CHIRP
AIR TRANSPORT FEEDBACK

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CHIRP 5-Year Review – A 'Call for Comments'

The latest 5-Year Review of 'Aviation CHIRP' is underway. To help the Review Committee with its work, we would greatly value views from air traffic controllers, cabin crew, engineers and pilots, whether or not you have ever filed a CHIRP report. Comments are invited on the extent to which CHIRP improves safety for aviation communities in the UK.

Do you know of a safety issue that was raised through CHIRP which would otherwise have remained unknown or would not have had the right prominence?

What does CHIRP provide uniquely or in addition to other safety reporting mechanisms?

What are the benefits of the CHIRP programme, to individual people and to the community as a whole?

Please comment freely, not just in relation to the questions above. You can send an email either to the usual CHIRP address – mail@chirp.co.uk – whence it will be forwarded or you can email directly to the Review Committee's unique address – chirpreview@gmail.com

Please contribute to this Review, as soon as practicable and ideally by the end of October 2014 as the Review has to be completed by mid-December.

Thank you in advance,

Peter Hunt

Review Committee Chairman (Independent)

EDITORIAL

This is the first edition of FEEDBACK produced entirely for electronic distribution and the change comes 17 years after the CHIRP revamped programme was introduced. Looking back over those early FEEDBACK issues and comparing them with recent ones I am struck by the absence recently of reports about how "we very nearly ....". It could be that these reports are being made through company reporting schemes but I suspect that there are many near misses that are useful learning experiences for the people involved but otherwise forgotten or maybe shared discretely with a chum over a beer. I would like to see more of this type of report. If we are to improve safety in a proactive way we need to identify hazards, precursors and 'gotchas' before they manifest themselves as reportable incidents. So don't be shy. Please share your experiences and let us see whether they are one-offs or something that could identify a trend. Either way, your colleagues and the communities at large will learn from them.

Just in case you are tempted to skip over it, I would like to draw Flight Crew readers' attention to the first of the Engineering Reports in this Edition of FEEDBACK: Crew Failure to Raise Defects in Tech Log System. No doubt the crew involved had the best of intentions in leaving an informal note for the next crew to fly the aircraft but it was wrong not to record the problem in the Tech Log, which is the 'Master Document' for the aircraft. If a defect occurs an entry should be made in the Log as soon as possible. When an entry is made, the engineering organisation swings into action to plan when and where to conduct rectification and to position the people, equipment and parts to make it happen. So don't wait until the last inbound sector of the duty; make the entry as soon as possible and defer it if that is appropriate. After all, if it can't be deferred, do you really want to be flying that aircraft?

Ian Dugmore   Chief Executive

ENGINEERING INTRODUCTION

All airlines have a safety policy and many contain the sentiment that "Safety is our Number One Priority". So what does that statement mean to the licensed engineers and the other groups of people who work on the aircraft?

With an Orchestra or Band, where everything is in harmony, the artists will all be playing in tune. In the aircraft maintenance industry, the airline or maintenance organisations need to ensure all of the staff are performing their roles effectively. Managers expect front line staff to maintain the highest personal standards and also to ensure safety is at the forefront when making technical decisions and performing tasks. This imperative must be regardless of the inevitable operational pressures and distractions that can and do occur. For professional engineers this will encompass the safety of the aircraft, the passengers, that of your colleagues and also your own personal safety.

The organisation and support organisations role is to ensure that engineers are trained, proficient and provided with the right tools to do the job.

The key elements are workable plans, MM's (Maintenance Manual), IPC's (Illustrated Parts Catalogue), task cards, and also the equipment, parts, tooling and support to perform tasks safely. We should not underestimate the strain the local infrastructure can put on front line staff, security checks etc.; while essential, it can cause mounting stress and frustration to airside workers.

Organisations can and do build in all sorts of checks and barriers to ensure that work is being done efficiently and safely. However, these cannot be overseen or policed at all times. They rely above all on the integrity and professionalism of the front line engineers in ensuring airworthiness is at the forefront. For certifying engineers this can sometimes mean going back to check work or tasks again or challenging when something is not right.

Safety does not happen by accident it is an output that results when well trained staff are working to effective processes and plans supported with the right parts, training, tooling and documentation.

Bruce Hunter Deputy Director (Engineering)

ENGINEERING REPORTS

CREW FAILURE TO RAISE DEFECTS IN TECH LOG

Report Text: One of my colleagues met the A/C and while carrying out the daily inspection was informed by the Captain that there were no defects but he had placed a note in the cockpit for the morning flight crew. On examination the note read as follows:

'Hi chaps, had this aircraft for 3 sectors. On the first we had "Hyd rat fault" and "rat out" shown. This seemed to happen with power changeover and self-cleared after a few minutes. No issues on our last two sectors. Cheers.' (Names of Crew supplied)

By the time this was brought to my attention the flight crew were long gone.

In 25 years of experience in line maintenance this is only the second time I have seen an aircraft defect recorded on a scrap of paper in the cockpit and not in the tech log. This is the sort of thing I hear about now and again, usually from fly-by-night third world operators on low budgets and run by corrupt organisations with poor oversight. It is not something I expect to see from a high profile UK airline.

I carried out trouble shooting as required for the defects recorded on the note but found no associated faults and the systems tested ok.

CHIRP Comment: The reporter agreed to CHIRP advising the company Flight Operations Safety department of this issue. Following a detailed investigation they have identified a failure to follow company procedure by the operating

crew and have interviewed the staff concerned. Supported by the Chief Pilot, the company will be issuing advice to all aircrew to ensure defects are reported in the technical log and not by using informal notes.

TRAINING MANUALS AND LEADERSHIP

Report Text: I work for XXX at YYY Line. The company has gone through major changes recently. Part of those changes have been with management, IT and the introduction of new computer systems.

Once it was up and running we had no access to Airbus or Boeing On-line. We did have a single stand-alone computer, this became the main computer access point. It was taken for granted that the issue was being sorted as the company technical library sent out emails giving us 'work around' options until the issue was solved. Over the following months even the workarounds became an issue.

I used the company procedure for reporting the issues to our 3rd party IT support, based overseas. These issues were never sorted to a satisfactory conclusion. I continued to report the issues. After about 9 months they finally downloaded a patch, which enabled us to view Airbus manuals and the graphics but were unable to print from Airbus. For Boeing, we were unable to view the graphics but we were able to print. This is where we are at the moment.

Several times during this whole procedure I contacted the chain of command. On each occasion they were all dismissive of the issue and stated it was an IT issue so it needed to be reported by myself to the IT department. It appeared that nobody in engineering was keen to take ownership of the problem

There is also a conflict between Line Engineering and Stores. We are told to follow one procedure, yet stores will not action our demands as required. The management are aware but are unable to sort the issue out, as it is 'political'. Each department does not want to take on extra work as it will affect their KPIs (Key Performance Indicators). The result is Engineers on the line are chasing and collecting spares as well as trying to maintain the aircraft.

Lessons Learned - We are dangerously close to having a major accident/incident.

CHIRP Comment: The reporter also identified a number of other issues resulting from the organisational changes that are happening.

Many organisations have faced similar issues when introducing significant computer systems changes. Having approached the organisation they were aware of issues and took the reporters observations seriously.

To this end they have taken steps to improve the systems integrity, improve communication and improve training for users. To add to the frustrations, for users, this was not a quick fix and has taken some time to accomplish

The reporter acknowledges that there have been improvements. This is noticeable in the office and hangar locations. There are still issues relating to the OEM pictorial and drawing information in particular in line maintenance locations. The company advise they are looking into these issues but feel they are linked to failings in the airport infrastructure.

With the use of SMS principles it may have been possible to alleviate many of these issues. Planning and Communication is vital during times of change particularly when they cause distraction for operational staff. Understanding what might go wrong and taking steps to mitigate the risks can also help reduce stress for operational engineers.

ENG MEMS – MEDA REPORT

[Note MEMS = Maintenance Error Management System. MEDA = Maintenance Error Decision Aid.]

Incident Summary - The Aircraft landed in XXX with a SLAT FAIL MSG on the dayshift. There was only one B1 engineer on shift at the time and he was interrupted many times during the process of changing a component.

The job did not go to plan and there were issues relating to the technical information that was available. Following completion and after release to service, the engineer expressed concerns that he may have omitted the lock wire of the slat actuator bolts. He knew they were torqued but was unsure if they had been safety wired.

A Work Order request was placed with the operator. After checking the bolts they were confirmed as being wire locked.

Interruptions/Phone calls - The engineer indicated both during the investigation and in associated e-mails that after the first two hours had passed he had constant stream of interruptions from various parties asking for updates on the aircraft progress.

These callers included, the maintenance ops centre (MOC), flight crew, ground services, station manager with MOC calling several times for updates. These calls all took place in a 30-45 minute period.

Slat Actuator replacement problems - Initial work was accomplished on the ramp but after 30 minutes or so it was arranged for the aircraft to be positioned back to the hangar.

During the first couple of hours the two engineers (B1/Cat A) had problems removing the old actuator due to torque tube tension.

The actuator being removed was "Jammed" so no movement of the actuator was possible. Apparently, the AMM does not refer to how the actuator should be removed with the tension still present i.e. in the "Jammed" condition.

Root Cause Analysis - Lack of Available Maintenance Data – The existing maintenance data takes no account for the removal of an actuator in a "Jammed" condition.

Interruptions – The engineers experienced a number of phone calls asking "How is the job progressing". Flight crew, Station Manager, Maintenance control and even the catering company all called to see what the status was.

Distractions – The engineer lost his train of thought at important stages of the work due to numerous phone interruptions.

Perceived Installation Error – The engineer was unsure if he had wire locked the actuator attachment bolts.

CHIRP Comment- This is a classic MEMS type HF related problem. The organisation involved and the airline have used this as an opportunity to review processes during technical delays. They have also addressed a concern re the MM to the OEM. In the first instance the Station manager should have relieved the pressure on the engineers by fielding all calls in relation to the aircraft situation.

The engineer's actions were commendable as he had the honesty to admit that he "Might" have forgotten to wire lock the bolts and to ask for someone to check the integrity of the installation.

ATC REPORTS

ATC Management

Report Text: I wish to convey my grave disappointment at the way our ATC unit and Airport are being managed. We have for many years maintained staffing levels in ATC at the minimum required to cover the airport hours. This has always meant that any staff sickness/absence has had an effect on service provision. In particular, radar services have always been provided in an ad-hoc manner dependant on staff levels and/or qualifications. This often means commercial flights, biz-jets or large military a/c conducting procedural approaches in a busy class G environment which has been the subject of comment now in several APHAZ investigations as well as being raised in CAA audits.

We also depend on a modification to SRATCOH in order to accommodate the airport hours at the traditionally quiet start and end of the day, with a single ATCO band-boxing.

We have several trainee ATCOs at various levels, despite having issues with low traffic levels, lack of available OJTIs etc. There is little or no time for pre-briefing/de-briefing of students, and most report writing is done in own time. Some students have waited over 2 years to make a meaningful start to their required training.

For the last 3 years staff have been on restricted leave taking, due to the staffing levels. The airport management is aware of this issue, but it unwilling to reduce airport hours or ATC services to allow staff to take reasonable leave. Rather, they have gone out looking for new commercial business, apparently with no consultation with ATC, which has meant that we must further increase our opening hours whilst at the same time being at an historical low in staffing and morale.

Over the last year or so we have been hit by the loss of staff [for a variety of reasons]. For a few days last autumn we had (out of total 7 ATCOs) 3 ATCOs in total available to provide cover. This led to NOTAMed restrictions on airport availability. We presently cover many days with just 3 ATCOs out of a total 5 available, relying completely on the SRATCOH modification which I feel is abused for commercial reasons. Traffic levels are being restricted which makes the training of our back-log almost impossible. Whilst we are advertising for more staff this will have the effect of putting more training strain on OJTIs and lowering the morale of those being 'bumped'.

In short I feel that this unit is border-line failing. It has been over-looked and neglected by the owner/operator for so long that there are no quick-fix solutions left. We will need at least 18 months to recover. Morale is low, traffic levels are low, and the training requirement gets longer and longer as do the opening hours. Without the SRATCOH dispensation the airport would have to revert to a 9-6 operation. Leave cannot be taken in a reasonable way. More staff leaving will be inevitable unless things change for the better, and staff do not feel that they can approach the accountable manager who doesn't seem accessible. Quite the opposite, in fact anyone trying to approach the accountable manager will be told how well we are doing!

Hopefully you can draw some of our issues to the attention of management, who thus far seem unwilling to listen to, or act upon our concerns about the way this unit is being managed. I do feel the staffing levels, standards, and morale will continue to drop and this will inevitably have an impact on flight safety.

CHIRP Comment: This is one of 2 reports submitted earlier this year about this Unit. The CAA was alerted but was already aware of the problems, which were brought to a head by the loss of several controllers in quick succession. Small units are disproportionately vulnerable to the loss of just a few members of staff, compared with larger units. Problems are exacerbated when the staff leaving include the trainers and/or examiners; difficult decisions are required in terms of the priorities for recruitment and training of replacement staff, from ab initio recruits or experienced controllers from elsewhere, and the recruitment and training processes take time. It is possible to enter a descending spiral when, as this Unit was required to do, opening hours were restricted and bandboxing tower and approach further reduced their ability to train and qualify replacement staff. Pulling out of this situation is not easy

or quick but the Unit has appointed new management, who have recruited both replacement and additional staff and have plans in place to introduce watch managers on each shift. The airport has reduced its promulgated opening hours and introduced PPR and circuit restrictions intended to regulate the traffic flow for the benefit of controllers and operators alike. The Unit acknowledges that it has not yet fully recovered the staff/task balance it seeks but is confident that it has moved on positively since the reports were submitted.

FLIGHT CREW REPORTS

CREW UNAWARE OF MULTIPLE UPDATES TO ELECTRONIC MANUALS

Report Text: [My company uses electronic media] to keep pilots up to date with the current company SOP's; we are being inundated with manual updates on an almost daily basis. When faced with an update list which may update 15 to 20 manuals per week but does not give any indication of what is changing, it is impossible for the line crews to work out what has changed in even the most basic of changes. It is becoming an accepted mantra to say "I must have missed that one" when faced with the question "I think that changed a while ago"! There is no robust system for listing recent changes in an easily understood format. There is a terrible system that will only list the most recent changes to a manual that is almost unusable and involves tortuous navigation through multiple menus only to start again at the very beginning after each individual change has been read. We are told of a very select minority of changes as we check in for work but these do not include most of the major changes that affect us on a daily basis.

Some examples:

1-Flying a new aircraft that has the ships clock removed and replaced with a digital display in a different location, the elapsed time function has been removed and no change information supplied leading to 20 minutes of confusion pre-departure at a very time-critical part of the flight process. Even the engineers didn't know how to work it! The tech manual was updated automatically but no one was told.

2-The absolutely critical take-off process affecting the wording of setting thrust procedure and instrument checking has changed with only one First Officer so far that I have flown with having noticed leading to confusion at the worst possible time.

Gone are the days when a list of recent changes was available for perusal before flying so that everyone involved knew what was happening! I regard this enormous change in our sources of information a poorly understood Human Factors disaster. It is too easy to produce a new manual update that actively disguises other changes without the Flight Crew knowing which if any are relevant. We spend more time now wondering how/why/what we should be saying rather than doing the job we are paid for in ensuring a safe operation. The filtering and presentation of operational information must be addressed as a matter of priority before the flood of useless information disguises the causes of the next Human Factors hull loss.

Lessons Learned: An active reduction in the number of re-releases of operational information and a thorough description of every single change that is available to all flying crew, whether it is an addition or deletion must be available for viewing before going flying. It is unacceptable to supply a link to every change of text in every single manual with no description or background and expect a process that would take several hours a day to be carried out at check-in.

The Operator Comments: The complaint about volume of communication is valid and a perennial problem in a safety conscious and highly regulated industry. The volume of changes can be substantial at times. Whilst some of this is unavoidable, we have been working on a traffic light system that better differentiates important communications.

When changes to electronic manuals are published a summary of changes is included as the very first page on that manual with all subsequent changes highlighted throughout the manual; this is very clear and takes seconds to assimilate. Any interim changes are notified by notice with an associated background explaining the need for the change.

CHIRP Comment: We have received reports from flight crew employed by a variety of operators on this subject. There are many advantages with electronic manuals for the operator and crews alike. There is no requirement to spend time removing and inserting pages to incorporate amendments and the resulting updated manuals and summary sheets are almost certain to be correct. Finding information can be much quicker using the search tools in electronic manuals and operators can be confident that crews are using the latest information. However, the ability of operators to keep electronic manuals up to date appears to be out of step with recipients' ability to read and assimilate the information. Although amendments include highlighting to indicate the changes, subsequent amendments could erase the highlighting associated with the earlier amendment. Recipients might not see the first change before the second one comes along. This is not just a flight crew issue; it is a configuration management issue relevant to all disciplines and trades where electronic manuals are employed. The CAA has not acted on the CHIRP recommendation about sharing best practice across the industry. The issue has now been raised with the Training Group of the CAA/Industry Flight Ops Liaison Group and will be raised with the European Commercial Aviation Safety Team.

REMOTE HOLDING

Report Text: From CAP 642 Airside Safety Management Chapter 2 Managing the Risks, Engine Hazards, it states that a trained member of the airline or handling staff should ensure that the area behind the aircraft and the zone immediately in front of the engine intakes are clear of personnel, vehicles and equipment before engine start. However there seems to be an alleviation within our operations manuals which states that [operator] does not over resource ground staff "just in case" and delaying departure from stand can significantly stretch handling resource and stand allocation. To that end we are to Remote Hold.

Commanders should take all reasonable precautions to ensure there is no danger to ground personnel, however there is no requirement for a ground crew or fire cover during the restart in the Remote Holding area. I as the Commander cannot confirm that the area to the rear of the aircraft is clear and believe this company policy degrades safety and is a clear example of commercial needs trumping safety. To delay the start until a ground crew member can monitor the start would incur a management investigation at worse case or at best a telephone call querying your decision.

Lessons Learned: Safety policy would seem to suggest that a monitored engine start is ideal. Company procedures appear to accept the increased risk. Commercial pressures by local management and company policy task the commander to operate according to a punctuality policy that degrades safety. There of course the "get out of gaol" proviso that state the Captain is to take all reasonable precautions but if one to was to insist on ground staff being in attendance and a delay being incurred this would result in performance management.

Could this be raised with the required personnel as I have no confidence that local base management would be sympathetic to my point of view?

CHIRP Comment: This issue is about risk management. All civil aviation safety regulation is currently moving to acceptance or otherwise of a robust risk analysis and the associated management procedures developed by the Operator, rather than regulatory prescription. Although the risks associated with an unmonitored start are notionally greater than with a monitored start, the position of remote holds and the airport procedures that keep these areas clear of equipment, vehicles, personnel etc. mitigate the risks of FOD ingestion and jet exhaust to acceptable levels. By complying with the local procedures for remote holding, Captains are deemed to have taken all reasonable precautions. Turning to the risks of fire during unmonitored engine starts, the risk that a fire might break out that could not be controlled adequately by the flight crew before the arrival of the airfield fire services is considered acceptably small. The safety of remote starting has been proved correct empirically over several decades.

DESCENT CLEARANCE

Report Text: Flying the [STAR] into [ ], it is normal to be cleared to descend to be FL200 at or abeam [x]. This is then usually superseded by the clearance to descend to FL150 at or abeam [y]. The later clearance overrides the prior one yet it is becoming increasingly common for the controllers to expect you to keep to the FL200 restriction but they do not relay this instruction. In order to make the FL200 restriction you have to descend far earlier than you would normally do for an ideal descent path, removal of the restriction at [x] allows a certain shallowing of the descent with its attendant fuel savings. Furthermore, sometimes the instruction is given that the [x] restriction still applies. So when this is not stated it leads to uncertainty as to what is expected from us, and the increased risk of an air miss as controllers are not making their wishes clear.

CHIRP Comment: The reporter is correct in saying that the second clearance supersedes the first one; if the controller does not reiterate a restriction associated with an earlier clearance, the restriction does not apply. This is made clear in CAP493 Manual of Air Traffic Services Part 1, Section 1, Chapter 4. Para 7.1:

When an amendment is made to a clearance the new clearance shall be read in full to the pilot and shall automatically cancel any previous clearance. Controllers must be aware, therefore, that if the original clearance included a restriction, e.g. "cross ABC FL150 or below" then the issue of a revised clearance automatically cancels the earlier restriction, unless it is reiterated with the revised clearance.

We are grateful to the Reporter for highlighting this issue and have forwarded the disidentified report to the ANSP and the CAA. We have also asked the reporter to submit an ASR/MOR. The MOR contributes to the collection of data on the airspace and triggers an investigation by CAA Air Traffic Standards and Investigations branch. The investigation is not a witch-hunt but intended to establish whether a reported problem is systemic, a local issue or more widespread.

CABIN CREW REPORTS

VISIBLE ICE ON AIRCRAFT WING BEFORE TAKE-OFF

Report Text: The rough condition of the runway had damaged a tyre on landing to the extent that it had lost pressure to the point where it was not permissible to just pump it up, the wheel had to be replaced so we had a delay on the

ground. We were getting close to going out of hours by the time all that was fixed but still had time to play with. As we were ready to go a crew member phoned me and said they could see ice on both wings. I called the flight crew immediately and reported this. The Captain said that they were aware and had been monitoring it and that it was just water. I went to look and saw an almost identical patch of what I would call something between ice and frost on both wings. I called the flight crew to tell them. The Captain came back to me, not shouting but firmly saying they were happy with it and were going.

Later the crew member who had been guarding the open door while we were on the ground said to me that the flight crew had not been outside for an hour before we left, also I did not think they could see the wings from the cockpit so I am concerned (if what the crew member said is accurate) that the flight crew were in fact not aware of the state of the wing.

The flight was manic and I did not speak to the flight crew about this, they disembarked before me without saying anything.

CHIRP Comment: This is a disappointing and disturbing report. The Cabin Crew may have wrongly identified the deposit on the wing. Correctly identifying whether it is frost, or dew from a distance is difficult for anyone. The flight crew may have resolved this by either having information to assure themselves that it was not ice, i.e. air temperature well above zero, or have had it physically checked by a ground crew member, without the Cabin Crew being aware of it.

By not speaking to the Cabin Crew prior to departure to clarify why the decision to depart was made, the Captain unintentionally caused concern and potential distraction and may have inhibited communication during that flight and subsequent ones. We don't know why the Flight Crew left the aircraft without further discussion with the Cabin Crew but by not debriefing them on events that concerned them, the Flight Crew have potentially affected CRM, both now and in the future, not to mention some professional discourtesy.

It is to be hoped that the Cabin Crew concerned will not be dissuaded from reporting ice on the wings or other concerns in future, as a failure to do so has led to tragedy in the past. This report will be published in Cabin Crew FEEDBACK where Cabin Crew will be reminded that they can submit an ASR if they believe a safety issue has not been correctly resolved.

Reports received by CHIRP are accepted in good faith. While every effort is made to ensure the accuracy of editorials, analyses and comments published in FEEDBACK, please remember that CHIRP does not possess any executive authority.

Contact Us

Ian Dugmore   Chief Executive
Flight Crew/ATC Reports

Bruce Hunter   Deputy Director (Engineering)
Maintenance/Engineer Reports

Stephanie Colbourne   Administration Manager
Circulation/Administration
Cabin Crew Reports

FREEPOST RSKS-KSCA-SSAT, CHIRP, 26 Hercules Way, Farnborough GU14 6UU
Freefone (UK only):   0800 772 3243 or   Telephone: +44 (0) 1252 378947
Fax: +44 (0) 1252 378940 (secure)
E-mail: mail@chirp.co.uk

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