CHIRP Air Transport FEEDBACK

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It is disappointing to advise our readers that the recently appointed Chief Executive has resigned for personal reasons. We are grateful for those offering temporary assistance to ensure the Aviation Programme operation continues as normal.

In a valedictory message to FEEDBACK readers, Ken Fairbank says that he is saddened not to be writing future Editorials but is sure that the good work CHIRP does will continue.

Capt. David Harrison - Chair of CHIRP Trustees

EDITORIAL

A number of readers commented on the volume of acronyms used in the last issue of FEEDBACK. Our industry is acronym-rich to the extent that their meanings are sometimes lost or confused, especially where there are several 'decodes' for the same acronym. The obvious danger here is mis-communication and failure to share the same mental model, but acronyms have their place when used properly. At the end of this issue you will therefore find a list of some of the abbreviations used and a link to a more extensive list.

CHIRP continues to receive numerous reports on Attendance Management Policies and Flight Time Limitations, which are welcome, but please avoid copying CHIRP on routine emails or fatigue reports between you and your company. A fatigue report (for example) is part of a proper process and there is no need for CHIRP to be involved unless the response from the operator was inappropriate or inadequate or you think you have been treated unfairly, in which case a separate report to us may well be appropriate. CHIRP will not intervene in normal company activities simply because it has been added as a copy addressee.

Not all reports appear in FEEDBACK; this decision is taken by the Air Transport Advisory Board (ATAB) and often reflects an inability to redact a report sufficiently to preserve confidentiality without losing its sense. Some reports are not published because the ATAB feels they are inappropriate in tone or involve ongoing industrial disputes. However, all reports are reviewed whether action can be taken on them or not. In all its guidance to the CHIRP team, the ATAB (like the other advisory boards) always takes preservation of confidentiality as its over-riding principle. Lastly, you should know that the CHIRP comment on all reports published on FEEDBACK is a position taken by the ATAB and should not be seen as the opinion of any one person.

Peter Hunt - Chairman, ATAB

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ENGINEERING EDITORIAL

I have seen several reports recently concerning the use of tablet applications or homemade spreadsheets designed to help record and monitor the status of A/C serviceability.

The reason for these reports coming to CHIRP is because the reporter can see the potential for maintenance errors with a maintenance records system if not controlled properly.

As you all know the A/C has a Tech-Log where we can record all maintenance activity, however the Tech-Log is not a visible document unless you have a fully connected electronic Tech-Log system, which many airlines do not.

Airlines also have maintenance management systems that can capture the status of an A/C through the engineer logging in after each turn-around to update it within a given period. These systems, of which there are many on the market, do a great job in not only recording maintenance but help to schedule the future maintenance requirements for each airframe, engine and component which needs to be tracked. This is nothing new to most of you I know, but I thought it was worth reiterating how we manage maintenance through such systems and that we can audit these systems to ensure control of maintenance is always maintained.

To loosely summarise Part M (Continuing Airworthiness Requirements) AMC M.A.614(a), the Prime objective of Maintenance and Airworthiness records is to have secure and easily retrievable records with comprehensive and legible contents. It should contain basic details of all serialised aircraft components. If done correctly it will provide maintenance personnel with information essential in controlling scheduled, unscheduled maintenance and troubleshooting activity.

The issue that has come to light is an old one but in a newer form. In the not too distant past some engineers would maintain a little notebook with part numbers that are commonly used, or Aircraft Maintenance Manual references often required, along with any useful information they could capture for future use.

My view is that this type of thinking and behaviour had been pretty well eradicated from everyday life for most engineers, with today's engineers ensuring they obtain the correct information from an approved source at the point where they need it. They can print it out and take it with them to do a task or alternatively use a tablet which they can use to bring up the latest data when they are performing a task.

However, with new technology we see new opportunities to do things differently, easier, quicker, smarter etc.

This is where some people have raised their concerns to me. It is easy to create a parallel information highway that updates on deferrals or findings from maintenance that informs a wider team on A/C status and points of concern. These parallel paths then become the main method of communication and normalise themselves within a business and become an effective supporting tool for the Part 145 and Part M operations which rely upon it for daily updates and progress reports.

The little notebook mentioned previously is now an App or spreadsheet that, if not controlled properly or monitored for content, may also fall outside of the audit process. This is where the concerns regarding potential maintenance errors start to appear. No one has set out to do the wrong thing but an evolutionary process gradually takes place over time to the point where a report sheet set up to help a person or department is seen as an official process within the business and the content that should have gone into the Tech-Log goes onto this alternative information system. Before you know it, you have two contrasting sets of data on the current serviceability of an Aircraft, all done with the best of intention and to improve the operation and information flow through the business. The rest is obvious, as they say.

I am not aware of any particular failing within any organisation as I write this but the potential for a maintenance error has been raised and I think it is only right that I mention the issue. Engineers and managers need to be on their guard to ensure systems are fully compliant to the regulation and in our quest to improve we don't recreate some of the errors of the past with unofficial or non-approved data or data sources within our respective operations.

Terry Dudley – Deputy Director (Engineering)

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ROSTERING OF SAFETY AND EMERGENCY PROCEDURES (SEP) TRAINING

Report Text: [Operator] has moved from SEP Training being rostered for 1 day each year, to being rostered for 1 day every 2 years. In the 'gap year' there are still mandatory training items which need to be completed, online. We are not able to fly if these items are not completed by the required date. However, these gap year training items are not rostered, they are to be completed in our spare time. I thought that mandatory training had to be rostered?

Operator's Comment: The reporter is correct that the Company has moved to a biennial SEP training day in accordance with our ATQP programme. However, a small amount of eLearning currently

requires revalidation on a more frequent basis (for example, Security revalidation within 13 months). This eLearning is undertaken in the 'gap year'. The time associated with this activity is accounted for as if undertaken as a combined simulator and ground duty. The associated credit is applied as an increase to the normal ground duty credit for the biennial SEP day.

***CHIRP* Comment:** Although this is not strictly a safety issue, CHIRP has previously taken the view that training previously conducted in a classroom that is now conducted remotely should be rostered; training that was previously conducted as distance learning does not need to be rostered. As CHIRP has highlighted in the past, there is a potential win-win opportunity for operators and flight crew alike from distance learning; flight crew can complete the required training at their convenience and without the commute to work while operators don't have to commit classroom training resources.

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PASSENGERS BOARDING THE AIRCRAFT BEFORE THE FLIGHT CREW ARRIVE

Report Text: It has become standard practice for [Company staff at an airport down route] to board passengers prior to the operating flight crew arriving at the aircraft. At my company flight crew and cabin crew get separate transport to the airport. We also fly outbound and inbound with different crews.

The cabin crew arrive at the airport considerably before the flight crew, who are rostered to arrive kerbside at one hour before departure. [Station] ground staff have been instructed to board the aircraft at one hour before departure. This means that before we've even arrived at the aircraft boarding has commenced.

At this stage, we have still not met our return cabin crew, nor have we discussed safety or security or had the chance to build any CRM with our crew. It also looks incredibly bad when we arrive at the gate only to have to push past passengers who are mid-way through boarding so we can get to the aircraft. From a commercial point of view, it looks like we are late and I have often had comments from passengers to that end. We are made to rush to the aircraft, push past startled passengers, say a quick hello to the senior cabin crew member and then make our way to the flight deck.

We haven't at this stage met any of the other crew. From a security point of view, we haven't seen the faces of any of the other crew, so how are we supposed to allow access to the flight deck during the flight? Yes we have an iPad application that shows us the crew and their faces, however, often some of photos are greyed out or the photo was taken some time ago and it would be impossible to know whether the person standing at the other side of the door is a genuine operating crew member or not.

From a safety point of view, as boarding has commenced before the arrival of the flight crew, there is no one technically in charge. What if a situation was to develop during boarding that meant a high level of leadership was required? I have turned up at the aircraft to find the emergency exit lights are not armed and the aircraft has been half boarded. I don't believe that if a rapid disembarkation was required, without the flight crew present, the crew would be able to make an informed decision.

I believe that company performance and pressure is the cause of what is happening here. The ground staff in [this location] put their on-time performance ahead of safety, security, CRM. Company management have been made aware through various flight crew of what is happening and the potential risks but seem to just shrug their shoulders.

I want to highlight to you that my company is putting on-time performance ahead of what is really the most important, which is safety and security. It needs to be highlighted and must be stopped. It is one thing for the flight crew to occasionally be late due to traffic and boarding commenced, but for it to happen on a daily basis as a standard practice when the flight crew are not late is completely unacceptable.

Operator's Comment: This practice is permitted by a procedure in Operations Manual Part B which allows boarding of passengers without Flight Crew present. It sets out the responsibilities of the Senior Cabin Crew Member (SCCM) in the event of an incident on the ground as well as the requirement to have the aircraft prepared by an engineer with power applied and emergency exit lights armed. Our Cabin Crew are trained to deal with emergencies on the ground and this procedure requires all communication to be directed to the SCCM in the event of an emergency. This practice is not widespread and only used in certain stations where we have a need to board passengers early or in the case where Flight Crew are delayed. The arming of emergency exit lights is a requirement and we would encourage crews to file an Air Safety Report if this has not been followed and the technical team will follow this up with the local station manager.

CHIRP Comment: Boarding passengers before the arrival of the flight crew should only occur if it is permitted in the relevant Ops Manual, which should contain instructions on how this is to be carried out.

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EXTENDED DUTY WITHOUT IN-FLIGHT REST

Report Text: [Operator] has a daily flight from [UK] to [Eastern Mediterranean] and for us it is a 'there and back' which we can do with the hours available in extended duty without in flight rest, just. As the company expands from the [UK] base we are getting more and more flights that use the rules of extended duty, which most people believe is wrong. When it is once every 2 or 3 months you don't mind but now, as we have 3-4 extended duties per day, a mixture of 2 and 4 sector days, you can now expect 4-5 a month; this is likely to increase as we expand. More often than not you will have a duty either side of the extended duty as well so will just have enough rest to be legal, which after a 14-hour duty landing at 0130 in the morning is not enough.

Extended duties without in flight rest should only be used as a temporary basis such as rescue flights and not for scheduled daily flights. I think more people need to put in fatigue reports after the duty so the company will realise it might be legal on paper but in reality, it's not possible to do it all the time.

CAA Comment: While the regulations allow for pre-notified extended FDP's twice a week, we feel this highlights the issue of the impact of the surrounding duties and rest periods on the crew. ORO.FTL.110 places requirements on the operator to manage the pattern of work. Crew need to report the patterns that are generating fatigue, as it's not so much the extended duty that generates fatigue but the patterns of work.

We have used regular extended duties on a routine basis since 1990 but with more protections around rest surrounded the duties and 3 per 28 days. So how it's used, frequency and the types, lengths and circadian placement of the surrounding duties are the issues.

CHIRP Comment: ORO.FTL.205(d) states the maximum daily FDP for acclimatised crew members with the use of extensions without in-flight rest:

(1) The maximum daily FDP may be extended by up to 1 hour not more than twice in any 7 consecutive days. In that case:

(i) the minimum pre-flight and post-flight rest periods shall be increased by 2 hours; or

(ii) the post-flight rest period shall be increased by 4 hours.

(2) When extensions are used for consecutive FDPs, the additional pre- and post-flight rest between the two extended FDPs required under subparagraph 1 shall be provided consecutively.

(3) The use of the extension shall be planned in advance, and shall be limited to a maximum of:

(i) 5 sectors when the WOCL is not encroached; or

(ii) 4 sectors, when the WOCL is encroached by 2 hours or less; or

(iii) 2 sectors, when the WOCL is encroached by more than 2 hours.

(4) Extension of the maximum basic daily FDP without in-flight rest shall not be combined with extensions due to in- flight rest or split duty in the same duty period.

(5) Flight time specification schemes shall specify the limits for extensions of the maximum basic daily FDP in accordance with the certification specifications applicable to the type of operation, taking into account:

(i) the number of sectors flown; and

(ii) WOCL encroachment.

The extended duties described are therefore compliant with the numerical limits of EASA FTL but could still be fatiguing, notwithstanding the 4-hour extended rest allowance associated with them. This fatiguing effect would be exacerbated if the flights occurred during night hours and/or towards the end of a block of duties. That not more than 2 of these extended duties could be flown within a 7-day period implied that the regulations permitted them as a matter of routine and not, as the reporter recommended, for emergency or contingency use only. Before the introduction of EASA FTLs these flights would be "protected"; under EASA FTL the only protection is the extended rest period. However, many operators add protection by limiting the number of times pilots are rostered or by increasing the rest periods beyond the 4 hours required under EASA FTL.

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A NOT VERY BRITISH SOLUTION TO A VERY BRITISH PROBLEM

Report Text: I frequently detect a subconscious urge to be very polite whilst using the RT and especially by us Brits. It strikes me that this is an issue both on the ground and in the air. Just listen out for a few minutes and note how many good mornings, hellos, goodbyes and other greetings are mentioned by all and sundry as a prefix and or suffix to an ATC conversation. Although only a second or so at a time, it all adds to the bandwidth of noise.

My solution is to just STOP being ever so nice. What is the purpose of RT? This is not a social media surely? Purely an exchange of operational information and not just background noise for the sake of it? As mentioned in the two previous CHIRP editions:

> *"Listening out for one's own callsign amid a torrent of messages for other aircraft, frequently delivered in accented English, all competing for attention with other flight deck routines, noises and alerts, isn't the best use of pilots' mental capacity."*

If CPDLC can help, then perhaps sticking to the essential message will also be an advantage?

> *"...This in turn allows the controller more thinking time to work out how to give continuous climbs and descent therefore saving fuel."*

Just a thought. And it's a lot harder to do than you think.

***CHIRP* Comment:** In an increasingly busy operational environment, unnecessary RT exchanges add to workload and can be frustrating for other users. While some pleasantries may be acceptable if the situation permits, it is important that they are not allowed to interfere with operational efficiency. There is an obligation on users to listen and assess the general RT environment as part of their overall situational awareness before transmitting. Equally however, a desire to be as brief as possible must not be allowed to interfere with the correct transfer of information, since speaking too quickly may lead to requests for repetition and the exchange may ultimately take longer.

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LACK OF PROPER WINDOW BLINDS

Report Text: On climb-out (at 3,800 ft) we missed a large drone by about 150 metres. No big deal. However, many B787s are, out of necessity, flying around with all manner of cloths/newspapers etc. propped up to afford some protection from the sun as this type has only limited sun protection courtesy of small ill-fitting plastic devices.

Most types, ranging from Viscount to B747 have some form of retractable sun-blinds. The B787 is woefully lacking in this respect. I have voiced my concerns to the Company and Boeing. They do not seem interested.

The growing threat from drones should, in my opinion, make the requirement to produce proper sun protection a huge priority.

Operator's Comment: This is the first reported occurrence we have received regarding window blinds on the B787 fleet; the blinds fitted to the fleet are Boeing standard. On receipt of this CHIRP report and discussion with the B787 fleet team it was believed that the main issue may relate to the fact that the blinds are not easy to raise or lower.

We would like to highlight the following points:

1. Window blinds are not great on any aircraft type for the simple reason that any 'sun shielding' is limiting visibility.
2. The B787 side window is very big and of an unusual shape, making a blind difficult to construct and to be effective.
3. The B787 aircraft is fitted with a Head Up Display (HUD) that has an associated sun visor that can be used during all phases of flight (its use is highly recommended during climb and descent, but not mandated)
4. During critical phases of flight airmanship would dictate that restricting visibility out of the flight deck windows with the utilisation of a window blind should be avoided;
5. Pilots use of sunglasses during all phases of flight is common practice when conditions dictate
6. It is strongly advised that an avoidance manoeuvre associated with a visual drone sighting should be avoided. A violent control input may be of greater risk than the drone strike itself

CHIRP **Comment:** Board members with B787 experience described the type as having better 'natural' sun protection in the flight deck by virtue of the structure design, although the sun blinds themselves are not necessarily better than on many other types. All sun blinds will restrict visibility and are probably not suitable for use in critical phases of flight such as the early climb phase. The B787 HUD visor is very good and can be used during all phases of flight.

It was noted that, although the reporter appears dismissive of the drone encounter, at 150 m the event was borderline risk-bearing and others may not share the reporter's view. The reporter was encouraged to file an Airprox report.

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FATIGUING ROSTER

Report Text: I am a short haul Captain and recently I was rostered 6 days on earlies to lates transition, 2 days off, 6 days on lates to early transition, 2 days off, 6 days on again, this time all early starts reporting 7am or earlier. This is rostering that would a) never have been legal under CAP371 and b) is simply unrealistic and not sensible.

I found that I was struggling and making uncharacteristic errors towards the end of my first 2 blocks of work and then from the start of block 3 on earlies many uncharacteristic errors with a reduced motivation and reduced Situational Awareness evident. By day 5 of this last block of work, I had to call in fatigued. On first fatigue day the first thing they wanted to know was whether I was usable on day 6 or not.

The new bidding system used by my company for its pilots has no human to look over it to see whether or not the computer-generated roster is sensible or not. Therefore, it is the pilot's responsibility to overcome the pressure placed upon the pilot at this company to come to work when tired or sick. This is difficult for those of us who feel bad for letting the side down and it would be much preferable for the company not to produce unachievable rosters in the first place and to not place pressure on the fatigued or sick pilot by contacting them every day that they are off work.

(Since submitting my initial report) I have received feedback from my company's fatigue monitoring team. I am pleased to say that the feedback was fairly positive from my point of view and that they have taken my concerns into serious consideration. Overall, I am pleased to note in particular that they are looking into specific trips that I noted as problematic and secondly are supportive of my decision to call in fatigued and that it was the right thing to do. On the downside, there doesn't seem to be any acknowledgement that 3 blocks of 6 consecutive days working with only 2 days off in between is inappropriate and I think with the new rostering system this might be harder to prevent. Also, no mention or acknowledgment that I could see that 6 early starts before 7am in a row may be inappropriate too, although under EASA FTL guidance it is legal.

CHIRP **Comment:** CHIRP receives numerous reports about rostering issues and reminds reporters that it is essential CHIRP reports do not replace fatigue reports to the operator, as this would deprive both the operator and the CAA of the evidence needed to justify changes to rostering practices. In this case the reporter acted correctly and it is pleasing to see a positive and supportive response from the operator.

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CONTAMINATED WING FOR DEPARTURE

Report Text: I was a passenger on flight departing from Innsbruck. I was seated with good visibility of the left-hand wing. During boarding and whilst in-seat awaiting the rest of the aircraft to board, I observed no walk around by any flight crew.

I observed patches of ice on the left-hand wing, and as the aircraft was nearly boarded and getting ready to depart at this stage, I quietly informed a cabin crew member that the wing was not clear, was the flight crew aware, and were we going to de-ice after boarding?

A reply came back via the same cabin crew member that the Captain was aware of the ice. I assumed they were going to de-ice after all the passengers were on board, and the aircraft closed-up. The doors were shut, the engines started, and the taxi commenced. There was no de-icing. As I am aware of the de-icing procedures at Innsbruck, having operated and checked pilots into there with my own operator, I knew there was not a remote de-icing location, and the taxi was going to be short. I again informed the cabin crew that there was still ice on the wing. The Cabin Manager, who came down to my seating location, aggressively asked me what was wrong, and I suggested he please inform the

Commander that there was ice on the wing. I politely told him that I was a Captain with another UK-based operator. He went to the front, came back after speaking to the Commander and informed me that:

"The captain is aware of the Ice, it is acceptable, and he is happy to depart if I was happy".

At this point we were lined up on runway 26, ready for departure.

As my own company does not operate this aircraft variant, there was now a seed of doubt in my mind that maybe there was some new limitations that permitted this variant to depart with some upper surface contamination. As I didn't know anything about this variant's limitations or procedures, and literally had seconds to answer with an aggressive cabin manager breathing down my neck, I informed him that if the Commander was happy to depart, then so was I.

At no point did I observe any flight crew members perform a visual inspection of the wings. The aircraft subsequently departed with contamination on the upper surface of the wings. Having subsequently discovered that there is no difference in upper surface contamination recommendation between this variant and my own, I should have trusted my gut and initial feelings and armed with an Aerodynamics degree, and 22 years learning experience on this type of aircraft, I should have asked to get off the aircraft.

Operator Comment: Without the specific details, it is not possible to respond comprehensively to the alleged incident, or to give the Commander the opportunity to respond. However, we can state that winter preparedness is something that is promoted each winter season to both pilots and cabin crew and covers both the operational and CRM aspects. Whilst the specific flight details of this occurrence are not known, procedurally in these circumstances, our operating requirements detail that a tactile check is carried out prior to engine start. Therefore, in this event, the feedback to the Commander should have prompted a re-assessment by the Commander before take-off. As previously mentioned, we cannot be sure that all the facts are known, but the issue highlighted in this report has been passed to the responsible manager for winter readiness as an 'example' to be used in the preparedness for winter 2019/20.

CHIRP **Comment:** It is important to note that the aircraft Commander has not been given the opportunity to comment. CHIRP's processes are confidential and no details of the flight were released to the Operator (other than the location) so no tracing action of the crew was possible or desirable. However, the report is of considerable interest as it is reminiscent of training scenarios that are used in CRM and command training courses. Indeed, accidents have occurred in the past as a direct result of similar warnings from passengers being ignored. In recent years, CRM concepts have been broadened to regard the entire crew and even passengers as resources which can all contribute to the safe operation of an aircraft.

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Abbreviations used in this Edition

AMC	Acceptable Means of Compliance
ATQP	Alternative Training and Qualification Programme
CPDLC	Controller-Pilot Data Link Communications
CRM	Crew Resource Management
EASA	European Union Aviation Safety Agency
FTL	Flight Time Limitations
ORO	Organisation Requirements for Air Operations

A list of frequently used EASA abbreviations can be found here.

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.

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