Fatigue and Absence/Attendance Management (AM) are common themes in flight crew reports to CHIRP. In the 3 years prior to the mandatory adoption of EASA FTL in 2016 fatigue and AM reports constituted 20% of the flight crew reports received; since 2016 numbers of reports have increased and the percentage of fatigue and AM reports has also increased to between 30 and 40%. Flight crew generally write to CHIRP when they have exhausted other options or grown disillusioned with formal reporting to the point of no longer bothering to report formally. Anecdotal evidence suggests that the issues reported to CHIRP are widely recognised among professional flight crew and under-reporting is believed to be widespread. The reports seen by CHIRP may be the tip of the iceberg.

Flight crew fatigue reports generally cite a combination of duties rather than a roster on a single day: repeated duty cycles of 6 days on - 1 day off is an example. Interrupted rest is commonly reported as a fatigue factor; variations include being called before a Standby Duty commences, calls during rest periods, short notice trawls for volunteers and inadequate accommodation down route. Regular touring duties are fatiguing when they disrupt rest, nutrition and exercise rhythms, particularly when combined with minimum rest; one such duty with minimum rest was cited in the report in which 2 pilots in a heavy crew micro-slept on the approach during their return to base. Other examples from flight crew reports could easily be mentioned.

Human beings find it difficult to discern a gradual accumulation of fatigue and a corresponding erosion of performance. Pilots are perhaps more susceptible to accumulated fatigue because of their default ‘can do’ attitude. They are also subject to overt pressure to operate into discretion, including from home base and hubs, and they perceive the pressure of company and passenger expectation. These factors weaken the safety barrier of pilots declaring themselves unfit through fatigue. It is further undermined when operators do not respond appropriately to pilots declaring themselves fatigued during or after a duty. Operators who do not adequately distinguish between fatigue, illness and unauthorised absence and those who react with hostility to reporters create strong disincentives to fatigue reporting and incentives to press on as rostered.

Pilots (and cabin crew) reporting to CHIRP express little confidence in operators’ Fatigue Risk Management (FRM) or NAAs’ interventions. Flight crew recognise that they are assets in a competitive industry and that their employers need to utilise them effectively and efficiently. They see their employers rostering within the numerical constraints of EASA FTL but see little evidence of compliance with the over-arching requirements to minimise crewmembers’ fatigue. Rostering the longest Flight Duty Period on the last day of a block of duties is perceived as cynical as well as potentially unsafe. FRM is seen as a reactive process that offers little protection and little evidence of its effect. Pilots do not expect every fatigue report to produce a positive outcome, but there is a risk that reports will cease altogether unless confidence can be won.
Absence management policies are the single most frequently reported issue by flight crew. Operators are justified in seeking to discourage inappropriate absences but there are examples of policies that deter personnel from absenting themselves when they are unfit to fly through illness and fatigue. Operators are able to measure absenteeism but CHIRP has seen no evidence of attempts to assess any adverse impacts of associated policies.

Absence management policies should not be seen in isolation. Remuneration policies in which a disproportionate element of the package is paid by the flying hour can be disincentives to flying only when fit to do so whereas job and financial security are powerful incentives to keep flying.

Commercial pressure will continue to drive operators to regard EASA FTL numerical limits as an acceptable baseline for rostering and to continue to use one-size-fits-all AM policies unless the adverse effects of doing so can be measured. In addition to the immediate impact on flight safety, there appear to be long term effects that result in high levels of part-time working. It is not CHIRP's role to 'solutioneer', but we believe an alternative approach would be to demonstrate adverse effects of unfitness to fly and the corresponding commercial benefits of alternative HR strategies. For example, a study by the Norwegian AAIB correlated self-reports of flight crew sleepiness (as measured on the Karolinska scale) with FDM data; sleepy pilots had a tendency to fly slower on the approach (down to $V_{ref} -10$), had more hard landings, were later decoupling the AP, had more fuel at shutdown (i.e. had carried more), taxied more slowly and had a higher fuel burn while doing so.

We must acknowledge that CHIRP only sees problems reported. There is almost certainly good practice in the industry of which we have no sight. Nevertheless, on the evidence of what we do see, there can be little doubt that real and perceived pressures result in many flight crew flying when they are unfit to do so. This concern is being relayed to relevant NAAs and EASA.

Ian Dugmore – Director Aviation

ENGINEERING EDITORIAL: ROOT CAUSE ANALYSIS CAP1760

I was lucky enough to attend a CAA seminar in Oct that sought to brief the Maintenance, Repair & Overhaul organisations (MROs) and Original Equipment Manufacturers (OEMs) in attendance about CAP 1760 and the expectations of EASA in relation to how companies answer findings from Audits.

The presentations were excellent with some industry views laying out what individual companies do to try and weed out the root cause of a problem or finding.

My reason for raising the subject in the editorial is simply to try and reach a wider audience to help highlight this change and help us all to be better prepared.

As I said I was lucky enough to attend and I know there will be lots of company directors and quality managers and inspectors attending these seminars as we go into 2020. But are the engineers ready for this change?

At first sight you may think it does not affect you too much. But I think it does. I think engineers need to understand the thinking and reason for this change and why a single response is not satisfactory anymore if asked why something that was not done correctly.

Here is a common example of where I think our thinking needs to change as engineers to get on board with the broader EASA changes.

A torque wrench was noted as being out of calibration date (it expired a week ago).

During that time, it had been used three times for maintenance purposes on different tasks.

On finding this issue you could do the following.

Remove it from service.

Have it recalibrated and note any error found during the calibration checks on this particular tool, that will provide clarity on the likely degree of error that could exist?

Identify the tasks where it had been used and rechecked using tooling that is in date.

It’s a pain having to do them again but ensures safety, so right thing to do.

At this point you have contained the error and recovered the situation and are safe. Great stuff.

But why was it not noted before the tasks were done?

You could say the tooling control system failed or the engineer did not spot it (on 3 occasions?). Again, both correct but you still not have root caused the problem. However, it does provide two possible lines of enquiry.

• Tool control system failure

• Engineers failure to spot the error / tool out of date.

The company will of course go on and identify why the calibration dates of a tool control system failed regardless of whatever system is in place and will aim to fix it I am sure.
In this instance I want to focus on the engineer enquiry. Why did the first engineer not spot it? He could say he was very busy that night with lots to do and he was the only person approved to do that task and he had lots of other tasks requiring his time. And the aircraft arrived late that evening compressing the time available. (We have all experienced this I am sure!)

All good reasons for rushing to get things done and deliver a serviceable aircraft the next morning on time. Why did he rush? Obviously, he did not want to make any one late or show himself in a bad light. But in doing so has compounded a problem and perhaps demonstrated that he has little understanding of HF and has opted to disregard HF thinking and rush around.

If, however he was to take the correct amount of time to do a task and noted during his preparation that he had an issue with the calibration date on a torque wrench he would have got the job completed correctly and the aircraft would have been late out the next morning or some tasks cancelled and moved on within the planning process. If this option had been taken, then the as the engineer had captured and contained the issue as the backstop on any maintenance procedure. The focus of attention for root cause analysis purposes would then have been on the control systems and not the individual. Should you find yourself in trouble the next day due to late off maintenance then you can argue the point that you as the backstop have succeeded yet again in preventing a maintenance error and preventing tasks being repeated later. Which takes a lot more time from various interested parties in the business who don’t need further work, especially if this is not the first time, they have had to deal with this particular type of finding.

The point I am making is that you should not look to add to the issues or workload by becoming a hole in the cheese that lines up and you fall through. You need to ensure all safety gates are effective. You cannot control a company’s tool control system, but you can identify its failures through use of the correct reporting channels for such failures and working with the company to help resolve things at the first failure not the last.

With the new requirements I will be looking to examine systematic findings down to a root cause and identify where my company has failed and what we need to fix that. If I also identify HF related issues with individuals then we are into interviews and possible re training, amending the training done to date as it was obviously not effective, perhaps do some sample interviews to find out if the problem is with one staff member or others, do we have a safety culture issue running down from management perhaps, which are now being adopted by staff. If they don’t care so why should I type of thinking! As you can see if this level of root cause analysis were to be done as per this example, I would spend a lot of time dealing with the human side of the failure which compounds the problem in many ways due to increase workload for all.

With just a systematic failure, you the engineer would have contained it and the responsible manager would have done the work needed to prevent a reoccurrence.

Management is a support function to the maintenance engineer operation ensuring his work can be achieved effectively and safely.

If the engineer does not use him as such and overburdens himself with all the issues mentioned above, then he risks becoming part of the problem not part of the solution. The manager needs to help this by developing an open safety culture at all levels where things can be discussed proactively and not have that reactive conversation too often.

So, if you have some time please read through CAP 1760 and start thinking in this way before the problem occurs not after it has happened.

I find when I talk to fellow engineers that we are good at the technical aspect of the work, and we are getting much better at the task-based risk review in our heads before starting work to ensure we are safe or when things don’t go to plan. I think we need to get better / smarter at thinking about and removing the HF risk when we are working and the plan changes. Stop. Step back, rethink what you are doing and why you are doing it. “No time” is not a good excuse. It is a factor that needs to be managed along with workload, environment, tooling and qualifications and everything else.

Terry Dudley - Deputy Director (Engineering)

TECH LOG DOCUMENTATION PROCEDURE

Report Text: The current system we use on turn around servicing is the technician who has fuelled the aircraft, goes into operations control and signs for the fuel and oil level in the tech log. In order to streamline the turnaround time, the company is proposing a change in procedure.

The new procedure would be as follows. The technician would fuel the aircraft, then radio in the fuel and oil levels and the operations controller would fill in the tech log and initial the fuel and oil entries on behalf of the technician. The technician would at no time see the aircraft tech log.

The tech log is a legal document. With this in mind, my question is, ‘can the tech log be initiallised by someone else on their behalf, or is there a legal requirement for the technician who has carried out the turn to sign the tech log themselves?’
Your comments would be very welcome on this issue.

**CHIRP Comment:** The reporter had taken action to address his concerns internally with no success. Rather he was told to, "fall in line and do as [you are] told". This type of response is unacceptable for any organisation that claims to have a safety-focussed culture.

CHIRP could not identify any breach of the regulations. It is not unusual for non-qualified staff to enter fuel/oil uplifts in the tech-log as they normally sit outside the Certificate of Release to Service (CRS). However, comments within the report raised concerns on the process being used in this instance and therefore the disidentified report was passed on to the CAA for further investigation. The Authority took appropriate but unspecified action that satisfied the reporter. CHIRP’s view is that when using traditional paper tech logs, technicians should sign for their own work. The advent of electronic tech logs and remote data entry will require the development of alternative procedures to maintain an audit trail while minimising the scope for error.

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**Suspected illegal flight crew rest before FDP**

**Report Text:** Company has a history of sending begging text messages to flight crew when trying to cover schedules and short of pilots for the flying programme and on standby cover.

On [date] at 21.23 local time, a text was sent out from the company crew control department, threatening cancellation of the [] service the following morning (report time 05.50 local) unless a volunteer was found. Overtime payment was specifically mentioned in this message.

Surprisingly, the service was covered and departed early!

My questions are:

1) How can the company knowingly ask a pilot to report for duty with a maximum of 8hrs 27 mins notice - to include sufficient rest and travel to the place of report?

2) Are these flight crew aware of the responsibilities they have towards not just their legal minimum rest before an FDP, but also the Air Navigation Order under which their licence is a privilege to operate when satisfying the legal requirements for safety?

**Operator Comment:** We do send texts out to cover trips if the normal (online) overtime pick-up or allocation of Standby resource still leaves the trip uncovered. Additionally, there are occasions when a crew member is running late or there is last-minute sickness in the rostered crew. Texts are also sent if there is forecast to be a peak of overtime availability some days ahead, mainly to draw attention to this. We do not routinely send texts to individuals. The texts are sent to a distribution list and the pilot has to opt-in to this list. There might be rare occasions where a crew-controller might contact some folk who he/she knows are usually willing volunteers. It is, of course, incumbent on the crew member to ensure that he/she is adequately rested and only they can be the judge of this. It is not a given that receipt of a text from the Company constitutes disturbance of rest and, therefore, it does not follow that a text sent in the time period indicated in the report would render the crew member unrested for the ensuing duty.

Our Ops Manual is explicit in making crew aware that it is their responsibility to ensure adequate rest. When texts are sent, there is no compulsion to respond, nor to accept the proposed duty. Any additional recompense that might be attached to the trip is there to encourage uptake for those who might otherwise have not been interested. It is absolutely not there to encourage individuals to disregard the FTL regulations. It may also be worth noting that volunteers are often offered a facility to drop a future trip in lieu of the overtime trip, even if this future trip does not clash with the new trip.

In summary, crew are aware of their FTL responsibilities and the texting system does not compromise the Company’s responsibilities in this regard.

**CHIRP Comment:** There is a clear commercial imperative for operators to avoid cancelling flights through lack of pilots. The texts are not targeted but broadcast to all potential volunteers and there is no obligation to respond to the texts or to volunteer. It is conceivable that the overtime payment could cloud pilots’ judgement but the operator relies on pilots’ professionalism to volunteer only if fit for the duty. Pilots do not necessarily sleep as early as suggested for a planned duty and geography is likely to be a factor; pilots living 10 minutes from the airport will be in a better position to volunteer than someone living an hour or more away. On balance, CHIRP does not see a cause for concern at this trawl for pilots.

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**Violation of Fatigue Management**

**Report Text:** I am a line manager for engineering at [Company]. I have learned that a competitor has been utilising engineers contracted to [my employer] during their off-crew days.

The first concern is that this is a true report. Engineers are knowingly violating the company fatigue management policy with [the competitor company] aware, yet seemingly unconcerned. Engineers work a 7 day
on, 7 day off roster. Company policy restricts them to only 8 consecutive days in work and a maximum overtime of 3 days. As a line manager I have no awareness of an engineer’s actions during his/her off-crew days. The second point that has been highlighted is that, as an employer, we are unable to enforce a safety policy should an individual decide to secretly work for another employer during their time off. There doesn’t seem to be a mechanism for ensuring that a person receives sufficient rest. We are reliant on the integrity of an employer to recognise a person may not be suitably rested prior to work and an employee to inform his/her employer of extra employment commitments.

**CHIRP Comment:** Licence holders have responsibility to be fit for work. Employers can require full-time employees to declare any other work they do but are reliant on their employees’ cooperation. There are many other off-duty pastimes that can be equally fatiguing (e.g. training for marathons) and managers need to be vigilant to identify employees who are fatigued. Dismissal is an option for persistent fatigue and/or failure to disclose supplementary employment but this is only a realistic option if there are replacement staff available for recruitment. UK CAA, CAP 716 provides some useful guidance on the working time directive and calculation of shift patterns for aviation staff but if staff are working elsewhere managers will struggle to maintain any fatigue management control.

Future legislation regarding Safety Management Systems will contain provisions for fatigue management based on European working time regulations. The UK should also learn from good practice abroad, such as managed sickness. For example, engineers in Holland can be declared ‘partially unfit’ for work by a doctor; i.e. they are permitted to work only a percentage of their normal shifts for a period until they are fit to resume full-time working. In addition, a cultural change is required such that it becomes unacceptable to work when fatigued oneself or with colleagues who are fatigued. Engineers need to be conscious of their moral obligations when working in a safety critical industry with lives dependent upon the quality of their work.

In submitting this report, the reporter wished to draw attention to a problem that many organisations face – the shortage of engineers.

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**REMOVAL OF FOOD/SNACKS AND MEALS**

**Report Text:** Flight crew snacks, fruit, and sandwiches have been removed from long haul ops. On arrival at the aircraft at midnight local and 5am UK time, no food was available until 90 mins after departure. This is the 4th time in recent weeks I have felt overly hungry to the point safety is close to being compromised by low blood sugar. A company memo has said we may purchase food on board. Options available are high sugar and salt. This option is not available until after departure and at the unsociable hours we fly no food is available before departure. The 1 main meal supplied is not fit for purpose either. For a 12-hour duty and 1 hot meal for flight crew is not enough.

**CHIRP Comment:** Although hunger is a source of distraction and therefore a potential safety hazard, there is no medical evidence with which to compel operators to provide hot meals and many operators do not provide any food. The operator has advised that it routinely reviews the hotels and airports it uses to ensure that meals for consumption prior to reporting and/or food for eating on board, including vegan food, is available to crewmembers. The report will prompt another review. Similar issues in other operators resulted in the advice to crews to carry their own supply of snacks or energy bars for ‘emergency use’.

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**NO NIGHT LANDINGS FOR NEW FOs DURING LINE FLYING UNDER SUPERVISION (LFUS)**

**Report Text:** I am a Line Captain. Occasionally I fly with new First Officers who have just come through line training following initial conversion onto the [] who have not conducted any night take-offs or landings. This is due to a general company policy to conduct all LFUS training on early sectors and therefore during daylight hours.

The result is a newly qualified F/O being released to line operations without having operated the aircraft in any capacity during night. I feel this puts unnecessary pressure on regular Line Captains who are not qualified in a training capacity, and also extra pressure on the new pilot as it reduces their confidence levels. The landing technique is obviously the same during day or night, however for a new pilot the visual perspective can initially be a bit disorientating, and I feel it would be safer to experience this first in the line training environment.

There is also the possibility that a Captain could become incapacitated, and the First Officer could be experiencing their first night landing on their own, potentially to a challenging airport. The company are very pro-active in Threat and Error Management, but I feel this a threat that has not been mitigated for a number of years.

**CHIRP Comment:** The reporter is correct that conducting a first night landing at a difficult/challenging airport would be an undesirable and worst-case scenario. Continuing to such a destination could happen if the incapacitation occurred when the aircraft was close by, but problems occurring en route would likely result in a
diversion to the nearest suitable airport. There is no regulation requiring a night landing during type rating training but trainees will have completed a night landing in the simulator. Prior to this they will have gained a CPL with Instrument and Night Ratings. Clearly it is desirable from the trainees’ and the Line Captains’ perspective for trainees to have completed a night landing on type during training but in practice this can be very difficult to manage.

ABSENCE OF MONTHLY FLIGHT SAFETY NEWSLETTER

Report Text: I fly for [ ] out of [ ]. Previously I operated for [ ] where, according to the standard practice that I have experienced throughout my aviation career of some 40 years, the Flight Safety Department produced a monthly newsletter listing the details of all significant Air Safety Reports (ASRs) from the previous month with relevant follow up actions taken, that was then circulated amongst all Flight Crew of the fleet in question. I have found this monthly digest of occurrences and incidents to be an invaluable resource of background information that greatly enhanced my general awareness of the operations that I was involved in and, to my mind, has been a crucial element of the Flight Safety Department’s role. Learning from colleagues’ misfortunes is not schadenfreude but rather a healthy respect for the fact that we are all fallible and that any highlighting of the many traps that lie in wait for us in this business is to be highly recommended. The salutary lessons learned from “I learnt about flying from that” type articles have stood me in good stead for many years.

So, I find it astonishing that my present company does not see the value in a dedicated, monthly flight safety newsletter and thereby loses out on the opportunity to feedback vital, ancillary knowledge of our operation. As a comparatively new operation with one of the most technically advanced aircraft types in service, an expanding route structure and an internationally diverse, young and relatively inexperienced work force the need for such a facility would appear indisputably obvious.

On being asked about the absence of a monthly flight safety newsletter our Director of Flight Safety explained that they did not wish to prejudice the anonymity of ASR reporters. Given the importance that I attach to this means of feedback I view this excuse to be less than credible.

CHIRP Comment: Sharing flight safety information is an essential element of any safety management system. The good news is that the operator already had plans to introduce a regular safety publication before being contacted by CHIRP. We have now seen a draft of the first edition which appears polished and informative.

MEDICAL INCAPACITATION

Report Text: Just after take-off on my first flight on this aircraft, as I was Zero Flight Time, qualified, I found it hard to focus on the Primary Flight Display and had tingling in my left hand. I started rubbing and shaking it gently. The Type Rated Examiner in the right seat questioned me, was everything ok. I responded yes, all good.

Approx. two months later, after coming back from [ ], I felt exceptionally tired and found I could not manage simple domestic tasks like wrapping my wife’s birthday presents. I reported to the local hospital. An MRI followed and showed I had had three moderate to major strokes. I believe the first one was on take-off on my first flight with a new company on a new type.

I had put the symptoms down to stress an early start and spending too much time over the previous months looking at computer screens whilst doing Computer Based Training.

The background was that the strokes were caused by artery damage from an RTA years previously; scar tissue was breaking free. This was not diagnosed at the time of the accident.

CHIRP Comment: We are indebted to this reporter for sharing his experience and condition. Strokes or transient ischemic attacks do occur in the pilot age population and their underlying causes are numerous and varied. Many of these can be detected and effectively managed. AMEs are trained to look for and seek management of these conditions and you are encouraged to seek the advice of your AME or doctor early if you are concerned.

LANGUAGE AND COMMUNICATION

Report Text: The rise and rise of ATC communicating and controlling aircraft in their own language. The French have always done it, in my thirty years plus essentially European airline flying and now of course other Southern European countries, Spain and Italy.

Now it seems to have spread to Northern Europe, namely Sweden and Poland. Not sure what the law is but certainly against protocol and a huge risk to safety.

CHIRP Comment: The law has not changed with regard to the use of language over the RT. Pilots and controllers may converse in their common native language but controllers must be able to respond in English if
addressed in English by pilots. Conversing in a foreign language when English-only speakers are on the frequency is bad practice as it denies SA to the English-only pilots. This constitutes a serious safety risk, particularly at airfields and in airfield traffic patterns where it has been identified as the cause of serious incidents, including a recent very near miss in Iceland.

NEW WORKING SHIFT PATTERN

Report Text: I wish to raise a concern about a proposed new shift pattern some of my colleagues are being forced onto at the expense of our job if we do not comply.

We are being asked to work a split shift pattern where we work around 2-3hrs during the day and complete a night shift between 8-12hrs depending on workload and defects on a 4-on-4-off basis. Also, one member of staff is being asked to cover any day shift holidays, extending his working day from 8-12 hrs with the possibility of working 16 12hr days consecutively.

We have been quoted this is within the working time directive, however it goes against all aspects of fatigue management and the likelihood of an incident happening at work or on the way to work is increased.

Any advice would be appreciated as I feel that this is an extreme measure just to save money and is putting engineers at risk.

CHIRP Comment: The new shift pattern was a proposal that concerned the workforce sufficiently for one of them to write to CHIRP. A second proposal was later made to the workforce that was more acceptable in comparison. CHIRP is unable to become involved in industrial relations issues. However, we did discuss the possible Human Factors related implications that some shift patterns can create. It is our understanding that the matter was settled amicably and CHIRP has been thanked for its advice.

ABUSE OF FTL REGULATIONS

Report Text: On taxi out at [], I misheard a similar company callsign clearance to move position 3 times in part due to a very similar callsign and in part due to tiredness prior to duty.

All times BST
0515 Wake up from place of rest 1:20 from [Operating Base]
0600 Home stby duty commences
1020 Called for [] flight, report 1355
1540 Airborne
0210 Land
0230 On stand 20:30 awake time
0300 Off duty 21:00 duty
0350 Arrive hotel
0520 Retire to bed

My company has always used the EASA FTLs as a target rather than a maximum and has sought to try and bend the rules to their suiting whenever possible. Even given the industrial protections that we have [examples provided] the sickness rates and long-term sickness rates have gone through the roof of the previous 5-10 years. The company refuse to acknowledge that this has anything to do with their rostering practices and cite the fact that they use Fatigue Management to justify everything. The company mantra is "it’s legal so it’s safe"

After my duty, I compared [Company name] FTL scheme to the EASA scheme and there are some carefully worded omissions and inclusions which allow a ridiculous duty length on callout from STBY.

The clause that allows this, which I am unable to find in any EASA source material is:
"A crew member should only be called out from standby to operate a flying duty that will result in an "awake" time of over 18 hours if the minimum in-flight rest is available"

Thereafter there is no further mention of any limits on awake time in the company FTL.

The EASA document I found on the internet ORO.FTL.225 24 Apr 2017

"AWAKE TIME
Scientific research shows that continuous awake time in excess of 18 hours can reduce alertness and should be avoided"

This line is omitted from the [Company] FTL.

I have very little faith in the company fatigue management and the company seem to have an assumption that ANY time spent in bed or in crew rest will be time spent asleep and seem to use this to justify some of the ridiculous duties that they concoct for their crews.
CHIRP Comment: There are frequently questions about the 18-hours awake rule and EASA publishes an answer on its website:

Questions: Who is responsible for making sure that the 18h are not exceeded? The crew member or the operator? Can the operator fully transfer the responsibility to the crew member?

The operator is only required to have established such procedures (control mechanisms) so as to prevent situations where the combination of standby and FDP would lead to more than 18 hours awake time.

| 18 hours awake time is mentioned in the context of the combination of other-standby prior to an FDP and the FDP itself. A simple mathematical equation between the sum of the standby time and FDP, on the one hand, and the time awake on the other, is not possible to do, because the start time of the awake period is an unknown value i.e. the operator may be unable to verify how long a crew member has been awake. |
| It is reasonable for the operator to expect crew members to manage their rest and sleep opportunities during pre-duty rest periods and while on standby in order to be able to perform FDP. |
| The procedure and expectation for the crew to rest appropriately during their standby should also be included when training crew on FTL and fatigue management. The following are examples of what an operator should consider when designing procedures: |
| • the duties and rest periods prior to the scheduled standby; |
| • the time of the day in which the rest period prior to the scheduled standby occurs; |
| • a minimum of 8 hours’ sleep opportunity before or within the scheduled standby, during which the crew member is not disturbed; |
| • the length of the standby and the subsequent FDP; |
| • the time for post flight duties and for travelling to the suitable accommodation if away from home base; |
| • provision of training and advice to crew members |

The sentence above, “It is reasonable for the operator to expect crew members to manage their rest and sleep opportunities during pre-duty rest periods and while on standby in order to be able to perform FDP”, means there would be no expectation from the Operator that the crew would always be awake at the start of a standby period. Which would make sense for a standby period that starts in the early hours of the morning.

Although the duty did not breach EASA FTL numerical limits, the report highlights the exceptionally long duties permitted under these regulations and the difficulty pilots face in managing their rest in anticipation of a call from standby. Operators that use the full FTL envelope on any particular duty must ensure that the days prior and following are rostered taking into account the marathon planned in the middle.

Possible Ice on Wing on Take-Off

Report Text: I am a [] Captain on the [aircraft type] and regularly fly into []. On this day I was a passenger on an [airline] flight [on the same aircraft type that I operate]. I boarded the aircraft and, although dark and the lighting was poor, I noted a discolouration all along the trailing edge of the left wing. On taking my seat I could see the right wing and in better light and it looked like ice or condensation again all along the trailing edge. The OAT was 1 deg C.

The cabin was filling up with passengers but the middle was clear with two cabin crew chatting so I approached in a friendly way as any passenger would and said, “I was wondering why the wing was that colour at the back?”. They looked through the window and said, “Oh yes, I don’t know.” After a pause I then asked, “Could it be ice?” To which the female cabin crew member said, “Well maybe, but I’m sure the Captain’s checked it and I’m sure it’s fine.” That wasn’t the response I was hoping for, so I said, “Do you mind checking with the Captain and letting me know what he says?”, I sensed she wasn’t very happy!

After boarding was complete the cabin crew member came back and said, “It’s been checked and it’s fine.” I looked out at the wing and replied in a surprised way “Really?” At that point, my friend next to me who was closer to the cabin crew member said quietly, “Just to let you know he is a [] Captain.” She replied “Oh!” turned around and walked straight back to the flight deck. A short while later the Captain did his welcome aboard PA and finished it by saying “To the passenger who asked about ice on the wings we’ve checked it and there isn’t any!”. Not how I would have handled it I thought but at least it was resolved. Maybe it was just condensation after all.

On disembarking at [] the Captain was at the flight deck door. The cabin crew singled me out and the Captain invited me into the flight deck. I was expecting a friendly handshake. Instead I was subjected to an encounter like a headmaster berating a pupil for daring to talk in class! Without me able to get a word in I was looking at a pointed finger whilst he ranted “Who do YOU think you are? Why were you demanding a second check?”. You could have knocked me down with a feather! I was literally stunned! In fact, I was concerned he had
actually flown an aircraft in that state of mind. After taking it on the chin a while, I put my hand in front of his pointing finger and said, "I think you're being very defensive." I then attempted to give my side of the story. Fortunately, the First Officer who had been quietly observing in his seat then suggested maybe there had been a miscommunication. A good call as that seemed to calm the Captain. The Captain was then quite clear; a tactile check had been carried out by the refueller with steps. With that I was informed by the ground crew that the passenger bus was outside and I had to go so I did.

I'm still not sure if the photos I have show ice on the wing. Did the flight crew even see the discolouration? I have the Captain's word that the wing was checked by the refueller. Did the refueller check the front AND rear edge? I don't know. But I do know that rather than experiencing an open safety culture what I experienced was very worrying. I thought to myself, next time a passenger raises a concern I'm not going anywhere until I've spoken to them personally.

**Operator's Comment:** The operator was very disappointed to learn of this alleged report. If accurate, the behaviour is concerning as the attitude of the Commander appears combative which is the opposite of what we would have expected. To a lesser extent, there are also learnings for the cabin crew community as this scenario gives the impression that the passenger comments were dismissed as it was assumed the Captain had checked. A reminder has been sent crews to highlight the risks of winter operations.

**CHIRP Comment:** Nothing further to add.