performance/handling differences when operating at or close to empty weights, and brief the procedure accordingly.

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Self Drive Positioning (FB65)

Following on from reports of fatigue in aircrew related to extended periods of driving hire cars.

A multi-sector night, finishing XXX (A UK Regional Airport) in the early hours. Hire car provided for return to base, no hotac on roster. Distance approx 250 miles. Approx 4- 4 1/2 hours drive at that time in the morning.

Less than half a mile from base I nearly side-swiped a taxi negotiating a roundabout, admittedly, the taxi wasn't indicating - but no excuse - concentration had ebbed to the point where I was more at fault than him.

Left hire car at base and then after a cup of coffee drove home.

CAA (SRG) is currently undertaking a review of the circumstances in which self-drive vehicles are used.

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Re: FB65 - In Charge, But of What?

When cabin crew join my company, and many others, they receive a very intensive course. This contains safety and product information and due to time constraints, little space for what some might consider "extra" information.

Recognising that what the reporter was describing in FEEBDACK 65 was happening within my company, and when a request for suggested topics to be discussed at the forthcoming joint, flight deck and cabin crew winter refresher courses, I suggested a module concerning the Commander's responsibility with regard to cabin crew as per our Operations Manual. This would have only been to permanent cabin crew but could have easily been included within the "re-joiners" course. Needless to say, it did not appear so the situation continued where nearly all cabin crew had no knowledge of the Commander's responsibilities with regard to their own position.

It is good that the report was included within the Cabin Crew FEEDBACK, however, will it be read by enough of those who can influence such matters?

I believe it needs also to be sent to the Operations Director, Chief Pilot, and most especially Head of Cabin Services. The latter often has "risen through the ranks", and due to the lack of information, as discussed previously, has no knowledge of what the Commander has responsibility for, when it comes to cabin crew.

The cabin crew, at all levels, within my airline receive NO information on the Commander's responsibilities.

Surely it falls on the shoulders of the Head of Cabin Services to rectify this situation.

This issue has been brought to the attention of Flight Operations and Cabin Services managers, as suggested.

CABIN CREW REPORTS

Cabin Crew Reports received in Period: 16

Reduction of Rest

Cabin crew positioned to AAA (flight was two hours late). Arrived at hotel at 2015L, pick-up was scheduled for 0520L so we delayed our pick-up to 0615L to achieve 10hrs horizontal rest. The Captain who had positioned earlier in the day contacted Ops to explain the situation but they insisted our pick-up time had to remain 0520L. Our rest was reduced to 9hrs 05mins. The Captain was

very supportive of our situation but said we had to do as Ops advised. Consequently all cabin crew were extremely tired for the following day's duty which involved three sectors.

Quote from our Manual "... an aircraft Commander may reduce a rest period but only in so far as the room allocated to the crew member must be available for occupation for a min of 10 hours. In no circumstances may a Commander exercise Discretion to reduce a rest period below 10 hours accommodation".

CAP 371 does not permit operators any discretion to reduce rest below the minimum amount that has been earned by the preceding Duty Period.

An aircraft commander is permitted, on an exceptional basis, to reduce a Rest Period but in no circumstances may a commander exercise Discretion to reduce a Rest Period below 10 hours at accommodation.

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SECURE FOR LANDING?

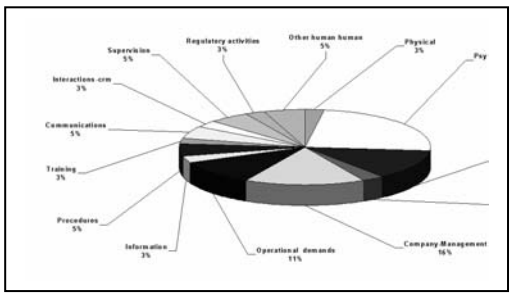
Two of us were working in the #### cabin. We received the 'Twenty minutes to landing' call, so tidied and secured cabin & galley and gave checks to the In Charge. We were in the galley changing into jackets etc. and making one final check in the galley when the aircraft landed.

We learned that the pilot had been given a direct approach. Neither of us heard any instructions over the P/A for 'Cabin crew to take seats for landing'. Some of the other crewmembers could see the accelerated approach but in the ### cabin galley you are isolated from the 'outside world'. Neither of us were hurt, just shocked and of course our designated doors were un-manned.

ENGINEERING REPORTS

Engineering Reports received in Period: 8

Key Areas:



PROPER PROCEDURES & PRESSURES

The following report received from within a maintenance organisation involved aircraft that were not engaged in Public Transport/corporate operations:

I am writing to you for some advice, about a situation that is developing at my place of work, that gives me great concern over the safety of the aircraft we maintain and over my continued employment.

Over the past 12 months I have become increasingly aware of current regulations, procedures and best practices not being complied with and some instances, albeit under duress, with my direct involvement.

Currently I work as a technician on all marks of (twin jet) aircraft at AAA.

I became concerned when I learnt of one of our aircraft going on an air test without a servicing check, post maintenance; only to be completed when the aircraft had landed. Another instance was over a lost tool, which was apparently reported using the current procedures. However, all aircraft barring the one about to go on an air test were issued with a loose article search. An un-commanded flying control input, reported post air test, was investigated by an engineer that had direct involvement with the maintenance of the aircraft, contrary to current procedures. These incidents, along with the amount of quality occurrence reports coming back from the customer, are in my opinion a cause for great concern.

My involvement came when I was asked to cannibalise one component for another. Both my team leader and myself advised the management that this was not a good idea *(the item should be set up on a rig)* and should wait for the replacement to arrive through the normal channels. Initially this was to be the case, however, when the wrong component arrived we were told to proceed with the task. To complete the task a number of procedures could not be complied with. This information was presented to the management; never-the-less we were told to proceed. The information was taken to the quality department who represented the information to `the management', however, to no avail. During the component replacement I was placed under a lot of pressure for completion as early as possible.

The quality issues surrounding this incident were taken to the site quality department which viewed copies of the relevant paperwork and suggested contacting the manager and that a small team of auditors investigate the issue, however no audit was or has been carried out to my knowledge, regarding this issue.

Furthermore, on a separate occasion engine adjustments had been made to fuel systems statically, with disregard to the procedures that require the adjustments be carried out dynamically. The management stated that an engine ground run was not required. Just recently lot of pressure has been applied to perform engine ground runs even though the relevant paperwork to state the aircraft is safe to ground run was not signed, a requirement currently in force. On the most recent occasion, the ground run had to be cancelled on safety grounds due to electrical

systems not connected, pressurisation air leaks and main fuel transfer leaks, leading to a ground occurrence report being raised.

I am currently feeling under a lot of stress, with regards to the above incidents, and I am in fear of my continued employment.

I feel that if I raise another issue of current procedures or best practices not being complied with then I may be disciplined or dismissed.

Please can you advise me as to what to do in this situation, as I was under the impression that commercial pressures, personality problems etc, should not influence the quality of the engineering procedures being carried out on aircraft, furthermore that if an issue of quality or safety was raised that it should be resolved and any amendments incorporated as soon as practicable and in particular that the person raising such issues should not be in fear of reprisals in any form.

The issues raised in this report were represented, with the reporter's consent, to the most senior manager of the organisation concerned.

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LICENCE EXTENSION LIMITATIONS

A number of BCAR A&C engineers within the Company I work for have been issued Level 3 Avionic LRU replacement authorisations on the strength of very shallow practical experience and without attending an appropriate avionic extension course. I bring into question whether these authorisations should have been issued and whether the persons concerned should be exempt Module5 when they convert to a JAR B1 Licence.

I consider the knowledge requirements for Module 5 *(Digital Techniques Electronic Instrument Systems)* a must for any licensed engineer continuing in aviation as the use of new technology included in this Module is increasing all the time.

I do not consider the contents of any type avionic extension course run by my employer adequate to warrant exemption from Module 5 as they only touch on part of the subjects of this Module, i.e. Part 5.1 and 5.15.

I extend my concerns to A&C engineers holding BCAR 'X' electrical extension being exempt this Module as the subject matter and depth of knowledge requirements far exceed any related subjects within the BCAR 'X' electrical syllabus.

To maintain high safety standards the CAA should be looking more closely at the technical qualifications of Level 3 Holders within JAR companies. When considering exemptions they should be favouring all subjects that have been covered previously by the applicant and not subjects that have not.

On the general subject of Approvals and conversion, the CAA (SRG) made the following comment, adding that any non-compliance outside of these limitations will be investigated:

BCAR A8-13 Avionic Extension

BCAR A8-13 contained provision for an avionic extension for A and C licence holders. This allowed the replacement of avionic LRU on a task related basis where the item being replaced did not involve the use of special test equipment. The resulting authorisations should have been clearly based upon an element of basic training on avionic principles as well as the specific task related training to replace and test the LRU. An information leaflet provided the supporting detail that defined what an LRU was and how authorisations could be managed. Increasing use of computerisation and integrated technologies introduced different operational and system design philosophies into the new generation aircraft. Following further discussion with industry through the United Kingdom Operator's Technical Group the CAA reviewed the requirements and associated guidance for avionic extensions and promulgated this as Appendix 3 to CAA Airworthiness Notice No. 14. This reinforced the need for basic and task training elements to the authorisation process and all approved organisations were required to adopt these new working principles within their procedures.

JAR-66 'Protected Rights'

Any person holding an avionic extension at 1 June 2001 was deemed to qualify for 'protected rights' provided the authorisations and the associated procedures fell within the criteria defined in CAA Airworthiness Notice No. 14. The JAR-66 Review Board process recognised the previous UK National practice as qualifying in part towards a JAR-66 licence providing organisations had implemented the requirements properly, i.e. the basic and task training, examination and practical experience requirements were satisfied prior to authorisation. The detail of this is shown in the guidance leaflets produced by CAA Personnel Licensing Department. The CAA has, during the process of converting 'protected rights' to the new JAR-66 system, identified a number of anomalies in company authorisation systems. These have resulted in revisions to company procedures, withdrawal of authorisations and loss of 'protected rights'. 'Protected rights' will otherwise have to be transferred to a JAR-66 licence at both basic and type level.

Conversion Issues

On the basis of the previous UK National practice and the inclusion of training requirements as part of an

avionic authorisation issue, the 'protected rights' provided an entitlement that an equivalent to module 5 in the JAR-66 syllabus had been satisfied for any person holding an avionic extension. This means that an applicant for a JAR-66 licence would be exempt from module 5 upon conversion to a JAR-66 licence. An avionic extension did however cover 'electrical' subjects and therefore did not provide any entitlement to exemptions for modules 3 or 4 in JAR-66. Conversion to include any electrical privileges, i.e. to remove limitation 1 on a B1 licence would require examination in modules 3 and 4 as well as some other elements as identified in the conversion tables issued by Personnel Licensing Department. The full exemption from module 5 is based upon the fact that the equivalent subjects should already have been examined by the JAR-145 organisation prior to the issue of an authorisation.

LRU Privileges

It should be noted that avionic extension does not confer the same privileges as the B2 licence does. It only permits the replacement of components that can be determined to be faulty through a simple go/no go assessment process, normally a 'fail' indication as a result of a BITE test. If any complex assessment process other than 'press to test' or similar is involved then the avionic extension holder cannot certify the task but must call in or work under the supervision of a suitably qualified B2 technician. Obviously as the aircraft technology level increases in terms if BITE capability the more tasks fall within the philosophy surrounding the use of the simple task definition. There are therefore clear distinctions as to what each individual can certify for.

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'Flying Spanners' - Licensed To Certify?

Mechanics with limited and simple / turn round cover are now being used as flying spanners at a lot of the main operators at AAA Airport. This may not seem to be a problem, but after talking openly with the crew and other engineers you can see why we believe flight safety is being compromised. At present our company has a contract with a *(foreign)* airline utilising our staff (flight deck, cabin crew and engineers). On several occasions mechanics (with turn around authorisation only) have been used instead of engineers to support this operation. Mechanics can sign for a pre flight and daily check only, (not defect rectification) if a defect was to occur and an entry is made into the Tech Log the aircraft would be grounded. This is where you will establish how serious this cost cutting exercise is.

On several occasions myself and other engineers are confronted with defects in the Tech Log and after speaking to the crew regarding the fault, it has been established the defect has occurred before on previous sectors. When checking the history on the past pages of the Tech Log I was told by the captain who previously experienced the fault, the defect was not recorded. I was extremely alarmed at what I was told, and asked the captain, why? I then learned that the captain could not enter the defect in the Tech Log because the mechanic told him he could not sign Tech Log pages as he was not a licensed engineer (the crew are not aware of the difference between engineer and mechanic status) the Tech Log is the aircraft history utilised not only for troubleshooting by engineers, but by many other departments. We don't believe mechanics with 'A' licences and no knowledge of the aircraft should be used in these situations. Not recording occurrences or defects in the Tech Log is illegal as far as we are concerned however irrelevant it is deemed to be. (The crew should not be pushed into these situations, just for fear of the aircraft being grounded).

We engineers between us have all advised our managers of the above problem, but this has fallen on deaf ears; doing the job on the cheap is fine for these companies, until the inevitable happens.

Failing to record a known defect in the Technical Log is in contravention of the Air Navigation Order.

Investigation into this report has resulted in the use of appropriately qualified engineers now being carried on all such flights.

ENGINEERING COMMENTS

JAR-66 Licence Conversion (ENG256)

The licence conversion item, see Engineering Comments in the current issue of FEEDBACK (No. 65) prompts me to ask if the 'A' licence is being correctly used.

JAR 66.20 (b) (1) states that certification privileges are restricted to work that the authorisation holder has personally performed.

JAR 145.30(f)(1) in effect says that JAR approved maintenance organisations may use category 'A' certifying staff to carry minor scheduled maintenance tasks and simple defect rectification and AMC 145.30(f) (1) contains a list of typical tasks permitted. These tasks can still be carried out by an unlicensed mechanic and certified by a 'B.1' licence holder.

With the current shortage of Licensed engineers and 'B.2' engineers in particular it seems uneconomical to use an Avionic Engineer to carry out the simple and limited tasks of the 'A' Licensed Engineer.

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CAA (SRG) FLIGHT OPERATIONS DEPARTMENT COMMUNICATIONS (FODCOMS)

The following CAA (SRG) FODCOMS have been issued since January 2003:

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

1/2003

1. Decompression Incident - AAIB comments and observations on the activation and use of the passenger oxygen system.
2. Overwing Evacuations - Passenger awareness of escape routes
3. Injury to Cabin Crew During the Final Phase of Flight - Cabin Crew to protect themselves for the benefit of the majority of passengers.
4. Occupancy of Passenger Seats Next to Self-help Emergency Exits
5. Routine Deployment of Inflatable Evacuation Slides

2/2003

1. Incorrectly Loaded Cargo - Recommendation following incident involving cargo incorrectly distributed.
2. Winter Awareness
3. Infant Flotation Devices - Exemption for 'nine month gap'
4. Rectification Interval Extensions in Accordance With JAR-MMEL/MEL
5. TWAS Database - updating
6. Use of Supplementary Loop Belts on Aircraft on Wet Leases (Extended Charters) To or From Canadian Operators - Exemption procedure

3/2003

1. Operations Manual Amendments - Amendment Process

4/2003

1. Operations Manual Requirements for the British Formula 1 Grand Prix Event, Silverstone 20 July 2003-02-27

5/2003

1. Pleasure Flying Site Requirements for H1 Helicopters

6/2003

1. Minimum Equipment List (MEL) Operational and Maintenance Procedures - Publication of O and M procedures
2. Accreditation of Crew Resource Management (CRM) Instructors

7/2003

1. Letter of Consultation: Proposal to Amend the Air Navigation Order 2000 - Proposal to Amend Articles 50, 51 and 129 of the Air Navigation Order 2000 to Reflect Current International Practice in Relation to Area Navigation, Required Navigation Performance and Operational Approval

CAA (SRG) ATS INFORMATION NOTICES (ATSINS)

The following CAA (SRG) ATS Standards Department ATSINS have been issued since January 2003:

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

www.caa.co.uk/publications/publications.asp?action=sercat&id=2

Number 23

CAA Policy - Flight Outside Controlled Airspace - Following a number of AIRPROX incidents outside Controlled Airspace (CAS), the CAA has issued a policy statement on the operation of aircraft outside of CAS

Number 24

Incidents Involving Aircraft Carrying Dangerous Goods - Recent revision to Air Navigation (Dangerous Goods) Regulation requires the commander of an aircraft that experiences an in-flight emergency and is carrying dangerous goods to inform ATC of the dangerous goods

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