

FATIGUE, ROSTERS AND ABSENCE MANAGEMENT

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Editorial

Pressure on crews and scheduling stresses caused by sub-optimal planning and operations

One of the facets of recent roster and fatigue reporting to *CHIRP* has involved the employment of Controlled Rest (CR) by Flight Crew, also known as 'in-seat napping'. We've also received a number of reports from Cabin Crew indicating that they either aren't aware of the regimes for employment of CR, or aren't being properly briefed by Flight Crew when they take advantage of it.

Because CR might not be achievable by an individual for personal physiological or circadian rhythm reasons, *CHIRP* doesn't condone it being relied on in rostering schedules. However, it seems that it's becoming increasingly normal practice for crews to employ CR for significant portions of the cruise phase for some sectors to mitigate increasingly punishing rosters or long flights that span the

WOCL (Window Of Circadian Low) and so I thought we might add our thoughts to the debate.

Fundamentally, CR was originally intended only to be used in unforeseen circumstances to mitigate fatigue on long overnight sectors. Its use is sensible because it helps ensure that crews are at the top of their game when it comes to the more complex parts of the flight (i.e. descent, marshalling to the approach and landing), but crews should bear in mind that during the CR period, the aircraft is essentially being operated by a single pilot and so it should not be employed if high-workload activities or complex tasks such as ATC communication, readback or re-routing might be anticipated.

The original intention for the use of CR was that it would be used once in a flight but it is now becoming common practice to use it multiple times because rosters are now more intense and sectors are getting longer. Although *CHIRP* acknowledges that multiple use of CR during a flight is acceptable (as long as it is used properly), it must be carefully planned not only to ensure that too much sleep is not 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.

Outlined in [GM1 CAT.OP.MPA.210](#), the current inherited EASA FTL regulations are not particularly helpful in respect of CR, not least because they're only guidance and not rules *per se*. As a result, the employment of CR is left to the vagaries of company operations manuals, and *CHIRP*'s view is that there is room for something more definitive within the regulatory document set. We note that the CAA have commenced an overall review of FTL regulations and we strongly support the inclusion of defined limits on the use of CR within this review. This would also usefully consider the long-term medical implications of fatigue and 'napping'; as the workforce ages, people 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.

Given the automatic nature of many modern aircraft, there is perhaps not the same level of mental activity on increasingly longer duration flights as there was in the past and so pilots' potentially low alertness levels can also contribute to low arousal and the onset of sleepiness. There are a variety of sleepiness scales in use and, although many companies use the [Karolinska Sleepiness Scale](#) (KSS) to assess fatigue, its use is inconsistent in how they then deal with the high sleepiness scores that may be reported (see also [CAA SRG Paper 2005/4](#) 'Aircrew Fatigue: A Review of Research Undertaken on Behalf of the UK Civil Aviation Authority'). Ultimately, any regulations need to recognise that people have different tolerances, resilience and ability to cope with fatigue, and so it will be difficult to compose regulations that will cover all. But, fundamentally, the use of FRMS within companies should take the use of CR and sleepiness fully into account as part of the

consideration of fatigue such that all sleepiness reports are incorporated, including the extremes of the scale, rather than discounting them as outliers and focusing on just the median reports for a particular trip-pairing/roster.

For completeness, the guidance for CR contained within [GM1 CAT.OP.MPA.210](#) 'Crew members at stations' is reproduced at the end of this newsletter.

Steve Forward, Director Aviation

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 'CHIRPAviation' – 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.



Engineering Editorial

Three paragraphs from a very comprehensive report and considerable further constructive details received by CHIRP indicate that the health of all engineering staff needs to be covered in greater depth. The conclusion determined at the end of the associated investigation was that the reporter's employer was already following almost all of what the CAA suggested was best practice. The relevant paragraphs are:

In my role as a manager at [Operator], I am currently providing support to staff members facing various medical challenges, including sleep disorders, mental health issues, and other conditions. These licensed engineering personnel are currently on medical leave while undergoing treatment and following medical advice. However, I have observed a dearth of comprehensive medical guidance from the Civil Aviation Authority (CAA) in relation to Licensed Aircraft Engineers.

Previously, the Airworthiness Notice 47 "Licensed Aircraft Maintenance Engineers – Personal Responsibility When Medically Unfit or Under the Influence of Drink or Drugs" held relevance, but it has been succeeded by [CAP562 Leaflet H-60](#), which addresses the same subject matter. Regrettably, the current document provides limited clarity for managers and supervisors regarding specific

drugs or medical conditions necessitating heightened consideration. The statements contained therein are ambiguous, thereby leaving room for interpretation on the part of managers and the organization.

This lack of precise guidance from the CAA has the potential to enable licensed aircraft engineers to resume certification responsibilities and duties even when not fully fit for such roles, especially with the current resourcing levels in the industry. Occupational Health evaluations are conducted based on medical recommendations, but the awareness regarding individuals resuming certification privileges remains insufficient due to the dearth of actionable guidance. Notably, the CAA offers comprehensive advice for pilots, stipulating assessments by aviation medical examiners, details on which drugs both for physical and mental condition are not to be taken whilst exercising certification responsibilities. However, there is no analogous requirement for licensed aircraft engineers. The absence of guidelines pertaining to mental health, and how conditions like depression and anxiety may impact an individual's capacity to fulfil certification responsibilities, needs reviewing.

CHIRP spoke with the CAA Medical Assessment Department about our concerns and they suggested that there were problems with introducing more comprehensive guidance because the working environment of engineers is so much more varied than pilots or ATCO's. They also pointed out that the Health & Safety at Work Act sits above the CAA guidance and should be taken into account. As we all know, CAA activities are now largely based on risk and the relevant maintenance organisation's Safety Management System.

In any organisation, the costs of adequate care and absence have to be balanced, but the use of either in-house or contracted Occupational Health professionals should be part of the Safety Management System, subject to being scrutinised for effectiveness and adapted as appropriate. An in-house Occupational Health professional is obviously more expensive but also likely more effective. Perhaps the cost would be offset by reduced lost man (person) hours. Qualified doctors can obtain a diploma after they have registered with the BMA as doctors in their applicable specialisation, which takes about a year. If, however, they make Occupational Health their specialisation, they have to do a four-year course. An Occupational Health professional could perhaps take five phone calls per day. On the other hand, they could take two and spend the rest of the day visiting the specific working environment of those two individuals, prior to their return to work. This scenario would apply to Line, Hangar, Workshops and all supporting activity (e.g. Planning, Maintrol, Supply Chain, Quality/ Compliance/ Safety and Administration).

Your Occupational Health professional should be *au fait* with both the environment and the tasks you are required to carry out, even if they were contracted in. Perhaps your Safety System needs not just an Aviation Occupational Health Professional but one that stays up-to-date and is competence assessed. Should they not be on the organisation's list of authorised staff, along with the other background employees, Goods-In inspectors and planners etc? Do they have company-

procedures refresher training? If an appropriate individual were to audit the Safety System in this subject, they would ask, has the Occupational Health professional had proper HF initial training? One would like to think they understand circadian rhythms, but do they know the 02:00 – 04:00 hour rule, could they name a handful of Critical Tasks? What does the word “Inspection” require of the inspector? What is their understanding of function/ operational tests? They would quickly need to familiarise themselves with the health and safety implications that we are all already familiar with such as industrial dermatitis implications, and are they likely to grasp other issues such as that of untied long hair that could lead to horrendous injury whether it was caught by a pillar drill, grinding wheel or an aircraft flap drive shaft? There would be a benefit to their working alongside of or holding the post of Health & Safety Officer. We should not blur the division of ‘Air Safety’ and ‘Health & Safety’ but a poor health & safety environment leads to distractions or hurrying the task in progress to name just two HF issues. Would an out-sourced Aviation Occupational Health Professional working from home be likely to raise a flag about a new risk in the Safety System? Would they even understand they are part of it?

Assuming every organisation has a Safety System (required by July 2024), the guidance in CAP562 Leaflet H-60 will surely be satisfactorily underpinned. However, we as a population both within and external to the aviation industry are becoming more aware of mental health and we all need to gain further understanding on how this affects individuals. A phased return to normal duties from a mental health perspective does become more complex than from a physical reason. Should it be a CAA regulatory requirement that our Aviation Occupational Health Professional has a good understanding of mental health issues? Should it not be a sub-subject in refresher safety training for us all anyway? A manager receiving a staff member returning to work after mental health issues may think that offering alternative duties would be sympathetic but the stress inflicted on the returnee by such a suggestion might re-raise stress levels far beyond limits. It is great that in organisations and amongst the population at large these conversations are taking place, and it is only by perpetrating this discussion (and perhaps including it in CAP562 Leaflet H-60 and Flight/Cabin Crew & ATC guidance) that we can gain greater understanding of mental health and as such improve safety and productivity.

Phil Young, Engineering Programme Manager

CHIRP FEEDBACK Survey



We value your opinion about our FEEDBACK newsletters and associated engagement methods, please spend a few minutes responding to [10 short questions about CHIRP Aviation FEEDBACK](#)

Comments on Previous FEEDBACKs

Comment No1 – Legal vs Safe/Sensible I disagree with CHIRP’s assertion that Company responses of ‘it’s legal’ need to be framed within ‘it’s safe/sensible.’ The ANO does not permit a flight that is not safe/sensible. An operator of an aircraft must not cause or permit any person to fly as a member of its crew, who the operator knows or has reason to believe is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from such fatigue as may endanger the safety of the aircraft or of its occupants.

As aviators we spend our entire careers erring on the side of caution, anything that may endanger the safety of the aircraft is to be avoided. Rostering duties that are not safe/sensible that are likely to cause fatigue that may endanger the safety of the aircraft or of its occupants is prohibited by law. It is the responsibility of the CAA to ensure that there is no mis-match between schedule requirements and resource availability and the unsafe rosters that result. It really is that simple.

CHIRP Response: It seems to me that we agree. Our comment was very much framed with the intent that ‘it’s legal’ is not enough and that companies should be considering ‘it’s safe/sensible’ instead. Of course, one person’s ‘safe/sensible’ may well be different from another’s. Whilst no-one should fly when unsafe, FTL limits simply provide the framework for rosters and operations. For example, the use of Commander’s Discretion is not in itself unsafe if it is used in a considered manner with the Captain ensuring that all crew are able to operate safely, but it does allow captains to exceed the normal FTL limits. FTL limits are generic and cannot account for all circumstances and situations.

Our contention though is that frequent rosters of long duties can be fatiguing, and that rosters limits should only be approached with caution and in a managed way. Companies would of course comment that they do only approach them in a managed way, and if crews feel they are too fatigued to conduct a flight due to their own specific circumstances then they have a responsibility to declare themselves as such to ensure they do not endanger the aircraft or its occupants. As we all know, that is easier said than done, and so we end up with the circular argument where we say

that some rosters can be fatiguing and the company saying that they are simply rostering within legal limits and if crews feel fatigued then they have a responsibility not to operate.

I'm no apologist for the CAA but they are sometimes caught in the middle. All they can do is ensure that the laws are followed. The Government sets those laws (basically carried over from our EASA days at present) but there are aspirations within the CAA to try to get them updated into something more relevant, and they are currently reviewing the FTL regulations with that in mind.

It is the responsibility of companies to ensure there is no mis-match between schedule requirements, resource availability and the rosters that result. The CAA have a responsibility to ensure that companies are operating within the law and to call them out when fatigue reporting indicates that things are not working. Hence the need to keep on reporting fatigue (even when it seems that nothing is being done as a result) – without data, nothing will change.

So, we share frustrations. Ultimately, the law probably needs to change to reflect modern post-pandemic reality. FTL will always be an emotive subject whereby setting generic limits is probably always doomed to fail but I am cautiously encouraged to hear the CAA talking about the need to review FTL and rostering and get the Government (DfT) to update the legal framework. However, I fear that with an election coming over the horizon, any legislative changes by DfT will be some way off.

I Learned About Human Factors From That (ILAHFFT)



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!).



