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**TRANSCRIPT OF PROCEEDINGS
TRANSCRIPT-IN-CONFIDENCE**

**INSPECTOR-GENERAL AUSTRALIAN DEFENCE FORCE
INQUIRY INTO THE CRASH OF A MRH-90 TAIPAN
HELICOPTER IN WATERS NEAR LINDEMAN ISLAND
ON 28 JULY 2023**

PUBLIC INQUIRY

**THE HONOURABLE M McMURDO AC
AVM G HARLAND AM CSC DSM**

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Counsel Assisting**

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LTCOL D HEALEY, representing BRIG J Fenwick
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MAJ M BARNES, representing D146 and LTCOL A Norton
LEUT R CLUTTERBUCK, representing D147
MR G O'MAHONEY, representing Airbus
MS K MUSGROVE, representing the Commonwealth**

1000, FRIDAY, 28 MARCH 2025

DAY 43

TRANSCRIPT VERIFICATION

**I hereby certify that the following transcript was made from the sound recording of the
above stated case and is true and accurate**

Signed	Date	(Chair)
Signed	Date	(Recorder)
Signed	Epiq Australia Pty Ltd	Date	17/04/25	(Transcription)

.MRH-90 Inquiry 28/03/25

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MS McMURDO: Yes, FLTTLT Rose?

FLTTLT ROSE: Good morning, Ms McMurdo and AVM Harland. I call
COL Martin Levey.

5

<COL MARTIN JOHN LEVEY, Affirmed

10 **<EXAMINATION-IN-CHIEF BY FLTTLT ROSE**

MS McMURDO: COL Levey, let me know if you need a break at any
time.

15

COL LEVEY: Thank you, ma'am.

MS McMURDO: Thank you. Yes, FLTTLT Rose?

20 FLTTLT ROSE: Can you please state your full name?

COL LEVEY: Martin John Levey.

FLTTLT ROSE: What is your rank?

25

COL LEVEY: Colonel.

FLTTLT ROSE: What unit or Command are you currently posted to?

30 COL LEVEY: I am with Headquarters Aviation Command.

FLTTLT ROSE: Can you confirm that you received the following
documents prior to your appearance today: a section 23 Notice?

35 COL LEVEY: Yes.

FLTTLT ROSE: An extract of the Inquiry's Directions?

COL LEVEY: Yes.

40

FLTTLT ROSE: A copy of my appointment as an Assistant IGADF?

COL LEVEY: Yes.

45 FLTTLT ROSE: Frequently Asked Questions Guide for Witnesses?

COL LEVEY: Yes.

FLTLT ROSE: And a Privacy Notice?

5 COL LEVEY: Yes.

FLTLT ROSE: Did you prepare a statement for this Inquiry?

10 COL LEVEY: I did.

FLTLT ROSE: I'll hand you a document. If you could look at the top document and confirm for me that that is your statement?

15 COL LEVEY: It is.

FLTLT ROSE: Is it dated 25 February 2025?

COL LEVEY: It is.

20 FLTLT ROSE: It's 17 pages?

COL LEVEY: It is.

25 FLTLT ROSE: With Annexures A through to H?

COL LEVEY: Yes.

FLTLT ROSE: I tender the statement and annexures.

30 MS McMURDO: Exhibit 185.

#EXHIBIT 185 - STATEMENT OF COL LEVEY WITH ANNEXURES

35

FLTLT ROSE: COL Levey, can I ask you to be cognisant of your security obligations today, so that if I or anyone else asks you a question the answer to which you think is at the "Official: Sensitive" level or above, to let us know and we won't explore that in a public hearing?

40

COL LEVEY: Thank you, yes.

45 FLTLT ROSE: I'll start with your background and qualifications, and this begins at paragraph 4 of your statement. Feel free if you want to separate the statement from the bundle, it might be easier.

COL LEVEY: Thank you.

5 FLTLT ROSE: It might also be easier if that's stapled. But you let me know if you're having trouble with the pages.

COL LEVEY: That's all right. Thank you.

10 FLTLT ROSE: You were appointed as a Psychology Officer to the Regular Army in 1989.

COL LEVEY: Correct.

15 FLTLT ROSE: You've served as a permanent member of the Army until February 2022.

COL LEVEY: Yes.

20 FLTLT ROSE: Within that 33-year period, you've had three Army Aviation postings?

COL LEVEY: Yes.

25 FLTLT ROSE: The last of which was as the SO1 Avn Psych at Aviation Branch of Headquarters Forces Command, which then became Headquarters Aviation Command, from 2014 to 2021.

COL LEVEY: Yes.

30 FLTLT ROSE: The vast majority of your service then has been associated with Army Aviation.

COL LEVEY: Yes.

35 FLTLT ROSE: In terms of your qualifications, you have a Bachelor of Science (Honours) in Psychology, a Master of Organisational Psychology, a Graduate Diploma in Human Factors and Safety Management System.

40 COL LEVEY: Yes.

FLTLT ROSE: You have attended a course on Advanced Accident Investigation at Cranfield University in the United Kingdom?

45 COL LEVEY: Yes.

FLTLT ROSE: Go to paragraph 10. You've been involved in the

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investigations into a number of ADF helicopter incidents as a Human Factors member of the Accident Investigation Team.

COL LEVEY: Yes. Or a Board of Inquiry.

5

FLTLT ROSE: So I'll start with the Human Factors member of the teams first. So that included the 1996 Black Hawk incident in Townsville?

COL LEVEY: Yes.

10

FLTLT ROSE: The 2011 Chinook accident in Afghanistan?

COL LEVEY: Yes.

15 FLTLT ROSE: The 2020 Orroral Valley fire in the ACT?

COL LEVEY: Yes.

20 FLTLT ROSE: Just for clarification, is that when the heat from a search light on an MRH-90 caused a fire to start in the ACT?

COL LEVEY: It is, yes.

25 FLTLT ROSE: That led to a Coronial Inquiry?

COL LEVEY: Yes.

FLTLT ROSE: You've also advised or been part of the team investigating the 2021 Black Hawk rotor strike in Sydney Harbour.

30

COL LEVEY: Yes.

35 FLTLT ROSE: Then, as you mentioned before, you were also the Human Factors member on the Board of Inquiry into the Navy Sea King accident in 2005?

COL LEVEY: Yes.

40 FLTLT ROSE: Paragraph 8, in July 2023 you posted to Headquarters Aviation Command as the – and I'll read this title, it's quite a long one – Command Adviser Human Dimension and Organisational Performance.

COL LEVEY: Yes.

45 FLTLT ROSE: Your direct supervisor is the Commander of Aviation Command.

COL LEVEY: Yes.

5 FLTLT ROSE: Currently that's MAJGEN David Hafner.

COL LEVEY: It is.

10 FLTLT ROSE: But you also served in this position under MAJGEN Stephen Jobson.

COL LEVEY: Yes.

15 FLTLT ROSE: In fact, it was MAJGEN Jobson that appointed you to this position.

COL LEVEY: It is, yes.

FLTLT ROSE: You're now in the Reserves, I understand.

20 COL LEVEY: Yes, that's right.

FLTLT ROSE: The acronym for your role is CAHDOP? Do you use that term?

25 COL LEVEY: I prefer CAHDOP.

FLTLT ROSE: CAHDOP?

30 COL LEVEY: It's a difficult one, yes.

FLTLT ROSE: I might, for ease of listening to that, just refer to you as the Command Adviser.

35 COL LEVEY: That'd be fine. Thanks.

MS McMURDO: Or even your current role, perhaps?

40 FLTLT ROSE: Back to paragraph 8. In terms of what this role requires, you provide advice to Commander Aviation Command on issues impacting personnel, which includes advising on organisational structure and performance, human factors and organisational foundations such as selection, training, command and leadership.

45 COL LEVEY: That's true. So it's a new position, so I think we're continuing to feel our way in regard to that.

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FLTLT ROSE: Even today, you're still working out your duty statement?

5 COL LEVEY: No, I've got some clear direction from MAJGEN Hafner on what he'd like me to focus on. They include management of change, getting more clarity and definition around capacity versus demand issues. That sort of thing. So a couple of priorities for this year.

10 FLTLT ROSE: They were different from your previous priorities?

COL LEVEY: No. I think generally I was there to provide support to the Commander as he needed it, in terms of just bringing a different organisational perspective to some of the issues that he faced as Commander of a busy Command.

15 FLTLT ROSE: In terms of the capacity within your own position, you have no staff; is that correct?

20 COL LEVEY: That's right.

FLTLT ROSE: It's a part-time role?

COL LEVEY: Yes.

25 FLTLT ROSE: Paragraph 13, you list various ways that Commanders and aircrew can express concerns about fatigue and workload.

COL LEVEY: Yes.

30 FLTLT ROSE: Is that because fatigue and workload are one of your previous priorities that you were looking into or advising upon?

COL LEVEY: Constantly. Fatigue and workload have been issues that have had my attention all through my time in Army Aviation.

35 FLTLT ROSE: It continues to today?

COL LEVEY: Of course, yes.

40 FLTLT ROSE: So you refer to Snapshot surveys. The Inquiry has heard evidence about these and how they work in Aviation. So that aircrew, maintainers and Air Traffic Controllers are asked to complete a voluntary anonymous survey each year about issues, including their own personal fatigue levels, but also the management of fatigue-related hazards in their units. And they're asked to reflect on how scheduling is also managed.

45

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COL LEVEY: Yes. I'd just extend that to it's all personnel, not just those three work domains. It's all personnel in a unit.

FLTLT ROSE: Within an Army Aviation unit?

5

COL LEVEY: An Army Aviation unit, yes.

FLTLT ROSE: I understand that results of these surveys are useful because you can compare fatigue levels in one unit against the results at another unit?

10

COL LEVEY: Yes.

FLTLT ROSE: You can also compare fatigue levels over time?

15

COL LEVEY: Yes.

FLTLT ROSE: Do you access the results of these surveys in your position?

20

COL LEVEY: I think prior to 2019 we were sent the reports from the Defence Flight Safety Bureau directly. There was a change in policy, I think about 2019, where – so as the Psych Team, we got them first and we were able to look at them and understand them at about the same time the Commanding Officers got those reports. Then we could work with the Commanding Officers because we already had a good picture and awareness of what was going on.

25

About 2019 that policy changed. So we didn't receive them directly, so they went to Commanding Officers directly. We didn't necessarily get to see all of the reports at that time.

30

FLTLT ROSE: So it was dependent on whether the CO or the Commanding Officer wished to provide you with the full set of results?

35

COL LEVEY: Well, to combat that or to manage that, I drafted and was approved a Directive, Military Air Operator Directive 3 of 19, which was the management of Snapshot survey. So the idea was that we started to put some parameters around requirements for analysis at unit level and then up into the Headquarters eventually, so that there was an assurance program that the results were being looked at and being treated and analysed as best as possible.

40

FLTLT ROSE: As far as you're aware, is that MAO Directive 3 of 19 still in force?

45

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COL LEVEY: I think it's been moved into SIs.

FLTLT ROSE: So now it's the – who is it that's to provide you and your team of Psych Officers with that information now?

5

COL LEVEY: So normally the unit would provide an analysis to the Brigade Commander, as I understand it – certainly at 3/19 this was the thing; I think it still is – to the Brigade Commander. The Brigade Commander would then conduct their own review of the units and then
10 provide an assurance to the Commander, through the Director of Operational Airworthiness, that the risks were being looked at and were being treated. Any risks that weren't able to be treated had to be discussed with the Commander.

15 FLTLT ROSE: In your position, what would you prefer? Would you prefer the old system whereby you and your fellow colleagues were given the information at the same time as Commanders, to have that insight, or do you prefer the system as it is now?

20 COL LEVEY: I'd much prefer to have the information at the time the COs were getting it. That allowed us to start a discussion around the results and to provide that additional support to COs. That support still existed, but there's just another barrier in between the psych team seeing the results and providing that assistance.

25

FLTLT ROSE: Is that something that you can do in your current position, is to advise MAJGEN Hafner that that is what you think should happen, that the psych should also get the results of the Snapshots at the same time as Commanders?

30

COL LEVEY: Yes. Unfortunately, though, given the ethical parameters around the administration of the survey, I think DFSB's hands are a little tied in terms of the actual client for the survey is the Commanding Officer, and that's the relationship they have. So they tightened that up around
35 2019. So I'm not sure that, given the ethical requirements, that that's able to be done.

FLTLT ROSE: Or it could be that it still goes to the Commanders, but then there's a direction that immediately, within the next day, 24 hours, it's
40 also sent to Psych Officers. Would that solve the problem?

COL LEVEY: It might. My sense was that the directive would get it to us eventually anyway and that we would be able to have a look at it. So if it came into the Directorate of Operational Airworthiness, we were then
45 meant to be able to provide a perspective on the outcome of the Brigade's assessment of Snapshot for that year.

FLTLT ROSE: The Inquiry has heard some evidence that usually these surveys are sent out around May every year and then there's a period of time – I'm not sure when the results are produced. Do you recall? Is it
5 around June?

COL LEVEY: Yes, I think it's around June or July.

FLTLT ROSE: So in your experience, in the last couple of years, or at
10 least since 2019, how quickly are you getting the results delivered to you?

COL LEVEY: So I really haven't seen any for the last couple of years, being a Reserve Officer. So I'm not sure of what the timings have been like in the last couple of years. But it's not unreasonable, given the size of
15 the survey and the complexity of the survey, that it would take a couple of months to get results.

FLTLT ROSE: So it would be a couple of months after the results are available for then it to filter down to the Psych Team?
20

COL LEVEY: Sorry. Look, I think the 3 of 19 Directive, it was going to be about 60 days before it made its way into the Headquarters of Aviation Command, or Forces Commander Aviation Branch at the time. That gives the units time to reflect and review. So the idea is that it's a decision
25 support tool for Commanders, not necessarily an auditing tool. So it's really for Commanders to take the results, understand their own context, and to develop solutions that might address the results being seen in Snapshot. Then to have the discussion with the Brigade Commander so that that Brigade Commander is then assured that their CO is looking at the
30 results and had a think about how they might address some of those issues and to talk about the residual risks.

Really, at the Headquarters level, it was about an assurance that the Brigade – and at that time the Aviation Training Centre was separate – that
35 the Brigade primarily were looking at the results and thinking about what the results were telling them in terms of risk relating to those human factors in Snapshot.

FLTLT ROSE: I know now that you're advising on Human Dimension and Organisational Performance to Commander Aviation Command. Do
40 you think that you should also still be viewing these survey results? Would that be helpful for you in your current role?

COL LEVEY: Look, I think – so in the next couple of weeks I am
45 providing some mentoring to the new SO1 Aviation Psychology and the SO2 Aviation Psychology on how to interpret Snapshot results by looking

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at last year's results. Primarily I would see the SO1 Aviation Psychology performing that role as a full-time officer, with some oversight from me. So that's what I'm doing at the moment, is ensuring that they are skilled enough to be able to provide that support to Commanding Officers.

5

FLTLT ROSE: Just so we understand, the SO1 Aviation Psychology Officer, where does he or she sit within the structure of Aviation Command? Headquarters? Brigade?

10 COL LEVEY: Headquarters, in the Directorate of Operational Airworthiness.

FLTLT ROSE: And gives advice directly to the Director of Operational Airworthiness?

15

COL LEVEY: Yes.

FLTLT ROSE: So not to the Commander Aviation?

20 COL LEVEY: That position has access to the Commander. I'm not certain of that. But it certainly was the case that the SO1 Aviation Psychology had access to the Commander as required.

25 FLTLT ROSE: Where does the SO2 Aviation Psychology Officer report to?

COL LEVEY: To the SO1 Aviation Psychology.

30 FLTLT ROSE: Also within the Directorate of Operational Airworthiness?

COL LEVEY: Yes, in Headquarters Aviation Command.

35 MS McMURDO: So just to clarify, if the Snapshot surveys go to Command. Command, you say, has to assess them and think about them for 60 days or so before then going down to the Brigade with their feelings about the results. At that point, it's surely important to get input from the psychologist on human factors. So does that automatically happen or does it just depend on the Commanding Officer at the time?

40

COL LEVEY: So the idea of the Snapshot is really to be a standalone report for the Commanding Officer. There's a lot of supporting material for the Commanding Officer in terms of how to interpret the results. So the DFSB has done a really good job over the years in refining that and providing that documentation to assist Commanders.

45

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Many other units in the Defence Force probably wouldn't have access to psychologists as Army Aviation does. So we're happy to allow Commanding Officers to draw their own conclusions at that time. We'll get to see what conclusions they're drawing a little later, but we are always open to consult in terms of assisting the Commander.

MS McMURDO: So what I'm really asking you though is, would it not be better to have that input before the Commanding Officers make their decision so that they can make a fully informed decision with your input?

COL LEVEY: So perhaps, yes, but the idea of it being a standalone document is that most Commanders that don't have access to psychs can come to that conclusion and fully form a decision themselves normally anyway, because the Snapshot is structured and supported in a way that allows them to do that. We offer an additional support service if they need that. And over the years, ma'am, we've had a couple of Commanding Officers say, "I'd like you to come and brief me on my results".

MS McMURDO: It just seems to me that it would be a more informed decision if they had had that input at an early stage.

COL LEVEY: Yes, I accept that.

MS McMURDO: So the MAO Directive 3 of 19, was that – you might not be able to tell me this, but do you know if that was still in place at the time of the accident? You said it's since been moved into Standing Instructions.

COL LEVEY: I'm not entirely clear, so I'm not sure when that transition into SIs happened.

MS McMURDO: I'm sure we can find that. Thank you. I thought you might know.

COL LEVEY: Thank you, ma'am.

MS McMURDO: Yes, FLTLT Rose.

FLTLT ROSE: You also refer to confidential reports, or CONFIRs, in your statement at paragraph 14.

COL LEVEY: Yes.

FLTLT ROSE: You say they're rarely used, but can be useful for raising a critical issue outside the Chain of Command.

COL LEVEY: Yes.

FLTLT ROSE: What does the fact that they're rarely used suggest to you about their effectiveness?

5

COL LEVEY: I don't really make any inference about its effectiveness. I make an inference perhaps about the need to use it. So, really, it's an opportunity for people to go around the command chain. So you might draw an inference that the command chain is working well because we're having conversations. I personally have only seen two, I think, in my lifetime. Of course, because of the confidential nature of them, there may have been more, but I just haven't been aware of them. So you might draw an inference that the command chain is actually working well enough that people are compelled to use a CONFIR.

10

FLTLT ROSE: But you still think that there's merit in keeping that structure available to members?

COL LEVEY: Absolutely. Yes.

20

FLTLT ROSE: You also refer to the Fatigue Risk Awareness Tool, or the FRAT, in your statement.

COL LEVEY: Yes.

25

FLTLT ROSE: The Inquiry has heard a lot of evidence about the Fatigue Risk Awareness Tool being a tool that was first published in the DFSB's Aviation Fatigue Management Guidebook in 2021. Does that accord with your memory?

30

COL LEVEY: Yes.

FLTLT ROSE: I'll ask the witness be shown Exhibit 39, so that you don't have to remember. This is version 1 of the guidebook. We understand now there is a version 2. Have you read version 2 or seen version 2?

35

COL LEVEY: I haven't, no.

FLTLT ROSE: Were you familiar with this version 1 when it came out?

40

COL LEVEY: Yes.

FLTLT ROSE: So if you can turn to pages 35 and 36? This is the Fatigue Risk Awareness Tool.

45

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COL LEVEY: Yes.

FLTLT ROSE: On page 11, in paragraph (c) of your statement – so keep them both open – and if you can go to page 11 of your statement.

5

COL LEVEY: Paragraph 11 of my statement?

FLTLT ROSE: Perhaps I've made a mistake then. No, it's page 11. I'm jumping around here. So you'll see that the top of that page 11 there's subparagraph (c).

10

COL LEVEY: Yes.

FLTLT ROSE: You state that you first started training members on the guidebook – that's in front of you – and the Fatigue Risk Awareness Tool in 2021 when you taught on the Regimental Officers' Intermediate Course.

15

COL LEVEY: Yes.

FLTLT ROSE: This was a training course, wasn't it, for persons who'd just been promoted into a command position within a unit or about to be promoted onto a command position?

20

COL LEVEY: Yes.

25

FLTLT ROSE: Is it your understanding that the FRAT – sorry, I'll take you back to 2021 when you started training on it. What was the purpose of training them on it? Was it the intention that they were to use the FRAT?

COL LEVEY: So we'll probably talk about this later, but my intention was to make them aware that it was a tool available for them to help assess risk, fatigue risk.

30

FLTLT ROSE: So my understanding is that the people that were going on the ROIC were about to be Troop Commanders, OCs or Executive Officers?

35

COL LEVEY: I think Troop Commanders for the ROIC, yes.

FLTLT ROSE: So that's the level within the Squadron that you were teaching or informing them about the availability of the FRAT. Were you aware if persons in higher positions than that within the unit, such as the OC or the CO, were also being trained on the use of the FRAT?

40

COL LEVEY: So I think in other forums, like the AASPC, I was also talking and raising awareness about the FRAT.

45

FLTLT ROSE: What's the AASPC?

COL LEVEY: The Army Aviation Safety Program Conference. So
5 that's held normally twice a year. I was raising the Fatigue Management
Guide and the FRAT in that forum as well. That would be attended by
Commanding Officers.

FLTLT ROSE: All the way up to Headquarters Aviation Command
10 level?

COL LEVEY: It's hosted by Director of Operational Airworthiness and
the Continuing Airworthiness Manager Officer, the CAMO.

FLTLT ROSE: So you are saying it's an available tool. You encouraged
15 people to use it, I take it?

COL LEVEY: Yes, of course.

FLTLT ROSE: Did you encourage them to use it before every flight?

COL LEVEY: Look, I'm not sure I was that specific about it. So we
were talking – so part of the ROIC, we also talked about the SAFTE-FAST
25 and the DFSB Fatigue Management Chart, so becoming aware of the
FRAT and its availability. This is one of my mechanisms, to make people
aware that this is another tool available for you to manage risk.

FLTLT ROSE: The Inquiry has heard some evidence that it wasn't
mandated within Army Aviation to utilise the FRAT until after the incident
30 on 28 July 2023. Do you recall that?

COL LEVEY: Yes, I think that's accurate.

FLTLT ROSE: Were you advising the Commander Aviation Command
35 in any way so that it would become a mandatory tool?

COL LEVEY: So I was trying to achieve compliance with the safety
regulation in a different way. I was trying to actually introduce a software
support system that would include the FRAT as a mechanism for entry into
40 the workplace. And the other parts of my statement speak to that. We can
do that now, if you'd like.

FLTLT ROSE: I'll turn to that in a moment. I would like to complete the
issue of the FRAT, because you state at paragraph 14 that:

45

The FRAT is not an objective measure and it's therefore

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vulnerable to producing results that meet other goals, such as joining the team to meet mission outcomes.

COL LEVEY: Yes.

5

FLTLT ROSE: What do you mean by that?

COL LEVEY: So as it's an objective measure – sorry, a subjective measure, it has the capacity and, in my experience through safety management systems and compliance behaviour, both within Defence and since as a contractor, when people understand that there might be ramifications or consequences for scoring these sorts of things in a particular way, they simply, to use a phrase, can game the system. I'm not inferring that anybody has. But that's available to them, because it's subjective.

10
15

FLTLT ROSE: So the idea is that people will perhaps not be truthful in their responses because they know that that might put them in an amber or a red category within the risk tool which would in some way potentially mean the flight couldn't go ahead, which might influence other people's abilities to achieve their training outcomes?

20

COL LEVEY: Yes. I'm hoping we get to speak about the strong cultural influences around mission accomplishment, particularly in Army Aviation units. But, yes, that's available.

25

FLTLT ROSE: I'd invite you now to speak about those issues, about the strong culture of mission accomplishment.

30

COL LEVEY: So during my ROIC presentation – there are some slides in the annex, but I don't need to go there now – but we talk about what contributes to violation behaviour. So those officers are exposed to what generates violation behaviour, not just in Military units but in general. It's work done by Professor Gerard Fogarty, who is an Army Reserve Psychology Officer. And, really, one of the strongest contributors to that is the norm of the group, "The way we do things around here", rather than an intention to violate. So there are very strong cultural signals all around us, in the Military in particular, about mission imperative.

35

The counter-narrative, or the balancing narrative, is that's got to be done in balance. So I remember after the Black Hawk 221 accident in 2006, Sir Angus Houston at the time was debriefing that publicly. He said, "A can-do attitude is an important part" – and I agree with him here – "is an important part of a Military context." But he implored that "we can-do safely". So it's that "safely" part that is the bit that Commanders are constantly balancing.

40
45

So there are very strong cultural indicators to get mission done, particularly when you're on an exercise, particularly when you're working with Special Forces, and particularly when there are high public and
5 Military expectations that, you know, the Military will often go to places where others won't go. It's kind of part of the way things are done.

FLTLT ROSE: You referred before to a body of work that had been conducted by the Army Reserve Psychologist, a colleague. Has there been
10 any research into this can-do/must-do attitude in relation to Special Forces?

COL LEVEY: I'm not aware of any. But there's plenty of safety literature around on compliance behaviour.

15 FLTLT ROSE: As a general proposition?

COL LEVEY: Yes, of course. And why it's very difficult to be compliant with a rule set in an environment where there are strong
20 indicators from your peers that, "We're going to do something else". So I've been involved in a lot of investigations over the years and we often find non-compliant behaviour as a way of doing business. So this kind of idea of work as imagined versus work as actually done.

25 It's kind of built into us as a species, to be honest. There'd be few people in this room that haven't knowingly sped their car in the last, I don't know, six weeks. So violating the road rules, for some outcome. Looking down at the speedo and seeing they're doing 64 in a 60 zone. It's actually part of the way that we're wired, is to lean forward and to keep moving forward.
30 And in a Military sense, that's very much part of the culture. Because we're often asked to go to places that no one else will go.

FLTLT ROSE: Can I ask you to apply that thinking to this scenario? So the Inquiry has heard evidence that the way that the FRAT is being used
35 now within Aviation units, it's actually being used, from what we understand, in slightly different ways. So we heard in one Squadron that they're completing the FRAT on paper, individually. Then they show those results to the Authorisation Officer or whoever's in charge that day of the flight. Then, that paper-based forms are scanned and put into
40 Objective, into a folder that no one ever looks at again. That's one way they're doing it.

We've heard, in another Squadron, they've actually introduced something called the FACES check. So not just Fatigue, Attitude, Complacency,
45 External factors; they've added an "S" on the end of it for "Stress". And instead of coming out with green, amber, red, they've actually put a value

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from 0-5, where are you on the scale, based on this FACES check, and then that information, if they're flying in formation, is put on a FRAB, a Fatigue Risk Awareness Board, which is just a whiteboard within the Squadron, so that their scores are visible to every person who's in the formation.

Reflecting on those two different ways of using the tool, have you got thoughts in terms of violations and the way that humans are wired, which should be the most effective way to use that tool?

COL LEVEY: Look, so again, perhaps we'll get later to the evidence, but what I was trying to do was provide or generate and introduce a software-generated system that would do much of that. Not only give a FRAT-style kind of entry point, but also looking at, you know, in particular, prior sleep/wake modelling.

FLTLT ROSE: Sorry, say that again?

COL LEVEY: Prior sleep and wake modelling, so that's – part of the FRAT is prior sleep/wake modelling.

FLTLT ROSE: Is that that you would track somebody's sleep patterns over time, not just the last 48/24 hours?

COL LEVEY: No. So it's normally, yes, 24/48. So depending on where you're looking in the literature, there's a 5/12 rule, or a 6/14 rule. I think 5/12 is pretty close to the mark, to be - - -

FLTLT ROSE: Five hours of?

COL LEVEY: Sleep in the last 24. Yes, I find that a – I would be uncomfortable with that number. 6/14 is much better. And so to go back to your two ways of doing business here, the first thing that strikes me is I'd much prefer a much more standardised way of doing things so that we know how it's happening across the capability, and the Commander can be assured that it's happening in a particular way. I might – you know, without doing a deeper analysis – but I might have concerns about putting people's stress scores on a whiteboard because that may compromise what people want to actually talk about, if it becomes public knowledge. I'd love an environment where that could actually happen, and we're constantly trying to create that trust, but I also understand humans, and that may not always be the way that people want to operate.

But the other thing I think that we often miss is that a lot of Defence personnel do work outside of hours, and so part of this want to try and introduce a software-supported system is to try and capture those

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out-of-hours work, because a lot of, particularly middle and high ranking personnel – so I’m talking in the officer stream, Senior Captain, Major and above; and in the soldier stream, probably Senior Sergeant, Warrant Officers – are working a lot after hours on DREAMS and remote access, and so I’m still very keen to try and capture that data as well.

FLTLT ROSE: We’ll come to the issues you had implementing or finding the right software to develop those needs, but is your ideal that it would be some sort of software, like an app on someone’s phone that’s easily accessible, whether or not you’re on the system, and that they could fill in their sleep within the last 24 hours, plus quality of sleep and work hours? Is that the idea?

COL LEVEY: So the ideal is that. That’s particularly difficult to achieve, I’ve found, since early kind of exploration of that idea. A more convenient solution was something like the Air Maestro system that Toll Helicopters use. At least it’s a start point.

For me, an app would be much more useful because I’d like to – when people take a phone call, or they decide they’re going to go onto the remote access system for a couple of hours, that they can just simply record that through their phone, and then we’re capturing that data, and aggregating it so that we can see what data that’s presenting to us.

One of the aims, I think, of the Fatigue Management Regulation was to generate data capture, and so what I wanted to do, through going through this process, was not to create more administrative burden on already stressed units. So a couple of those – you know, those two methods of dealing with the FRAT, I think, are useful, and I think the FRAT is a very useful inclusion in that process, but it adds an additional administrative burden on units that are already struggling, to be honest.

And so that’s why I was, and I still am, looking for a system that would support Commanders, not take more energy away from them.

FLTLT ROSE: Just to get the timeline right, we know that the DFSB issued this guidebook in 2021, April, with the FRAT included. It wasn’t until sometime in the latter half of 2023 there was a Special Flying Instruction that required – the Fatigue Management SFI required the mandatory use of the FRAT tool.

COL LEVEY: Yes.

FLTLT ROSE: Are you aware of any training that accompanied that SFI throughout all of the Aviation units so that they could learn how to apply this effectively?

COL LEVEY: I'm not aware of any training.

5 FLTLT ROSE: If you turn to – I think it's on page 36 or 37, and you might have it open in front of you?

COL LEVEY: Yes.

10 FLTLT ROSE: There are elements within this – it shows which box you're in: green, amber, red. It talks about things like strategic use of caffeine.

COL LEVEY: Yes.

15 FLTLT ROSE: And it talks about other things you could do to manage your fatigue to get you back into the green.

COL LEVEY: Yes.

20 FLTLT ROSE: Are you aware if there's been any training on those specific mechanisms or options?

COL LEVEY: Short answer is yes. So I'm reflecting on where things were at the time of the accident in terms of my own thinking. Command intent, was there a Command intent to manage fatigue? Was that clear to people? I think it was. Was there policy around fatigue management in place at the time? There was. Were there expectations that it would be managed at the tactical level through SIs? That policy was there, and I talk about that in my statement. I'm sure you've heard much of it before. Was there training available? And so there was certainly training available. Every aircrew member has training in non-technical skills, and fatigue management is one of those elements, one of the elements of the non-technical skills foundation training and recurrency.

35 I think there's a two-year currency requirement in non-technical skills. We had the ROIC that we've already discussed in part, and my understanding is that the Aviation Medicine continuation training has a currency requirement as well. It also includes about 30 or 35 minutes on fatigue management.

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So I think yes is the short answer. There has always been training for all aircrew in fatigue management.

45 FLTLT ROSE: I asked you specifically because that Fatigue Risk Awareness Tool does refer to the strategic use of caffeine. It also refers to napping, being able to have a nap during the day, to bring you back into

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the green. We've asked the various aviators, or aircrew, that have appeared before the Inquiry whether they understand what the "strategic use of caffeine" means, and almost exclusively they've all said, "More coffee, to drink more coffee". And then, of course, we've had experts give evidence to the Inquiry to say, "No, that's not strategic use of caffeine. In fact, it's not drinking caffeine until you need it; 40 minutes before you need it". So it's actually restricting use so that when you do have your cup of coffee or you chew caffeine gum, it becomes the most effective 40 minutes later.

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COL LEVEY: Yes.

FLTLT ROSE: And it seems to be that hasn't translated down to the unit level. Would that surprise you?

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COL LEVEY: No, it doesn't surprise me. So it might depend on how detailed those courses go into in terms of the strategic use of caffeine. I would have thought that would sit more in the Aviation Medicine side of things, and I'd have to look at what it is they do in that training, but I am reasonably confident they talk about caffeine use as a mechanism.

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FLTLT ROSE: In terms of napping, we've asked various aviators whether there is a place where they could sleep or have a nap on duty that's not necessarily all the way at the barracks but actually within their Squadron, and there doesn't seem to be any available space for them to have a proper nap with a blacked-out room, and a door that can lock.

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COL LEVEY: Yes.

FLTLT ROSE: And, in fact, they've all expressed that that would be considered unprofessional, if anyone was to have a nap at work, even in an Aviation unit. Does that surprise you?

30

COL LEVEY: It certainly does, and it comes back to that culture discussion we were having before. And I suppose I've spent much of my career trying to push against that to, you know, open the narrative around what that might look like in terms of professionalism. My view is, and I'm certainly on record saying, that taking naps is actually part of the professionalism that we'd like to see.

35

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But we come back to then the sub-unit culture, and it's not limited to Army Aviation. It's not limited to the Military. I see it in my consulting as well, that if someone's going off for a sleep, that the other humans in the system will make some sort of judgment about that.

45

So there are barriers to doing that, including the physical ones of not having a place to go. But it's something that I've been trying to do for years, is increase the professionalism.

- 5 I think the DFSB Guides are excellent in helping support those notions, that they're acceptable notions, so much so that we publish them as mechanisms to perhaps assist you. But we come back to that very strong cultural environment of what humans will do in a system, and how they're influenced by the climate and culture around them.

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- FLTLT ROSE: We've heard some evidence from pilots who have now transitioned out of permanent Army and are flying for various civilian helicopter organisations. I won't name them. They said that they're highly encouraged to sleep on duty, if they're on call, and they have proper rooms where they can shut the door, a room to themselves, with bathroom facilities, so that they – and they have a similar tool to the FRAT, but they very much have to fill it out every time, and share the results, and it's tracked over time.

- 15 20 So it seems that in some civilian organisations that napping is professionalised. Are you aware of circumstances like that?

- COL LEVEY: Of course. I work with some of those organisations, and so – but context is everything in terms of risk management. It's the first consideration. So I use the phrase, you know, they are on standby and on call, and they usually don't have other duties, and other things they need to be doing. We come into the tempo of Military units, the necessity of people having more than one role, and other duties to perform. I suspect even if those rooms were there – and there's something telling me that we tried this once or twice, but they just won't get used because the opportunity for them to be used is usually compromised because there's always something else to do.

- 25 30 35 An emergency services pilot who is waiting for a phone call, they are expected to sleep, or to rest, whilst doing that. They have a greater opportunity because they have pretty much a single role.

- FLTLT ROSE: I might just pick up on what you just said there. You referred to the secondary duties, and we've heard a lot of evidence about secondary duties that aircrew within 6 Aviation Regiment have, from aircrewman to pilots, and even in Regimental Headquarters. What is your view, and the work that you've done in your career, about managing those secondary duties and expectations where the work is essentially never done, and there is a tension between whether someone is a pilot first, or an officer first, or how to balance those expectations?

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COL LEVEY: I think it's almost impossible because – and I've often had these conversations. Often, to be fair, in the MRH-90 sense, it has been around maintenance crews because that's where a lot of the stress of the MRH-90 system was playing out, was on maintenance crews. And so there's been a lot of work over the years about how much time a maintainer has to actually do maintenance on a Military aircraft in addition to their other soldier duties.

And so if we assume that we have 100 per cent of a soldier or an officer, we say, "Well, how much percentage of that person will be their primary role of Army helicopter pilot, and how much will be the percentage left over for the other things?" And it's a constant battle. So you're always going to get – you won't get 100 per cent of either, and it's very challenging for the individuals, and it's very challenging for Command as well.

FLTLT ROSE: Have you noticed a change in that now that officers are General Service Officers as opposed to Specialist Service Officers, because you would have been in the Army and seen that transition occur?

COL LEVEY: Yes, sure. I haven't observed a change. I am concerned that I think at the time when we were shelving the SSO Scheme, the Specialist Service Officer Scheme, I spoke to the officer who was running that project, and asked them just to put it to one side because there was a reason it existed, and we may see that again. But again, it came back to a difficult conversation around I have two types of Army pilot here. One is a General Service Officer, who has had deeper Military and combat-related training, and a Specialist Service Officer on the other hand, and they are not necessarily the same product. And so that was providing some difficulty at times in terms of combat effectiveness, is my understanding.

I think that there is scope to look at deep specialisations of crews into those very essential roles around Flying Instructors and Standards Officers, and others, and I think we have been – with the SSO Scheme, we were very successful with most of those SSOs, some of them going on to command the 6th Aviation Regiment and beyond. So my view is in a world where we talk about diverse workforce, we were homogenising ours, and I wasn't particularly comfortable with that.

FLTLT ROSE: If you were to see something like an SSO stream re-introduced, is it the idea that if you are working in Aviation, it is that you become a specialist in that role – whether it's the pilot, the aircrewman, the maintainer – you become a specialist in that role and you're allowed to focus on that role above all other duties?

COL LEVEY: Look, I would much prefer to do more analysis than

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answer that right here. I think it's worth looking at again because I think workforce is really important. The other thing I think we did at about the same time was we stopped the Aviation – the promotion of senior soldiers as Aviation Officers, so promoting them to officer, to provide support roles around the place. So the only way, I think, at the time you could be an Aviation Corps Officer was to be a pilot, and again, in a world that I thought where we – a diverse workforce offers more resilience, we went another way. And I think that GEN Jobson was opening the conversation about that again, as well as SSO, which I think is a very positive thing.

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FLTLT ROSE: So it's still an open conversation? Nothing has been decided?

COL LEVEY: I don't know. I haven't been close to it, so they may be much further down the track than I realise.

15

AVM HARLAND: Could I just ask a question on that? If we were to kind of talk about the cultures, and you've covered that a little bit in your previous conversation, if we were to consider we had broadly a culture which was the GSO Army culture, and then the aircrew Aviation safety culture in Army, and they kind of come together in the unit, which would you say was the primary culture – which was the more predominant culture?

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COL LEVEY: Well, to be fair, sir, I think there are a bunch of assumptions around what those cultures are and how they might interact, and so I'm really not in a position to say that one would be dominant over the other. I know that in Army Aviation we are constantly having conversations around safety and airworthiness. I personally have been involved in much of those things. My review of the MRH-90 system, that I won't go into much detail here, but it talks about all of the attempts to balance the capability issues against the safety and airworthiness issues, which was a very, very difficult problem, not just for Army Aviation, but for the Defence Aviation Safety Authority and the Defence Airworthiness Authority as well, I think. So I'm not sure that I would see that one would be dominant over the other.

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I think that our Commanders understand that the ability to operate safely, sustain our people, and to be effective, are the kind of – this was certainly the mantra of GEN Jobson, "Safe, sustainable, and effective". And I think I was never concerned that our Commanders didn't share that view.

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It's a balancing act, and sometimes when we're close to margins around capability, we can get that wrong, but we have been usually pretty good at correcting ourselves, and trying to bring it back where we can, but there are enormous capability pressures on Army Aviation. We're still seeing

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them now. Introduction into service of new helicopter types at the same time as geographically moving units, at a time of accelerated expectation.

5 AVM HARLAND: Yes, I mean in all reality, the introduction of new platforms is actually just part of the cycle of life in Military. So a question I have in my mind is why is that a stressor, because it's actually – it is completely predictable?

10 COL LEVEY: Well, this probably goes into my MRH-90 paper where I talk about that in some depth. I'd argue that it's not completely predictable, and in fact the MRH-90 system kept offering surprises not only to Army Aviation, but to CASG and the Introduction to Service and Sustainment Programs, because of its inability to be sustained. And so
15 when you're relying on that capability to generate other parts of your system, so the inter-connectedness of the operating system with the training system, the command system, the personnel system, the recruiting systems, then changes to that part of the system will have effects in other parts, and I think we're probably – we're seeing that now in terms of
20 having to pivot to manage the MRH pilots who are in the system, and transfer them quickly, and safety, and effectively, to the Black Hawk system, or to some other part of our system.

So, yes, project planning, I agree there are some project milestones, but the capability itself is generating unpredictability, and I think that might have
25 been typified by the DAA at the time, that it was probably unstable and unpredictable and then, yes, there are ramifications.

AVM HARLAND: Yes, I guess my point was that it's actually very predictable that you will change platforms over life, so that in itself should
30 be something you can plan into. The results, and how it performs as you bring it in, as you quite rightly say, can be variable, and they can create their own stresses, but my view was that it is predictable that we're going to change platforms. As part of the evolution of Military capability, it always happens.

35

COL LEVEY: Yes.

AVM HARLAND: Coupled with that question – and apologies, I'm sort of just diverging a little bit here – is do you have any commentary or
40 thoughts on, as we've gone over time – and noting you've been involved in Army Aviation for quite some time, including all the way back to the mid-90s – with the change of the technology and complexity of platforms as they come on for both aircrew and maintainers, can you make commentary on perhaps how that's affected how aircrew and maintainers
45 need to engage with their primary trade, or their primary profession, and whether that's actually increased overheads on them over time?

COL LEVEY: Look, I am certainly aware through my research, particularly around the MRH-90 helicopter system, that the aircraft are more technological, more sophisticated. In some ways, I know that in the maintenance world a few years ago there was some frustration around that because tradesmen weren't able to operate in their primary trade. They were, to use the analogy, just putting black boxes in and out without doing problem-solving and engaging in their trade.

It comes back to what Counsel was saying about primary roles, and the amount of time that we can give our people to their primary role. I think we've got to make sure we're getting that balance right because the technology is advanced, but the nature and context of Army flying, helicopter flying, is difficult. Night flying is difficult. Flying in weather is difficult. Flying from a base that you've just come to in the last week is difficult.

And the technology of some of these systems – particularly MRH-90, which is a new system and it hadn't been in service particularly long around the world, and certainly not in Army, and certainly not in 6 Aviation Regiment – means that we need to give as much time, maximise as much time, as possible, for people to be on the tools, whether as a pilot, aircrewman, or maintainer.

AVM HARLAND: Yes, so I guess if I could summarise – and correct me if I'm wrong – that over time, as technology has evolved, it has created some more complexity and, potentially, more overhead for aircrew maintainers, just to be able to maintain proficiency in their job?

COL LEVEY: Yes, and certainly the MRH-90 system has generated that in terms of availability, and of course, the 6th Aviation Regiment experienced the accident earlier in the year prior to this one, which takes a lot of energy out of their system as well, a lot of human capital, and of course, the associated material issues.

AVM HARLAND: One final question before I go back to you, FLTLT Rose. Governance overheads – and I really wanted to get your opinion, given how long you've been involved in Aviation over time – could you make comment on where you've seen governance go in just say the last 30 years in and around Aviation? Have you seen governance overheads increase, stay static, or decrease over time? And we're talking about the workload, the workload impact it has on the individuals.

COL LEVEY: Yes. I think, generally, most of us who are in Defence would say that governance has increased markedly. I know when I was Commanding Officer of 1 Psych Unit years ago, the Commander of the

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17th Brigade at the time engaged in some studies about the actual time available to a Commanding Officer to do all of their governance against the time they had available, and there was a mismatch, and so the governance requirements outstripped the available time. I know that in the
5 Aviation system there are all of the routine governance requirements of a normal Combat Unit, an Infantry Unit, for example, and then there are the airworthiness governance requirements, which are significant. And so the governance requirements, in my view, have increased markedly. I share the view.

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AVM HARLAND: Okay. Thank you.

COL LEVEY: Thank you, sir.

15 FLTLT ROSE: I wanted to pick up on something you said a little bit earlier in your evidence. When we were talking about the can-do/must-do attitude in relation to Special Forces Operations, you also mentioned it's something that applies on exercise. Do you recall that evidence?

20 COL LEVEY: Yes. I'm not sure I said can-do/must-do.

FLTLT ROSE: That was my words.

COL LEVEY: Yes, sorry.

25

MS McMURDO: Excuse me, FLTLT Rose. Sorry to interrupt, but apparently there is an issue with the streaming. We'll need a 10-minute break, so we'll have our mid-morning break now.

30 FLTLT ROSE: Thank you.

MS McMURDO: Yes, thank you.

35 **HEARING ADJOURNED**

HEARING RESUMED

40

MS McMURDO: Yes, FLTLT Rose.

FLTLT ROSE: COL Levey, before the break, I was asking you a question about observations you began to make earlier in your evidence
45 about a mentality that was potentially used on exercises. Could you just elaborate on that?

COL LEVEY: So, yes, context is everything, and so on an exercise, and indeed on operations, when doing an assessment of risk, the context of what's happening here while we're trying to achieve risk versus reward is really important. I think if you've expended the effort to move your unit from one place to another, and all of the energy that that takes to be there, and to support the exercise, then the context, I think, is different to perhaps a home-based context where you are more in control of the activity.

On an exercise, you are not so in control of the activity. You are responding and reacting to an activity, and there is an implied expectation, I think, that you will deliver that. It also goes to what other options are available if you can't deliver that at a particular time.

So I haven't gone deep into this accident. I know some stuff from the public news. My understanding is that it was a routine activity to go and pick up some Troops after an activity. Well, if you're doing the risk assessment associated with that, then one of the things to consider – considerations would be what other options are there to pick up those Troops? And so the context is everything.

We rely on our Commanders to try and find that balance in terms of risk/reward, and we encourage them, try to train them, and support them, and, frankly, expect them, to be constantly making that assessment, particularly in the tactical situation, because all the policy is for nought if it doesn't play out in the tactical situation.

FLTLT ROSE: The Inquiry has also heard some evidence about the Special Operations Qualification Course, and that sometimes it was run three times a year, other times it was run twice, but in either way, there was an emphasis, or a mentality, to get through the courses to make sure everybody could reach their UTAP. Do you know what I mean when I say UTAP?

COL LEVEY: I do. Yes.

FLTLT ROSE: UTAP credentials, so they could move on to the next set of courses they needed to achieve. So would you at that same - what you just said before about the risk reward, and sometimes not always being in balance, apply to courses as well as to exercise and operations?

COL LEVEY: All of the time. All of the time. And so whilst the policy might set a broad area within which people can operate, Commanders are expected to manage the risk that is being presented to them at a particular time, in a particular place, that the policy can't see within that framework. And so that may come down to the risk associated with people driving

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home at night, for example, or the pressures associated with running an SOQC that has weather events in the middle of it. The Commanders are expected to be appreciating that risk as they move through that as activities.

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FLTLT ROSE: What I might do is take you back to your statement now.

COL LEVEY: Yes.

10 FLTLT ROSE: In terms of paragraph 13, just to close off the various ways that fatigue issues can be raised up through the command structure, another avenue that you refer to is lodging of an Aviation Safety Report, or a Sentinel Report.

15 COL LEVEY: Yes.

FLTLT ROSE: Do you know who reads those reports if they are filed?

20 COL LEVEY: Certainly. When I was more closely exposed to them, they would be passed through the Chain of Command and eventually Hazard Tracking Authority may get to see them, or a delegate for the HTA. Often, I was involved in - - -

25 FLTLT ROSE: "HTA" stands for?

COL LEVEY: The Hazard Tracking Authority. Often, I was involved in reviewing certain ASRs that might have had a strong human factors dimension. And particularly during the MRH-90 presence in the 5th Aviation Regiment I was often reviewing Aviation Safety Reports associated with maintenance around the MRH-90.

30 FLTLT ROSE: At paragraph 15 you state that prior to the crash of Bushman 83, you were the lead for exploring options for the improved Fatigue Management Program, or the FMP, and to enhance Army's fatigue policy to reflect the requirements of the DASR Aviation Fatigue Management.

COL LEVEY: Yes.

40 FLTLT ROSE: Do you have Exhibit 49 to show the witness?

COL LEVEY: Thank you.

FLTLT ROSE: Is this the DASR on Aviation Fatigue Management?

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COL LEVEY: It is.

FLTLT ROSE: The Inquiry understands that this was introduced in October 2021.

5 COL LEVEY: Yes.

FLTLT ROSE: And that you were the lead person responsible for implementing this from October 2021 for a year at least?

10 COL LEVEY: Yes.

FLTLT ROSE: Have you got the guidebook still with you of the – next to you? Could you go to page 16 of the guidebook?

15 COL LEVEY: Yes.

FLTLT ROSE: Now, there's a heading, "Fatigue Management Program". Do you see that?

20 COL LEVEY: Page 16, yes.

FLTLT ROSE: And if you read the large text on the right?

COL LEVEY: Yes.

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FLTLT ROSE: It says:

The FMP –

30 or the Fatigue Management Program –

brings together the specific processes, tools and techniques that will be used to manage fatigue because the Fatigue Management Program has a safety function that builds upon and complements an organisation's existing ASMS processes.

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COL LEVEY: Yes.

FLTLT ROSE: Now, I've looked it up and "ASMS" stands for Aviation Safety Management System.

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COL LEVEY: That's correct.

FLTLT ROSE: And then the rest of the guidebook details, essentially, how to establish a Fatigue Management Program.

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COL LEVEY: Yes.

FLTLT ROSE: Did you use this guidebook to help you develop a Fatigue Management Program for Aviation Command?

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COL LEVEY: I used this Guidebook to help me analyse the requirement for that. And so I did some in-depth analysis in terms of what we might require in terms of system support to achieve this. And so, through that period, I was continuing to try to source that software solution that would deliver this for us.

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FLTLT ROSE: So you relied on this but you also had your own professional experience and external other sources to inform the process of implementing the DASR AVFM?

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COL LEVEY: Yes. This is an excellent guide, though. You wouldn't have to go much beyond this to generate a good outcome.

FLTLT ROSE: Were you involved in DASA's development of the DASR AVFM at all?

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COL LEVEY: No.

FLTLT ROSE: The Inquiry's heard evidence that DASA issued a Notice of Proposed Amendment on 18 December 2020 about the proposed Aviation Fatigue Management DASR.

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COL LEVEY: Yes.

FLTLT ROSE: And were you involved, in that stage, in any consultation with DASA when they put forward that Notice of Proposed Amendment?

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COL LEVEY: I was involved. So I was Army Aviation's representative on fatigue matters. And so, yes, there was some – either myself directly or through the SO1 Airworthiness or Safety at the time would communicate, you know, whether we agreed with what the authority were trying to generate.

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FLTLT ROSE: And overall, did you agree what - - -

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COL LEVEY: Yes.

FLTLT ROSE: Did you feed some feedback back to them which they incorporated into the final product?

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COL LEVEY: Yes.

FLTLT ROSE: And did Aviation Command start any preparations at that stage, in late December 2020, to start developing the Fatigue Management Program?

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COL LEVEY: So when you say “Aviation Command”, that was me?

FLTLT ROSE: That was it.

10 COL LEVEY: And to be frank, you know, I made that me because I was probably the best placed person to do that. And so we’d actually been working around fatigue for some time before that. We’d been very interested in how we might improve the Fatigue Management Program. And for me, there was a fundamental premise that we just had to address,
15 that if you have an hours-based program, you need to track hours.

And so that’s why I was very keen to get a software-supported system, like Toll and other parts of my statement where I talk about our visits to Toll and having a concept demonstrated from Air Maestro within our
20 Capability Management People to continue to explore the feasibility of having a system like that in the Defence system. There were significant obstacles to it that I talk about later on in my statement.

FLTLT ROSE: You said “we” then, “we were working on”. Who’s
25 “we” if you were the fatigue - - -

COL LEVEY: The Psychology Team. So myself and – MAJ Sam James was extraordinarily helpful and experienced officer in fatigue management and the use of technology. He was really a boundary rider in
30 going out and looking at technology and providing feedback on that for me. So he was very helpful. At one stage, he went and visited Air Maestro in Adelaide, I think, on my behalf, to start that conversation.

FLTLT ROSE: And in terms of an hours-based system, is what you’re
35 referring to is that the DASR Aviation Fatigue Management refers to a particular duty day or it’s been interpreted by Army Aviation that they’re referring to a length of time for a duty day?

COL LEVEY: Yes, that’s right. But not only duty day, but prior
40 sleep/wake. So hours in the last 24/48 hours. But also, as I said before, I was also very interested in capturing the out-of-work-hours – kind of some people call it unpaid overtime – but the things that we’re expected to do to keep on top of everything that’s required of us.

45 FLTLT ROSE: And in terms of the timetable, just so I can understand when things happened, the guidebook that we discussed before came out in

April 2021.

COL LEVEY: Yes.

5 FLTLT ROSE: Was that as a complement to the DASR AVFM?

COL LEVEY: Yes.

10 FLTLT ROSE: And then the DASR AVFM was promulgated on
28 October 2021.

COL LEVEY: Yes.

15 FLTLT ROSE: So about six months after the guidebook came out?

COL LEVEY: I can't - - -

20 FLTLT ROSE: So when were you specifically given any direction to
implement the Fatigue Management Program? Was it from the date of
promulgation of the DASR or was it from the date that the guidebook was
issued? Where was your start point?

25 COL LEVEY: Yes. Well, we'd started well before, frankly, as I said,
exploring how we might improve the Fatigue Management System of
Army Aviation. As I said, I was very focused on supporting Commanders
rather than creating liability for them. The software solution was very
successful in Toll. My want was to try and replicate that or some other
system, including exploring our own extant Flight Management
Systems that were in service already.

30 There were some old schools associated with those. I was aware of the
Fatigue Management Regulation. There was some talk about transition
periods. So an implementation period. Prior to the drop of the regulation,
we were being told that it was a two-year implementation period. At the
35 time when the regulation was finally distributed, we agreed to a 12-month
transition period.

FLTLT ROSE: Who's "we"?

40 COL LEVEY: Army Aviation.

45 FLTLT ROSE: So the Inquiry has heard some evidence that DASR
allowed for a two-year transition period whereby it suspended its usual
compliance checks so that Army Aviation and other parts of Defence could
implement the regulation. Are you saying that even though DASA weren't
going to do the compliance checks for two years, Army Aviation put a

shorter time period upon the implementation period, for example?

COL LEVEY: We were requested to agree to a shorter implementation period by DC PAR, the policy coordination organisation.

5

FLTLT ROSE: Is that Defence-wide or is that an Aviation Command - - -

COL LEVEY: That was for all Defence Aviation. So I think all services agreed to a 12-month implementation period.

10

FLTLT ROSE: Is there a document that supports that?

COL LEVEY: So I've never actually seen what the implementation period was, but I think there were some briefs that were prepared for the Defence Aviation Authority, for the delegate.

15

AVM HARLAND: So I'm struggling to follow that. So DASA, the organisation, when they published the regulation, they mandated a two-year period but they also had this side agreement to make it a 12-month one?

20

COL LEVEY: No. So I think at the Notice of Proposed Amendment there was a two-year period stated in there. The intent is to have a two-year transition period from when the regulation is issued.

25

AVM HARLAND: Yes.

COL LEVEY: In the period just prior to the issuing of the regulation, we were asked whether we would concur with a 12-month transition period, and we agreed to that.

30

AVM HARLAND: Okay, I understand.

COL LEVEY: And so I, personally, was working to a 12-month transition period.

35

AVM HARLAND: And how did that go? Did you get it implemented in 12 months?

40

COL LEVEY: No. Having said that, my assessment was that there were enough command intent known. There was enough education, training, policy and tools available for Commanders to manage fatigue SFARP until we could, hopefully, get this software-supported solution in play.

45

AVM HARLAND: Great. So you felt that it was under adequate

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management while you went for the longer-term improved solution.

COL LEVEY: Yes, an enterprise solution, yes.

5 AVM HARLAND: Okay, thank you.

COL LEVEY: Thanks, sir.

10 MS McMURDO: So was that still within the two years or was it some ephemeral time sort of when it finally got implemented?

COL LEVEY: So, ma'am, I think it was until we could finally get some certainty about whether we could do this or not.

15 MS McMURDO: So you weren't then even working towards the two-year implementation period, it was just when you could get it done?

COL LEVEY: Yes, ma'am.

20 MS McMURDO: Okay, thank you.

FLTLT ROSE: The DASR was promulgated on October 2021. You were working towards implementation by October 2022, originally?

25 COL LEVEY: So when we agreed – so I was asked for my view on this. When I agreed, I was optimistic that we could achieve that.

30 FLTLT ROSE: And then there was – obviously, you talked about it wasn't possible to meet that deadline. If you look at paragraph 24 of your statement? I'm jumping ahead here, but you do say that in May 2023 – you state that the Director of Operational Airworthiness tasked the SO1 Avn Psych to deliver a Draft Fatigue Management update to the Standing Instruction Modernisation Project by the end of May 2023.

35 COL LEVEY: Yes.

FLTLT ROSE: So I'm just wondering, so in terms of the deadlines, we're now almost a whole year beyond the first expectations, the milestone.

40

COL LEVEY: Yes.

FLTLT ROSE: And then was it achieved by May 2023?

45 COL LEVEY: So I think some work was done around that time but I'm not sure that it was progressed in May 2023. So May 2023 a new SI came

out, SI Aviation Ops, in relation to fatigue management. And there were some changes in that. But materially, we were still working to a 14-hour duty day, 10-hour break system, and so there weren't significant material changes.

5

FLTLT ROSE: And we know from the timeline that that didn't change, that reduction in the duty day didn't change until about November 2023, when the SFI was introduced.

10

COL LEVEY: Look, my reading of current – even the extant SI now is that that 14-hour duty day still stands. So things actually haven't changed that much. What has changed is the mandatory introduction of the FRAT to inform risk at the time of entering the workplace, for which I think it's a good innovation but it comes with some administrative liability.

15

FLTLT ROSE: We've heard some evidence to the Inquiry that the 14-hour duty day has become standard rather than the maximum amount that someone should work in a 24-hour period. Is that what you've observed over time in Aviation units?

20

COL LEVEY: Look, at times, is the answer to that. It can do that. And there's certainly extant at the time and certainly during the education that I would conduct and in the policy of SIs at the time, it was clear that Commanders were meant to manage fatigue within that 14-hour window, duty window. And so if there were significant signs of it – so we come back to context, what's the context in a tactical situation?

25

If there are factors, and environmental factors, that will contribute to fatigue, that should be an alert. If the ability to counteract fatigue – and I know we talked about coffee and strategic napping. The only real effective way of counteracting fatigue is restorative sleep. Over the years, once or twice – certainly once that I can remember – years ago, I had to defend a 10-hour break from being reduced to an eight-hour break, because for me a 10-hour break allowed people a better chance of getting, you know, six to seven hours of restorative sleep.

30

35

An eight-hour break would not allow that to happen. And so, yes, we come back to the context. So if their conditions are that there are going to be fatiguing factors, then tactically there's an expectation that people will manage that fatigue, have conversations about it and make necessary adjustments if they're available. Can I just add? The nature of Military Army Aviation Operations doesn't mean that there are available options, and so compared to a – we talked about emergency services helicopters working from a base and with a sleeping room. Even, respectfully, our colleagues in Navy and Air Force often go back to a base or a ship. Often an Army helicopter member of aircrew will go back to a tent next to an

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airfield or some other place because of the remote locality of their operating area.

5 FLTLT ROSE: We've heard some evidence to the Inquiry from a principal adviser in the Institute of Aviation Medicine about how to optimise sleep even in an austere field environment. Have you done any work on similar issues?

10 COL LEVEY: Sure. I teach about them often. And so I suppose the big three are noise, light and temperature. But they are often difficult to manage, depending on where the area of operations is; particularly for Army Aviation Operations. Noise, light and temperature. I've been on one of the LHD ships with an Aviation unit and the accommodation there is air-conditioned and the meals are great, to be honest, and there's better
15 capacity for people to get restorative sleep.

Often Air Force units will operate from bases where there will be firm and fixed accommodation for them to be able to do that. Within an Army context, that's not always available.
20

FLTLT ROSE: But if you are in a field environment, there are still ways that you can work on achieving an improvement in light and temperature and – what was the third one?

25 COL LEVEY: Light, temperature and noise.

FLTLT ROSE: Noise.

30 COL LEVEY: Yes, the things that will normally disrupt sleep.

FLTLT ROSE: So it could be, for example, moving the Aviation tents away from other tents to limit disruptions from day shift workers if they're flying nights?

35 COL LEVEY: Yes.

FLTLT ROSE: If there's a limited amount of air-conditioning available, allowing the Aviation crews to have the air-conditioned tents?

40 COL LEVEY: Yes, if it's available.

FLTLT ROSE: It could be issuing out things like eye sleeping masks and ear buds.

45 COL LEVEY: Yes.

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FLTLT ROSE: And perhaps reducing the number of people in a tent so the less disruptions from people getting up and about?

COL LEVEY: Yes.

5

FLTLT ROSE: It could be putting the aircrews' tents further away from a commercial airfield, if that's where they're stationed.

COL LEVEY: If possible, yes. Yes, all of those things are available, of course. Some of those things, individuals can do. You know, I wouldn't expect to be issued a mask and ear plugs if I used those routinely for myself. I'd probably go out and just buy my own because that's how I'll sleep, but in terms of location of sleeping quarters and managing temperature and light as well, then we encourage and train and assist our
10
15 Commanders in finding the best solutions. They're not always available though.

FLTLT ROSE: Another option could be to also check that everyone who is deploying on the exercise has actually done the ground trial so that if they chose to, they could take sleeping medication?
20

COL LEVEY: Yes, that's a little out of my lane. That's probably one for the Aviation Medicine people. But, yes, look, I don't actually hear too much about the medication side of things, to be honest. I get a sense that there's an aversion to that, but that's for others to answer that question.
25

FLTLT ROSE: I misspoke before when I was talking about the date when the SFI 12-2023 was issued. I said November 2023, but I understand it's actually 15 December 2023. Does that accord with your memory?
30

COL LEVEY: Yes.

FLTLT ROSE: Can you explain why that SFI was issued in December 2023 and not earlier?
35

COL LEVEY: I wasn't involved in that SFI. I had no connection with the SFI, so I can't answer that.

FLTLT ROSE: In terms that you were involved in developing and implementing the DASR for many years prior to that, is there any reason why the FRAT couldn't have been introduced as a mandatory tool earlier than December 2023?
40

COL LEVEY: Look, in hindsight, perhaps not. But for context, yes, I was operating to a couple of things that I had picked up along the way in my interactions with units. The first is the very specific sense that I'm left
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by Commanders is, “Don’t give us more rules and regulations. Don’t constrain us. Give us the opportunity to move freely”. And the other is that the FRAT, I think, is an enormously useful tool, but mandating its use under those circumstances was going to create a significant liability that we’ve probably already talked about in terms of administrative liability and what to do with it after that.

One of the premises of developing the Fatigue Management Policy was to develop data so that we can look at trends, what’s happening in fatigue. And so, again, I come back to, okay, I wanted to do that in a way that would enable that to happen without a lot of manual labour associated with gathering that data, collating it, recording it and getting it into another system. If we could do that automatically, that would be enormously helpful for us.

FLTLT ROSE: The Inquiry has heard evidence that the first formal DASA oversight activity of Aviation Command that included the DASR of Aviation and Fatigue Management was not until April 2024.

COL LEVEY: I only learnt that a few days ago.

FLTLT ROSE: I’m just trying to understand the timeline. The DASR was promulgated in October 2021. DASA said there’s a two-year implementation period. Army Aviation were hopeful that could be reduced to 12 months. Am I right so far?

COL LEVEY: Not hopeful. I was disappointed that it was being reduced to 12 months because I thought that two years was a more realistic timeframe.

FLTLT ROSE: But even though the two years still passed and then it wasn’t until December 2023 that the SFI was introduced as one element to implementing the DASR.

COL LEVEY: Yes.

FLTLT ROSE: And then we still have DASA not conducting an oversight activity until April 2024. So, in effect, there was more like two and a half years before Army Aviation was checked upon, or a compliance check was done to see if they had implemented it.

COL LEVEY: Yes. Well, to receive assistance to see where we were and to benefit from findings and observations associated with that.

FLTLT ROSE: Now, did you only recently learn about the level 3 finding that was issued and the two opportunities for improvement from

DASA?

COL LEVEY: Yes.

5 FLTLT ROSE: So I take it, then, it wasn't your responsibility to action this finding?

COL LEVEY: No.

10 FLTLT ROSE: If you go back to paragraph 16 of your statement – so this is where you were talking – and you've given evidence about your strongest view was that the Fatigue Management Policy needed to be able to accurately track and audit duty, rest and sleep, and provide the risk-based data to Commanders at the tactical level.

15

COL LEVEY: Yes.

FLTLT ROSE: And you said you didn't want to overburden the units with complex administrative processes, which was why you were trying to work on this software solution, essentially.

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COL LEVEY: Yes.

FLTLT ROSE: And you explain the steps you took to find the suitable software from paragraph 16 and 17, and then 19. It's from paragraph 19 it appears that you were working on this process, essentially, by yourself after an Army Reserves Officer relinquished their role because they found civilian work. So is that correct, that you were essentially working on this on your own?

30

COL LEVEY: Look, no. I was working with, to some extent, the SO1 Aviation Safety. So LTCOL Satrapa accompanied me to Toll Helicopters, for example, and provided any support that I needed. I was enlisting the support of a Defence Aviation – sorry, the Directorate of Aviation Capability Management, so their staff part of the Headquarters. They would be the people that would, as I've said in my statement, assist me in conducting an assessment of the viability of importing the Air Maestro system, for example.

35

40 And so I arranged a concept demonstration which was attended by DACM staff so that they could have a look at it. They then provided an assessment that wasn't particularly positive, to be honest, because of the issues associated with security. So when we start to aggregate data - - -

45 FLTLT ROSE: So just so for everyone following, DACM is the Department of Acquisition Directorate - - -

COL LEVEY: Directorate of Aviation Capability Management. One of the Directorates that works for the Commander. And so, yes, there were obstacles associated with the aggregation of data and the security associated with data, particularly for an organisation like 6 Aviation Regiment. Where that data would be hosted? How that company hosts its data? And how would we create a security response to that, in particular? So there were those issues.

10 The other issue was the deployability associated with it. So the system needed to be able to go away on exercise and/or operations with the unit. I think Air Maestro company said that that was achievable, but or DACM staff thought that that issue was much deeper than that. We also had an Aviation Mission Risk Tool that was in play. So a replacement for an
15 extant system.

And so we were having a concurrent - - -

20 FLTLT ROSE: Is that AVIART, or you're talking about another system?

COL LEVEY: No. AMRT, Aviation Mission Risk Tool. And so we were having a concurrent conversation with DACM about how that project was progressing because we might have been able to achieve it within our own system, using that tool. Again, there were significant obstacles
25 associated with that, and those obstacles are still in play today. So I'm continuing to interrogate our system to try and get this solution.

FLTLT ROSE: Now, you are in the Reserves, and you have effectively retired and you've got a consultancy business. How much longer will you
30 be able to see this through? And do you have someone to hand it over to?

COL LEVEY: So, because I'm the first in the position, there's nobody clear right now. I expect that I'll be available over the next four or five years if the organisation wants me. And I'm not aware of any posting
35 action at the moment.

FLTLT ROSE: In terms of the resources that you've been given to achieve the implementation of the Fatigue Management Program, you do outline in your statement some of the other commitments that you've had
40 to attend to in respect of the Orroral Valley Fire incident.

COL LEVEY: Yes.

45 FLTLT ROSE: The fact that you're part-time, do you think you have enough resources to be able to complete this big task in terms of implementing a Fatigue Management Program for Army Aviation?

COL LEVEY: So sensibly the task is moved deeper into the SO1 Safety area. And so the current SO1 Safety – and I think the Director of Operational Airworthiness is talking about a Human Performance Program and fatigue is one line of effort in that program. So we're having discussions about how we progress that and I'll act as an adviser to that process. But S1 Safety will take the lead.

FLTLT ROSE: Now, you've referred to SAFTE-FAST in your evidence today, and it's also in your statement at page 11, paragraph (c).

COL LEVEY: Yes.

FLTLT ROSE: Now, we understand that SAFTE-FAST is a shift scheduling tool which you state is available for units and Commanders to assist in management fatigue, in planning.

COL LEVEY: Yes.

FLTLT ROSE: That's correct. We've heard some evidence about how SAFTE-FAST works, and we've seen some of the results that can be generated from using that program. Do you know how often SAFTE-FAST is used in operational units and whether they use it when they're planning taskings to help them anticipate fatigue levels in aircrew?

COL LEVEY: So I don't have a clear picture of that now. At the time when I was in the permanent force, it was used infrequently. I think it's a complex tool, so we were working on ensuring that the training associated with that, and the licensing, was clarified. So about mid-2022 I think we finally got that bedded in properly. But it is really a tool that I would expect the Regimental Aviation Safety Officer to use rather than just someone else in the Regiment.

It does take a bit of specialist knowledge. So the model, in my mind, is that someone like the Regimental Aviation Safety Officer would become an expert in the tool with assistance from the formal training that's provided and additional assistance from us as required, and then would assist the ops planning function in the unit, really, just to do some experimentation.

I've used SAFTE-FAST. We've used it a few times in the past really just to provide evidence. In fact, there's a slide in the ROIC where I put up a couple of SAFTE-FAST slides to show the significance of the quality restorative sleep and to show two profiles – in fact, they're genuine profiles, retrospectively gathered data of a maintainer doing high altitude operations in Papua New Guinea, where there'd been an incident.

And we used this to have a look at what fatigue levels looked like, and I use it to enforce – or reinforce the point that just giving somebody some time off doesn't mean that they won't be fatigued. In fact, some of us
5 may, when we get a day off, go and do more fatiguing things. So the only thing that will counter fatigue is restorative sleep.

And then I use it as a mechanism to teach about when you start to change the factors in SAFTE-FAST around quantity and quality of sleep, then you
10 can really theoretically sustain someone for infinitum if you are providing enough opportunity for restorative sleep, and they're getting it.

FLTLT ROSE: In terms of paragraph 24 of your statement, just flipping back, you refer then to the Director of Operational Airworthiness
15 becoming concerned about Army Aviation's compliance with the DASR in 2023. Who was the DOPAW then?

COL LEVEY: COL Gilfillan.

20 FLTLT ROSE: And specifically, what were his concerns?

COL LEVEY: I think that he felt that there wasn't enough progress being made in terms of changing the policy.

25 FLTLT ROSE: And did he give you more resources or assign it to, as you say, the SO1 Aviation Safety - - -

COL LEVEY: Yes, I can't quite remember. I briefed him about it. I went to Canberra to brief him on my thoughts. So I had looked at the
30 Fatigue Management Guide. I had done some analysis on what was required, but also saying, "Look, I'm trying to achieve it this way". I think he understood that. But he still wanted to see some progress in that regard. So he turned to his full-time officer and said, "I really want you to kind of take" – I'm not entirely sure because I didn't get it directly, but I think, "I
35 want you to take the lead on this".

FLTLT ROSE: At paragraph 25, as at 28 July 2023, you state that when Bushman 83 crashed you were in the process of providing a written advice
40 to DACM staff about a proposal they had drafted to update the Aviation Mission Readiness Tool that aircrew use for mission planning to include some coding about fatigue risk management.

COL LEVEY: Yes.

45 FLTLT ROSE: Has that been implemented?

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COL LEVEY: So I recently went back to them, and they have put some requirements into that tool for future requirements. But my sense is that the AMRT – and I correct myself – Aviation Mission Readiness Tool, the AMRT, is a slowly progressing project. And so I'll make some more enquiries into that after this, to understand where that's at and then try to reinvigorate how we might get an alternate system in place.

FLTLT ROSE: At paragraph 25 you also refer to the fact that after the crash of Bushman 83 a large number of Army psychologists were redirected to offer support to persons involved or affected by the accident.

COL LEVEY: Yes.

FLTLT ROSE: Did that include yourself?

COL LEVEY: So I immediately went to the 6th Aviation Regiment immediately after the accident. I spent about a week there, I think – five days or so, really, as an added layer of support, mainly to the Command of the 6th Aviation Regiment. Two functions: provide that additional support and presence, and an opportunity to connect. But really to also assure myself that the standard critical incident mental health responses were in play and were actually operating well enough. And I was satisfied that that was done very well.

FLTLT ROSE: Can you just confirm from the pseudonym list whether the Commanding Officer is D19? There's two different versions of the list. One is in numerical order, the other is in alphabetical order by last name.

COL LEVEY: Yes.

FLTLT ROSE: Is it your opinion that Army Aviation is now broadly compliant with the DASR Aviation Fatigue Management?

COL LEVEY: I don't get to make that assessment. And we would rely on our colleagues to make that assessment. I note that there has been an audit done, but I note that it hasn't been a specific audit of the Fatigue Management System in Army. But there were references to the system and how it was being employed. So I'm not at a point right now to make that assessment because I'm not absolutely familiar with it because I've stepped away from it all.

FLTLT ROSE: In terms of whose responsibility it is, is it the Director of Operational Airworthiness or Commander Aviation Command who gets to make that assessment?

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COL LEVEY: I think probably DOPAW would advise Commander Aviation Command. But, ultimately, as the Military Air Operator, Commander Aviation Command has the accountability for that.

5 FLTLT ROSE: And is it your understanding that the Military Air Operator, Commander Aviation Command, is satisfied that Army Aviation broadly complies with the DASR?

10 COL LEVEY: No, I'm not. I'm not sure of the current issue of the SIs.

FLTLT ROSE: You've mentioned quite a lot during your evidence your desire or attempts that you've made to data capture some of these things, like someone's duty day plus unpaid overtime and rest, and proper restful sleep and to try and track that. Do you think there's any advantage in the
15 current system with what we've got of tracking the FRAT scores that the aircrews in the units complete daily or before every sortie, as opposed to them just being filed in Objective and not tracked?

20 COL LEVEY: Yes. Well, it's one of the reasons why I wanted to get an automated system to do that. So, yes, absolutely.

FLTLT ROSE: So in the absence of the software that you've not been able to find that's quite conducive to the security issues involved in Defence, do you think there is an advantage of doing what we can now,
25 with the technology we've got.

COL LEVEY: Yes, agree. You know, there are levels. And so the tactical level decision, risk decision-making, the FRAT is very useful in assisting with that conversation. I'll say that that conversation has always
30 been able to be had but the form might assist in some way. But there's also the collection of data to understand how often our crews are turning up for work fatigued. And then how are we deciding to mitigate the risk associated with that and whether we're continuing missions or changing missions.

35 And so there needs to be a system to understand, okay, well, what is the circumstance in relation to fatigue in our system tactically – because Snapshot does tell us other things about a day in the life of people about fatigue – but tactically, how are people showing up for work? And then,
40 what are we doing about that and can we strengthen that?

FLTLT ROSE: The Inquiry has heard some evidence that in 2022 the then Commanding Officer of 6 Aviation Regiment sought approval and funding from 16 Aviation Brigade to run what's been described as a sleep
45 study in three different stages. Are you aware of that process or that proposal?

COL LEVEY: No, I wasn't. I think someone thought that I was. I think I wasn't aware of the study at all. I think MAJ Sam James is providing very close support – which was another, I suppose, mitigator for me at that time, particularly for 6 Avn, that MAJ James was in close support in relation to human factors and fatigue with 6 Avn through 2022-2024 anyway.

No, I wasn't aware of the – sorry, let me correct that. I was aware that there was a study in play, but I wasn't involved in any of the decision-making around it, other than, within that Psychology Team, we would talk about the risk/reward and the return of investment associated with conducting a study of that type, and what the operational outcomes might be for a study.

FLTLT ROSE: So the Inquiry has heard that there was a first stage of this study where the unit collected some data from the aircrew on an exercise about their hours of sleep, rest and work, and which they inputted into a webform on their mobile phones anonymously. And then the officers involved in the project analysed that data and used it to inform their application for approval to move to stage 2 of the study, which was to purchase some wearable devices for aircrew to use which would monitor their activity and report back on sleep, rest and work cycles.

And that stage did not progress, stage 2, because staff within 16 Aviation Brigade informed the Commanding Officer of 6 Aviation Regiment that there wasn't sufficient funding to purchase the wearable devices.

So you weren't aware of any of those discussions?

COL LEVEY: No.

FLTLT ROSE: It seems similar that from the unit level they were almost trying to achieve what you were trying to achieve for the command level, but you hadn't quite met in the middle. Would that be a fair assessment?

COL LEVEY: Look, so I've been associated with wearables research in the past. It is useful for understanding some of the effects of fatigue and how people turning up for work. I was trying to find an enterprise solution. I was aware that this was going on. MAJ James worked for LTCOL Jordan, I was cc'd on things. Sometimes MAJ James would reach out to me personally. I was aware that that was going on and happy for it to continue.

It wasn't until some time later that I found out that it hadn't been approved. So, yes, 6 Aviation Regiment was really benefiting from having

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MAJ James with them, because he's an expert and specialist in this area and he was able to provide that capacity too as a Reserve Officer. He was enthusiastic about it, and they were taking advantage of that, which I thought was positive.

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FLTLT ROSE: I want to turn now to a different topic. These are some of the reports that you've prepared for command in 2016 and 2020. So at paragraph 30 of your statement you refer to a report that you prepared in 2016 when you were the SO1 Avn Psych. It was on pers tempo and fatigue in 6 Aviation Brigade.

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COL LEVEY: Yes.

FLTLT ROSE: Now, you put that at Annex C of your statement. So if you just put that to the side of the moment because we're just back to paragraph 51 of your statement?

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COL LEVEY: Yes.

FLTLT ROSE: You state that you were tasked by BRIG Lawler, who was the DG Aviation at the time, to write the report and then submit it to MAJGEN Gilmore, who was the Military Air Operator and Forces Commander at the time.

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COL LEVEY: Yes.

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FLTLT ROSE: And that's the equivalent role to the Commander Aviation Command today, I take it?

COL LEVEY: Yes.

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FLTLT ROSE: So at paragraph 1 of your report – turn over the cover page. In terms of definitions:

Pers Tempo relates to all of the work-related activities in which staff engage: time at work, time in travel, work after hours, and out of hours contact. It captures a more realistic view of the demands of the workplace and the more restrictive concept of op tempo.

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40

COL LEVEY: Yes.

FLTLT ROSE: And then if you go to paragraph 3, you state that the reason DG Avn tasked you to complete the report was:

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due to concerns raised about 6 Aviation Brigade tempo and fatigue through the latter part of 2015 and continuing Command observations made about unit tempo.

5 COL LEVEY: Yes.

FLTLT ROSE: Now, if you go to paragraph 15 of that report and following, in a sense you set out your preliminary findings?

10 COL LEVEY: Yes.

FLTLT ROSE: So at paragraphs 16 to 17 you reported that the majority of respondents you spoke to from 1 Aviation Regiment, 5 Aviation Regiment, 6 Aviation Regiment indicated that pers tempo was a problem and that it was not uncommon for them to be working 60 to 70 hours per week.

COL LEVEY: Yes.

20 FLTLT ROSE: And then paragraph 18, they reported that the 14-hour duty day was being normalised, particularly in training and exercises.

COL LEVEY: Sorry, going back to 16, I'm just looking for that 60 to 70 hours a week.

25

FLTLT ROSE: 17.

COL LEVEY: 17, yes, sorry. There you go. Yes, back to you.

30 FLTLT ROSE: And you agree that the report talks about the 14 hour day being normalised in training and exercises.

COL LEVEY: Yes.

35 FLTLT ROSE: And then, paragraph 20, by reference to the Snapshot surveys, you were concerned that chronic fatigue was an issue, with some personnel describing themselves as being burnt out.

COL LEVEY: Yes.

40

FLTLT ROSE: You then set out the repercussions of this on members' work-life balance, their health, and their levels of satisfaction and goodwill towards their service.

45 COL LEVEY: Yes.

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FLTLT ROSE: In 2023, in the position that you were as adviser to Aviation Command, would you have been made aware if there were members in the units who were burning out properly, as in being diagnosed with burnout?

5

COL LEVEY: Not necessarily. And that's been the case over the years too. So not necessarily. I've often found out through other channels, through medical channels or other channels, or in conversations with people who might've been in the unit at the time. So no is the answer. Not necessarily.

10

FLTLT ROSE: Is there a way to obtain some sort of results from Medical Officers in an anonymised way so that someone in your position or similar could get an understanding of how many people were being diagnosed with burnout?

15

COL LEVEY: So I would probably put that into the S1 Aviation Medicine's lane to provide that.

20

FLTLT ROSE: Going back to your report at paragraphs 27 and onwards, you set out the primary drivers for pers tempo, which include: staffing issues, so not enough people to fulfill all the roles; double hatting, key personnel having more than one primary role so they would have one or more secondary duties.

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COL LEVEY: (No audible reply).

FLTLT ROSE: Sorry, we just need an audible response.

30

COL LEVEY: Yes, sorry. Yes.

FLTLT ROSE: Short notice taskings from other organisations reaching into the units.

35

COL LEVEY: Yes.

FLTLT ROSE: Unnecessary taskings. For example, exercises that are not related to UTAP requirements.

40

COL LEVEY: Yes.

FLTLT ROSE: Overburdening of governance requirements.

COL LEVEY: Yes.

45

FLTLT ROSE: So that means compliance and administrative

requirements, I take it?

COL LEVEY: Yes.

5 FLTLT ROSE: An erosion of work-life boundaries because of technology like DREAMS, which allows Defence members to log on to the Defence Protected Network from their home computer.

COL LEVEY: Yes.

10

FLTLT ROSE: But you also found that some members were choosing to stay at work longer because they actually couldn't rely on DREAMS to log in from home.

15 COL LEVEY: Yes.

FLTLT ROSE: Now, if you go to paragraphs 33 and 34? Some of the persons you spoke to and some of the respondents to the 2015 Snapshot survey were concerned that these factors could lead to an increased risk of major safety event occurring.

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COL LEVEY: Yes.

FLTLT ROSE: From paragraph 37 and onwards, you outline some ideas for the way forward.

25

COL LEVEY: Yes.

FLTLT ROSE: Then if you move to paragraph 50 and onwards, that's where you list your recommendations.

30

COL LEVEY: Yes.

FLTLT ROSE: So at 51, essentially, you advise that no immediate response was needed in relation to unit tempo and tasking, but that more information did need to be collected to better understand the issues that were raised by your report.

35

COL LEVEY: Well, we needed to make informed decisions. So I am always hesitant to react to things because often that can just complicate things. So we just wanted to make sure. In fact, I remember saying to BRIG Lawler at the time, "Can I wait until the 2016 Snapshot results are out before I go and engage?" And he was very keen for me to get out there immediately.

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FLTLT ROSE: So if you go back to your statement, so put the report to the side for the moment. If you go to paragraph 47 of your statement? You stated that the 2016 report elicited a significant organisational response from the Military Air Operator, who was MAJGEN Gilmore at the time?

COL LEVEY: Yes.

FLTLT ROSE: You then state that although MAJGEN Gilmore couldn't generate additional resources, he did attempt to forcefully reduce the demand on the units?

COL LEVEY: Yes.

FLTLT ROSE: What do you mean by that?

COL LEVEY: So I attended a meeting with MAJGEN Gilmore, BRIG Prictor, who was Commander 16 Brigade at the time, and BRIG Lawler, who was Director-General Army Aviation. And attending the meeting was the G3, the Operations Officer for Forces Command overall. So Aviation Branch and 16 Brigade were sub-units of Headquarters Forces Command. And MAJGEN Gilmore simply turned to his G3 and said, "I need you to have a look at the program of activity for 16 Brigade and I want you to be personally involved in managing that for them".

So that was surprising, unusual and decisive. I think it was probably a bit uncomfortable for 16 Brigade to have that oversight from the G3. It obviously took some resource from G3 to do that. Then I was able to watch that process over the following weeks and months, where, as I understand it anecdotally, the G3 would just simply say, "You're not doing that activity", and forcefully managing the tempo of the activity program to reduce the number of times that units, for example, had to move outside and to deploy to another place. Because, of course, that takes an enormous amount of energy to do that. So that tempo was one of the major factors contributing to the effects we were seeing in individuals in the units.

FLTLT ROSE: At paragraph 55 of your statement you state that MAJGEN Gilmore did direct to staff, as you said, to provide that direction, but you weren't involved in this operationally-focused work.

COL LEVEY: No. No, that was definitely in the operational part of the world.

FLTLT ROSE: Then you continued to monitor outcomes through reporting mechanisms and the Snapshot surveys over time?

COL LEVEY: Yes.

5 FLTLT ROSE: So that was 2016. You then prepared another report in November 2020?

COL LEVEY: Yes.

10 FLTLT ROSE: That was an organisational perspective of the airworthiness and safety status of the MRH-90 system?

COL LEVEY: Yes.

15 FLTLT ROSE: You've referred to that earlier today. It's Annex D of your statement. It's classified as "Protected", so I won't take you to the actual report. It's probably best not to even have it in front of you. But you have provided a summary of that report at the "Official" level within your statement.

20 COL LEVEY: Yes.

FLTLT ROSE: So if you go to 33 of your statement, you set out that you were particularly concerned about the introduction of the MRH-90 system into 6 Aviation Regiment.

25

COL LEVEY: Yes. Paragraph 33, did you say?

FLTLT ROSE: Yes.

30 COL LEVEY: Yes.

FLTLT ROSE: In terms of timing, the introduction of the MRH-90 into 6 Avn was at about 2019?

35 COL LEVEY: Yes.

FLTLT ROSE: You state that:

40 *It placed enormous demand on the unit to manage the introduction of the aircraft system while withdrawing the Black Hawk.*

COL LEVEY: Yes.

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FLTLT ROSE: So your 2020 report outlined some of the evidence about the demands of that system in the Defence Aviation capability and poor performance.

5 COL LEVEY: Yes.

FLTLT ROSE: Poor performance of the MRH-90?

COL LEVEY: Yes.

10

FLTLT ROSE: At paragraph 56 you state that you weren't tasked to write this report, but you wrote it out of your own volition because of your observations about the system generating significant personnel stress, particularly in the maintenance workforce.

15

COL LEVEY: Yes.

FLTLT ROSE: How did you become aware of that? I know that you had a position – you were still full-time in 2020?

20

COL LEVEY: Yes.

FLTLT ROSE: How were you becoming aware personally of the effect on particularly the maintenance workforce?

25

COL LEVEY: So I had the privilege, as the SO1 Aviation Psych, to attend almost all of the forums relating to safety, airworthiness and sometimes capability management. And I had been exposed and attended Airworthiness Boards associated with the MRH-90. I had provided ongoing support and intervention for maintainers, particularly at the 5th Aviation Regiment, who were bearing the brunt of the disruption of the MRH-90 engineering and maintenance systems and through the safety occurrence reporting. So I was very aware that the MRH-90 was drawing significantly on the energy and resources of Army Aviation.

35

FLTLT ROSE: This is back at 56 of your statement. I'll read out this quote. You say:

40

I assess that the capability limitations of the MRH-90 were shaping organisational behaviour and impacting other systems by shifting operational demand and I was concerned about the effects of Plan Palisade on the safe, effective and sustainable operation of 6 Aviation Regiment and its people.

45

I felt that my experience as a member of the Board of Inquiry was useful in framing the problem for senior Commanders and to

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provide a clarity around what I saw as the safety and capability risks of the system.

The target reader was the MAO-AM –

5

that's the Military Air Operator Accountable Manager –

but I was hoping to influence the thinking of other decision-makers in the system and encourage a climate of focused and realistic discussion of system safety risks.

10

COL LEVEY: Yes.

FLTLT ROSE: At paragraph 58 of your statement you set out your conclusions in your 2020 report. And I'll quote again:

15

The MRH-90 system was pressurised, stressed, and at its limits in places. It had significant unresolved acquisition problems that were being manifested in the operational domain as persistent airworthiness and safety concerns. It was absorbing resources and effort away from other systems in Army Aviation.

20

Army and its partners were trying hard to maintain safety and airworthiness, but there was little doubt that significant risks resided in the MRH-90 system.

25

I expressed my concern about the Defence Aviation Safety Program approach to the MRH-90 system, which was characterised as "unstable" and "unpredictable", and prompted the reader to reflect on their own holistic assessment of MRH-90.

30

COL LEVEY: Yes.

AVM HARLAND: What does that actually mean, your "concern about the Defence Aviation Safety Program approach to the MRH-90 system"?

35

COL LEVEY: I'm wondering whether I can answer that question in this forum. It may run to something I'd consider might be "Protected".

MS McMURDO: Maybe we need to go into a Private Session later, because it's an important question and we need to hear the answer.

40

FLTLT ROSE: It is. We might continue through the "Official" part of the statement and transition to a private hearing.

45

COL LEVEY: Yes, thank you.

FLTLT ROSE: But you did say you thought it was “Protected”, not “Official: Sensitive”, the level of which you wanted to answer that question?

5

COL LEVEY: Can I answer “Official: Sensitive”?

FLTLT ROSE: In a private hearing.

10 COL LEVEY: Yes.

FLTLT ROSE: But not “Protected”.

15 COL LEVEY: Yes, I think the answer’s probably “Official: Sensitive”.
So yes.

FLTLT ROSE: At paragraph 59 you summarise the recommendations you made in that 2020 report, which included, and I quote again:

20 *Modelling the MRH-90 system, seeking independent system safety*
review; enhancing system monitoring and response;
depressurising the system by reviewing the capacity/demand
balance; seeking legal review of the system to assess the
25 *performance of duty holders and the department under the Work*
Health Safety Act; and, finally, to consider replacing the system
with a credible and reliable alternative.

COL LEVEY: Yes.

30 FLTLT ROSE: You delivered this report to COL Lynch in November 2020?

COL LEVEY: Yes.

35 FLTLT ROSE: He was your supervisor at the time?

COL LEVEY: Yes.

40 FLTLT ROSE: What position was he in?

COL LEVEY: He was the Director of Operational Airworthiness.

FLTLT ROSE: You also sent a copy to BRIG Fenwick a few weeks later?

45

COL LEVEY: Yes.

FLTLT ROSE: He was the DG AVN?

COL LEVEY: DG AVN, yes.

5

FLTLT ROSE: Then, in March 2021, BRIG Jobson, as he then was, requested a copy of your paper?

COL LEVEY: Yes. He had heard about the paper, I think, and was very keen to read it.

10

FLTLT ROSE: You sent it to him?

COL LEVEY: Yes.

15

FLTLT ROSE: What role was he in then?

COL LEVEY: I think he was in a capability role, really in waiting to become the first Commander Aviation. So he had I think about a year where he was preparing for the role as becoming Commander Aviation Command.

20

FLTLT ROSE: You then sent the paper to some other persons who were responsible for managing the MRH-90 engineering aspects?

25

COL LEVEY: Yes.

FLTLT ROSE: Are you aware of any changes that were made as a result of that paper?

30

COL LEVEY: No, I'm not aware of any material changes as a result of that paper. I know that at the time there was a lot of discussion about the future of the MRH-90 system anyway, and I think at around about that time there was discussion about an early withdrawal of the platform.

35

FLTLT ROSE: The Inquiry's heard some evidence this week in relation to an assessment that was made in about 2022 that there was a medium aggregated risk to the MRH-90 platform because of maintenance burdens. Are you aware of that?

40

COL LEVEY: I'm not aware of that actual assessment in 2022. But there was an increased risk associated with maintenance burden. It was probably the primary factor associated with the MRH-90 was its ability to be serviced and put on the line for crews to train and retain their competencies.

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MS McMURDO: We know of course that the MRH-90 has now been taken out of service, and most of your recommendations were around the problems of the MRH-90 system. But even so, taking out the MRH-90 factor, are there aspects of those recommendations that could still be implemented and relevant?

COL LEVEY: I think so, ma'am. I think that these are systemic things about mapping our systems, complex dynamic systems, and understanding the effects of change in one part of the system and how that might change and affect other parts of the system.

MS McMURDO: And as the Air Vice-Marshal said, new platforms come in all the time and Army has to deal with them. So some of these recommendations would be relevant as you're introducing new platforms.

COL LEVEY: Yes, of course. Look, some of them, I think, were unique in relation to the MRH-90, when you have a reliable system. So others will be able to more accurately report the relative maintenance hours per flying hour of the MRH-90 system versus a Black Hawk system at the time. I think I remember something like 45 hours of maintenance for one hour of flying for the MRH at one stage and something like 12 or 13 hours of maintenance for one flying hour for a Black Hawk. So you can already see the workforce demand on the system.

So if you have a reliable, proven system, then some of these problems go away because it's not making so many demands on your system. It's running relatively smoothly, enough capability to sustain, maintain and operate it. But the MRH-90 was not that system.

MS McMURDO: I understand. But what I'm really wanting to know is, are there aspects of those recommendations that still remain relevant? And I think you've answered yes. Do you know if any of them have been implemented, apart from the clear obvious one of removing the MRH-90 from the system?

COL LEVEY: Yes. So I know, and I think it's reflected in my statement, that Aviation Command and its partners were constantly trying to find ways to depressurise the system whilst having to maintain a capability level. So, for example, Plan Palisade of 6 Aviation Regiment, from a human factors perspective - - -

MS McMURDO: So Plan Palisade was the implementation of the MRH-90?

COL LEVEY: Yes, ma'am. So from that perspective, to draw down the Black Hawk capability at the same time as raising the MRH-90 capability

is, I think, an extraordinarily difficult proposition. There's a lot of balancing that needs to go on because they're simply transitional requirements for crews and competencies and the like, and an environment of sustaining the same level of readiness and capability I think is an extraordinary demand on a unit to maintain those levels of readiness whilst trying to introduce a new platform and draw down another one at the same time.

MS McMURDO: Sure.

COL LEVEY: But if I may? I just read one of the recommendations, it's that MAJGEN Hafner has me working on this capacity/demand equation. What does that look like? How can we better represent that? How can we better understand the complexities of the capacity/demand relationship? So we're still kind of working towards them.

MS McMURDO: So can I just clarify this then? So the recommendations of your 2020 report, taking out the MRH-90 factor but looking at the general principles in those recommendations, you say Army Command is now looking at and working on those? Is that what you're saying?

COL LEVEY: I don't think specifically. So I think these are general principles that perhaps the paper has encouraged people to think about, which is one of my aims.

MS McMURDO: Well, if I ask the question then from another angle. Are there aspects of that paper in the recommendations you made – taking out the MRH-90 factor – that Army is not looking at, that haven't been implemented and that you're concerned about their non-implementation? Insofar as you can answer that question in this forum.

COL LEVEY: Yes. No, ma'am, other than Army Aviation is still extraordinarily busy. There's a lot on. And so we come back to that capacity/demand I think we need to be carefully looking at. I know that MAJGEN Jobson was always looking for ways to manage that demand because it's difficult to build capacity. This is what MAJGEN Gilmore said in 2016, "I can't generate capacity because, unlike an airline, you can't just go and find other pilots from another airline and bring them in, you have to grow and develop those people". It's very difficult. So the numbers of our people capability are always under pressure, I think.

So I suppose moderating the demands and trying to manage the demands and protecting the organisation from additional demands, that comes back to your issue, sir, around governance. You know, layers upon layers of

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demands on a system. I think there's value in looking at the structure of Aviation Command and the resources that it has to do that.

5 I know certain Staff Officers in the Headquarters itself are double or triple-hatted, or certainly have been, last time I checked, which must be extraordinarily stressful for them and difficult for them to achieve everything in a very busy organisation. So I'm not concerned that they're not doing any of this. And I wasn't surprised that the impact of this paper, I think, probably just confirmed people's unease about the MRH-90
10 system and the plan to take it out of service earlier.

MS McMURDO: The MRH-90, now having been taken out of service, it caused a lot of stress on the system, which you've outlined in that report, and that was a large part of your recommendations. But do the pressures
15 remain? Are the pressures still there?

COL LEVEY: Yes, absolutely, ma'am. Absolutely. The pressures of introducing into service a Black Hawk system more rapidly than expected creates pressure. We're also introducing into service a replacement for the
20 Armed Reconnaissance Helicopter. So there are pressures associated with that in terms of building workforce and competencies and confidence in those systems. I suppose they are large strategic movements or demand signals from government that this is the capability we need to manage.

25 So, yes, the stress is still there. The MRH-90 being taken out of service has created – because it was part of a system, it's created knock-on effects in other parts of the system.

MS McMURDO: You might be able to say more about this in a Private Session, but are there aspects of those recommendations that you still feel
30 are not implemented that should be implemented, despite the MRH-90 having been taken out of the system?

COL LEVEY: So if I compare the MRH-90 system with the Chinook
35 system, for example. Often the Chinook helicopter system – it's based in the 5th Aviation Regiment in Townsville – has been touted as a very successful project. That's because, in my view as a Military Officer and a human factors psychologist around the capability for some years, is that the system is much more compliant, in that it does what it's supposed to do
40 pretty much, it services well, it is easier to maintain ever than the MRH-90 was, it's able to be put onto the tarmac for crews to fly and to do their tasking.

45 So as we reintroduce Black Hawk into the system, we need to maintain a good watch on that. It's being done rapidly to accommodate the much

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earlier retirement of service of the MRH-90. As the Apache helicopter replaces the ARH Tiger, that needs to be continued to be watched too.

5 So I'm not necessarily nervous about those things, but they all take energy.
If we had stable operating systems that had been around for 10 years and
we'd been operating them satisfactorily, with logistics supply and
sustainment system that had been operating for a decade and we knew it
well, then we'd be in a much different place to introducing two new
10 helicopter types, trying to compensate for the loss of the MRH-90 much
earlier than expected. So the demands on the system are much different.

MS McMURDO: Thank you very much. Yes, FLTLT Rose?

15 FLTLT ROSE: Were you motivated to write your 2020 paper because of
a similarity of issues between what you observed in the Sea King Board of
Inquiry and in fact even the Black Hawk 1996 Inquiry?

COL LEVEY: Look, I think Black Hawk 1996, Chinook 2011, Sea King
20 2005, there are organisational factors that create outcomes in the tactical
space for all the reasons that I've outlined in the MRH-90 paper. I could
hear the evidence around me. Much of the paper is not my words; I am
simply quoting the findings of safety reviews, the numerous reviews that
were conducted on the MRH-90 system by external agents, the
submissions to Airworthiness Boards, the results of Airworthiness Boards
25 that described the system in ways that should have been alarming.

So I felt that given my experience on the Sea King Board of Inquiry, and
having drawn a number of recommendations and wrote a three volume,
1600 page report, that I just felt I had an obligation to try and bring all of
30 this evidence together and present it as clearly as I could to say, "This is
what the picture looks like".

AVM HARLAND: Just on that, overall if we look – and you can agree or
disagree with the statement – it appears that – and we're talking about
35 Army here, but that doesn't exclude other parts of the service or whatever
– has had a long history of indicators showing the system is really under
stress. And I'm talking about a long history, like decades of history, and
that fatigue has been continually featuring as a factor; getting feedback
through Snapshot surveys and individuals on courses, for example. In
40 terms of tangible shifts, it appears that progress to address these issues has
been extremely slow, and it seems like a very slow process.

I'm interested in your thoughts on whether you think that the current
system – post the introduction of the Fatigue Management Regulations and
45 some initiatives that Army has put in place, is the current system
effective? And how much more needs to be done? So how far along the

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journey are we if 100 per cent was a great success for Fatigue Management System and zero per cent is we're still really in trouble? Where do you think we are?

5 COL LEVEY: Sir, I think it's more complex than that, because again, from a systems perspective, a Fatigue Management Program is part of a system that is driven by a capability management requirement. So the mismatch between the capability expectation and the capacity to be able to generate that, generates the fatigue. I think I said it in my statement, my
10 strongest desire now is not to treat the symptom, it's to try and treat the cause is this - - -

AVM HARLAND: I would agree, and I don't mean to trivialise or simplify it. But what you stated there was really exactly what I'm getting
15 at, that again these are not unusual things. The fact that there's tension between capacity and demand is not unusual. It's actually almost a routine aspect of Military Aviation.

COL LEVEY: Yes.
20

AVM HARLAND: So given that that's the case, progress does seem to be slow. Is that system that we have in place at the moment, is it effective and how much more needs to be done?

25 COL LEVEY: Sir, I think that I'd need to reflect on that for some time to give a genuine answer. I think we must always be seeking to improve. I think MAJGEN Hafner, as MAJGEN Jobson was as well, are very focused on the impact of the capability/demand signals on our people and so we just need to keep working towards that. But also, it comes back to the
30 cultural discussion; we're in a culture where we lean in. We have, I think I mentioned perhaps in my statement somewhere, a bias for optimism. That's what you want in a Military organisation. We're optimistic that we can manage the outcomes.

35 So the short answer is there's always more work to do. I'd need to think longer and harder to give a more fulsome answer.

AVM HARLAND: No, I accept that. Thank you. Just coupled with that, I reflect on a comment that you made very early in your conversation
40 about Commanders – and again, correct me if I'm wrong on this – words to the effect, “Don't give us more rules and regulations, give us freedom”. Do you recall that?

COL LEVEY: Yes, I do.
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AVM HARLAND: Do I take that to mean that as you've started on these conversations about more accurately measuring work, how much people are doing, how much time they're spending on duty and doing duties outside their normal duty time, do I take that as meaning that the
5 Commanders really were worried that if we started to quantify – if the Army started to quantify how much work people were doing, it was kind of going to be a bit of a bombshell, and it was going to be really difficult to get everything done that is on the list of things to be done?

10 COL LEVEY: Yes. So I've never attributed that to Commanders, but I believe that. I think it's an uncomfortable conversation, but I think we need to capture it because I don't think anyone who works inside the service would be surprised, but we need to manage that much better.

15 AVM HARLAND: So if we measure it, then we're going to have an issue to deal with because we're kind of having a bet each way. We've kind of got a workforce that's fit for this much work, or for a certain amount of work, but we're getting a lot more out of it than we would anticipate by stretching it.

20 COL LEVEY: So when I talk about "Commanders" in this context, I'm talking about lower level tactical Commanders.

AVM HARLAND: Yes.

25 COL LEVEY: They just want to go out and do the job. When we think about higher level, Commanders always interested in looking at how to make things better. But I still think that we need to capture that work to be able to put cases together for additional resources. I think we're always
30 stretched. It's outlined in detail in my MRH-90 paper – not my words, others' words. And I think that Army Aviation in particular – and it wouldn't be limited to Army Aviation; I have worked with other services as well – are often at the limits of their capacity to be able to get things done.

35 AVM HARLAND: Because I guess I'm really trying to explore here and I'm very interested in understanding how we can change the history that we've seen, which is a history of very little progress, and these issues related to capacity management of fatigue continually coming up over
40 time? How do we change the future?

COL LEVEY: Yes. Well, I think it's got to be data driven. In my view, the way we change the future is to understand and define the problem – the definition of the problem – and then to seek genuine, real capacity
45 solutions to address that.

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AVM HARLAND: Great. Thanks.

COL LEVEY: And so we trade on the goodwill of people; you know, the culture of lean forward, action-oriented, optimism for biased people that you and I have worked with for years.

AVM HARLAND: Okay, thank you.

COL LEVEY: Thanks.

FLTLT ROSE: Just to take you back to paragraph 61 of your statement. This is where we left off before. You said that you weren't aware of any changes that had been made as a result of your paper in 2020; however, you were told by a number of people that they were influenced by it and that the report was welcomed by COL Lynch, BRIG Fenwick and BRIG Jobson?

COL LEVEY: Yes.

FLTLT ROSE: At paragraph 34 of your statement you state that, other than writing this report, you were not asked to provide any specific advice to Command about any workload issues concerning the MRH-90 system?

COL LEVEY: Sorry, are we at para 34, did you say?

FLTLT ROSE: 34.

COL LEVEY: Yes. Okay, yes.

FLTLT ROSE: And then – sorry for the flipping – back to 47. You state that you believe that the Army Aviation environment has become much more complex and challenging? You've already given that evidence?

COL LEVEY: Yes.

FLTLT ROSE: And that:

The demands of the MRH-90 system made balancing the demands-resources equation much more difficult, despite the enormous efforts to do so.

COL LEVEY: Yes.

FLTLT ROSE: And I understand that you've explained what you meant by that throughout your evidence here.

COL LEVEY: Yes.

FLTLT ROSE: So that leads to paragraph 48, and I'll read this in its entirety. It's a quote.

5

I have formed the view that senior and junior Commanders are genuinely concerned about fatigue in the system, but in a system where there are strong expectations about performance and readiness, strong cultural underlying assumptions about the Military, underperforming systems such as MRH-90, and complex change requirements to meet strategic objectives, it is extraordinarily difficult to get the balance right, and the system can be prone to tolerating behaviours that inherently have more risk.

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Military personnel are selected and trained to operate in environments that fall outside the experience of civilian counterparts. This creates a powerful positive and forward-leaning culture that can drift into areas of risk. We rely on our leaders to recognise this and to manage it.

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25

Much of the time has been spent trying to educate leaders at all levels about fatigue and workload issues. I have spent more of my time in the latter years trying to convince our most senior leaders of the risk of pressurised systems. They have more power to set and change the conditions under which the workforce operates.

30

My MRH-90 review, and its distribution, has been my most significant attempt at doing that.

COL LEVEY: Yes.

35

FLTLT ROSE: And at 65 you provide some reflections on the human factors capability. You state that you and your team have always felt like a part of the capability and highly valued?

COL LEVEY: Yes.

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FLTLT ROSE: But the Military posting cycle has not been supporting the development of deep specialists and human factors over the last few years?

COL LEVEY: Yes.

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FLTLT ROSE: And although you think that systems have become more complex and the demands on people increase, that's why enhancing this part of the system appears warranted?

5 COL LEVEY: Yes.

FLTLT ROSE: Have there been any changes or are there any changes afoot to increase the capacity of human factors specialists?

10 COL LEVEY: Not known to me. Yes.

FLTLT ROSE: And, in fact, throughout your statement you've noted how many times you've had to come out of retirement to keep this work progressing.

15

COL LEVEY: I wouldn't characterise it that way. I'm a willing participant. But, yes, there are times where – particularly – and this is not any dispersion on individuals – it's a system issue that if nobody – if people being posted in are just part of the Army routine posting cycle, they're just – there's a steep learning curve for competencies and understanding of the issues that Army Aviation is facing. You can see the complexity of them. If much of your work has been clinical work in a mental health and psychology section as your background, then this is a significant cultural shock. Yes.

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FLTLT ROSE: I want to read out paragraph 66. This is the final paragraph of your statement, and it's a quote.

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I would like to offer my sincere condolences to the families of CPL Naggs, WO2 Laycock, LT Nugent and CAPT Lyon. I am truly sorry for their loss and the consequences that continue to follow.

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I offer my condolences to the 6 Aviation Regiment and to the friends and colleagues of those four men across the Army Aviation, Defence and Australian communities.

35

And I want to acknowledge the character and resilience of those who responded and continue to respond to the accident and its aftermath.

40 COL LEVEY: Yes. Thank you.

FLTLT ROSE: Those are my questions in the public hearing.

45

MS McMURDO: Yes.

FLTLT ROSE: I understand that we've created a list of persons who are present here today. Perhaps during the lunch break people could let us know whether they wish to be part of the private hearing.

5

MS McMURDO: Yes. I thought what might be better is if we do the cross-examination public hearing first, and then we'll move into private hearing after that. So we can perhaps start the cross-examination in the few minutes we've got left before the luncheon break.

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FLTLT ROSE: Yes.

MS McMURDO: So how many applications to cross-examine, and some time estimates roughly, please?

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LCDR GRACIE: Five to 10 minutes.

LCDR TYSON: Five minutes, ma'am.

20

MS McMURDO: Yes.

CMDR JONES: About 10 to 15 minutes.

MS McMURDO: 10.

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COL GABBEDY: Basically 10, ma'am.

MS McMURDO: 10? Is that - - -

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COL GABBEDY: 10.

MS McMURDO: 10. Yes, okay.

LTCOL HEALEY: Just five minutes, ma'am.

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MS McMURDO: Five, okay. All right. Well, I think, as usual, we'll start with LCDR Gracie. Thank you.

LCDR GRACIE: Thank you, ma'am.

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<CROSS-EXAMINATION BY LCDR GRACIE

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LCDR GRACIE: Sir, my name's LCDR Malcolm Gracie, as you've just heard. I represent the interests of CAPT Danniel Lyon of Bushman 83.

COL LEVEY: Yes.

5 LCDR GRACIE: Sir, thank you for your words at the end of your evidence-in-chief in here. Can I just ask what the classification level of Annex F is, please? I only had it online, so I didn't - - -

CLERK OF THE COURT: It's "Official".

10 LCDR GRACIE: Thank you. No, that's all right, I've – thank you, though. Sorry, we'll come back to it, if you don't mind. I just wanted to check before I started.

COL LEVEY: Yes.

15 LCDR GRACIE: Based upon your experience in looking at the MRH and in Boards of Inquiry dealing with Sea King back in 2005, your role or enquiries relating to the Black Hawk in two thousand and – 1996?

20 COL LEVEY: Yes.

25 LCDR GRACIE: You talked about organisational matters, creating, I think you said, tactical outcomes. I want to ask you something about these organisational things and, insofar as you can, the mindset of an organisation. At the top of para 57, which is on page 15 of your report, you make reference to various reviews, one of which is the Australian National Audit Office.

30 MS McMURDO: So that's the statement, not the report?

LCDR GRACIE: Yes. Sorry.

COL LEVEY: Yes, correct.

35 LCDR GRACIE: And so there's a series of reviews there, and I think one of the key takeaways from the ANAO report – I think it was 2016 – was that the MRH-90 was a problem platform?

40 COL LEVEY: Yes. "A project of concern", I think was the - - -

LCDR GRACIE: Project of concern?

COL LEVEY: Mm.

45 LCDR GRACIE: Thank you. And did you form a view that with that project of concern – or call it a troubled history in relation to systemic

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issues, maintenance issues, manning issues, that that creates an environment where there's an increased risk to safety that goes hand-in-hand with that?

5 COL LEVEY: Yes.

LCDR GRACIE: And why is that? What is it that creates – goes from a systemic issue, a problematic issue in terms of its capability as a platform, into safety? What's the link?

10

COL LEVEY: Yes. So as an air accident investigator, the way that I would investigate an accident is to, if possible, visit the site and understand the site itself. I'm immediately interested in the actions and behaviours of people proximal to that accident. What people did and how they did that. I then move into the pre-conditions and understanding whether those people were set up for success or otherwise. Whether they were qualified and authorised. Whether they had suitable training. Whether they were competent and confident. Whether they had appropriate equipment and support to do whatever that thing was. So I'd be looking at the pre-conditions of the human in that part of the system.

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20

And then I would move back to looking at the immediate supervisory system and looking at the robustness of that, and then supervisory system, back deeper into organisational systems. So one of the models that's commonly used – not necessarily the model I use – but is the Reason Swiss cheese model. So the idea is that there are defences in place to prevent an accident happening and those defences will normally have, and we should expect that they'll have, some holes in them at times, and those holes are dynamic.

25

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So the idea is that deep organisational factors can generate holes down proximal near the accident itself. So if we think about competencies, currencies, qualifications, if people aren't qualified, current or competent, if the equipment isn't up to scratch or if people are fatigued, then there is probably a line back into the organisation as to how well we set that mission up.

35

LCDR GRACIE: So those holes in that Swiss cheese align where you have more issues to deal with, so that if, let's say, you just had an issue with rate of effort, you might just get the one hole. If you got rate of effort combined with maintenance, combined with crewing and training, they can line up and lead to the sort of fatalities that we're talking about.

40

COL LEVEY: Yes. So that's why a linear model isn't so great, because when you say "rate of effort", I immediately think system.

45

LCDR GRACIE: Right.

COL LEVEY: Where is that now impacting somewhere else in the system? And so it's not linear. It can be concurrent and multi-level.

5

LCDR GRACIE: Yes.

COL LEVEY: And so the linear system helps us understand that. But if you've got a rate of effort issue, then you've got a whole lot of additional knock-on effects from that.

10

LCDR GRACIE: And can you just develop this theme a little bit? Where you have these aggravated or aggregated risks, is there sometimes an absence of something serious happening that means those risks aren't attended to or dealt with, that there's – I think you described it as an incubation period, pre-disaster or pre-accident? What is that?

15

COL LEVEY: So the incubation period is – so in complex systems, one of the properties of a complex system is you get emergent properties, something you didn't even predict. And so I think there are a number of emergent properties in the MRH-90 system because it was new technology being used in a new role, and it was new to us. In fact, as I understand it, Australia was the fleet leader in the world for the MRH-90, so we were probably finding a lot of these issues first amongst many.

20

And so the incubation period is sometimes those latent hidden variables that can emerge suddenly. How do you manage those things? You've got to be curious, you've got to go looking for those things. And probably the other part of the equation is you try to manage the actual known issues as best you can so that if you get an emergent property show itself, you've got enough tolerance in the system to be able to absorb it.

30

And this is one key elements of a resilient system, is the ability to absorb unpredicted elements or occurrences.

35

LCDR GRACIE: And can that incubation period lead to an assumption that something is safe when these issues are latent – these safety-related issues or other concerns that have - - -

COL LEVEY: Yes, I'm happy to talk about that. I do talk about that in my paper. I don't see that this is "Protected" in any way. This is generally available in the literature. So I talk about the idea that the assumption of safe is – and proving unsafe is probably not the better way to go. It's to actually assume unsafe and prove the other way. And so the UK, in particular, I think has used this in a – quite deliberately, certainly

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previously in relation to generating safety cases: “Prove this is a safe system”. And so assumption of safe I think probably has some limitations.

5 LCDR GRACIE: Yes. And with more complex aircraft, more redundancies in a system, is that assumption of safe increased in the mindset of operators and others?

COL LEVEY: Again, I don’t think it’s that – you know, with respect, I don’t think it’s that simple.

10

LCDR GRACIE: No.

COL LEVEY: It’s not that simple. Yes, we might have more capable aircraft, but we have systems to manage. I do mention in my statement the issue of non-technical skills and, yes, I have a view that maybe we need to have a good look at how we’re training our crews in terms of where their attention is at any one time. I think we’ve been caught once or twice in the past of complex – in the MRH-90 – complex systems demanding us to attend to it, and not necessarily having a distributed workflow where we’ve got eyes in and out of the aircraft, for example.

20

LCDR GRACIE: Does that assumption of safe – or that incubation period sometimes create what might be described as a normalisation of risk?

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COL LEVEY: You might be looking for normalisation of deviance?

LCDR GRACIE: Yes, or – I was going to say “normalisation of deviance”.

30

COL LEVEY: Yes.

LCDR GRACIE: Is that the Navy – I think you mentioned a Navy report, and you mention it in this Appendix F as well.

35

COL LEVEY: Yes.

LCDR GRACIE: What is that, then?

40 COL LEVEY: A normalisation of deviancy is effectively iterating to tolerating something that is not standardly part of our system, so that we adapt the way that we do work, for example, into a different way of doing it, but we do that in a way that is unnoticeable. So normalised deviance doesn’t necessarily send any alarm signals. The best example I have for that is then CAPT David Burke, who was one of the pilots in the Black Hawk 1996 crash - - -

45

LCDR GRACIE: That's 221?

COL LEVEY: No, this is 1996, the crash.

5

LCDR GRACIE: '96, the Black Hawk - - -

COL LEVEY: Yes.

10 LCDR GRACIE: The two Black Hawks. Sorry.

COL LEVEY: Yes. There's a really salient moment in the Four Corners treatment of that, which I commend to anybody that's listening, where he says, "No one thing stood out", when he was asked to think about it in
15 hindsight. "No one thing stood out". To me, I use that today as an example – with his permission – as an example of, "Well, that's normalised deviance in play", that we just didn't feel uncomfortable with this other way of doing business.

20 I got to ask the question at the Sea King Board of Inquiry of a senior officer – I can't remember which one now – and his response was, "I don't know how we got so far from good practice. It's because we're iterating away to adapt to a demanding system" – so this is how it happens – "adapt to a demanding system. We have to do things differently because the
25 emergent properties demand that of us, and we can find ourselves – and we only realise that we're so far from good practices with an accident or some other thing".

LCDR GRACIE: While we're at this organisational stage, if we move up
30 into the more – the higher Command structure. Can I just ask you in relation to paragraph 60, where you mention that your report at Annex D – the protected report was issued to COL Lynch, then DOPAW on 2 November, did you receive anything back from COL Lynch at that time?

35 COL LEVEY: I think I got a thank you. COL Lynch had been waiting for that report for some time. You can see the detail in the report. It's 90 pages long, and a large amount of research and analysis had to go into it. And my assumption is that he had passed it on to BRIG Fenwick, but I sent it separately anyway.

40

LCDR GRACIE: That's why I was wondering why you sent it separately? Whether there was nothing coming back to you? But you don't recall that being the reason?

45 COL LEVEY: No. Look, I don't recall, but I'm confident that DOPAW would've sent it on to the DG almost immediately.

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- LCDR GRACIE: Thank you. Just in terms of again talking about organisations, one of the things you mention – I don't think this will be "Protected", but it is – actually, no it's not; it's from Appendix F, so it's
- 5 "Official" – you talk about deficient supervision. I don't have a copy – I've been offered one, but I don't need it. But you're welcome to go to it if you want?
- COL LEVEY: Thank you.
- 10 LCDR GRACIE: I can't give you a page number, but this was your November 2021 presentation to Army Aviation Regimental Officer Intermediate Course, ROIC.
- 15 FLTLT ROSE: It's G.
- COL LEVEY: It's G, I think.
- LCDR GRACIE: G, is it?
- 20 COL LEVEY: Yes.
- LCDR GRACIE: There you go.
- 25 COL LEVEY: Yes.
- LCDR GRACIE: Thank you. And are we still okay with the classification then?
- 30 COL LEVEY: Yes.
- LCDR GRACIE: I don't think it's classified at all. Okay. Have you found the page dealing with deficient supervision? I think it's got four lines under "Organisational" something.
- 35 COL LEVEY: I'm very familiar with the presentation.
- LCDR GRACIE: I thought you might be.
- 40 COL LEVEY: I will find it though.
- LCDR GRACIE: It's about two-thirds of the way in, I think.
- COL LEVEY: That's probably, "Violation-producing conditions", I
- 45 suspect.

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LCDR GRACIE: That would be it. It's, "Unsafe acts or conditions", in a red circle.

COL LEVEY: Yes.

5

MS McMURDO: "Pre-conditions for unsafe acts", is that one?

LCDR GRACIE: No. I thought it was, ma'am, but it's not. It's further in. Here it is. "Deficient supervision", it's headed.

10

COL LEVEY: Can you just kind of show me the one you're – yes, okay.

LCDR GRACIE: You've got it?

15

COL LEVEY: Yes.

LCDR GRACIE: And show ma'am and sir.

COL LEVEY: I'm happy to take your question. I'll get there.

20

LCDR GRACIE: Ma'am, it's about 15 pages from the back and it looks like that.

MS McMURDO: I'll get there too, so please continue. I've found it, actually. I've got it.

25

LCDR GRACIE: Thank you, ma'am.

You give a list of examples of that. One is, "Planned inappropriate operations".

30

COL LEVEY: Yes.

LCDR GRACIE: What sort of things does that encompass?

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COL LEVEY: Well, it's pretty broad. So just to make it clear, these diagrams are from the Defence Aviation Safety Manual.

LCDR GRACIE: Thank you.

40

COL LEVEY: So I didn't produce those. "Planned inappropriate operations" – so there's a little sub-list underneath there. So "not having the right manning, not really appreciating the risk associated with what you're about to do", and all of the others there that I won't go through.

45

LCDR GRACIE: It's helpful, because it's a public hearing. So it's,

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“work tempo, crew pairing, expectations, crew rest”, and I think there’s one other catch-all at the bottom. I didn’t make a note of it.

5 COL LEVEY: Yes, “other inappropriate operations”.

LCDR GRACIE: One other item, I think it’s across to the right, it’s called, “Failed to correct reported problems”?

10 COL LEVEY: “Fail to correct problem”, yes.

LCDR GRACIE: I take it that means reported problems?

COL LEVEY: Yes.

15 LCDR GRACIE: One of the things that you extrapolate in this presentation is that the Black Hawk 221 Board of Inquiry identified the accident back in November 2006 as involving uncontrolled, inadequately supervised and un-noticed evolution of normalised deviance, with an unchecked level of complacency.

20 COL LEVEY: Yes.

LCDR GRACIE: Can you give us a Snapshot of – is that what we were talking about before, about this dormant - - -

25 COL LEVEY: Yes. So to make it clear there, they’re not my words, they’re the words from the Board of Inquiry.

LCDR GRACIE: No.

30 COL LEVEY: I think this is the ROIC pack that we’re looking at here.

LCDR GRACIE: Yes.

35 COL LEVEY: So the idea is to enthuse young leaders about to embark on their leadership journey to think about how important they are in that supervisory system. So, “Un-noticed evolution of normalised deviance”, without going into too much detail, the normalised deviance in that crash was the application of a tactical use of the Black Hawk helicopter to create an effect, an operational effect. That tactical use sometimes took the aircraft out of its flying limits, but it was a normalised and accepted practice to create the tactical effect.

40
45 LCDR GRACIE: The need to operate within those flying limits, am I correct in understanding that the recommendation coming out of that was to set up the Flight Test Organisations?

COL LEVEY: I think so. We're going back some years now.

LCDR GRACIE: We are.

5

COL LEVEY: But I think that might be the genesis of it. It may well be. But I remember some Defence Science and Technology work looking at the profile and how long it took to do it under certain conditions. So the idea was that we could get pretty close, I think, to generating that same tactical effect without going outside the aircraft limits.

10

LCDR GRACIE: Just to link this then. With the deficient supervision concept, the planning of – or avoiding planned inappropriate operations, is that to avoid operations that are outside flying limits? Is that where the link is?

15

COL LEVEY: I suppose, in terms of the ROIC, I was just trying to get people to understand the broad things that might look like, characterise deficient supervision and then to draw it home to one of our own lessons within Army Aviation, that we're capable of doing this to ourselves. So my encouragement to be a strong slice of cheese in that Defence system, because they were critical.

20

LCDR GRACIE: But one of the most important risk mitigating factors is to ensure flight within flying limits.

25

COL LEVEY: Yes.

LCDR GRACIE: I'm only just going to finish with one thing, I think it's worth sharing. One of the things – I don't know who the author is or whether it's you – but in that presentation you say:

30

We are running 21st Century software on hardware last upgraded 50,000 years ago.

35

Do you want to make a comment on that before I sit down?

COL LEVEY: So, again, part of the ROIC is to try and provide a little bit of brain science so that people understand that, as a development as a species, we have certain instincts that are still strong in us. Some of those instincts in a modern industrial setting aren't always useful. So managing fight, flight and freeze responses, for example, are critical in a complex sociotechnical environment like Army Aviation. So the idea is to acknowledge that these instinctive responses are natural and normal but, as leaders, encouraging role-modelling to manage those.

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LCDR GRACIE: And training can only go so far in managing those? It can help, but it will never eliminate those instinctive behaviours, will it?

COL LEVEY: Yes, they're there. So they're in all of us. The other
5 deeper part of that is two types of thinking: kind of the intuitive thinking – Daniel Kahneman talks about this – the intuitive/instinctive thinking, that's the thinking we're just talking about; then the thing that makes us human is the pre-frontal cortex of our brain. That's the human part of the brain. That's the bit that allows us to operate Army Aviation Operations. So
10 often we can – depending on our environment, that second Type 2 thinking, more deliberate thinking, can be overrun by instinctive thinking, depending on the environment. So fear and environments that create anxiety, or fear, or a hostile response.

15 LCDR GRACIE: Thank you, sir. That's been most helpful. I'm sorry.

MS McMURDO: That was rather a long 10 minutes. Yes.

FLTLT ROSE: I understand LCDR Tyson has five minutes' worth of
20 questions. He has a flight he needs to catch. I'm wondering if we could persevere for those five minutes before lunch?

MS McMURDO: All right then.

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<CROSS-EXAMINATION BY LCDR TYSON

LCDR TYSON: I'm very grateful, ma'am, for your indulgence and to
30 Counsel Assisting. Sir, my name's LCDR Matthew Tyson. I represent the interests of CPL Alex Naggs. I want to ask you about a specific topic. So mobile telephones, smartphones and the potential for a smartphone to be a factor in fatigue management, and also a distraction. So that's the topic I want to ask you about briefly, sir, if I may.

35

So you would accept, wouldn't you, that one of the features of modern life is that there's widespread use of smartphones and quite time-intensive use of smartphones?

40 COL LEVEY: Yes.

LCDR TYSON: What, if anything, was Aviation Command doing prior
to July 2023 in terms of giving training or specific education about the
45 potential impact of use of mobile phones? For example, you're lying in a tent on a stretcher at night before a mission the next night and you're looking at your mobile phone, either you're texting family and friends or

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you're watching a video of an AFL game, or something like that. Was there any specific training or education given to personnel at the tactical level about the potential dangers of smartphone use?

5 COL LEVEY: Look, nothing comes immediately to mind. I would probably need to have a look at the NTS training and the fatigue aspect of that NTS training. But it doesn't come to me immediately in terms of specific training.

10 LCDR TYSON: You gave some evidence, you said that you identified noise, light and temperature as things that normally disrupt sleep. Would you also accept that the potential use of a mobile smartphone late at night is also a factor that can potentially disrupt sleep?

15 COL LEVEY: I think probably most of us in the room have that experience, so yes.

LCDR TYSON: But there was no specific training or education, warning users at the tactical level about that?

20

COL LEVEY: Look, again, I can't recall specifically. I'd probably argue that generally members of the Australian public probably understand that. There's a lot of material out in the general domain about that anyway and I know there's a lot of societal concern about the impact of using mobile phones and robbing our sleep opportunities for that. But I'm not aware of anything specifically in Army Aviation about that.

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LCDR TYSON: You'd also accept, wouldn't you, sir, that a mobile phone and access to it can be a disruption in terms of mission preparation, mission planning, mission execution?

30

COL LEVEY: Yes.

LCDR TYSON: There's been some evidence before this Inquiry that prior to the sortie on 28 July 2023 one of the pilots was using his mobile phone to send messages to other people in the Squadron about meetings the next day, about work, checking on welfare of other personnel. This is within minutes of leaving on the mission, after the aircraft's on the flight line. Also, evidence about looking for – asking other people within the aircraft [REDACTED] and evidence about people using their mobile phone to take videos. Is there any training or – sorry, is that situation something that - - -

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LCDR GRACIE: [REDACTED]

45 [REDACTED] It's not in any other form.

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FLTLT ROSE: That's "Official: Sensitive", not "Protected".

LCDR TYSON: Yes, I withdraw the reference to the [REDACTED].

5 MS McMURDO: We'll need to pause it. Have you got much left to go?

LCDR TYSON: No, two questions.

10 MS McMURDO: You can be very quick, because it's five minutes we have, don't we? We have five minutes.

LCDR TYSON: Well, just the situation - - -

15 MS McMURDO: With the pausing, I mean.

LCDR TYSON: Sorry, should I ask, ma'am?

MS McMURDO: Yes, please, ask the question. I'm just explaining to you that we - - -

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LCDR TYSON: Thank you, ma'am. So in terms of the ability of a mobile phone to distract an operator during mission preparation and pre-flight checks, is that something that Army Aviation accepted that was going to happen, or Army Aviation was oblivious to the risk of that, or it was something that there was some training or steps taken to prevent those sorts of situations?

25

COL LEVEY: I think, given the ubiquitous nature of mobile telephones, I think they're - now, I'm speaking from my perspective, not necessarily the Aviation Commander's perspective - they're a necessary and natural part of our life and with us most of the time. My preference would be that people would be getting into the zone. But the realities of what we've already talked about in terms of multi-hatting, things to be done, checking on welfare of others, my preference would be that you're getting into that kind of - getting your game face on for the flight and the mission. But the realities of life sometimes impact that. So what we do is try to educate around those factors and matters. But the realities sometimes override that.

30

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40 LCDR TYSON: Sir, you gave some striking evidence earlier today, you said something along these lines, "All the policies are for nought if they don't play at the tactical level". Could you just explain what you meant by that, sir?

45 COL LEVEY: It probably comes back to previous Counsel's line about the organisational - we talked about the Swiss cheese model. So you can

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have the best policies in place, but they do need to be enacted at the tactical space where the risk is actually being realised. So we rely on the supervisory system to do that to the best of their ability.

5 LCDR TYSON: Thank you, ma'am. Thank you, sir.

MS McMURDO: Thank you. Did you want to say something, COL Streit?

10 COL STREIT: Very briefly. Can I just invite the Commonwealth to speak to the witness in the break to assure themselves in relation to the security classification of the information this witness may give and then to advise Counsel Assisting if it's beyond the "Official: Sensitive" level?

15 MS McMURDO: I think that would probably be prudent, yes. Thank you, we'll do that. Well, in that case, we'll resume in public hearing at 2.15.

20 **HEARING ADJOURNED**

HEARING RESUMED

25 MS McMURDO: Yes, who's next to cross-examine? Yes, thank you.

<CROSS-EXAMINATION BY CMDR JONES

30 CMDR JONES: COL Levey, my name's CMDR Bradley Jones. I represent the interests of D19, who I think you might have seen from the list of pseudonyms was the erstwhile Commanding Officer of 6 Aviation Regiment.

COL LEVEY: Yes.

40 CMDR JONES: Your speciality as a psychologist is in human factors?

COL LEVEY: Organisational and human factors, yes. Organisational psychology, yes.

45 CMDR JONES: We've heard a lot of talk about human factors, but we haven't had it explained. What is, exactly, human factors? What does it mean?

COL LEVEY: So “human factors” I think is an all-encompassing phrase. It’s essentially the performance of humans in sociotechnical systems, complex systems, if we go that far. It’s really about the factors that affect
5 the performance of humans in those systems. So they could be physiological factors, cognitive factors, medical factors, interaction with machinery and equipment, interaction with processes, et cetera.

CMDR JONES: Given your experience, much of your career, indeed
10 perhaps a large part of your life’s work, in fact, has been the intersection of human factors, in particular, in Aviation in the Military environment?

COL LEVEY: Yes.

CMDR JONES: Would I be correct in saying that the vast majority of
15 Aviation accidents are attributable to human factors?

COL LEVEY: Yes. If we consider that Aviation systems are
20 sociotechnical systems, even if there’s a technical accident to do with machinery or maintenance or engineering or design, there will be a human in the loop somewhere.

CMDR JONES: Fatigue is just one of several human factors, isn’t it, in
25 this context?

COL LEVEY: Yes.

CMDR JONES: Others include distraction, pressure, lack of awareness?

COL LEVEY: Yes.
30

CMDR JONES: Would I be accurate in categorising those human
factors, some of which I’ve just mentioned, as non-technical skills that is
the subject of training?
35

COL LEVEY: Yes. It’s an interesting point. I make note of
non-technical skills in my statement.

CMDR JONES: Yes.
40

COL LEVEY: My general feel about NTS, the NTS training in Defence,
is it feels more like a human factors training course. One of my
observations and perhaps concerns is that through not just in Defence
Aviation, but in industry aviation, we have sought to include a number of
45 craft groups into NTS training. So it really has evolved from crew
coordination training into crew resource management training, and then

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into non-technical skills. And that evolution is fine as long as we're not losing focus on certain things. And I do wonder, given some of our recent experience, including this accident, about the effectiveness of NTS training for crew coordination purposes.

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CMDR JONES: I want to come back to the effectiveness of NTS training, which you advert to in your statement a little bit later, and who's responsible for that.

10 COL LEVEY: Yes.

CMDR JONES: But just so I'm clear, that non-technical skills and, in particular, non-technical skills training, includes these human factors that we've just been talking about.

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COL LEVEY: Yes. So I'd need to look at the syllabus in detail, but certainly things around fatigue, stress management, decision-making, working in teams, yes.

20 CMDR JONES: One of the difficulties in administering a robust Fatigue Management System with respect to fatigue, in general, and sleep, in particular, is that it's very difficult to obtain objective data that suggests that a member is too fatigued to perform their duties, isn't it?

25 COL LEVEY: Yes, it's very difficult. So objective data, probably the best way of getting some objective data is through psychological testing, psychological vigilance testing, cognitive testing, would be normally conducted in a lab setting, certainly not in a field environment.

30 CMDR JONES: I'll come back to the manner in which it might be able to be obtained. You've mentioned a few there. But when it comes to sleep, and I think you mentioned this in the evidence you gave when FLTLT Rose was examining you, is that there are two aspects to sleep. There's both the quantitative and qualitative aspect of sleep.

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COL LEVEY: Yes.

CMDR JONES: Certainly Command can control to some extent the first, the former, but not the latter.

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COL LEVEY: Yes, that sounds logical.

CMDR JONES: Because they can provide the opportunity for rest and sleep for the member, but they can't control how well they sleep.

45

COL LEVEY: That's true. Sorry, they can influence it - - -

CMDR JONES: Provide the environment.

COL LEVEY: Yes, providing the environment.

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CMDR JONES: That's right. But that's all they can do. Beyond that, then it's – and everybody's different, everyone has different stressors, everyone has a different manner of sleep, et cetera. You'd agree with that? Perhaps self-evident.

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COL LEVEY: Yes.

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CMDR JONES: Absent an objective data or objective measurement of the quality and quantity of sleep that a member has, we're left with a subjective assessment ultimately of the member themselves, aren't we?

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COL LEVEY: Yes. There are other mechanisms that people can use to look for the signs and symptoms of fatigue and understand the environment and context to make an assessment as to how fatiguing the environment, the task and the interaction between environmental factors and tasks might be in terms of creating the circumstances.

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CMDR JONES: Well, that might suggest that there might be a risk of fatigue. But in terms of whether the member actually is fatigued, that's not something that can be determined, other than – apart from some of the tests you mentioned, ultimately it's subjective, whether you feel tired or rested or not.

30

COL LEVEY: Yes. We can make some assessments in terms of – some broadband assessments against some assumptions to say the likelihood is that this is a more fatigued person than someone who – but the actual level of fatigue, it's a bit like blood alcohol level and performance. There are inferences made about blood alcohol level and the level of impairment. So level of impairment itself is inferred from a Blood Alcohol Content.

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CMDR JONES: Yes. But in terms of, like we said, absent these objective measures, whether they're the psychometric testing you've talked about or some measure of how long a person's slept and the quality of that sleep, amount of REM sleep and the like.

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COL LEVEY: Yes.

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CMDR JONES: Absent that, then we are left with either the subjective feeling of the individual and perhaps obvious signs of fatigue that individual is demonstrating to others.

COL LEVEY: Yes.

5 CMDR JONES: And if the individual is not demonstrating obvious signs of fatigue, then we're back to the subjective feeling of the individual and their self-assessment.

COL LEVEY: Yes. I'll just add, as long as the environmental context has been assessed to be not contributing to a likelihood of fatigue.

10 CMDR JONES: Of course. You are aware that the Commanding Officer of 6 Aviation Regiment – that is to say, my client – conducted an initial sleep study in 2022?

15 COL LEVEY: Yes, I'm aware of that today.

CMDR JONES: He sought funding for a wider study following the results of that initial study.

20 COL LEVEY: Yes.

CMDR JONES: And that wider study that he sought to undertake included an attempt to obtain objective data on the quality and amount of sleep by way of a device, a wearable device.

25 COL LEVEY: Yes.

CMDR JONES: Was it clear to you, if it wasn't self-evident, that what he was attempting to do was obtaining objective data so he could assist in managing his Troops with respect to their fatigue?

30 COL LEVEY: Yes, it's logical that he was looking for ways to make that assessment.

35 CMDR JONES: In fact, initiating these studies and seeking higher approval for their continuance, and funding for their continuance, you'd agree that that was an incredibly proactive thing for him to do?

40 COL LEVEY: Yes, I'd support any initiative. Going back to my previous evidence, any initiative that has a good return on investment, not just financial investment but the investment of the time of the people involved in the study, as long as the results can be operationalised. There is a little overlay here as well that I think the Inquiry needs to hear. Is that in terms of conducting any studies there is an ethics approval you need to go through.

45 CMDR JONES: Absolutely.

COL LEVEY: Yes.

5 CMDR JONES: Perhaps you don't recall, but ethics approval had been given, and sought and given.

COL LEVEY: Great. Yes, I didn't know.

10 CMDR JONES: So it had been deep consideration by the CO about these aspects.

COL LEVEY: Yes.

15 CMDR JONES: And even a partner university in fact had been engaged, who was also willing to fund an aspect of that further study. Were you aware of that?

COL LEVEY: I wasn't aware of that, no.

20 CMDR JONES: Again, you'd agree with me, wouldn't you, that that shows incredible proactivity on the part of the CO?

25 COL LEVEY: Yes. And engagement in academia is a good spot to be in.

CMDR JONES: Well, certainly when I say "remarkably proactive", are you aware of any other CO who had undertook or attempted to undertake the degree of academic or empirical analysis that I've just described?

30 COL LEVEY: We had a look at some wearables - - -

CMDR JONES: Just so I'm very clear on the question, my question is are you aware of any other Commanding Officer of a unit seeking to do this, as opposed to a higher Headquarters and their staff?

35 COL LEVEY: We had some engagement with the Aviation Training Centre around about 2015, but I think we used them rather than us bringing them in. So to answer your question, it's a level of proactiveness that I think is very healthy.

40 CMDR JONES: In fact, I suppose it's - I don't know whether it's attributable to Peter Drucker or Lord Kelvin, but you're aware of the aphorism, "You can't manage what you don't measure"?

45 COL LEVEY: I am aware of that, yes.

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CMDR JONES: Perhaps that was a demonstration of attempting to do that?

5 COL LEVEY: Quite possibly. And also reflects my own desire to capture data to measure fatigue in my approach.

CMDR JONES: Would you agree with me again, apart from being proactive, that it is demonstrative of a Commanding Officer who had a deep commitment to managing fatigue in his unit?

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COL LEVEY: Yes.

CMDR JONES: In addition to that sleep study, the 6 Aviation Regiment – and you give some evidence about this – had the benefit of an SO2 psychologist during 2022?

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COL LEVEY: Yes. And into 2023, I think.

CMDR JONES: That was the MAJ James that you said?

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COL LEVEY: MAJ Sam James, yes.

CMDR JONES: You mentioned that MAJ James was a specialist in human factors in particular, wasn't he?

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COL LEVEY: Yes, he was.

CMDR JONES: One of the things, in fact the principal thing, that MAJ James was assisting the Regiment with was its management of fatigue.

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COL LEVEY: Yes.

CMDR JONES: He assisted, for example, one of the Squadrons, 173 Squadron, with their consideration of the 22 Snapshot on fatigue.

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COL LEVEY: I'm not sure about that detail.

CMDR JONES: That wouldn't surprise you if he had done that?

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COL LEVEY: It wouldn't surprise me.

CMDR JONES: He supported the SOQC in Melbourne in September '22.

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COL LEVEY: Yes, I was aware of that.

CMDR JONES: He supported the unit, in 173 Squadron in particular, on a safety day?

5 COL LEVEY: Yes.

CMDR JONES: Again in which fatigue is discussed.

10 COL LEVEY: Yes.

CMDR JONES: Indeed, he visited, and was funded by, the Regiment on several occasions over the period of time we've been talking about, 2022/2023.

15 COL LEVEY: Yes.

CMDR JONES: Again, you would agree with me that that's demonstrative of a Commanding Officer being very proactive and serious about managing fatigue in his unit?

20 COL LEVEY: It's the sort of engagement that we seek. Some Commanding Officers are more open to that than others, and yes, that's obviously a strong sign of engagement.

25 CMDR JONES: Now, 6 Aviation Regiment, if I can use this expression, it's the point of the spear of Army Aviation, isn't it?

COL LEVEY: Well, it's on our lowest readiness to move. Yes.

30 CMDR JONES: And particularly given its mission profiles, it undertakes the highest risk missions of Army Aviation.

COL LEVEY: As I understand it, yes.

35 CMDR JONES: And the nature of those missions are perhaps beyond the classification of this hearing, but we know that in particular the support of Special Forces is what they do.

40 COL LEVEY: Yes.

CMDR JONES: And it's a simple fact that while we can mitigate risk, we can't eliminate it, particularly given the mission profile of 6 Aviation Regiment.

45 COL LEVEY: Well, it depends on what risk you're looking at.

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Sometimes you can. So that will come down to a specific risk assessment. The primary goal is to eliminate it, if possible, and then if you can't, then to mitigate as low as reasonably practicable.

5 CMDR JONES: But you'd appreciate, given – again, we can't discuss in this forum the nature of the mission profiles – but the types of flying that they do, we know flying at night in particular, and overwater in particular, and at low levels, in flying helicopters, is one of the highest risk profiles in Military Aviation.

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COL LEVEY: It's a risky and tough business, yes.

CMDR JONES: And it's inherently risky, isn't it?

15 COL LEVEY: I think so, yes.

CMDR JONES: Now, a little bit earlier we discussed the human factors forming part of the non-technical skills framework.

20 COL LEVEY: Yes.

CMDR JONES: Now, during the relevant period – and by that, I mean the period leading up to the tragedy of 28 July 2023 – DFSB had a responsibility for non-technical skills training, didn't they?

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COL LEVEY: Yes.

CMDR JONES: And they also have responsibility for investigating aircraft accidents, don't they?

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COL LEVEY: Yes.

CMDR JONES: Do you see, or do you perceive, the potential for a conflict there?

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COL LEVEY: Look, my sense is DFSB does – DFSB in particular, and the Human Factors Team, do amazing work, and they have lifted a lot of responsibility away from the Services to free-up the individual Service to get on with other things. If there's a potential for conflict, I don't necessarily see that, other than they might get to mark their own homework on NTS.

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CMDR JONES: Well, that's rather the point, isn't it? For example, I'm not suggesting for a moment that this is what's happened here at all, but if you are marking your own homework, if you're delivering a training package, or a training continuum, and an accident has happened, and a

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causal factor is perhaps a lacuna or a lack of training that has been delivered, then you really are marking your own homework in that circumstance, aren't you?

5 COL LEVEY: Yes, quite possibly. I understand at the moment that the NTS training is under review as well. But I'd make a broader statement about the Defence Aviation Safety Authority, is that I do wonder about its ability to separate itself from the organisations that it's helping regulate.

10 CMDR JONES: You mentioned a couple of times, I think, that one of the principal things, or inputs into the risk – in the system, is the capability expectations, and then delivering on those expectations.

COL LEVEY: Yes.

15 CMDR JONES: The capability expectations, that is government-driven, isn't it?

COL LEVEY: Yes.

20 CMDR JONES: And then it's the responsibility of Command then to deliver on what the government says it wants to do.

25 COL LEVEY: I think it's up to Command to assess its ability to deliver that capability, and then to – and so this is the time that I've spent in the last few years, is trying to encourage that conversation about capacity versus demand. And so demands do come from government; they set the demand.

30 CMDR JONES: That's right.

COL LEVEY: And then our ability to have the conversation about realistically advising government about our capacity to be able to meet the demand, and I have no more detail on that. I'm not privy to those
35 conversations.

CMDR JONES: No, that's certainly at a higher level. But, for example, the ADF can only do what it can with the equipment that it's got. And, for example, it's public knowledge that the MRH-90 was acquired as a
40 decision of the government against Defence advice at the time to acquire the system. Do you remember that?

COL LEVEY: Look, that is in my understanding from, yes, general knowledge.

45 CMDR JONES: So again, Command can only do what it can, and

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mitigate what it can, subject, of course, to what the government tells it to do.

COL LEVEY: Correct.

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CMDR JONES: Now, finally, you've known D19 for some time.

COL LEVEY: Yes.

10 CMDR JONES: And you've had occasion to observe him, or interact with him, as the CO of 6 Aviation Regiment?

COL LEVEY: Yes, I think we met when he was a Major at 6 Aviation Regiment during Plan Palisade, and we obviously spent a little time
15 together immediately after the accident.

CMDR JONES: In that time that you spent with him after the accident, it was apparent to you that he cared very deeply about the men and women under his command, didn't he?

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COL LEVEY: That was the basis of many of our conversations, how to support his people. He impressed me right from the start about his interest in human factors, and their impact on performance as well.

25 CMDR JONES: And it was apparent to you, in your discussions with him, that he actually had read very widely and deeply about such things.

COL LEVEY: Yes, I thought in fact he might have been studying in the area, to be honest. So yes.

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CMDR JONES: And, finally, in terms of, again, his deep concern for the men and women under his command, he took the time and it was apparent to you that he actually knew them as individuals; they weren't just ranks under his command.

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COL LEVEY: That is true. It's a relatively small unit. It's a tight unit with very high-level mission. I expect that to be the case, but certainly, yes, he had good relations with his people; I saw that.

40 CMDR JONES: Thank you. I have no further questions.

MS McMURDO: Thank you very much, CMDR Jones.

45 Just a couple of questions I have arising out of that. As you said about the 2006 Black Hawk crash investigation, the accident was inevitable due to systemic failures within Army Aviation. You were asked some questions

by CMDR Jones about fatigue management, systemic failures, normalised deviancy and complacency, and non-technical skills. After all this time and reviews that have been had, how confident are you that those issues don't remain a problem for the future?

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COL LEVEY: Ma'am, I don't know whether I'm trained this way, or I just see it this way. They are perennial threats to all organisations. I work in oil and gas, and mining, and other aviation systems now. They are constant threats to those systems. I think some of the differences are that
10 when you're working close to the capability capacity of your organisation, your ability to attend to those things can become compromised. So we're talking about that buffer zone for safety. If you are pushing people, teams, equipment, or the system out to those limits and eating into that buffer zone, then your capacity to absorb, or to go looking proactively for these
15 emerging threats I think becomes compromised.

And I'm not talking necessarily about Army Aviation there. I think Army Aviation is subject to that, and I think that I've certainly established the view that, at least in 2020, the system was under significant
20 pressure. Having read the audit report from Defence Aviation Safety Authority in 2024, I think it leads with Army Aviation is under a lot of stress, so those things haven't gone away.

MS McMURDO: What is the role of the Command Aviation Command who is dealing directly with the politicians in the demands that are coming from the Executive and the Parliament and the public on expectations of
25 Army? What is the role of Command Aviation Command then to deal with that risk upwards?

30 COL LEVEY: Ma'am, I honestly don't know, and I'd feel uncomfortable answering that question.

MS McMURDO: Fair enough.

35 COL LEVEY: It's, to use the phrase, a little above my pay grade.

MS McMURDO: Fair enough. So you were asked about effectively the most accurate way of testing fatigue management is in a laboratory situation with psychologists administering tests at a particular time to see if
40 someone is fatigued at that time or not. And you also have been – obviously that's the ideal, but it's not something that can be managed or used on a day-to-day basis. You were also then asked about the wearables, and we hear about these wearable watches which not only record the actual hours that you're prone and sleeping, but also the quality of your sleep.
45 Do you know how accurate they are?

COL LEVEY: Look, I think MAJ Sam James has done a lot of work in this. I think it depends on how much you're paying, to be honest. There are some very high-level ACTA watches that can be very accurate. The tech that we carry around in our pockets is improving. I'm not particularly familiar – I know that the system that the CO was looking at was the Oura Ring system. I'm not particularly familiar with that, remembering that this was a project that was going – I was just informed of it; I wasn't part of it. So there is potentially some value in using that in terms of the ability to capture sleep for individuals.

We've also looked at how we might aggregate that data to start to present dashboards of information for Commanders to gauge sense for individuals and teams, but the ability to do that from those devices is very difficult because the way that they run, as I understand it, is you have an individual contract with the company, and it provides you your data. The ability to then aggregate that across a group is challenging. I think also we'd probably run into some security issues as well, particularly given the people who will be wearing it, and what they're doing, and where they are at the time.

I haven't really dived into that aspect of it. Again, some potential there, but not without caveats and things that would need to be managed.

MS McMURDO: Sure. Thank you. Further application to cross-examine? Yes, COL Gabbedy.

<CROSS-EXAMINATION BY COL GABBEDY

COL GABBEDY: Thanks, ma'am.

COL Levey, I'm COL Nigel Gabbedy. I appear for GEN Jobson. I want to start by asking a few questions about this issue of mission imperative and context. Counsel Assisting took you to a few issues with that. You were taken to the issue of a nap at work. There was evidence from one member – and I want to talk about 6 Aviation by way of context – one senior member from 6 Aviation gave evidence that if somebody had marched into his office and said, "I think I need a nap", the conversation would be, "Okay. What's going on? You need to go home. Let's restructure your workload". Is that a better response to that sort of issue being raised by a member, by a pilot?

COL LEVEY: Well, look, respectfully, again I think it's more complex than that. So that's a hypothetical scenario. I think that the reality is I suspect those conversations have happened in the past and we've just got

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on with work and got on with the mission. What I want to do is create the data associated with the actuality of when people are working so we can actually understand the problem. But it would be really welcome if someone felt safe enough to go and have that conversation, and then the response was, “Let’s manage that problem productively”. The issue then – and we have explored this a little bit with aircrew – is that you just move the risk somewhere else because if I – and I see this not just in Army Aviation, I see it in all industries, is that if I don’t do that work, it doesn’t get done, or if I go on leave, it’s still there when I get back. So we come back to that capacity/demand discussion.

COL GABBEDY: Just on that point, and then looking at TALISMAN SABRE, for example, and with the issue in terms of mission imperative, what we know from that particular exercise was that a member did identify and say, “Look, I can’t do this. I need to go home”.

COL LEVEY: Yes.

COL GABBEDY: And the CO said, “Sure. Off you go”. Put her on the next flight.

COL LEVEY: Yes.

COL GABBEDY: Sorry, the OC put her on the next flight.

COL LEVEY: Yes.

COL GABBEDY: Then CAPT Lyon then fills her place. But we know that in this particular mission flown on 28 July there was a bump aircraft, so isn’t that evidence of a redundancy aimed at ameliorating mission imperative?

COL LEVEY: I’m absolutely not familiar with what happened on that night, but if there was a bump - - -

COL GABBEDY: Assume that is what happened. Assume what I’ve told you is true.

COL LEVEY: If a bump aircraft was there, that is evidence of redundancy, yes.

COL GABBEDY: And on the same - - -

COL LEVEY: Sorry, I’ll just add as long as there’s a crew to go with it.

COL GABBEDY: No, by “bump aircraft”, what I mean is if it was

necessary.

COL LEVEY: They can bump one out.

5 COL GABBEDY: They can bump one out, and fly with three rather than four.

COL LEVEY: Yes.

10 COL GABBEDY: My last scenario for you in relation to that, you were asked some questions about the SOQC course.

COL LEVEY: Yes.

15 COL GABBEDY: To put some context around that, my understanding from the evidence we've already heard is that members were encouraged to sleep on base during that course to limit travel time and external distraction.

20 COL LEVEY: Okay.

COL GABBEDY: And that there was a period of downtime immediately after the SOQC course, I think, aimed at ameliorating cumulative fatigue.

25 COL LEVEY: Yes.

COL GABBEDY: Would they both be sensible measures to reduce fatigue?

30 COL LEVEY: Yes, but some people are uncomfortable with staying on base because of their other responsibilities, family and other responsibilities. It really is – what I'd be looking for is as much as can be done in a tailored solution, but certainly offering the opportunity for that to happen.

35 COL GABBEDY: And again, I get back to what CMDR Jones was putting to you, there's only so much Command can do in some of these circumstances. You can't remove from the individual all of their ability to make decisions for themselves, or all of their self-will. You can create
40 some circumstances, and they then operate within them.

COL LEVEY: Yes.

45 COL GABBEDY: Just on a different topic, LCDR Tyson asked you some questions about mobile phones.

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COL LEVEY: Yes.

COL GABBEDY: And policy and training that might be needed in relation to mobile phones.

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COL LEVEY: Mm.

COL GABBEDY: If there was a direct order that members not take their phones on a particular mission, that would be evidence of a Command policy, or order, or instruction to ameliorate against it.

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COL LEVEY: Yes.

COL GABBEDY: If the member disobeyed that order, there's not much Command can do unless they know about that, is there?

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COL LEVEY: Logically that makes sense, yes.

COL GABBEDY: If a member disobeys that order, isn't that an external factor that adversely impacts on the mission?

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COL LEVEY: Yes, it can.

COL GABBEDY: It's the "E" in FACE, isn't it? It's the external factor that is being introduced into the circumstance that isn't necessary.

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COL LEVEY: Possibly, yes.

COL GABBEDY: It's a potential source of distraction, isn't it?

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COL LEVEY: It can be. Yes. I think the Australian community has gone to banning mobile phones in schools, and I know that there were some restrictions associated with the use of mobile phones in Military helicopters due to the electronic aspects of it anyway.

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COL GABBEDY: I think there are some reasons above the security classification of this room why you might not want them in there - - -

COL LEVEY: Roger.

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COL GABBEDY: - - - but I'm reducing my questions to human factors.

COL LEVEY: No, thank you.

COL GABBEDY: If we could talk about the FRAT now. My understanding of your statement is the FRAT is not an objective tool, is it?

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COL LEVEY: It's a subjective measure.

5 COL GABBEDY: It relies entirely on the information that the member feeds in.

COL LEVEY: Yes.

10 COL GABBEDY: Tell me if I'm wrong. There's a tension there between the increased admin burden that administering the FRAT might involve on a unit and the potential benefit you might receive.

15 COL LEVEY: Look, as my evidence said, I wanted to try and mitigate that administrative burden. That's what I was trying to achieve. I think the FRAT is a good tool that may generate a conversation. My perspective is that conversation was always able to be had, and encouraged to be had, through the extant policy at the time of the accident.

20 COL GABBEDY: That was through the FACE check, wasn't it?

COL LEVEY: Yes, FACE. And there's IMSAFE as well, Illness and Medication, and the other S's, but the F is Fatigue for that. So the ability to have a discussion around how we're feeling today, how we've slept, are we feeling rested and set for the mission.

25 COL GABBEDY: I think with FACE checks – again, I assume you would agree with me – there is a risk there that members might not – or they might under-report their fatigue?

30 COL LEVEY: Yes, I agree. Yes, anecdotally, I've been exposed to a number of courses over the years and I hear the stories of people, and because of the theory associated with the theory of planned behaviour that I was talking about before with Professor Gerry Fogarty, and also another model that's in the ROIC pack. I talk about the theory of social threat and
35 reward. It's called the SCARF model. People will generally go with whatever is happening in the group, and so it takes – and part of the teaching of the ROIC in other places is the reason why we use the phrase, "Have the courage to speak up". You can only show courage in the face of fear, so my first question is, "Why are you afraid?" So having the courage
40 to speak up talks about that instinctive type 1 behaviour I was talking about before, which is to stay with the group, do not separate from the group.

45 The ROIC really is – my interaction with them is saying, "Well, now you actually have to separate from the group", and that will be an uncomfortable place to be sometimes.

- COL GABBEDY: What I understand you to be telling me there is that this risk of under-reporting by members is well understood by the organisation.
- 5 COL LEVEY: I think it's an expected part of any organisation, that we might get under-reporting.
- COL GABBEDY: Tell me if I'm wrong, but the way that the
- 10 organisation deals with that risk is through training.
- COL LEVEY: Yes.
- COL GABBEDY: And through education and policy.
- 15 COL LEVEY: Yes, and policy.
- COL GABBEDY: And through encouraging peer support. "You're part of a four-man crew, or a four-person crew. You're responsible for your
- 20 peers."
- COL LEVEY: Yes. That can be a double-edged sword, of course, going back to the discussion I just had.
- 25 COL GABBEDY: If you've got groupthink, I think.
- COL LEVEY: Yes.
- COL GABBEDY: And through the culture of the organisation in terms of encouraging reporting, supporting reporting.
- 30 COL LEVEY: Yes.
- COL GABBEDY: And through Command support.
- 35 COL LEVEY: Yes, and through clear Command intent. And as I said before, GEN Jobson's three catchwords at the bottom of his emails were, "Safe, sustainable and effective". He saw those as the three elements of organisational performance; we can't do it without those three things
- 40 together. I thought that I might have contributed to the safety piece but also the sustainability piece for people.
- COL GABBEDY: You worked with GEN Jobson for the best part of two years, didn't you?
- 45 COL LEVEY: Yes, he might have said I was absent without leave

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because, as per my statement, you're trying to build a new direction in life; it meant that I didn't spend as much time with Army Aviation as I would have liked to. But I was the SO1 Aviation Psych when he was Commander of 16 Brigade. I was SO1 Psych when he was the
5 S3 Operations Officer for 16 Brigade as a Lieutenant Colonel. And I remember assisting him when he was Commandant of the 1st Recruit Training Battalion in Wagga.

10 COL GABBEDY: So you worked with him for a lot longer than two years, I would take it?

COL LEVEY: I've known him for a long time, yes.

15 COL GABBEDY: And he created the role that you're in today, did he not, with Aviation Headquarters?

COL LEVEY: He did.

20 COL GABBEDY: Those three words that he put at the bottom of all of his correspondence, do you think he lived by those?

COL LEVEY: I see no evidence that he didn't. There's a lot of evidence in his communications to the capability, and in personal communications, and in meetings, and all of the places I've been, that he was very serious
25 about trying to strike the balance. A really difficult job, given all the things we've talked about in terms of capability/demand, the busyness of the system, and the status of the MRH-90.

30 COL GABBEDY: If we step back in time a bit to your 2016 paper? I think you refer to it at paragraphs 47 and 55 of your statement.

COL LEVEY: Yes.

35 COL GABBEDY: It seems from your statement – and tell me if I'm wrong – that paper was well received.

COL LEVEY: Yes. Well, yes, it was. It was well received by Army Aviation. I think it created a demand on Headquarters Forces Command that was a bit unexpected, but nonetheless engaged decisively by the
40 Forces Commander, and a significant proportion of energy out of Headquarters Forces Command went into helping manage that issue.

COL GABBEDY: You say in paragraph 55 that MAJGEN Gilmore directed his G3 to assist 16 Aviation Brigade in managing its operational
45 and training commitments - - -

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COL LEVEY: Yes.

COL GABBEDY: - - - with a view to reducing the demand on the units.
Did you see that same commitment replicated as time went by through the
5 subsequent Commanders of Army Aviation?

COL LEVEY: I think that the short answer is yes, but it was always a
difficult challenge because, as I was saying before, the pressures on
capacity and capability were so significant that it was a very tight
10 balancing act, and took constant vigilance to watch and maintain, and I
haven't seen anything from any Commander that hasn't done that.

COL GABBEDY: Thank you. If I take you back again to paragraphs 15
and 16 of your statement, and this relates to the Fatigue Management
15 Program being implemented by DASA, you were the lead for that for
Army Aviation?

COL LEVEY: Yes, I was.

20 COL GABBEDY: From hearing your evidence already, your passion
was the design of a software system that would provide sort of a bespoke
capacity for Army Aviation to both record and manage their fatigue more
effectively.

25 COL LEVEY: Yes.

COL GABBEDY: And you haven't had the opportunity to develop that
system through to completion yet.

30 COL LEVEY: No.

COL GABBEDY: Is it a system that's partially done, or is there much
work to be done, as far as you know? Or is that a difficult thing - - -

35 COL LEVEY: We've got these concurrent lines of import a commercial
off-the-shelf system or use an internal system that gets over a lot of
barriers associated with security, in particular, and deployability. At the
moment, the internal system just doesn't seem to be progressing very
quickly, so my shift now will be back to, "Okay, commercial system, can
40 we do this?"

COL GABBEDY: How would that system work? How would it collect
and analyse data to assist you in managing fatigue?

45 COL LEVEY: Yes, so just like it does for Toll Aviation, people come to
work, they basically do a FRAT. They'll talk about, you know, when - so

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effectively a FRAT. There are some other questions we can ask at the start of work, like how many hours of other work did you do in the last 24 hours outside of work, and start capturing that data as well. And so you are then capturing that in your database, and presenting aggregated data to
5 Commanders and supervisors to understand where the impacts are.

COL GABBEDY: As I understand your evidence – again, tell me if I’m wrong – the two options were to develop it internally, which doesn’t seem to be able to progress, or, alternatively, buy a commercial product and
10 adapt it to fix the security requirements.

COL LEVEY: Yes.

COL GABBEDY: Do you have a preference out of those two options?
15

COL LEVEY: My preference would be the internal one, but I’m just not sure it’s progressing quickly enough.

COL GABBEDY: If you were given the time and the resources, is that
20 something you think you could progress to completion?

COL LEVEY: I’m not sure.

COL GABBEDY: In relation to the Fatigue Management Program that
25 you were lead on, are you familiar with the supports that were offered by DASA to assist you with that?

COL LEVEY: I was broadly aware in terms of education programs and roadshows, and things like that, and - - -
30

COL GABBEDY: And - - -

COL LEVEY: Sorry, go on.

35 COL GABBEDY: Sorry, I know it’s a few years ago, so to assist your memory, if I said to you that there was an offer of fortnightly webinars from DASA, DFSB and Aviation Medicine, do you recall that?

COL LEVEY: I do now, yes.
40

COL GABBEDY: Do you recall that there was an offer that after the first 12 months they’d do an audit? It would be a no findings audit, but just basically to check your progress to that point.

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COL LEVEY: Yes, I think I do remember that. So this comes into the confusion about one-year to two-year implementation period. Yes. But I do, yes.

5 COL GABBEDY: Sorry, and the third pillar, as I understand it, was that there was an offer of targeted assistance to Aviation Command after that 12-month audit in order to finalise the policy.

COL LEVEY: I do remember that now, yes. Thank you.

10

COL GABBEDY: Do you remember if any of that support was provided?

15 COL LEVEY: I don't remember engaging it, and I'm not entirely clear whether it was actually available.

COL GABBEDY: Would you be surprised if I told you that none of that support was provided?

20 COL LEVEY: No, I'm not surprised.

COL GABBEDY: If I go to your 2020 report that you talked about today – and keeping it within the classification – the key remediation proposed for the MRH-90 was its replacement, wasn't it?

25

COL LEVEY: Proposed by me?

AVM HARLAND: By Army Aviation.

30 COL LEVEY: Proposed by me.

COL GABBEDY: By Army Aviation?

35 COL LEVEY: Certainly, my view was, in terms of my final recommendation – and I'm happy that this isn't classified information – was I spoke more about being a Military Officer than a psychologist, and the sense of effectance that soldiers and officers are all looking for, the ability to get the mission done. We all do that. We engage in sport and we watch sports and we play Sudoku, or whatever it is we do, we like to feel
40 an effective success.

MRH-90 was really impacting that ability to our maintenance and engineering teams and to our pilots. And it's also affecting our credibility to generate a capability effect. And so the last recommendation was as a
45 Military Officer: in order to sustain morale, improve morale, give people a sense of effectance that they're doing a great job and to create credible

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future readiness – ready now, future ready, then it needed to be replaced. That was my final recommendation. We just had to get that out of our system and start with something else.

5 COL GABBEDY: And I suspect you were pushing on an open door in terms of Army Aviation with that recommendation?

COL LEVEY: Look, I think my previous evidence was, I think I
10 might've been just reinforcing people's views.

COL GABBEDY: But until it was replaced, that was the system Army Aviation had to use to provide a helicopter capability for the ADF.

COL LEVEY: Yes.
15

COL GABBEDY: They had to make the best use of it they could.

COL LEVEY: Of course, yes.

20 COL GABBEDY: All right. Thank you, I have nothing further.

MS McMURDO: Thank you. Yes.

25 **<CROSS-EXAMINATION BY LTCOL HEALEY**

LTCOL HEALEY: Sir, I represent BRIG John Fenwick. My name is
30 LTCOL David Healey. Can I just get you to go to your statement, please?

COL LEVEY: Yes.

LTCOL HEALEY: And I'll take you to paragraph 60. I understand
35 LCDR Gracie mentioned paragraph 60 to you in terms of when you sent copies of your report.

COL LEVEY: Yes.

LTCOL HEALEY: And you'll see on the second line there that you state
40 you sent a report to BRIG Fenwick on 21 November 2020.

COL LEVEY: Yes.

LTCOL HEALEY: Could I just show you a document?
45

COL LEVEY: Yes.

LTCOL HEALEY: Now, sir, could you note the security classification of that document. I ask you not to share any of that content.

5 COL LEVEY: Okay, yes.

LTCOL HEALEY: I'm going to ask you a question about that shortly. If you look at pages 2 and 3 of that document, I'll just get you to read that.

10 COL LEVEY: Yes.

LTCOL HEALEY: Would you agree that having read that document, that in fact BRIG Fenwick had received that document prior to 10 November?

15 COL LEVEY: Let me see. Prior to 21 November?

LTCOL HEALEY: Yes, prior to the 21st.

20 COL LEVEY: Yes, sorry. Yes, you're correcting me there. Thank you.

LTCOL HEALEY: Thank you. So would you like to change your statement?

25 COL LEVEY: My evidence?

LTCOL HEALEY: Amend your - - -

30 COL LEVEY: Yes. So, yes, I'm happy to say that I sent the document to BRIG Fenwick on 10 November 2020.

LTCOL HEALEY: Thank you. I'm happy for a pen amendment to be taken on your statement if you like.

35 COL LEVEY: Yes. Do you want me to do that now?

LTCOL HEALEY: Sure, yes. I've just got one more question in your statement after you've done that.

40 MS McMURDO: You're not wanting to tender that email?

LTCOL HEALEY: No, Madam Chair.

MS McMURDO: No. So you can return the email to LTCOL Healey.

45 LTCOL HEALEY: Yes. Thank you.

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And I'll just ask you to initial on your amendment in your statement, where you've amended the date.

COL LEVEY: Yes.

5

LTCOL HEALEY: Thank you, sir. Just while you've got your statement at paragraph 61, you state there, on the second line, that the report was welcomed by COL Lynch and BRIG Fenwick.

10 COL LEVEY: Yes.

LTCOL HEALEY: Could you just explain to the Inquiry what you meant by "welcomed by BRIG Fenwick"? Noting it was four years ago, but - - -

15 COL LEVEY: Yes. Look, I know that BRIG Fenwick knew the report was coming. I want to make it very clear that no one ever discouraged me from doing this report. In fact, I was very much encouraged to do it, and to keep working on it. So the feedback I got back from BRIG Fenwick was that he appreciated the report. I'm trying to remember an email that
20 he sent me, but it was at a later conversation we had, he said that he appreciated the report and was thankful for the effort.

LTCOL HEALEY: And did he ever give you the impression that he wasn't taking your report seriously at all?

25

COL LEVEY: No. No, not at all.

LTCOL HEALEY: Thank you. Those are my questions, Madam Chair. Thank you.

30

MS McMURDO: Any other applications to cross-examine? No. Thank you. Any re-examination? Yes.

35 **<RE-EXAMINATION BY FLTLT ROSE**

FLTLT ROSE: You were asked some questions by my learned colleagues that led you to agree with sentiments such as, "There is only so
40 much command can do in respect of managing fatigue because there has to be a certain level of reliance on the individual acknowledging their fatigue". Do you remember that line of questioning?

COL LEVEY: Yes, I do.

45

FLTLT ROSE: I just want to clear up that my understanding is correct.

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It's not that you're saying really there's not much or anything Command can do to manage fatigue with noting that aspect?

COL LEVEY: No.

5

FLTLT ROSE: And, in fact, there are things that Command is already doing, such as having the Snapshot surveys, to try and understand a generalised issue of fatigue across the workforce?

10 COL LEVEY: Yes, absolutely. So I think the accepted way of thinking about this is that it's a shared responsibility. And so the organisation is meant to set the conditions and the individual is meant to engage those conditions and share that responsibility.

15 FLTLT ROSE: And there are also improvements that Command could do in terms of scheduling practices?

COL LEVEY: There may be. Scheduling is a tricky issue in Army. I suspect it's a tricky issue across Defence, to be honest. And I often make a
20 comparison with an airline. We probably all know that QF1 to London is already scheduled this time next year. It's probably got a crew attached to it and it's probably got a reserve crew attached to it.

25 When you run a Military exercise you have moved your entire operation to a place you may not have ever been to before. The unit has already been under duress and fatigue and arrives probably fatigued as a unit, let alone individuals within it who may have more responsibilities for that logistic undertaking.

30 And you are responsive then to the exercise. You don't get to pick that you're going to fly in an A380 12 months from now. So the context is different.

35 FLTLT ROSE: So in that sense, is it then more an expectation on Command to actually try and reduce risk so far as reasonably practical in those circumstances? Noting that you have a fatigued workforce.

COL LEVEY: Well, I'd just say that the expectation – and we talk about it often – is to reduce all risks as FARP. It's a very common phrase in our
40 world, to go as “far as reasonably practicable” with all risks. The Command has been, and I suppose my work has been, around the human factors risks associated with that.

45 FLTLT ROSE: It may even be that Command has to take a very difficult decision – noting the fatigue levels of a workforce – to actually push back and say they can't undertake a tasking at a particular point in time.

COL LEVEY: Yes. And that can be a difficult decision based on context and expectation, and there's cultural factors we talked about before.

5 FLTLT ROSE: You gave a brief answer to one of the questions earlier that you think there are issues with the Defence Aviation Safety Authority being able to separate itself from the services that it regulates?

COL LEVEY: Yes.

10

FLTLT ROSE: But no one asked you what do you mean by that.

COL LEVEY: Right.

15 FLTLT ROSE: I'm asking it now.

COL LEVEY: Look I talk about it in the MRH-90 paper. I don't think that there's anything particularly sensitive about what I'm going to say. So unlike Civil Aviation Safety Authority is separated from all of the businesses that it regulates, it has no skin in the game in those businesses, arguably the Chief of Air Force, who is the Defence Airworthiness Authority – or was at the time I wrote the paper – has skin in the game. Regardless of who that person is, that appointment is one of the Chiefs of Service. That appointment provides services to Army to regulate and govern its Aviation capability, and so I think there is skin in the game. So I don't think we should be naïve about that.

FLTLT ROSE: There was also a proposition you agreed with that Defence is limited to the equipment that the government gives it – along those lines. Do you recall that?

30

COL LEVEY: Yes. It just makes logical sense to me, yes.

FLTLT ROSE: But isn't it a Command responsibility to inform government if it needs additional resources so that it can comply with its work health and safety obligations?

35

COL LEVEY: (Inaudible). Yes.

FLTLT ROSE: You also referred throughout your evidence to lecturing on the Regimental Officer's Intermediate Course in 2021, at least.

40

COL LEVEY: Yes.

45 FLTLT ROSE: Did you lecture on the 2022 course?

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COL LEVEY: No, I think that was my replacement. So I'd transitioned into the Reserve.

FLTLT ROSE: Who was your replacement then?

5

COL LEVEY: LTCOL Jordan.

FLTLT ROSE: There's a difference, isn't there – this is my final issue – there's a difference, isn't there, between FACEing out and burning out?

10

COL LEVEY: Yes. So there are two distinct types of fatigue that we generally talk about, so acute fatigue and a chronic fatigue.

FLTLT ROSE: So acute fatigue might be the reason why you FACE'd out, but you might burn out with accumulative fatigue over time?

15

COL LEVEY: Yes.

FLTLT ROSE: So you were given a scenario where somebody on TALISMAN SABRE went up to their OC and said, "Oh, I've got issues. I need to FACE out", and they were sent on an aircraft home. Do you remember that scenario that was mentioned?

20

COL LEVEY: I'm not sure that's how I remember the scenario. But, yes, that they engaged the Command system and said, "I am fatigued", and were allowed to go home.

25

FLTLT ROSE: And you were given the information – led to agree to the point, "Well, that's an effective use of FACEing out"?

30

COL LEVEY: I'm not sure that was the way it was typified, as a FACE out. My memory tells me that – certainly, I was reading that as someone who was more chronically fatigued.

FLTLT ROSE: Well, in fairness to you, imagine that this was the conversation between that member and their OC.

35

COL LEVEY: Yes.

FLTLT ROSE: She said to the OC – it happened to be a female – "I've culminated. I can't keep doing this anymore. I feel like I've constantly prioritised the unit, put my life on hold and given everything I possible could, and it is never enough. I've worked myself into the ground and it still isn't enough to be seen as worthy to be progressed as a pilot. I need to get out of here today. I can't stay here and keep trying to put on a brave face". And the OC allegedly said, "Okay, but when you go back, you need

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to see Medical”. And she said, “Yes, I’ll go to Medical and I’ll probably look to post out early and get out of the unit, because I can’t do this anymore. And I don’t want to be part of a place that has pushed me to this point. I’ve given everything and all it has done is get me to this point”.

5

Does that sound more like burning out than FACEing out to you?

COL LEVEY: Yes. Yes, it seems like a more chronic set of circumstances.

10

FLTLT ROSE: Those are my questions.

MS McMURDO: Thank you. Now, we’re going to go into Private Session, so we do need to adjourn, don’t we?

15

FLTLT ROSE: Yes, I have also the Direction 1/2025 I can hand to you, Ms McMurdo.

MS McMURDO: Thank you. I’ll just check whether we do need to adjourn in terms – is that for the technology purposes? I think for technology purposes - - -

20

FLTLT ROSE: How long do you need?

MS McMURDO: They need a five to 10-minute break – a five-minute break. 10 to be safe, I’m told. So I think we’ll have a 10-minute break for everyone. Do you want me to give – we’ll deal with this when we return, won’t we, Direction 1/2025?

25

FLTLT ROSE: I think so, yes.

30

MS McMURDO: Yes, we’ll deal with that when we return. All right then, we’ll just have a 10-minute break and we’ll resume in Private Session. So that that means, of course, the video streaming will be stopped. The transcribing will continuing, but only those people authorised by my Direction can be in the room at that time.

35

<WITNESS WITHDREW

40

HEARING ADJOURNED

45 **(Continued in Private Hearing Session)**

HEARING RESUMED

MS McMURDO: And the Inquiry is now back in Public Hearing. The
5 live stream has been resumed. And, of course, the hearing room is now
open to the public. Yes, FLTLT Rose.

FLTLT ROSE: I'd like to tender two items. The first is an ADF
10 MRH-90 Accident Report by the Defence Science Technology Group. It's
a technical examination analysis to support the survivability investigation
dated October 2024. It was referred to in evidence earlier this week. It is
"Official: Sensitive", so I won't be summarising the contents of the
document.

15 MS McMURDO: That will be Exhibit 186.

**#EXHIBIT 186 - ADF MRH-90 ACCIDENT REPORT BY DEFENCE
SCIENCE TECHNOLOGY GROUP**

20

FLTLT ROSE: I have three copies. One for the tender copy and one for
each of yourselves and AVM Harland.

25 MS McMURDO: Thank you. Yes, FLTLT Rose.

FLTLT ROSE: The next is a bundle of items including two photographs
and one short video of LT Max Nugent sitting inside an MRH-90
30 helicopter. The Nugent family has asked that they be provided to the
Inquiry, and we've decided to tender them. There was evidence led earlier
this week regarding the size of the cockpit and the size of the window
frames within the MRH-90, and the Nugent family thought that it would be
helpful to the Inquiry to have this material so that we could see the space
35 inside the cockpit and how Max, being a tall man, fitted in within the
cockpit. So I'll show the photos and then play the short video now.

MS McMURDO: The Inquiry is very grateful to the Nugent family for
providing that information. Thank you.

40 FLTLT ROSE: And I'll tender them as a bundle.

MS McMURDO: That will be Exhibit 187.

45 MS MUSGROVE: Sorry, I just need to raise an issue, that the inside of
the cockpit is actually "Protected". So, if that could be taken - - -

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MS McMURDO: Even though - - -

MS MUSGROVE: My instructions are that it's "Protected", and it can't be shown in - - -

5

MS McMURDO: Even so, so even though it's no longer in use, it's still "Protected"?

MS MUSGROVE: Well, it's in - - -

10

MS McMURDO: I understand you have your instructions and you have to - - -

MS MUSGROVE: And I understand it's in use by other countries, and so we're still bound by our NATO obligations.

15

MS McMURDO: Yes, that's fair enough. That's fair enough.

LCDR GRACIE: And Exhibit 7 might need to be reviewed if it - - -

20

MS McMURDO: Sorry?

LCDR GRACIE: Exhibit 7 is a photograph of the cockpit.

25 MS McMURDO: Yes.

LCDR GRACIE: I think - - -

MS McMURDO: And we'd better cut the feed, hadn't we? We'd better cut the feed, sorry.

30

LCDR GRACIE: I'm fairly sure providing the exhibit number - - -

MS McMURDO: Well, that could well be so, because I think that this concern was raised relatively late in the Inquiry hearings, and it may not have been raised at the time of Exhibit 7. So it might be that - Exhibit 7 is a statement. What was it that we were - the video of the Channel 9 Taipan story.

35

40 COL STREIT: There was evidence given - - -

LCDR GRACIE: Exhibit 3.

MS McMURDO: Sorry?

45

LCDR GRACIE: Exhibit 3, ma'am.

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COL STREIT: It was very early stages of the Inquiry, Ms McMurdo, through CAPT Balaam and Lieutenant Colonel - - -

5 MS McMURDO: Well, that might have to be re-classified then as “Official: Sensitive”. Is that right?

COL STREIT: Well, I don’t know. It’s a public document. It’s been disclosed to the Commonwealth for months.

10

MS McMURDO: Yes, I know. But the problem now that it’s emerged partway through the Inquiry is that if it relates to our NATO allies, information relating to NATO allies is “Official: Sensitive”. And what we’re now being told is that these aircraft are still in operation. So it seems as though perhaps it’s something, with hindsight, now is being told it’s “Official: Sensitive”.

15

COL STREIT: Perhaps if we do it on the basis that we seek clarity from the Commonwealth about the matter and we address it at a later stage in the next hearing. I don’t want to give evidence from the Bar table, a simple Google search involving Army Aviation would reveal the internal workings of an MRH-90.

20

MS McMURDO: I suspect that’s so. But I can understand the Commonwealth’s position that they still have these obligations. Having been identified to them, they still have the obligations to raise these issues. So we will remove it from the live feed in a moment. The photographs themselves show much less of the – have the Commonwealth seen these photographs?

30

MS MUSGROVE: In relation to the ones today, no I haven’t seen them before. And in terms of – I just note - - -

35

MS McMURDO: Could we have a short adjournment perhaps?

MS MUSGROVE: Yes, that might - - -

MS McMURDO: And you can have a look at them, get instructions. The family obviously would like to have these photographs tendered. I can see the difficulty with the video of the inside of the cockpit perhaps, but the photographs of LT Nugent inside the cockpit might be in a different category. Look, we’ll have a short adjournment. Let’s see if we can get it sorted and see what can be tendered in the public domain for the moment.

40

45

HEARING ADJOURNED

HEARING RESEUMED

5

MS McMURDO: So we have a solution?

FLTLT ROSE: We do. So Exhibit 187, which is the two photographs
and the video, today we'll just be showing the two photographs. They've
10 had some redactions applied to them so that they can be shown at the
"Official" level. And just in case this wasn't captured on the live stream
before, they depicted LT Max Nugent sitting in an MRH-90 cockpit. And
the Nugent family have asked that these photographs be shown to give an
indication to the Inquiry of, even though he was an exceptionally tall man,
15 he still fitted easily within the MRH-90 cockpit. And it also allows the
Inquiry to see the field of view through the windscreens of the MRH-90
cockpit during the day.

MS McMURDO: Thank you. And the Inquiry is very grateful to the
20 Nugent family for providing that information to the Inquiry. Thank
you. Yes.

FLTLT ROSE: They can be taken down now.

MS McMURDO: Yes, Exhibit 187. And is the video still part of
25 Exhibit 187?

FLTLT ROSE: It is. But we can't show it in this fashion.

MS McMURDO: Show it in this forum. Excellent, thank you.

FLTLT ROSE: Those are the documents I wish to tender today.

35 **#EXHIBIT 187 - PHOTOS (REDACTED) AND SHORT VIDEO
("PROTECTED")**

MS McMURDO: So that concludes the hearing for today?
40

FLTLT ROSE: I understand COL Streit wishes to address - - -

MS McMURDO: COL Streit is going to say something next. Thank you.
Yes, COL Streit?

45

COL STREIT: Thank you, Ms McMurdo. Just by way of closing

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remarks, can I first acknowledge the difficulty for all involved in relation to aspects of the evidence this week and to recognise the efforts of FLTLT Rose in the manner in which, with great empathy, conducting the private hearings. And acknowledge the evidence that would've affected
5 people in different ways. And just people should be mindful about that over the coming days. No doubt you will say something about that in closing remarks.

Can I also thank witnesses this week for their courage in coming forward
10 and giving evidence. And the forthright manner in which that evidence was given, particularly D147.

In terms of witnesses next week, can I indicate there is one change. On Wednesday, from CASA I'd indicated a Ms Pip Spence was being called.
15 The CASA representative has changed. That is now a Mr Joe Rule. He is the National Manager of the Flight Standards and we'll call him. Sorry, that's for Friday. That was the other change.

At the moment witnesses for Thursday are to be confirmed. There are
20 some witnesses we intended to call on that day, but it may be their evidence may be tendered by consent in respect of some aspects.

And then on Friday, of course, we have Dr Adrian Smith. I will inform Counsel representing as soon as I can, once witness arrangements have
25 been made for the latter half of next week, noting that the Inquiry, at the request of the Commonwealth, will commence its hearings on Thursday at 1 pm AEST. Thank you.

MS McMURDO: Thank you very much. Now, what time should we
30 resume on Monday morning? Is a 10 o'clock start sufficient?

COL STREIT: A 10 o'clock is sufficient. Thank you.

MS McMURDO: Yes. Well, I'd just like to emphasise or re-emphasise
35 what Counsel Assisting has said. It's been a very tough and emotional week in terms of the evidence that we've heard; especially for family members and for others who were close to the deceased aircrew. And sometimes these matters take their toll days, weeks, sometime later. So please always be mindful of that and be kind to yourselves and take
40 advantage of the support that is available, and the support systems that you have.

I'm sure it's been a very busy week and I'm sure everyone's very grateful
45 for the weekend and slightly earlier finish than would usually be expected. Although only about 10 minutes in the end, but a real 10 minutes, not a

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LCDR Gracie 10 minutes. So I hope everyone has a restful and refreshing weekend and we'll resume at 10 o'clock on Monday. Thank you.

**5 PUBLIC INQUIRY ADJOURNED UNTIL
MONDAY, 31 MARCH 2025 AT 1000**