AIR TRANSPORT

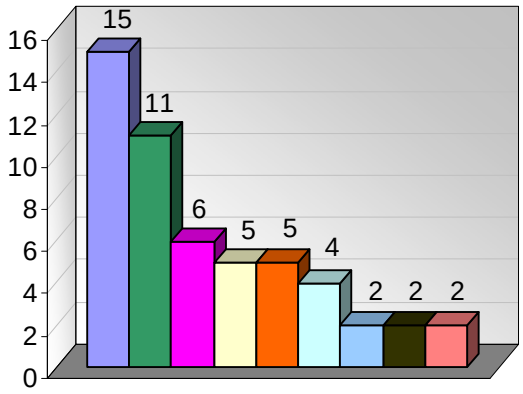
CHIRP FEEDBACK

Issue No: 95 Summer 2010

WHAT'S IN THIS ISSUE?

ENGINEER REPORTS

Most Frequent Engineering Issues Received:
12 Months to June 2010



- **Maintenance** (Line, Base, Repairs)
- **Company Policies** (Absence, Operational, Safety Reporting)
- **Communications - External** (Comments re:CHIRP)
- **Airports** (Infrastructure)
- **Regulation/Law** (Compliance with)
- **Security** (Ground)
- **Training** (Inadequate Specification/Requirements,Technique)
- **Resources** (Manpower/Personnel - Inadequate Provision)
- **Pressures** (From Management/Supervision)

WORN OR WORN-OUT

Report Text: Several years ago BCAR A&C licensed personnel were granted an avionic extension to bring them into alignment with the new EASA regulations. Previously it was company policy that inspections in a particular zone would be carried out by different personnel acting within their own trade disciplines. Engine/airframe licensed engineers would inspect and certify for the mechanical inspections and avionic licensed engineers would inspect and certify for the avionic inspections.

With the introduction of the EASA B1 engineer (who now has authority to certify for electrical inspections) the company decided to make zonal inspections 'untraded' and only allocated one space on an inspection card for carrying out and certifying for this inspection. As the B2 engineer couldn't certify for the mechanical components in this inspection the job of carrying out the 'untraded' inspections was passed onto the B1 engineer, thus effectively cutting the B2 licensed engineer out of the zonal inspections. (The B2 engineer would occasionally be required to carry out detailed inspections, however).

When this situation first arose several B2 engineers became concerned that the standard of the avionic inspections would drop and therefore defects would be missed causing potential hazards to appear, not necessarily straight away, but over time. A meeting was arranged between the Quality Department and some of these engineers where the above concerns were raised. The outcome of the meeting was that the process had been implemented under current legislation and that was how it was going to be;

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nothing changed and the B1 engineer would be responsible for the avionic inspections. This procedure still goes on today.

In my view this had led to a reduction in the standard of avionic installations over the years. This normally takes the form of damaged p-clips, loose connectors, and accumulation of dust on looms/LRUs and worst of all damaged cabling. Unfortunately a lot of these lapses do not come to light until a B2 engineer is involved in a job which requires him to work in a specific area or when he is called to give 'clearance' to fit panels upon which, during his quick inspection, he finds a defect. This last task tends to be carried out at the end of an aircraft input and has sometimes resulted in loom changes or repairs causing delays. Not the right time to be finding defects.

As an example, towards the end of a check, damage to an engine harness loom was spotted by an avionic engineer working in the area. Repairs/rewires to the damaged cables were eventually called for but due to the proximity of the ETS a delay ensued. Rectification was carried out under pressure due to the time constraints and lack of avionic personnel (other aircraft inputs were also being covered by the same avionic team). Had it not been for the avionic engineer there was a distinct possibility that the defect would have gone un-noticed and the engine panelled up. Not a good scenario as two of the systems involved were Turbine Overheat and EGT.

This does not appear to be an isolated case as it is apparent that more incidents have come to light. It would appear that when zonal inspections are conducted, some B1 engineers are either failing to spot defects in electrical installations or are not inspecting the electrical installations at all. I know this last statement to be true as during a conversation with a B1 engineer he was unaware that it was a requirement for him to inspect electrical installations when carrying out a zonal inspection in his area; he only inspected the mechanical installations yet he certified for the inspection which also encompassed the electrical installation.

CHIRP Comment: As the majority of today's fleets are leased, many organisations elected to vary the way they managed maintenance by more closely aligning their Approved Maintenance Programmes (AMP) with the manufacturer's Maintenance Planning Document, the baseline against which all large aircraft maintenance programmes are founded. In addition, the application of modifications or repairs now tends to follow industry standard processes which minimises the number of operator variations; this assisted in meeting the lessor's requirements for the minimum of re-work when returning the aircraft at the end of a lease. Greater commonality was also achieved with an alignment of task scoping and the language used on task cards. This however, does not impact on an airline's ability to develop additional tasks or to extend the time between tasks as their experience and analysis of in-service performance dictates.

A Part 66 licence can vary significantly depending on whether the holder transferred into Part 66 from a pre-exiting national system, e.g. Section L. Company controlled authorisations impose a corresponding limit to the scope of inspections which are supported by any EASA Part 66 licence privileges. This system also defines the level of additional training necessary for the scope of authority to certify tasks and in the above case; this meant that general zonal inspections were no longer trade specific in the company maintenance regime.

It is incumbent on organisations to ensure that certifying staff are fully aware of the definitions of tasks or functions called within the AMP and the scope afforded the individual regarding the various levels of inspections, along with a consideration of the maintenance philosophy applied to establish an effective maintenance programme. Part of this is an understanding regarding the difference between being worn and worn-out; as the application of an 'on condition' philosophy does not require a return to 'as new' condition at each inspection, but an assessment based on reliability experience as to whether the part will safely operate to the next scheduled check, therefore meeting expected design performance.

Of particular note is the need for Part 66 licence holders who have extended their licence to remove a limitation with regard to electrical privileges to recognise the additional responsibilities those privileges bring. The company also has a fundamental responsibility to provide additional training and to ensure that individuals demonstrate the necessary competence before further authorisations are issued.

In this particular case, the Quality Department elected to carry out a review of company training provided for electrical systems and to review the number of holders that converted to a full B1 licence to determine changes that had been brought about by the current system.

Lack of Training For Corrosion Repairs

Report Text: As an ex member of HM forces, it seems to me that the younger, and not so younger, generation are not being taught the correct methods and reasons for the removal and treatment of the different forms of corrosion found on aircraft. I cannot find any reference to deoxidine [treatment for aluminium] selenious acid [magnesium alloys] or jenolite [ferrous metals] listed in the manufacturers AMM chapter 6 or SRM chapter 20 [European mainly].

When I approached my colleagues they tended to show a complete lack of knowledge or they didn't

recall; the truth is that corrosion is a part of nature and will never go, even with associated composite structures becoming more common.

I mentioned this situation to one of my B1 colleagues recently, he stated that he was given very little training during his 'civilian' apprenticeship and was expected to pick it up during his experience in aircraft maintenance. I would like to see a programme of training being given to apprentices, and by what I have experienced myself, some adult training also seems to be required.

CHIRP Comment: **This issue was referred to the company's Head of Safety, who confirmed that beyond basic training, no additional specific training was considered necessary and that approved data in the form of the Structural Repair Manual and the Aircraft Maintenance Manual were available. In addition, guidance on the use of specialist acids for corrosion treatment was also readily available.**

The company's head of safety offered to discuss the matter with the reporter to identify where any improvements could be made to carry out repairs more effectively.

PART 66 LICENSING, A LEVEL PLAYING FIELD?

Report Text: As a long standing AMEL now sadly reduced to an AML I have received your CHIRP Feedback publication since the start. I often file each issue under B1N on the basis that each issue contains reports in the engineering section about "poor me" they have "put on me". If you can't stand the heat get out!! With the current shortage of licensed Engineers there is always somewhere else to go.

However your report, Part 66 Licensing Standards, which I hope is not your last on the issue, has finally made me put finger to the keyboard!!

The CAA reply to this feature clearly shows how totally out of touch they are with what is going on in 'Europe'.

I, like your correspondent, recently converted my BCAR Licence to Part 66. Not only did I end up with limitations, but because I was honest in completing the application I lost type ratings from my conversion of group (Para 7.3)

Let's talk about level playing fields!!

For sometime I have been supporting a Licensed Engineer/Pilot in Greece. Previously they had served a call up in the Greek Army air wing. On discharge they were given a Greek National Mechanics Licence. This has now been converted to a Part 66 Licence.

Because their National Licence did not differentiate between Aeroplane and Rotorcraft they were given B1 for both!

Because their National Licence did not differentiate between Piston and Turbine aeroplanes they were given B1 for both!

Because their National Licence did not differentiate between Mechanical Systems and Avionics they were given B2 Avionics!

CHIRP Comment: **Achieving standardisation of the Part 66 requirements between EU Member States has been a priority for EASA, and several workshops have been held to review the findings from various EASA Standardisation visits. This alignment of Part 66 standards among the EU Member States has been made more complex due in part to the very differing standards that existed prior to the new legislation. The variation in apprenticeships, academic courses and the existence of engineer licensing requirements was significant, requiring considerable evaluation against the specific requirements of Part 66 to identify areas to be addressed. This extended to the identification of shortfalls in licence syllabi, resulting in partial limitations on the licence. Some States, whilst being compliant for larger aircraft, have not yet fully implemented Part 66 standards for all categories of aircraft, for example in the case of aircraft in the category below 5700kgs, as there is scope to derogate compliance until September 2010.**

LACK OF COMPUTER TRAINING

Report Text: In the last 2 years all engineers have had to undergo lengthy Continuation Training exams which suddenly changed from a paper exam and ended up as a PC based exam! No training on the computer use was provided. Since then we have all had to use the system to do all engineering work.

Recently we were asked to use the system on the ramp to carry out all component change transactions, but with nil training! Management say it takes 5 min. but in fact it takes 2 people 20-45 min because we've had no training! And it is a complex system too.

Why is the company allowed to implement such a system and nothing is said by the CAA, specially when it comes to doing a 2 yearly Continuation Training exam using the system to find different things that are not only related to daily use but things like company procedures etc?

There should have been some kind of system training provided to all staff; which was only carried out in depth to management and a few staff who were supposed to train the rest. This never happened to my knowledge.

Why is the company engineering department a law unto itself and getting away with everything, resulting in stress and undue pressure on staff. This is a serious matter. Talking to friends working in other airlines, they do not have such complex, untrained and lengthy processes, especially now it's the subject of a 2 yearly Continuation Training exam lasting a week in class room, this used to be an hour face to face discussion controlled by the Quality department.

It's time things were simplified as there are less and less staff with more responsibility given a shorter time working on each aircraft.

CHIRP Comment: **The Company confirmed that during transition of implementing the new computer system, it had embarked on an extensive programme of transaction simplification, which had included focused 'end user' training that minimised the number of transactions needed to be learnt. It is also understood that for a period of time after implementation, administration staff were made available to assist engineers to carry out those transactions, but this support was eventually withdrawn when it was considered that staff had become more confident in using the system.**

In terms of legislation, it is a requirement of Part 145 that all staff are assessed for competence and they must be the subject of bi-annual Continuation Training, including computer based training, to ensure that individuals can access and use all approved data that is necessary for them to perform the scope of their maintenance responsibilities. Any skills shortfall should be identified during assessment and additional training provided as necessary.

CAA (SRG) AIRCOMS

The following CAA (SRG) ATS Airworthiness Communications (AIRCOMs) have been issued since **16 April 2010:**

2010/04 & 2010/07
Volcanic Ash

2010/05
Changes to the US Federal Regulations Regarding Export Certificates of Airworthiness

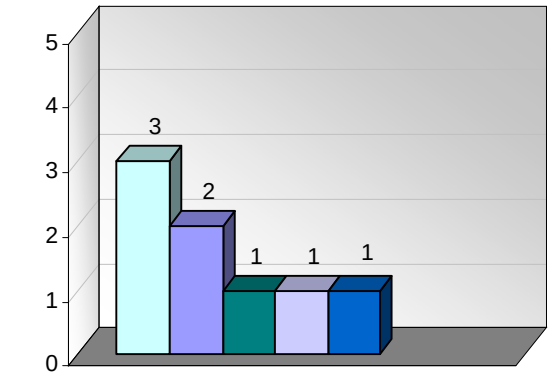
2010/06
Part M Subpart G, Issue of EASA Permit to Fly

2010/08
The Approval of Design Changes to ex-Military Aircraft

CAA (SRG) AIRCOMS are published on the CAA website (www.caa.co.uk). Any queries can be addressed to Airworthiness Strategy and Policy Department (**requirements@caa.co.uk**)

ATC REPORTS

Most Frequent ATC Issues Received
12 Months to June 2010



Air Traffic Management
(Separation, Level of Service)
Communications - External
(Pilots)
Communications - Internal
(Team/Shift/Watch)
Company Policies
(Absence, Operational, Safety Reporting)
Pressures
(From Management/Supervision)

For the first time since this programme was restructured in 1996, in the past three months we have received no reports from ATCOs. Several concerns have been raised by potential reporters during the period but after discussing the options available to reporters, these have been reported through 'open' company reporting schemes.

As part of our closing process for reports received, we ask reporters to let us know whether the action that we have taken in relation to the issue that they raised has been effective or whether the issue remains a concern. In the case of ATC related issues raised in the past twelve months or so, it is pleasing to record that the majority of concerns that we have represented to the relevant management on behalf of the reporter have been addressed.

RECENT GENERAL AVIATION REPORTS

ATC RELATED ISSUES

In cases where a report submitted by a General Aviation (GA) pilot involves an issue relevant to commercial air transport operations or ATC, our policy is to publish the report in both GA FEEDBACK and this newsletter; one such example 'London Information' is on Page 5 of this issue.

A number of recent reports received through the GA Programme have involved issues that might also be of interest to those members of the ATC community who interface with GA pilots.

1. ATSOCAS Traffic Service: Initial indications following the introduction of the new ATSOCAS

procedures were that the wide publicity given to the changes had been successful in raising awareness of the GA community to the new services under ATSOCAS. More recent trends suggest that a significant number of GA pilots still lack a good understanding of the 'Basic', 'Traffic' and 'Deconfliction' services. ATSOCAS services and procedures are published on the Airspace & Safety Initiative (ASI) website [www.airspacesafety.com)

From recent CHIRP GA reports, it has been apparent that some confusion continues to exist in relation to a 'Traffic' service. Whereas the definition is quite clear as to the responsibility of ATC when providing a 'Traffic' service, there remains an expectation among some GA pilots that under a 'Traffic' service ATC will issue avoiding action. A second related misunderstanding is that ATC are in contact with and are providing some form of service to all aircraft operating in the Open FIR, for example in the vicinity of but outside an ATZ.

2. Deviations from a submitted Flight Plan Route: A number of recent GA reports have described incidents (one a near infringement of Controlled Airspace) in which a change by ATC to a flight plan route submitted by the pilot has been a contributory factor. The routing changes have been either to optimise traffic flow or to facilitate an IFR radar crossing. It is worth pointing out that many GA pilots pre-plan their navigation prior to flight and some are not adept at managing subsequent changes. This is particularly the case when weather avoidance/strong winds are further factors. We have advised GA pilots that if they wish to revert to their planned route when this is possible then they should make that request to ATC.

3. Traffic Information to IFR departures. In a recent close encounter incident between a light aircraft correctly joining the visual circuit and a business jet on an IFR departure, the report cast doubt on whether the business jet pilot had identified the correct aircraft in response to the traffic information passed by ATC. From the reporter's narrative, the timeliness of the traffic information might have been a contributing factor. The reporter was encouraged to submit an Airprox report (www.airproxboard.org.uk) to permit these aspects to be investigated but in spite of assurances as to the investigation process, declined to submit a report.

Full details of the incidents reflecting each of the above points are in GA FEEDBACK Issue 44, which is available on our website: www.chirp.co.uk.

SUPPLEMENTARY INSTRUCTIONS / ATSINS

The following CAA (SRG) ATS Standards Department ATSINS and Supplementary Instructions (SI) to CAP 493 MATS Part 1 have been issued since **16 April 2010:**

SUPPLEMENTARY INSTRUCTIONS:

Number 2010/05 - Issued: 9 June 2010 - Effective: 9 July 2010

Mode S Aircraft Identification

ATSINS:

Number181 (Issue 3) - Issued: 27 April 2010

Reporting of Volcanic Ash Events within UK Airspace

Number 182 - Issued 20 April 2010

Volcanic Ash: CAA Issues Guidance to Open Airspace with Safety Restrictions

Number 142 (Issue 2) - Issued 28 April 2010

CAP 670 SW 01 Acceptable Means of Compliance with EU Regulation No. 482/2008 for Commercial Off the Shelf (COTS) Equipment with Integrity Requirements No More Onerous that 10^{-5}

Number 183 - Issued 5 May 2010

Effective Monitoring of Pilot Read Backs and RT Discipline

Number 184 - Issued 17 May 2010

Volcanic Ash: Service Provision Considerations

Number 80 (Issue 2) - Issued 8 June 2010

Flight Inspection under Single European Sky

Number 179 (Issue 2) - Issued 10 June 2010

Re-issue of Air Traffic Controller Licenses and Student Air Traffic Controller Licenses

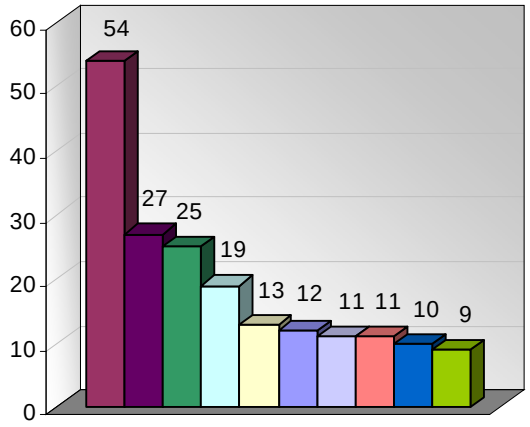
Number 133 (Issue 3) - Issued 30 June 2010

SES Compliance Matrix

CAA (SRG) ATS Information Notices are published on the CAA website - www.caa.co.uk/default.aspx?categoryid=33 and click on the link 'Search for a CAA Publication'

FLIGHT CREW REPORTS

Most Frequent Flight Crew Issues Received:
12 Months to June 2010



Company Policies
(Absence, Operational, Safety Reporting)
Duty
(Rosters/Rostering, Rest, Length, Crewing, Disruption)
Communications - External
(ATC, Regulators/Government)
Communications - Internal
(Team/Shift/Watch, Managers)
Airports
(Runways, Bird Control, Infrastructure)
Security
(Ground)
Pressure
(Commercial, From Management/Supervision, Time)
Handling/Operation
(Aircraft Handling by Crew, Opeartion of Equipment)
Relationship Management
(Planning, Managers)
Air Traffic Management
(Level of Service, Separation)

The following report submitted by a GA pilot was published in the last issue of GA FEEDBACK but might be of wider interest.

LONDON INFORMATION

Report Text: I was returning from Southern Ireland to my base in Southwest England in perfect weather (no cloud) at FL55 in a C182 (2 POB). About 2 miles ahead, at a lower altitude was another aircraft at similar speed. Approaching Slany, Shannon handed us both over to London Information. It soon became apparent that they were busy; however, there were gaps in the RT. The leading aircraft made his call but was told to wait. A few minutes later, in a gap, he made a call, but was told to stop cutting across other RT. On the third occasion, the London Information Officer was quite 'blunt' in telling him to stop cutting across other RT.

It was quite clear that whilst London Information can receive transmissions from the Irish Sea, aircraft over the Irish Sea cannot receive transmissions from other aircraft over Southern England. This seems a very unsatisfactory state of affairs and can only cause problems; for my own part, I was so intimidated by what I had heard, that I did not attempt to make a call, but kept a listening watch, and then spoke to Cardiff for a service when about 50 miles range.

On this occasion, conditions were benign. I am concerned that the area covered by a single London Information officer is too great and the failure of the London Information Officer to appreciate this problem coupled with different traffic/weather conditions might have led to a safety issue.

Lessons Learned: If London Information sound slightly busy, then they may in fact be very busy because I can't hear much of the RT - use another service.

CHIRP Comment: **NATS was invited to comment and provided the following response:**

The DOC (Designated Operational Coverage) of the 3 FIS frequencies encompasses the whole London FIR. Topography and the low level operating heights of the majority of GA aircraft can, in some areas, cause reception issues which would likely preclude a low level aircraft in the west hearing the transmission of a low level aircraft in the east. The only way to resolve this would be to augment the entire UK FIR (*including sea areas*) with repeater Tx/Rx masts on the FIS frequencies.

As the reporter notes, the leading aircraft's call was acknowledged and he was requested to standby. The pilot had not declared an emergency (which would have elicited priority attention) and therefore would have to wait his turn in the normal order of service provision. The FISO will get back to the aircraft in due course, but unless the pilot requires immediate assistance, once his call has been acknowledged the pilot should comply with instructions to standby and not, as in this case keep calling.

It can be very difficult to predict the workload of any one FISO because of the nature of their traffic which will usually call without a pre-note. Opening another FISO position is regularly done when workload demands it; however sector splits are done on geographical location and sometimes the traffic patterns dictate that opening another sector would not be beneficial i.e. when the majority of FIS traffic is in one area. Instead, during these busy periods, two people are put onto the same position ('man and boy') to manage the workload.

The extent (limitations) of the service are described in UK ENR 1-1-2-1.

The situation described in this report will be familiar to regular users of the London Information Service; however for those who use the service less frequently it should be remembered that many other pilots may be using the service and the controller(s) might be otherwise engaged on another priority task.

The report is also a reminder to controllers that pilots might not be able to hear other airborne transmissions and, although not the case in this instance, if instructed by ATC to 'Standby' should

expect a follow-up call within a reasonable period of time.

ATC Clearance Limit

Report Text: On a clear morning, we were inbound to the UK; normal descent. Reviewed ATIS, contacted London ATC and requested arrival routeing. BIG3B Standard Arrival (STAR) was issued. No delays.

No preceding aircraft were being issued with holding instructions. The BIG3B routing was followed to BIG. Descent clearance by ATC to 7,000ft; level at 7,000ft over BIG. The First Officer (FO) was Pilot Flying.

The FO questioned me as to the next navigation point. As a former Captain with an international carrier who had flown into LHR many times, I said, "No hold given by ATC so turn outbound from BIG to pick up the 277° Radial for the arrival to the ILS 9R. The FO followed my instruction based on my prior experience at LHR.

Up to this point on the approach, the London ATC controller had been the same; however, after the turn to the 277° Radial a different voice (probably a supervisor?) called to ask what heading we were flying. I said, "Turning to 277°". The controller said, "You are supposed to hold over BIG". After a pause we were instructed to continue heading contact the LHR director for ILS 9R. We completed a normal approach and landing.

Lessons Learned:

1. Do not assume holding is not required when the words "No delays" are issued by ATC and no other aircraft are holding. This can be a big trap. Review the STAR more than once. Review each and every detail. Question ATC prior to clearance limit to plan going into the hold; if not, request further routing.
2. Do not assume anything from prior experience. Continue to apply good CRM practice at all times.

CHIRP Comment: **This is an excellent report showing how easily a significant error can be made if good CRM principles are not followed.**

As many readers will know the STAR chart referenced in the report contains the following boxed warning 'Do not proceed beyond BIGGIN without ATC clearance'. This should have been highlighted in the Approach Briefing. Also, as the reporter notes, if you are not sure of your clearance/clearance limit, ask ATC.

The reporter is to be congratulated for reporting this error and ATC also for spotting the flight crew error quickly.

An Open, Just Culture?

Report Text: This company has many relatively inexperienced First Officers relatively new to commercial aviation and recently made a number of pilots redundant.

All First Officers were informed by Crewing that they were to be interviewed by the senior flight operations manager in two days time; each one was given an allocated time, no reason for the interview was given. These pilots then had to fly for two days in a great deal of worry and stress. Enquiries to management did not elicit any information and no opportunity was given to allow any representation. This cannot be good management and was totally unnecessary.

The interviews turned out to be looking for evidence of individuals deviating from SOP's.

CHIRP Comment: **The success of a 'Just Culture' within an organisation depends on both senior management and individuals recognising and accepting their relevant responsibilities for encouraging an open exchange of information.**

The unintended consequence of not issuing a reason for the meeting with the senior manager in response to requests is that many line pilots might perceive such an interview to be 'an invitation to a chat without a cup of tea', thus undermining the concept of a 'Just culture' by omission.

Given this, it is hardly surprising that relatively junior First Officers viewed a notification in the manner described with some trepidation.

A Condition Too Far?

Report Text: We were taxying prior to departing a major UK airport in a narrow body twin-jet. ATC cleared us to line up at the threshold after a landing twin turboprop. I was taxying the aircraft and looking ahead, I judged that the turboprop would have landed by the time we reached the runway. We completed all our Pre-take off checks including the "below the line" items.

ATC then cleared a second turboprop taxying behind us to line up at an intersection, again conditional on the landing aircraft having passed. This diverted my thoughts to the implications of this. Obviously we would be held on the runway for a minute or two, but would he be on the same routeing and delay us?

The next thing was my First Officer telling me that I was about to cross the red stop-bar. I applied the brakes, stopping maybe 2 metres too late - but at least we did stop. Moving my head forward and looking up, there was the turboprop crossing the threshold. Good call!

So how did this happen and why was the red stop-bar invisible to me?

1. Mindset - I had obviously already 100% decided that we would not need to stop.
2. Distraction - with the checks complete, I was concentrating on the turboprop who had stolen the lead from us.
3. Bad luck - through the flight deck window geometry, the landing aircraft was out of sight.

4. An aspect of my personal airmanship - on line-up, I always check the approach but only when I actually reach the tarmac, not at the stop-bar.
5. I was about to go on holiday and my brain was probably already there - I was demob happy.

My recommendations?

I have never had a problem with conditional clearances until now.

1. This one was unnecessary, so why give it?
2. And, more importantly, I don't think that a conditional clearance should be given to a moving aircraft if there's a chance it won't stop where it should.

Confession over - and now I'll pack for that holiday!

CHIRP Comment: **The practice of issuing more than one conditional clearance to different aircraft in order to optimise the flow of departures is not unusual; however, this report is an excellent reminder of how such a sequence of clearances can lead to a distraction and, in turn to a major incursion. The reporter is to be congratulated for honestly reporting his error and the First Officer for his timely intervention.**

As to the reporter's recommendations, it must remain the responsibility of the flight crew to ensure that a clearance condition/limit is clearly understood by both pilots and then monitored effectively using CRM principles.

COMMUNICATION 'GOTCHA'

Report Text: We pushed back from the stand and started engines which accelerated normally to ground idle and stable. We then stopped, commenced the After Start checklist and released the ground crew.

We then found that No.1 generator would not come on line and that it was indicating zero Amps/Volts. We were discussing whether we could dispatch with the APU generator instead when we heard a cabin call ding and noted a blue cabin call light in our peripheral vision. A short time later we heard another ding from the cabin; we thought that the Senior Cabin Crew Member was being a little impatient so continued with the checklist (on this occasion she had used the Emergency Call, which had brought on the emergency call light but as it has the same audio 'ding', we didn't see it).

At that point we noticed that the No.1 TGT gauge indicating a very high temperature and the N1 & N2 gauges reading zero. Fuel was shut-off, the fire extinguisher fired and we spoke to the cabin, who advised that they had been trying to tell us there was a metre of flame coming out of the No1 engine tail cone. The SCCM estimated that the engine had been emitting flame for about 2 minutes before we shut off the fuel.

The flight deck door had been locked prior to engine start in accordance with our security regulations so the SCCM could not come in and tell us. (Ed: This aircraft type has no key-pad access facility)

After the fuel was shut off the fire went out with no further problem except for a broken engine and the subsequent delay for passengers.

So to recap,

1. The flight deck door being locked, and
2. The audio for normal cabin call and emergency cabin call being the same sound, contributed to impeding the cabin crew from communicating important information to the flight deck.

CHIRP Comment: **This report highlights how easily several seemingly unconnected circumstantial/ contributory factors can lead to a potentially serious situation.**

The design of the cabin call system, with different lights for NORMAL and EMERGENCY calls but the same audio alert preceded the introduction of the locked flight deck door policy and complied with the certification requirements applicable at that time. Similarly, the design of the locked flight deck door on this aircraft type was deemed to be acceptable, without any key-pad access. However, in combination, these two design features contributed to this incident.

One further Human Factors point might explain why the flight crew failed to 'see' the EMERGENCY cabin call light and react accordingly. The human visual sensory store is very short; in the order of ½ -1 second; this means that much visual information may be lost if it is not received by the 'working memory' within that time; this failure to transfer information can easily occur at a time of high workload/high stress. The audio sensory store, on the other hand can retain information for up to 6-8 seconds; this makes it much more likely that a discrete audio alert will not be missed. Flight deck 'Attention-getting' systems using flashing lights and discrete audio tones that continue until actively cancelled are designed to minimise this human shortcoming.

NON-UK AIRLINE REPORTS

From time to time we receive reports from individuals employed by non-UK airlines. In cases where a report is assessed as having potential flight safety implications, we represent the concern to the operator in a similar manner to that for UK AOC holders to permit the matter to be assessed, if deemed appropriate.

The reports below were reviewed by the CHIRP Air Transport Advisory Board and subsequently represented to the airlines concerned:

(1) CABIN SERVICE DURING TURBULENCE

Report Text: We experienced moderate turbulence at all stages during the climb and cruise. I decided to tell the Senior Cabin Crew Member (SCCM) to

suspend the cabin service as I judged the turbulence to be too high a level to allow the crew to move about the cabin serving food etc. The SCCM was VERY loathe to do this as the same thing had happened recently and the entire cabin crew had been called to an interview and disciplined, purely for not serving food. The Captain concerned was also contacted by the company and strongly advised not to suspend service again. On my flight I ensured my order to suspend service was complied with.

There appears to be an emerging trend of threatening phone calls from management.

Lessons Learned: I would hope this report is not viewed as just a slander coming from a disgruntled employee, it is most certainly not. I love my job and bear no malice to anyone. I just want to keep things safe and wish to see an atmosphere where a Captain is able to do his job without fear of retribution.

CHIRP Comment: **If the circumstances described in this report are correct, the company action to discipline the cabin crew for halting cabin service in turbulence undermined the over-riding legal authority of the Captain for the safety of the passengers and cabin crew.**

The reporter's concern was represented to the airline management, who subsequently advised that company procedures placed the final responsibility for continuing/ceasing cabin service during turbulence with the SCCM. The matter had been referred to the senior cabin crew manager, who was not aware of any disciplinary action having been taken, as described.

(2) Sector Fuel Policy

Report Text: My company operates a fuel league system and publishes the results in the form of a table every month. This fuel league table includes the names of Captains and their placing on the table.

The top and the bottom performers receive either letters of congratulation at their "achieved" figures or a terse request to re-read the company's fuel saving policies.

Some top performers are now manipulating their fuel figures to achieve a higher position in the fuel league. This is ridiculous to those of us who regularly do not appear at the top for merely telling the truth. The manipulation has now gone as far as entering inaccurate data in Technical Logs; requesting re-fuellers to over-fuel so as to enable the Captain to claim that it was saved at the end of the sector; increasing the estimated trip fuel figures etc etc etc. No account is taken within the published figures for pilots who have either been required to hold before making an approach or have had to deviate en route due to adverse weather.

This silliness now has one individual with a claimed fuel saving of more than 20% compared with the computed sector fuel!

Please don't think that pilots in the lower half of the table are burning too much fuel either. Average savings in the lower half are in the order of between 5 and 10%; this means that pilots receive a 'must do better' letter for saving fuel!

On some longer sectors we can end up quite tight on fuel. NOT in any way dangerous at the moment I hasten to add, but surely this is the time to review these unprofessional practices. We now have younger inexperienced Captains who hesitate to load extra fuel due to forecast adverse weather; not good.

I emphasise that I have never been questioned or put under any direct pressure over my fuel decisions; however, to a new Captain the pressure is implied with the publication of the fuel league table rather than being direct pressure.

Lessons Learned: All obvious I think, only going in one direction.

CHIRP Comment: **There are significant commercial benefits to be derived from reducing the amount of additional fuel carried, particularly when applied across an airline fleet; thus it is entirely reasonable that operators should seek to minimise their fuel costs. It is also the case that the planned sector fuel burn can be much more accurately predicted than several years ago.**

As in many other safety related areas, the key to a successful policy is achieving the right balance and avoiding any possible unintended adverse consequences, as would appear to be the case in this instance if the above and other similar reports received on this topic are correct.

The company was apprised of the reported concerns and provided a detailed response which noted that similar complaints of incorrect fuel records had been investigated but none had been substantiated. Notwithstanding this, the methods used to generate the fuel reports had been recently revised and any claims of false records can be easily examined.

Some readers will recall that around ten years ago this Programme received similar reports regarding the use of fuel league tables by some UK operators; these reports led to the UK CAA conducting a Special Objectives Check, which in turn led to a CAA report published in 2000; this contained the following text:

5.2.1 ... Some operators were reported to have in place 'league tables' that 'ranked' commanders according to the amount of fuel they took on departure exceeding that calculated by the computer program.

5.2.2 The effect of keeping a league table as described exerts a form of pressure on each individual not to be shown up as being different from his colleagues in the fleet and vulnerable to attract attention from his fleet manager. Such perceived pressure is known to have resulted in pilots departing with less than that calculated by the computer-

generated fuel plan so that their position in the table could be 'improved'. ....

CABIN CREW SICKNESS POLICY - AGAIN

Report Text: I am becoming increasingly concerned with what appears to be a hardening of the company's attitude towards cabin crew attendance records, with implications for crew operating while unfit.

Recently, the company employed a number of cabin crew on temporary contracts, to be made permanent subject to satisfactory performance. However, recently two cabin crew members were told that they were being 'let go'. In the first case, the individual concerned required unscheduled time off to support an unwell partner; this was closely questioned at the time by their performance manager, and was, they believe, a factor in the company's decision not to retain them. In the second case, the person required leave due to the terminal illness and subsequent death of a parent. On being informed of the decision that a permanent contract would not be offered, the individual was told directly that she had taken excessive time off.

I do not know whether these decisions reflect company policy, or the attitudes of certain individuals within the cabin crew management team. What I do know for certain is that these stories are common knowledge among cabin crew, and there is a now a widespread belief among those on temporary contracts that if they require unscheduled time off, they may face serious consequences. This has already resulted in at least two cases of cabin crew operating when clearly unfit (with colds and blocked ears); both insisted on working as they feared for their jobs if they reported sick. The belief has extended to experienced cabin crew on permanent contracts, who also now believe there is pressure not to call in sick.

From personal experience, this situation can leave captains with the difficult choice of operating with a crew member who frankly should not be on board, or offloading someone who is desperate not to report sick - not to mention the health risk to the crew member themselves.

As a pilot I have never felt pressured to work when unfit. On the rare occasions when I have felt unwell, my explanation has been accepted without question by the crewing department, there has been no follow-up by the company, and as a result I am confident that my decisions are respected and I am treated as an adult. It is worrying that perceptions are so different on the other side of the flight deck door.

CHIRP Comment: The reporter's concerns were raised with the company management. In a subsequent response the management noted that flight crew members were subject to a different sickness/absence policy, whereas cabin crew members were subject to the company HR 'Return To Work' policy under which managers carry out interviews with any member of staff who has been absent as part of the company's welfare check procedure. The company confirmed that when looking at the future employment/ promotion of any crew member the individual's attendance record would be taken into account, but this would only represent a small part of the overall assessment of performance.

The management expressed disappointment that the flight crew member had not raised their concerns through the company's confidential reporting system so that any such occurrence of a manager not handling a cabin crew member correctly could have been rigorously investigated. The reporter was apprised of this.

It is sometimes difficult to achieve and maintain the right balance in a company-wide scheme that includes both personnel who are required to fly and the wider community of ground-based staff. In previous similar cases, the evidence has indicated that there has been a lack of appreciation by some line/HR managers that some medical conditions are more significant to flight and cabin crew than would be the case in a ground-based occupation. This has led to a perception, similar to that described in this report, that individuals declaring themselves unfit for a flying duty as a result of a genuine illness will not be dealt with fairly on their return to work.

CABIN CREW REPORTS

DOOR ARMING/DISARMING SOPS

Report Text: The SCCM (who has the responsibility for arming/disarming D1L was told by the Captain that the jetty was too close to the aircraft and D1L was not to be put into automatic when all other doors were.

I was responsible for D1R.

The SCCM called, "All doors to automatic and cross check", which we all did but I was unable to cross check with D1L as it was still in manual.

We did the safety briefing, secured the cabins, and it was at some time after all of this, as far as I can remember, that the SCCM finally put D1L into automatic and we finally did the crosscheck. We could see the jetty that the Captain was worried about. It was certainly fairly close to the aircraft, but surely that should be our decision if an evacuation was called for? As it was possible to see the jetty, in an evacuation I assume the SCCM would have decided it was unsafe to use that door and re-directed. As it was, we were in danger of forgetting to arm the door at all.

I am unsure whether the Captain ultimately gave permission for the door to be armed (I would have thought he was too busy) or if the SCCM was instructed to do it after we had pushed clear of the

jetty. Either way, the Captain went against SOPs. Is he allowed to do this?

Lessons Learned: I think we should have queried the Captains decision.

CHIRP Comment: **This report was published in Cabin Crew FEEDBACK with the following CHIRP comment:**

"EU-OPS states: "the Commander shall have the authority to give all commands he/she deems necessary for the purpose of securing the safety of the aeroplane and the persons or property carried therein".

Deviation from standard operating procedures (SOPs) is not recommended, however this may occur in exceptional circumstances for safety reasons. The crew should be fully briefed as to the alternative procedure and rationale.

If you feel that a current SOP within your company does not work or that it would benefit from an improvement, let your company know, via an internal report. This will enable the relevant SOP to be reviewed and possibly amended."

From a flight crew perspective, a decision to change a cabin crew SOP should take into consideration any possible adverse consequences of the deviation. In the circumstances described, delaying the arming of all doors until clear of the jetty might have been an appropriate alternative course of action.

CAA (SRG) FODCOMS

The following CAA (SRG) FODCOMS have been issued since **16 April 2010:**

10/2010

Volcanic Ash

11/2010 & 13/2010

Volcanic Ash - Advice for General Aviation Pilots

12/2010

Requirement for Safety Risk Assessments for Commercial Air Transport (CAT) and Public Transport (PT) Flights in Airspace Proximate to Volcanic Ash

14/2010

Letter of Intent: Proposal to Amend the Air Navigation Order 2009 (Helicopters Conducting Offshore Flights)

15/2010

Major Changes to and Detailed Requirements for the British Formula 1 Grand Prix Event at Silverstone 9-11 July 2010

16/2010

Attestation of Cabin Crew Initial Safety Training

17/2010

Overflight of Volcanic Ash Clouds

18/2010

Introduction of Time Limited Zones (TLZs) for Commercial Air Transport (CAT) and Public Transport (PT) Flights in Airspace Proximate to Volcanic Ash

The following CAA (SRG) Flight Crew Training Notices been issued since **16 April 2010:**

01/2010 - Effective: Immediate / Applicability: RETRE, TRIE, TRE, SFE, TRI, SFI

Stall Recovery Technique

CAA (SRG) Flight Operations Department Communications are published on the CAA website - www.caa.co.uk/default.aspx?categoryid=33 and click on the link 'Search for a CAA Publication'

If you wish to contact the CAA Flight Operations Inspectorate or to report any safety matter which is outside the scope of the MOR Scheme please e-mail the CAA at:

flightoperationssafety@caa.co.uk

NASA Aviation Safety Reporting System (ASRS) Callback Report

Some operators adopt a policy of loading an aircraft towards the aft cg limit in order to derive the fuel consumption benefits.

The report below was submitted through the US counterpart to this Programme and serves as a useful reminder that if it doesn't look or feel right, it probably isn't!

An Airbus 320 First Officer heeded tactile cues that all was not right with a takeoff. After a return to the gate, the flight crew observed visual cues that supported their decision to abort the takeoff.

All preflight, engine start, taxi-out checks completed normally. Final weights had the trim set at 38.3 (unusual aft setting). Once takeoff power was added, I immediately noticed a strong nose-up tendency, one which I have not felt...on the Airbus. I made a comment to the Captain that something felt odd. With the control stick full down in order to maintain directional control via the nosewheel, I elected to accelerate a bit to see if relative flow over the horizontal stabilizer would help alleviate the tail-heavy scenario. After about 70 knots, I was hesitant to neutralize the stick as it gave the feel the nosewheel was going to lift off the ground. An abort was executed around 70 knots. We cleared the runway and returned to the gate...

I discussed with the Captain how the aircraft felt and my concerns of possible improper loading of the aircraft. I knew the Center of Gravity was aft as the trim setting was 38.3,

although within limits on paper... After parked at the gate and exiting the cockpit, we began noticing visual cues. With a [passenger] load of 3 [First Class] - 83 [Economy], the majority of passengers were in the last 15 rows. Once on the ramp, we quickly observed the nosewheel strut in an unusual extended position. We then met with ramp personnel and reviewed the load manifest. We were told by the Lead Agent that the aft limit for this flight today was 1672 units and the aircraft was actually loaded to 1680 units. When queried about the out-of-range number, we were told 'there is slop *(Ed: margin)* built into the limits.' We moved 14 bags to the forward pit *(Ed: front under-floor hold)* and some passengers to First Class. After waiting for our brakes to cool and a visual inspection by a Mechanic, we departed about 60 minutes later….

Viewing the aircraft with the nose strut in an extended position was a major sign that even though on paper we were within limits, in reality the aft Center of Gravity [limit] may have been compromised….

IF YOU WOULD LIKE TO SUBMIT A REPORT

Due to cost restraints, we have not included report forms within this issue of AIR TRANSPORT FEEDBACK.

We still welcome reports! If you would like to submit a report to CHIRP, you can do so by the following means:

- Submit an electronic report via our secure website
- Download a report form from our website and post/fax it to us (see right for details)

www.chirp.co.uk

or

- You can e-mail us at:

  confidential@chirp.co.uk*

*CHIRP does not recommend the use of non-encrypted e-mail systems for submitting sensitive information

HAVE YOU MOVED?

If you receive FEEDBACK as a licensed pilot/ATCO/maintenance engineer please **notify Personnel Licensing at the CAA of your change of address and not *CHIRP***. Please complete a change of address form which is available to download from the CAA website and fax/post to:

Civil Aviation Authority
Personnel Licensing Department
Licensing Operations
Aviation House
Gatwick Airport South
West Sussex RH6 0YR

Fax: 01293 573996

The Change of address form is available from: www.caa.co.uk/docs/175/srg_fcl_changeofaddress.pdf

Alternatively, you can e-mail your change of address to the following relevant department (**please remember to include your licence number**):

Flight Crew ..... fclweb@caa.co.uk
ATCO/FISO ..... ats.licensing@caa.co.uk
Maintenance Engineer ..... eldweb@caa.co.uk

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