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All change at CHIRP

Musings by the new Director Aviation

Contents

2	CHIRP, what's it all about?	5	FC5357 - Fatigue/tiredness/use of in-seat napping
3	Report to CHIRP!	6	ENG770 - Aircraft flown twice with open Tech Log defects
3	Feedback on FEEDBACK	7	FC5351 - Length of duty
3	Engineering Editorial	8	FC5372 - Flights in conflict zones
4	Engineering Programme Manager Vacancy	9	FC5371 - Captain's decision overridden
5	FC5339 - B737 flightdeck jump-seat	11	FC5373 - Report time pressures



Nicky Smith
Director Aviation

It's a New Year and a fresh start for us all. For me personally, in my first week and embarking on an exciting new CHIRP journey, it's an opportunity to introduce myself whilst reflecting on how culture has changed in aviation over the very nearly 40 years since I took my first tentative steps into the sky.

Back in the mid-80s, flying a Bulldog on Cambridge University Air Squadron, the concepts of Just Culture and Human Factors simply didn't exist, while Flight Safety consisted of some rather dodgy posters behind toilet doors. We made mistakes, of course we did, we were human, but the idea of owning up, especially to our instructors, was an anathema. Most

student pilots thought they were budding 'Top Guns' and went to great lengths to keep things under the radar. If you did confess to your fellow students, friendly ridicule rather than learning was the likely outcome.

During an early circuit consolidation sortie on a gloomy day, I struggled to find the airfield from late downwind and had to ask for the airfield lights; it was only on taxi in that I realised I still had my dark visor down! Possessing a naturally open nature, I later recounted the embarrassing tale in the bar, where the response was much laughter and drinks on me for my 'stupidity'. It was a pretty stupid mistake and I can laugh about it now with over 4,000 flying hours under my belt, but in the culture that pervaded at the time, there was no opportunity for (meaningful) sharing, analysis and learning. Some obvious Human Factors considerations could have emerged about capacity, distraction and SA, to name but a few, but these were entirely lost to us back then.

A few years later as an RAF Search and Rescue Sea King pilot, things had moved on a little, at least informally. Formal Safety Management had yet to come, but the concept of learning from your own and others' experiences was well embedded. Provided you trusted your colleagues, then sharing within crews was commonplace. Long night shifts were an ideal occasion for 'pulling up a sandbag' and dissecting some of the hairier moments.

We devoured the flight safety publications that were available at the time, particularly the 'I learned about flying/engineering/controlling from that' articles in the excellent, and enduring, Air Clues. Similar safety content – insights into human and system performance without having to experience things first hand – is still prolifically available today. The very fact that you're reading this FEEDBACK suggests that you appreciate the benefit. Please continue to help us to be a part of this important safety service by sharing your ILAHFFT experiences, or articles you've picked up from elsewhere. This could be by dropping us an email, or simply submitting a report through our [website](#) or App.

Winding forward to 2010, I found myself in commercial aviation, flying the MD902 Explorer and Bell 429 in an air ambulance role. In addition to line flying, as the Safety Manager for a small AOC, I established and ran an SMS. By now, safety culture had progressed significantly with a generally healthy reporting culture for Human Factor incidents and near misses. Although air ambulance pilots rarely see each other to share safety learning, an effective SMS and Just Culture ensures that flight crew can report confidently, knowing that they will be treated fairly and trusting that the system will benefit from their insights.

During my time in 3 different AOCs, I realised how Safety Leadership and a 2-way trust culture are fundamental to an effective SMS. By leadership, think everyone from the Accountable Manager to the aircraft commander and all levels in

between. When leadership works well, we find ourselves in an enlightened environment where everyone is aligned and committed to continuous improvement of both safety and operational efficiency. On the other hand, less committed safety leadership can readily break down trust; at this point, people just stop reporting everything except perfunctory uncontentious incidents and mandatory issues. On the occasions when I witnessed or experienced this in the air ambulance world, it took months to rebuild trust and establish a just culture. For example, when a technical crewmember, quite rightly, reported concerns about a culture of 'accepting' a repeating critical aircraft warning owing to a spate of spurious alerts, the ensuing public rebuff by company leadership led to a complete cessation of reporting from that flight crew sector. How much valuable data was lost, just swept under the carpet, as a result?

Some of you will have your own experiences of where, despite best efforts, culture wasn't entirely 'just' and a rich seam of valuable safety information was degraded as a result. Which brings me back to extol once again the benefits of CHIRP. If you're lucky enough to operate in an environment of trust, where treatment is fair, then keep being part of the success story and never take it for granted. On the other hand, if you don't have this luxury, for whatever reason, then CHIRP is available to receive your report. We promise complete confidentiality, independence and impartiality to help sort a problem that you've identified and potentially use your event to improve aviation safety.

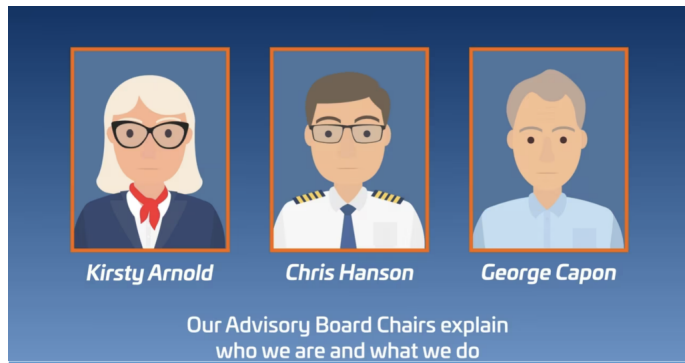
Finally, I've left the best to last, by which of course I mean our illustrious outgoing Director Aviation, Steve Forward. By the time you read this, the handover will be complete and Steve will be sailing off into the sunset on a well-deserved holiday of a lifetime. Over his 5 years at the helm, Steve has made a considerable contribution to UK aviation safety and driven through powerful improvements to CHIRP. Through the choppy waters of the covid pandemic and the transition back to a new norm, Steve's commitment to improving safety has been immense. From my perspective, his will be big shoes to fill; but from all of CHIRP we thank him and wish him the very best for a wonderful retirement.

Grab a coffee, relax and take some time out to enjoy this edition of FEEDBACK.

Nicky Smith, Director Aviation

CHIRP, what's it all about?

Just a reminder that we've recently produced our latest short video (10mins) explaining what CHIRP does, voiced-over by 3 of our Advisory Board Chairs. Why not click on this [link](#) to have a look and find out what we're all about?



Report to CHIRP!



Reporting to CHIRP is easy by using either our [website](#) portal or our App (scan the appropriate QR code shown or search for 'CHIRP Aviation' – ignoring the birdsong apps that may come up!). In our reporting portal you'll be presented with a series of fields to complete, of which you fill in as much as you feel is relevant – not every field is mandatory, but the more information you can give us the better. Although you'll need to enter your email address to get access to the portal, none of your details are shared outside CHIRP, and we have our own independent secure database and IT systems to ensure confidentiality.

Feedback on FEEDBACK

What do you think? We'd love to get your views on the topics covered in FEEDBACK. We don't claim to have all the good ideas, and we may have missed something that relates to a report so please do contact us and give us your views. You never know, your thoughts might inspire the next editorial or perhaps give us more context for when we contact the companies. Please send any comments to mail@chirp.co.uk for the attention of Director Aviation and we can start a conversation.

Engineering Editorial

Starting a new year raises thoughts in relation to the success of the previous years. Looking at numbers for 2023, there were 21 Engineering reports. All now closed, but in comparison to Flight Crew reports (91) and Cabin Crew (346) one can see the potential for an increase. The figures for 2024 ended at 23 Engineering reports, 57 Flight Crew reports and 360 Cabin Crew reports. In

2024, six engineering reports were received in relation to staff competence, so around 25% of the total. Manning levels/resources led to three reports and tooling two (one of which was workshops).

Why are there fewer Engineering reports? CHIRP would love to know the answer to this question. Might it be because engineering is now cosseted in sophisticated and mature (Safety) Management Systems? Is every Operator, MRO and Continuing Airworthiness Management Organisations (CAMO) providing such a wonderful internal reporting culture and vehicle, that 23 reports in a year demonstrates how wonderful our industry is performing? Perhaps it is a reflection of how busy engineers are at work, that once one has signed or clocked out, the desire to eat, sleep and forget work is the overriding factor.

It cannot possibly be because Engineers and Mechanics, not to mention Goods In Inspectors, NDT staff, Planners, Tech Records et al, are not taking safety seriously. As mentioned previously, CHIRP knows there are a great many reasons where engineers would like to report but are unable to do so; being the only engineer on shift at the time of an incident being a classic reason. Also being reluctant to report is a personal perception in terms of being identified by one's employer and possible consequences. Your organisation should continually build an ever-stronger safety culture that creates trust amongst staff. There is no judgement at CHIRP of right or wrong. The way forward in deciding whether to report, is based on making your decision with experience and instinct. Even reporting human factors issues are affected by human factors.

Looking back over the last three years, the number of engineering reports are increasing and there are not any definite seasonal trends, except that August is the most popular reporting month and December the least. One's first thoughts are, August is the busiest month, however that is only true on the line for commercial air transport. August is a quieter month in the hangar. Freighters, corporate jets and rotorcraft do not have any significant seasonal changes to their operation.

A number of reports dry up and do not progress beyond CHIRP's first contact with the reporter because there is a breakdown in any further communication, sometimes in spite of numerous attempts to make contact. The reasons for this are varied. It may be that the reporter has got something off their chest and feel as though that is the end of it. Perhaps receiving an initial response from CHIRP with half a dozen questions may seem an unwelcome chore. Also, do some reporters think CHIRP will take it on anyway? A sort of "Don't tell anyone" scenario when secretly one hopes it will get mentioned. The number of reports that dried up in 2024 were seven! If you submit a report to us, please keep your eye on your Junk Mail folder until normal communication is established.

A number of reports cannot be published because they are impossible to sanitise. An engineer involved in the maintenance of over a fleet of a hundred aircraft of the same type can be easily hidden, but if the aircraft in question is the only example on the British register, things become slightly tricky. If you are the only engineer on shift on the only aircraft type in the world, your head is approaching above the parapet. However, CHIRP take pride in retaining the confidentiality of reporters. Your details, the operator you work for and the station you work at are not even available to members of the appropriate CHIRP Advisory Board, who will consider your report text. Reporters are not referred to by gender; we use the pronoun 'they' as a useful stronger anonymising description.

Many CHIRP engineering reports are forwarded to the CAA (with the reporter's prior permission). These are often reports where engineering standards are of a major concern and the human factors elements would occur as a result of concerning activity, rather than human factors being the root cause(s) for errors. The majority of these reports become CAA Whistle Blowers Reports. Any reports or other details passed to the CAA are subject to the same controls. If the CAA do need to establish contact with the reporter, the confidentiality process continues. The CAA are past masters of maintaining confidentiality.

We at CHIRP look forward to your reports throughout 2025 and of course welcome reports from Line and Base Maintenance organisations, including Workshops, Part 21 Production organisations, again including Workshops, plus all their supporting departments. Not forgetting CAMO. CHIRP already have a Drone/UAS programme up and running, but did someone recently say something about Advanced Air Mobility and eVTOL!? Oh, and what about Space Flight? Bring it all on. Have a really great year.

Phil Young, Engineering Programme Manager

Engineering Programme Manager Vacancy

After more than four highly effective years in the role of CHIRP Engineering Programme Manager, Phil Young has decided to step down and enjoy a well-deserved retirement and quieter life after an illustrious career in aviation. CHIRP is indebted to him for his wisdom, knowledgeable, enthusiastic and empathetic handling of reports, and his willingness to go the extra mile in order to provide the best service possible to those who seek our help. Phil will be sorely missed but our work goes on and, as a result, we're actively looking for someone to take on the role from April this year. It's a part-time role as a contractor, one day a week equivalent, suited to a certificated aviation engineer with extensive experience and who has a passion for helping others

and giving something back to aviation. If you think you fit that niche then contact us at mail@chirp.co.uk for the attention of CHIRP Director Aviation and we'll be glad to discuss what the role entails.

I Learnt About Human Factors From That

Controller Pilot Data Link Communications (CPDLC) growing pains

This Edition's ILAHFFT entries are taken from our US NASA [ASRS^{\[1\]}](#) sister organisation's CALLBACK publication [Issue 537](#) (October 2024) that highlights some misunderstandings, expectation bias, complacency and problems with overly complex message formats from CPDLC. CPDLC is a great tool, but crews need to use it with care to ensure that the entire message is understood, and controllers need to be clear in their messages and not send rapid-fire CPDLC messages that crews might not be able to process in a timely manner as they attend to other flying tasks. For information, UK CAA are currently considering whether CPDLC will be mandated in UK airspace as a way of reducing R/T complexity and the number of calls.

Reread if You Reroute

■ ATC issued a revised clearance via CPDLC. Clearance was, "Load new route to LEV. Rest of route unchanged." Free text stated, "GLADZ.LEV.../IAH." I did not notice the route portion of the message because it was so short, and thought the clearance was only to proceed direct to ZZZ. The First Officer did not notice the error either and programmed the FMC for direct LEV with abeams as I directed, without GLADZ. ATC noticed we had turned to LEV and not GLADZ, and asked if we were proceeding direct to LEV. He stated that he must not have sent the message correctly and then verbally cleared us direct to LEV. I believe he was trying to be kind and let us off the hook. In seeing the CPDLC message, "Load new route to LEV," I simply assumed it was to go just direct LEV and failed to read all of the message, and used the LOAD prompt to load the FMC from the CPDLC clearance. I wanted to manually program the FMC with the direct [route] in order to utilize the 'abeam waypoints' function. It was expectation bias. In the future, I will...read all of the incoming CPDLC message, ask for confirmation from the other pilot, and use the 'load new route' function, and then reverify the clearance from the CPDLC against the FMC before executing the new route in the FMC, using the pilot monitoring to verify that the new clearance loaded correctly.

Multi-Tasking Hazards

■ In our descent to Chicago Midway (MDW), we were handed off to a new ATC frequency via CPDLC. We acknowledged and checked in. Center then sent us three CPDLC messages in less than two minutes. We received and acknowledged the first message to descend and maintain FL210. We heard the chime again and saw, "Cross MEGGZ at 11,000 feet." I verified MEGGZ at 11,000 feet in the FMC and on the Mode Control Panel and thought that I acknowledged the CPDLC. We did not see the clearance to proceed direct MEGGZ, which was sent also, but in a separate message. We also had the ACARS chime in the midst of this for landing data, as we were late to accomplish the Descent Checklist. As we were descending through FL200, ATC inquired if we had received the direct MEGGZ and the cross MEGGZ at 11,000 feet messages, because ATC was not showing an acknowledgment from us. We responded that we had received the crossing MEGGZ at 11,000 feet, but not the direct to MEGGZ. When we reviewed the CPDLC log page, we saw the direct to [MEGGZ] message, which we had not acknowledged, and we saw that we had not actually acknowledged the descent to cross MEGGZ at 11,000 feet, either.

First, with expectation bias, I was not thorough, when I heard the chime and saw the ATC message, to ensure I did not have more than one open ATC message. I also missed verifying on the second page of the notification that I accepted. We should have been finished with receiving landing data prior to this stage of flight.

^[1] As for CHIRP, [ASRS](#) collects voluntarily submitted aviation safety incident/situation reports from pilots, controllers, and others but on a much larger scale (ASRS currently receives 8-10,000 reports a month) and so, unlike CHIRP, they have limited scope to engage with the organisations concerned with individual reports to gain their perspective. As a result, most raw ASRS material is unverified, and some can be a bit emotive or lack perspective, but their alerts and CALLBACK newsletters provide a curated view on topical issues that offer useful areas for thought. For those seeking more data, the ASRS reports database is a public repository that provides the FAA, NASA and other organizations world-wide with research material in support of the promotion of safe flight.



WE NEED
YOU!

We need your ILAHFFT stories!

The value of ILAHFFT is that it provides insights from those who have been there, done it, and have lessons for all of us to learn. If you have any anecdotes or amusing 'there I was...' stories then please do share them with us so that we can pass on the messages and inform others (ideally in a light-hearted and engaging manner). Send any interesting tales to mail@chirp.co.uk and put ILAHFFT in the subject header – we promise full confidentiality to protect the innocent (and not so innocent!).

Reports

Report No1 - FC5339 – B737 flightdeck jump-seat

Initial Report

The main 737 flightdeck jump-seat and centre console have been in the same position since the aircraft came to market over 50 years ago, yet the height of the average European/American person has increased around 6cm. The legroom provided is less than in the passenger cabin, and is further restricted by the centre console which goes all the way to the floor meaning you cannot put your feet under it. The seat is also poorly padded, and has a 90 degree angle between the seat and the seat back. The scale of the training operation at my airline means I will be sat on the seat on at least 6 sectors per month, as will safety pilots. Obviously changing the design of the seat would be a huge task, however there should be mitigations put in place to reduce the amount of time spent sat on it. For example rostering line checks on UK-Canaries sectors (4+hrs each way) should be avoided, and limited to flights of say 3hrs or less. The Company has no interest in introducing anything that make rostering less flexible, and takes the attitude that if the jump-seat is approved by regulators then there should be no restrictions on its use. I regularly leave the aircraft with two 'dents' in my knees where the top of the centre console has been pressing into my knees – if this was in any other workplace it would not be acceptable.

Airline Comment

CHIRP contacted the airline concerned but there was no response to our repeated requests for their perspective on extended use of B737 jump-seats.

Manufacturer Specification

With the help of our AAIB Advisory Board member, we were able to find some Boeing data from the original certification specs for the B737. Boeing's sizing for the 737 observer seats was drafted to consider occupants in the range of heights from 5ft 2" (157.5 cm) to 6ft 3" (190.5 cm) in height. We were not able to locate similar ranges for occupant weight/mass, or for other more specific sizing criteria for individual body measurements. The seat is designed to fit within the physical space available in the flight deck, with the following primary considerations:

- Physical space for occupants in the previously listed range of heights.
- Normal 16g Forward and 14g Down crash loading certification.
- Head-strike protection area for occupants in the range of heights above.

Given that certification was some time ago it is unlikely that there are more details than this. Looking at the 2020 Anthropometric data for US adults this would include around 95% of men and around 75% of women. That data is for US adults so there is no exact read across to worldwide populations, but it gives a guideline.

CAA Comment

It is for the operator to assess the use of the seat, its suitability for long periods, and what mitigations they might want to put in place. The CAA's role is to identify if they have raised it as an issue and review what, if any, mitigations they feel are appropriate.

CHIRP Comment

Our Advisory Board members had much sympathy for the reporter, with those who had operated as B737 training/supervisory pilots being particularly vocal about the discomfort of B737 jump-seats. As we all know, the B737 was designed as a short-haul aircraft probably well before cockpit ergonomics became a mainstream consideration but they're now being used for ever-longer sectors as longer-range variants are developed. Although it's perhaps unlikely that significant design changes will be made to the seats, mitigations such as better cushions or limited occupancy periods might be achievable. The potential associated musculoskeletal risks of such poor ergonomics are obvious, and there may also be long-term risks to health that should be taken into account for those who are regularly tasked to operate from these uncomfortable and awkward jump-seats for long periods of time.

It's disappointing that we couldn't get a response from the airline as to how they might mitigate longer duration flights for jump-seat occupants in the B737. CHIRP thinks that either a limit on the number of such flights being rostered over a defined period or the use of 'rest seats' in the main cabin to provide opportunities for breaks would be appropriate. There would undoubtedly be cost implications in providing alternative 'rest seats' in the cabin for jump-seat long-term occupants to take breaks in, but this should not be a barrier to recognising that the use of such seats on long sectors should probably be mitigated by appropriate periods away from the jump-seat or limiting their use to shorter sectors.

We'd be interested to hear if other B737 operators have introduced policies for extended flights using the jump-seat, contact us at mail@chirp.co.uk for the attention of Director Aviation if you have any thoughts or information.

Report No2 - FC5357 – Fatigue/tiredness/use of in-seat napping

Initial Report

I am increasingly concerned with the use of in-seat napping as a tool to stave off the inevitable fatigue issues the company's rostering is producing. In-seat napping is meant to be a last resort but is continuously used on day and WOCL flights in order to continue with the safe operation of the flight schedule. Two pilots operating through the WOCL is a gruelling schedule and I believe the company are not approaching the task with the greatest of safety in mind. If you look at the flight reports, I can assure you that most will have the in-seat napping check box ticked. This is becoming the norm when it should be a last resort. We do have a FRMS in place, but the reporting system is overly complicated and when you've landed it normally gets forgotten due to tiredness. The flight reports will show when in-seat napping is used though. I believe we need to move away from these 2 pilot schedules and allow the crew to rest correctly to ensure the safe conduct of our flights before the inevitable incident occurs due to tiredness. Pilots are regularly sleeping for over 2 hours at a time, in seat, in one block on both the outbound and inbound sectors. Not for 30mins as advised.

Company Comment

The report was passed to our FRM Team by our Safety Team. It was noted that the reporter operates the A330, some of which do not have dedicated crew-rest facilities. These aircraft are due to be phased out in the coming years, but they do have the option to curtain off 1 to 5 business-class seats that create a class 2 rest facility for crew if needed. These seats will be used if these aircraft are used on longer trips that require IFR (In Flight Rest) to extend FDPs.

Currently the difference between rostering 2 or 3 pilots is the requirement of rest based on FDP under an approved Flight Time Limitations (FTL). However, as a result of FRM work, we also monitor double-WOCL trips with 2 pilots and one night down-route, and either restrict these to one per roster period or add a third pilot dependant on layover length. That said, Flight Crew Management have an industrial agreement soon to be implemented (timescales to be confirmed) that gives greater protections than the current CAA regulations. It is also worth noting that these agreements were underpinned by work achieved by the FRM department. The relevant IR rule states that:

All flights will be assigned two operational pilots unless:

- An extension of an FDP is required as per OMA 7.1.6.1 and then in accordance with OMA 7.1.6.4.1. In this case an additional crewmember will be rostered on the flight.

- If the outbound or inbound sector BTRT is 9.5 hours or greater an ACM will be assigned on both the outbound and inbound flight.

In the case where an A330 is used, and until the fleet rollover of the A330-300 to the A330-900 is completed, the following variation on the above rule applies:

Instead, any 2-pilot flights on the A330, or an intermix pairing of the A330 and the A350 (SFF), where the outbound sector of 9.5 hours BTRT or greater, will be rostered two local nights free of duty at destination if the flight arrives at the destination after 00:00 UK time.

In reference to the CRR statistics, FRM do monitor this and are able to pull data supplied to us by the Pilots on the Flight reports. It can also be noted that there is potential to add further fields to the flight report that will allow FRM to ask questions more specific to fatigue. This is yet to be agreed but ideas are Karolinska Sleep Scale (KSS) score at TOD, CRR and CRR length. These questions are asked in our FCAFs but as the reporter says, the old forms have become troublesome to complete. This is not necessarily due to the design but more to do with a recent update issue that will be hopefully resolved soon. We appreciate that filling in extra forms after a long flight is not ideal, hence why we are looking at incorporating some FRM questions into the flight report and only asking for extra, confidential, voluntary information if the reporter scores themselves highly on the KSS. We have already achieved something similar with our Cabin Crew and we are receiving reporting rates close to 70%. If agreed, we hope to implement this by the middle of 2025 however, with the data we receive from the flight reports, we see that 36% of our pilots report taking CRR on all flights and, when isolating the A333 these numbers increase to 37%.

We hope to implement this by the end of the year [2024] but, until then, we can only draw on the FCAFs we have received. If we take a closer look at the data, we currently have a reporting rate of 9% (YTD to Oct) for our Flight Crew and from that snapshot we see that 56% of our pilots report taking CRR on all flights. Of that 56%, only 6% suggested they took longer than an hour by selecting the "other" field under time taken in CRR. There is no field for multiple occurrences, but this is something we have addressed in the new FCAF form mentioned above. When isolating the A333 these numbers are very similar at 56% and 7% but this of course relies on the user inputting the details correctly. With that in mind, and according to the data our pilot's supply, we can see that just over half our pilots take CRR and approximately 4% potentially take more than 1hrs CRR.

As to what we have in our Ops Manuals regarding CRR, we have several references and, to summarise, our procedures suggest this is not a last resort option and it does not state that multiple uses of CRR cannot be utilised.

CHIRP Comment

In-seat napping (more correctly referred to as Controlled Rest (CR)) appears to be becoming a prevalent practice due to some rosters pushing the boundaries of FTL/FDP and reluctance to roster 3 crew for transatlantic flights. CR had originally been intended as an occasional short-duration relief for crews, but it now appears to be becoming more widespread in its use. Current CAA guidance material is contained within [GM1 CAT.OP.MPA.210](#) 'Crew members at stations' and, at para (6), allows crew members to take more than one period of CR in a flight if necessary, subject to restrictions.

CHIRP has commented before on this issue (see [ATFB149](#) Editorial for our most recent comments) and, as we commented there, although we acknowledge that multiple use of CR during a flight can be acceptable (as long as it is used properly), it must be carefully planned not only to ensure that not too much sleep is taken in one go (which, despite the temptation to sleep for extended periods, can result in increased drowsiness on waking), but also so that sufficient recovery time from the nap is factored in so that individuals are suitably alert and free from 'sleep inertia' before demanding, high-workload tasks are performed.

As noted elsewhere, the CAA have commenced an overall review of FTL regulations and we strongly support the inclusion of more guidance on the use of CR within this review. This would also usefully consider the long-term medical implications of fatigue and 'napping'. As people age, some cope less well with fatigue and disruption to their circadian rhythm, so this should also be considered in fatigue management terms. The review should also consider the introduction of standardised ways of measuring alertness for fatiguing flights and after the use of CR so that comparative assessments of alertness can be made across the industry for sleepiness statistics. In the short term, crews are encouraged to keep on reporting fatigue issues and the use of CR so that data is accumulated to promote changes.

Report No3 - ENG770 – Aircraft flown twice with open Tech Log defects

Initial Report

I raised a safety report within our company's SMS after an aircraft was flown twice with open Tech Log defect entries. As this was an incident involving 2 sets of flight crews, the report was handed over to the CAMO Safety team for investigation. Subsequent action from the CAMO Safety team was to ask both crews of their recollections of the event. Following on from this, the CAMO Safety team have not addressed any of the issues these events brought forward: a) a cultural lack of awareness and bad practice from both sets of crews admitting not to normally check the Tech Log for open entries; b) an assumption that a manned base would have corrected any defects; c) a lack of recognition to the

potential dangers of flying with open Tech Log entries by not carrying out any remedial action to raise awareness; and d) a lack of any response other than showing they asked the crew for their perspectives. There is also evidence to show an historic lack of confidence in the CAMO safety team coming from the Part-145 Safety Manager because previous issues seem to not be actioned.

Operator Comment

Thank you very much to the reporter for submitting their concerns. As an airline, we take pride in ensuring every report is processed, categorised, and risk assessed before they are shared with the relevant stakeholders and investigated or closed for trending as required. Reports are handled in accordance with our Just Culture, and those that are investigated focus on the systemic aspects as we believe errors and mistakes are a symptom rather than a cause.

On this occasion, we accept that the report could have been investigated further. This was missed due to a number of factors, including but not limited to the volume of reports we receive, requiring a level of prioritisation. Administrative changes have been taking place, while risk assessed accordingly, still increased the likelihood of mistakes.

Having said that, defect status management by flight crew is an issue that was identified as a trend by our SMS and, as a result, addressed as a wider organisational concern. It has been discussed at key safety meetings such as Safety Action Group and Safety Review Board and a dedicated Operations Notice will be published to the crew community in the next few weeks. This has highlighted a gap in the way we provide feedback to our contracted services also, which we are looking to address.

We would like to encourage all colleagues to continue to report safety occurrences, hazards, near misses and safety concerns.

CHIRP Comment

Quite apart from the report's subject matter and the issue of why the Tech Log had open defects in the first place, this is not the first organisation to recently admit to experiencing issues in their respective safety departments. It may be that the shortcomings on the Ramp or Hangar floor are becoming the norm, but perhaps support departments are still, or suddenly, also feeling the squeeze.

Operating an aircraft without consulting the Tech Log concerns us. Engineers must consult the Tech Log prior to carrying out many tasks: applying Ground Power, starting an APU, applying hydraulics, commencing fuelling, and most certainly prior to starting an engine (plus a full sweep of the panel) for example. How prepared were the flight crew if they were unaware of open and/or carried forward items (especially those that require

operational action (O)))? Not to mention any Line Maintenance that might have taken place on the turnround (chip-plugs for example). We assume that this was a paper-based Tech Log rather than the increasingly common electronic versions because the crew would not have been able to accept the aircraft without acknowledging the electronic Tech Log, and the engineers would not have been able to hand the aircraft to the crews with open entries.

One question is what human factors issues were at work? The [Dirty Dozen](#) would point us towards complacency! Why was that the case? Is it 'familiarity breeds contempt'? Flight crew walk-rounds concerned many engineers when they were introduced several years ago. There have been cases where flight crew who were expected to do their own walk-round never even left the flight deck. More accurate to describe such activities as heedless rather than complacent one might think.

The importance of the Tech Log and ensuring that it has been properly checked cannot be overstated; it is not something that should be taken for granted or paid lip-service to. It has been the case where an aircraft arrived at an outstation and it came to notice of someone in the organisation that the aircraft had departed with another registration's Tech Log. Not only does this raise questions as to lack of awareness about the state of the aircraft concerned, but there are enormous legal ramifications as an illegal operation with potentially invalid insurance had something gone wrong; the potential consequences of which are unimaginable. CHIRP have received a number of reports recently from flight and cabin crew where reporting times have been reduced, even to the point of pre-flight briefings being carried out on the moving crew bus. Whilst not suggesting for a moment these pressures were taking place in this report, could time pressure be a causal factor for why two separate crews did not look at the Tech Log?

Report No4 - FC5351 – Length of duty

Initial Report

Our operation often operates flights of 14+ hours with 1 augmented crew, when industry practice is to operate such flights with 4 crew. I operated a 2 sector [UK-Europe-Mid USA] reporting at 2030Z, landing at 1055Z in [Mid USA]. What is a very fatiguing duty (to start a 5-day rotation) flying through the WOCL, multiple sectors, only to obtain 24 hours of rest before operating another 12+ hours flight, again with 1 augmented crew. To make the matters worse, we had 6 dead-heading crew for both sectors. Despite requests to enable a 4th crew member, the Company denied it. The same happened to me on my previous block of work a week and a half ago, when we operated [Japan-Mid USA] (12+ hours) with two dead-heading crew, and we were declined the use of a 4th crew member.

Upon chatting with fellow colleagues, we appear to be averaging 500-600 hours per year, so hours doesn't seem to be a factor. Crew have tried to explain to management and Crewing that an extra crew member on augmented operations can increase the in-flight rest by up to 50% on some of our routes and help to reduce fatigue. Yet the response is always no, as it only allows for an extra hour on the FTL, disregarding Fatigue and Crew's welfare completely, for no apparent reason.

It reminds me of a recent CHIRP article which sums up my operation: "It's Legal".

Company Comment

Our long-haul trip combinations are modelled by [specialist fatigue organisation], with predicted KSS scores provided along with advice for managing sleep during the trip. Individuals are also asked to participate in acti-watch studies, to allow [specialist fatigue organisation] to compare the predicted to the actual KSS score – studies have found that many predictions are extremely accurate. However participation and KSS reporting remains low for the 777 fleet, which is currently averaging between 29-43%, compared to 91% for the 767 and 79% for the 757.

Based on previous modelling and discussions with our [safety group], we have identified 2 flights currently being operated, where it is deemed necessary to increase the augmented compliment from 3 to 4 crew. For our other rotations planned with 3 crew, the allowable FDP is in by 1 hour 35 minutes, discretion levels are low and the current average KSS does not highlight a requirement to monitor or change this pairing.

A monthly KSS update is provided by [specialist fatigue organisation], to allow us to monitor the average for each sector/combination and highlight those flights scoring towards the top of the KSS chart. These results are reviewed during a monthly meeting with [specialist fatigue organisation], Safety and Head of Crewing. They are also discussed in our FSAG meetings, which take place three times a year and is attended by [specialist fatigue organisation], Safety, Crewing and Rostering, Pilot Management and pilot representatives. Currently all 777 sectors average out at an acceptable level.

With regards to providing an additional crew member when we have crew positioning. This was previously denied due to inexperienced pilots flying together, crew hours during the early stages of operating the 777 and the lack of KSS data on these flights with 3 crew. Arbitrarily increasing from 3 to 4 crew on sectors requiring 3 crew, dilutes the already small dataset of KSS scoring which is designed to identify which routes are most deserving of additional augmentation.

However, we have recently agreed with our [safety group], that we are now in a position to change crew to operate as the 4th member, if they are already planned to dead-head on the flight. A

new procedure has been put in place for our Crewing team to manage this and change crew where FTL allows us to do so.

KSS and fatigue reports continue to be monitored. Should a specific trip combination identify a requirement to increase the compliment from 3 to 4 crew on a planned basis, this would be reviewed.

CHIRP Comment

We're grateful for the company's pro-active response which provides a comprehensive background about their associated FRMS processes and relevant recent rostering changes. The report was mostly about augmented flights for long duties, with the nub of the reporter's concerns being about the use of 3 crew versus 4 crew on some sectors. The ultra long 5-10 day trips were fairly new to the company, and they may still have been finding their way somewhat when modelling and rostering them such that associated sleep patterns might not have been fully understood by either them or the crews. However, it's clear that the company have adopted an appropriate learning culture with a willingness to engage on fatigue concerns such as those highlighted by the reporter.

Alongside the crew complement debate, the company were also basing fatigue modelling on remaining acclimatised to UK time during the duty so that each sector on a trip was based on beginning as "fully recovered". The WOCL flying on these trips, and alternating between night/day duties (relative to UK time), means that it is difficult to stick rigidly to a UK sleep schedule over such multi-day events and we understand that the company are also now adopting processes that account for cumulative effects during the entire trip.

Report No5 - FC5372 – Flights in conflict zones

Initial Report

After my duty on [date], I received a duty change notification for the next day to operate [Base to Amman]. After my last Amman (AMM) flight, I was worried/stressed about the safety to operate again into AMM. When I operated AMM on [date], after landing back in [Base] I found out there had been a Hezbollah attack with Falq rockets just north of the route I had just flown over. This caused serious stress to my wife and family when I was enroute. Afterwards I was surprised how I was not informed about serious incidents like this while I was operating very nearby.

So when I was informed I would need to operate to AMM again, I was seriously stressed. As of [date], Israel has deployed military operations on the Western Jordan bank with aerial bombardments and ground attacks. Our normal arrival route into AMM overflies the Western Bank north of Jerusalem at 10000'.

GPS jamming and spoofing add an additional threat to situational awareness and the aircrafts actual navigation/ position.

I contacted [Company] crew control explaining the situation and requesting to operate any other duty than the AMM duty. Or, if a detour via Egypt would be available, I would be happy to operate around Israeli airspace. Crew control advised they cannot give me information about the routing, and advised me to contact the duty pilot. On the phone with the duty pilot, he advised me they are constantly monitoring the situation and assuring the safest route. He explained the routing via Egypt might not be possible due military activity in the south near the Red Sea, so overflying Israel might be the safest option for the moment. He informed me [Company] flights to Tel Aviv are currently cancelled. He understood my concerns about the safety. He couldn't give any more information than that.

Further I raised the fact there is zero information available to [Company] flight crew towards current no fly zones, military actions, safe altitudes, emergency routings, loss of comm procedures, contingency procedures when approaching Israel or overhead Israel in case of aerial activity etc. I contacted crew control again to advise I was seriously worried about the safety on the AMM flight, and I was not able to guarantee safety to passengers and crew operating into AMM. Operating any other duty would have been fine, but crew control advised me they understood my position but had to assign me an UA/A (unauthorised absence).

This UA/A is a serious threat into pressuring/intimidating pilots to operate into or overhead an active war zone. Gathering information to ensure safety of the flights we operate is something we do every single day (weather, NOTAMs, defects etc), but, as stated above, there is no situational information available to pilots operating into AMM/TLV. I operated into AMM before, both around Egypt and over Israel, and I experienced the difficulties of operating in that region. My decision as a commander not to operate into AMM on this day was made after gathering all the (very limited) information available to me. As a commander I am legally responsible for the safety of the aircraft, crew and passengers onboard. [Company] is interfering in this decision-making process and forcing commanders to take legal responsibility of flying over an active warzone without providing extensive information by assigning unauthorised absence and a disciplinary hearing.

DfT Comments

DfT is responsible for providing advice to UK registered aircraft operating in overseas airspace where there are risks linked to ongoing conflict. It is a host state responsibility to issue warnings of potential risks to civil aviation operations but, where this is not done, the UK will issue its own advice. This is done through issuing NOTAMs. The UK follows a three-tiered approach to NOTAMs as follows:

Level 1 (Advisory) is the lowest level of advice and highlights concerns for airlines to consider in their own risk assessments.

Level 2 (Recommendation) recommends airlines do not operate either below a certain altitude, or at all, over specific airspace.

Level 3 (Legal Prohibition) the NOTAM is accompanied by a legal Direction under the Aviation Security Act to UK airlines, making it an offence to enter certain airspace.

DfT-issued NOTAMs **only** apply to UK airlines and UK registered aircraft and HMG has **no ability** to require airlines registered in other countries which may be carrying UK nationals to avoid using particular airspace.

Aside from a Level 3 NOTAM, which utilizes legal powers, **it is ultimately down to individual airlines to decide if they will operate or not** based on their own internal risk assessments, however going against formal HMG advice may impact on their liability and insurance should an incident occur.

Industry will (and do) take operational decisions on pausing flights where they judge the risk has reached their threshold. Different airlines have different thresholds. DfT remains in regular contact with UK airlines operating in the wider region. This includes: ongoing bilateral engagement with individual carriers on route-specific queries; bi-annual "all carriers" meetings on overflights risks (including a threat briefing at SECRET from UK intelligence partners); and *ad hoc* "all carriers" meetings in response to developing events (a crisis response mechanism). All of the major UK air carriers have security cleared staff within their security departments who are able to be briefed by appropriate HMG partners.

Internationally, DfT represents the UK in a number of expert forums including the Safer Skies Consultative Committee (SSCC) and the Expert Group on Risk Identification for Conflict Zones (EGRICZ) which bring together states-level experts in this area to develop best practice and guidance in this area; EGRICZ also has a coordination function in a crisis to try and align state responses where possible. DfT also works closely on a bilateral basis with key like-minded partners including the 5Eyes as well as France, Germany and EASA amongst others.

DfT assesses the level of threat to civil aviation in overseas airspace in line with ICAO guidance (*Doc 10084, 3rd edition, published October 2023*). This is informed by information from the Joint Terrorism Analysis Centre (JTAC) and Defence Intelligence on state-based capabilities. There is a rolling programme of assessments for those areas where DfT has existing airspace advice, ensuring advice does not remain in place when it is not required. For fast developing situations (e.g. Sudan, Israel/Hamas) DfT uses fast-time reporting from HMG and open-sources to make an initial assessment of the situation and issue

relevant advice which is then refined as more information and considered assessments become available.

CHIRP Comment

This is a very topical report relating to activities in the Middle East that are fluid and where airspace activities and threats can be uncertain. However, whilst an individual may have valid concerns, it is unlikely that they will have sufficient information with which to make definitive real-time judgements and so they have to rely on companies and government agencies to make assessments about the safety of specific airspace areas.

The issue of flights in conflict zones is one that CHIRP has previously discussed and the response we have received from the CAA is that there are intelligence assessment methods that are discussed between airlines and DfT/CAA in order to determine the risk at any given time. Furthermore, the airline insurance industry also reviews such conflict risks on a daily basis and instructs their airline customers accordingly as to which airspace areas they can or cannot operate in.

As noted in [Air Transport FEEDBACK](#) Edition 152 and their comments above, DfT provide the conduit for airspace threat assessments based on various intelligence feeds and, although we can understand personal concerns and agree that it is always healthy to ask appropriate questions of the company as to what assessments have been made, ultimately, when assured that a process had been conducted, then the captain of an aircraft (or other vessel) must operate within the associated company constraints rather than second-guess such assessments based on open-source media that may or may not be an accurate reflection of what is really going on.

But the company ought to at least reassure captains that they have applied due process and, whilst we wouldn't necessarily expect the company to be specific about what is discussed within their threat assessments, they ought to communicate clearly to their crews what processes and risk assessments are in place to review airspace use, and when that was last conducted in relation to the flight; it seems that this was not initially done in an effective manner in the case of this report.

It is likely that insurers would be the most cautious in this respect and would advise companies when they could or could not fly in specific airspaces. Companies will not casually put aircraft, crews and passengers at risk due to safety and reputational risk. Whilst captains are of course responsible for the safety of the flight, this does not extend to refusing to operate when a rational explanation has been given as to the threat assessment based on robust intelligence assessment processes carried out at State level through Security Services, DfT and the companies themselves. Of course, once operating, if captains became aware of threats as they are actually approaching conflict airspace (either visually or from other sources such as ATC or other

aircraft) then, if they cannot get advice from their company in a timely manner (for example through ACARS), they would have to make a decision themselves as to whether it was appropriate to continue into that airspace rather than just blindly carrying on.

Report No6 - FC5371 – Captain's decision overridden

Initial Report

Report précis: During a Delayed Report Operation, I instructed the FO and cabin crew to complete as many checks as far as practicable but not to pre-board passengers. Despite being aware of communications between me and the crew, the Terminal Duty Manager (TDM) overruled these explicit instructions and brought passengers to board the aircraft. The crew reported being pressured to do so. This culminated in the overruling of my instructions not to board the aircraft before my arrival.

As a result, although the FO completed an Interactive Brief with the crew, I considered this was inadequate on arrival because cabin crew were unaware of a deferred defect concerning a critical piece of SEP equipment (smoke hood) and required briefing on the deferral procedures within earshot of passengers. Another defect with the PA system was also present but this was not discussed until I arrived at the aircraft and after the normal aircraft and flight plan acceptance process. As passengers were already on board, MOC could not approve a reset and required engineer attendance. The defect was eventually deferred but this required additional safety briefing discussions in the event of a decompression within earshot of passengers.

The TDM was present at the gate on my arrival, with pax boarding, and asserted that there was no safety reason not to board – I brought the TDM to the cockpit for an explanation. The TDM insisted that it was 'procedure to board with minimum crew' but could not, to any extent, refer to where these procedures were located. In this particular case, there were demonstrable indications that safety margins were reduced (the aircraft was boarded with its airworthiness state undetermined and the technical log not checked) and with clear contraventions of chain of command as detailed in the Operations Manuals.

One of the most stressful elements of low-cost airline command is achieving a balance between business success, performance indicators and maintaining safety margins. Up to this point, with few exceptions, I have found co-ordinating this balance presents high workload but is manageable; often with support teams going 'above and beyond' to help out. During this particular duty I feel that what I did was entirely reasonable to achieve this balance, using my personal experience in similar situations. A plan was formed, the crew were getting on as far as they could with their duties with the expectation that, on my arrival, any snags could be worked out and a prompt departure would follow. However

what happened on this occasion is absolutely unacceptable. This event, along with more minor past incidents, indicates a trend where the role of ground staff in relation to the crew (Commander in particular) has become distorted beyond reasonable expectation.

CHIRP Comment

Efficient and safe operations rely on teamwork that recognises the balance between captains not attempting to control every aspect of the process, relying on sound judgement and appropriate actions from those involved, and an understanding that the captain bears the ultimate responsibility and authority for the safety of the aircraft, crew and passengers. However, countermanding a captain's specific instructions is not acceptable and risks undermining the whole system of command responsibility and accountability – those involved in boarding and other activities must respect the captain's authority at all times.

Report No7 - FC5373 – Report time pressures

Initial Report

For aircrew using [Location] Airport, the use of the Staff Car Park is the parking option. This is meant to provide a bus service to the airport every 10 minutes. However, after repeatedly being told that all issues are being dealt with, this service runs consistently every 15 minutes at peak morning/ 1st wave times. Not a major problem ordinarily, this however reduces the hourly capacity. As such, many busses leave once full as overcrowding can be a major issue. This leaves aircrew feeling pressure to arrive at the car park very early (first thing in the morning) to ensure they can actually get on a bus to the airport. Alternatively, arrive appropriately with a bus time in mind and this will lead to a high chance of arriving at the airport late, putting pressure on crew once again. The problems with [Location] Airport's bus provision is well known and being going on for far too long.

Airport Comment

The staff bus service operates on a 10-minute frequency and, since April 2024, has operated at 93% frequency rate. Since mid-August 2024 this has increased to 96%. This means that only 4% of journeys made have been outside of the 10-minute frequency. Bi-weekly / monthly (depending on airline) catch-ups are held with the airlines regarding the performance / concerns of

staff bus routes and there have been very little to no concerns over the last 3-4 months. Where there are delays to the staff bus, caused by absence, communication is issued via the airport app informing all airport users that the bus will reduce to a 15-minute service and will specify times.

CHIRP Comment

The issue of transportation from the staff car parks at this Airport is a topic that we've discussed before at CHIRP, but more in the context of how the airlines should cope with it. Recognising the burden that this puts on individual crew members, we have previously urged the airlines to bear down on the Airport management because it was in their interests to do so to avoid delays in flights departing.

The Airport's response suggests that buses are operating at a good frequency but that doesn't help those who fall into the periods where reliability may not be so robust or the buses might regularly be full even if they are on time. That any delays or interruptions in service will be published on the Airport App is useful, but we wonder how timely this is (bearing in mind commuting times for crews leaving home), how many crews will have this App anyway, or how many crews will have the time to access it before they leave home. The reporter indicates that the problem is recurring and worse than the statistics might indicate. It is not CHIRP's place to second-guess the information we've received, but the impact of delays on reporting times and associated FTL calculations should not be underestimated.

Unfortunately, the burden of coping with bus problems falls wholly onto the crews because such delays occur before the report point and their remit is to get to the report point on time (which is where FTL calculations will start). If crews are having to arrive at the Airport staff parking well in excess of what would be a reasonable expectation because of uncertainties in bus services, then it is their notional FTL rest time that is lost. The alternative of arriving on time at the car park but then late at the report point will attract unwelcome attention from airline management. One would hope that the Airlines would express any concerns to the Airport during the weekly/monthly 'catch-ups', but it may be that the Airlines are not aware of the problem, and so we would encourage all crews who are affected by bus service problems to report them to their line management so that they can make representations to the Airport.