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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

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COL N GABBEDY, representing MAJGEN Jobson
MR G O'MAHONEY, representing Airbus and related entities
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1000, FRIDAY, 3 MAY 2024

DAY SIX

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	16/05/24	(Transcription)

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MS McMURDO: Yes, LTCOL – FLTLT Rose, I’ve just promoted you. Are we continuing with the witness?

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FLTLT ROSE: Yes, I recall MAJ Harry More.

<MAJ HARRY MARLBOROUGH MORE, recalled on former affirmation

10
<EXAMINATION-IN-CHIEF BY FLTLT ROSE, continuing

MS McMURDO: Major, you’re still on your affirmation that you took yesterday.

15
MAJ MORE: Thanks, ma’am.

MS McMURDO: Thank you. Yes, FLTLT Rose.

20
FLTLT ROSE: Major, at the end of your evidence yesterday, you said that there was a safety issue – and these are my words; I’m paraphrasing your evidence, so tell me whether you agree or disagree – there was a safety issue in 5 Aviation Regiment in 2023 which AAvmTC alerted you to regarding the downloading of data from the MRH-90 which was deemed to be non-valid data. Is that correct?

25
MAJ MORE: I believe it was AAvmTC – I think it was AAvmTC that first raised it. They were told by the CAMO, the Continuing Airworthiness Management Organisation, to have a look at it. Sorry, can you repeat the question?

30
FLTLT ROSE: Was the issue regarding the downloading of data from the MRH-90 that was deemed to be non-valid data?

35
MAJ MORE: The issue was data downloaded from the aircraft, there was a requirement – there was a policy requirement to validate that data before it was used in the Maintenance Management System and the incident we’re talking about was it had been discovered that at times that data had not been validated before being input into the Maintenance Management System.

40
FLTLT ROSE: So, in essence, it was a process concern the maintainers or the technicians had not been validating that data before entering it into the computer system?

MAJ MORE: Yes.

FLTLT ROSE: Which computer system was it meant to go into?

MAJ MORE: This is CAMM2.

5 FLTLT ROSE: CAMM2.

MAJ MORE: Yes, our Maintenance Management System.

10 FLTLT ROSE: Was it meant to be validated prior to going into CAMM2?

MAJ MORE: I believe so, yes. I would have to refer to the actual procedure and the investigation, but I believe that was the case.

15 FLTLT ROSE: What kind of data was it from the MRH-90?

MAJ MORE: I can't recall the specific data, but it was from our GLIMS data, so our health and usage monitoring system. And I remember the incident was about the life and coefficient factors.

20 FLTLT ROSE: Now, you said "GLIMS".

MAJ MORE: GLIMS, yes.

25 FLTLT ROSE: What does GLIMS stand for?

MAJ MORE: GLIMS is – I'll have to confirm with my statement – I believe it's the Ground Logistics Information Management System, I think I refer to it.

30 FLTLT ROSE: You said that's what contains life and coefficient factors?

MAJ MORE: No, GLIMS is the tool that lets – I guess it would be used to interface with the data taken off the aircraft.

35 FLTLT ROSE: So where was the life and coefficient factors data taken from? Was that taken directly from the MRH-90?

MAJ MORE: So we're talking about data – the health and – the HUMS

40 system, sorry, records a number of parameters on the aircraft.

FLTLT ROSE: So the ARMS system?

MAJ MORE: HUMS.

45

FLTLT ROSE: HARMS, H-A-R-M-S?

5 MAJ MORE: HUMS, being the – I’m just going to refer to my statement for a second. So I’ll start again. So there’s an onboard computer that records a number of usage parameters, I guess, and GLIMS is the tool. So there’s a data insertion device that you take out of the aircraft and insert into a computer. GLIMS is the software that allows you to pull that data off the data insertion device to get information about how the helicopter was used during the last flight.

10 That data – some of that data is usage data, so used to record, to understand the life-ing of components. There’s certain components that don’t just have a calendar base life, they’ve got a usage life, and that’s the tool.

15 GLIMS is the interface for taking that data off the aircraft and there was a requirement – again, I don’t recall the exact data, but it was a requirement for that data to be inputted by management control section into CAMM2.

20 FLTLT ROSE: When you say “the data was not being validated”, was that a manual process whereby a technician had to manually verify the usage life of certain components?

25 MAJ MORE: Yes. I can’t recall the exact details but there was some manual validation check. There had to be some sort of parameter had to have been met and in the cases it was met, then the data could be used as recorded. If that parameter wasn’t met, then a gross value – sorry, a default value had to be used instead of the data taken off the aircraft.

30 FLTLT ROSE: So, for example, is there a particular component we could use as an example that has a shorter usage life, so I can just understand what needed to happen and then what wasn’t occurring?

35 MAJ MORE: I can’t recall the components in question that were affected by this issue.

FLTLT ROSE: So when you say a default number had to be used, within GLIMS or CAMM2?

40 MAJ MORE: In CAMM2, yes. I can’t recall the types of data but it would – I’m just trying to think if I - - -

MS McMURDO: Could I perhaps approach it in a different way.

45 MAJ MORE: Yes, ma’am.

MS McMURDO: If you have a look at paragraph 23 of your statement, because I think this is where we're at, isn't it?

FLTLT ROSE: Yes.

5

MS McMURDO: If you just refresh your mind from paragraph 23 for a few minutes. The final thing that you've mentioned there is that DOCAMD, that that you were responsible for. I think this is the effect of it, is that you were responsible for immediately reporting to the BAMO whenever there was the potential for a condition that endangers flight safety that could not be dealt with through standard business practices or may have further fleet implications.

10

That's where you mentioned that in April/May 2023 there was an incident and you're being asked questions about that incident. Well, I understand it was about flight data not being correctly put into the system, which then is relied upon for future flights. Is that, in layman's terms, the position?

15

MAJ MORE: Yes, ma'am. So it's to understand how much life is left on a component.

20

MS McMURDO: On how much life is left on a component within the engine or airframe or whatever?

MAJ MORE: Yes. So I can't recall the components and the life they have. It may have been 10,000 cycles if the aircraft had flown in a certain condition. A life and coefficient factor may have been required to be applied, which may have reduced the remaining life of that component.

25

MS McMURDO: That's why, if the information isn't put in properly into the computer, that is a condition or something that could endanger flight safety, as you say in paragraph 23:

30

Could endanger flight safety in a way that couldn't be dealt with through standard business practices, and it could have further fleet implications.

35

MAJ MORE: Yes, ma'am. So could have the potential to endanger flight safety. So in that case, it was raised up and to be investigated, the technical impact on airworthiness to be investigated by the CAMSO. My recollection was, assuming that all the values had been entered incorrectly, there was still no risk in that moment to flight safety because no components would have overflowed in maintenance.

40

MS McMURDO: We will be able to – what should we ask for when we want to find the documents that relate to that?

5 MAJ MORE: So either, I guess, a Continuing Airworthiness Management Organisation representative's or CAMSA representative's. It was a reportable occurrence.

10 MS McMURDO: So we look for reportable occurrences under CAMS? Is that what we look for, in that time period?

MAJ MORE: Yes. It was a reportable occurrence during that time period. Yes, that would be the easiest way to get information on it.

15 MS McMURDO: Thank you, MAJ More.

MAJ MORE: Thanks, ma'am.

MS McMURDO: Yes. Thanks, FLTLT Rose.

20 FLTLT ROSE: As I understand your evidence then, you stated that there was no – in your mind, there was no risk to flight safety in reality because none of the components had been overflowed.

25 MAJ MORE: Yes, that's my understanding.

FLTLT ROSE: Was there a change in policy as a result of the investigation into that reportable occurrence for technicians to change their processes regarding validating that data?

30 MAJ MORE: Yes, there was a change to procedures. So the procedure was that the technician workforce was, I guess, educated on the correct procedure. Retraining was conducted to ensure that we were now – the technicians knew when they had to conduct that validation, and only in those circumstances that validated data was used.

35 FLTLT ROSE: When you're saying "the technicians", are you referring to the technicians in your Squadron and 5 Aviation Regiment?

40 MAJ MORE: Yes, the MRH-90 technicians in the Maintenance Organisation at 5th Aviation Regiment, yes.

45 FLTLT ROSE: Do you have any understanding whether other technicians who worked on MRH-90 in other operational units, or indeed at Oakey, were given the same instruction about the change of procedure?

MAJ MORE: I recall that all Maintenance Organisations were looking at it and addressing the issue. I don't have knowledge on exactly what training or corrective action took place. I recall there was discussion between the Maintenance Organisations about potentially amending the procedure to make it clearer. I can't recall exactly where that ended up.

FLTLT ROSE: Your evidence yesterday was that the fleet in 5 Aviation Regiment at least kept flying during the investigation into this reportable occurrence?

MAJ MORE: Yes, I don't recall any cessation. I recall that there was – the topic had been dealt with immediately. There was an immediate online meeting called by the CAMO for all stakeholders to be present to just try and understand – to understand the potential, or how serious this incident had the potential to be to allow the MAO and the CAMO to make decisions of that nature.

FLTLT ROSE: Is this the first time you've become aware of a condition – this is your time in 5 Aviation Regiment – that endangers flight safety?

MAJ MORE: I recall one other incident in my organisation that had the potential to endanger flight safety which is reported up, again, as a reportable occurrence.

FLTLT ROSE: What was that?

MAJ MORE: That was a single component on one aircraft that had a life-ing policy, so a maintenance policy, that inadvertently I guess deactivated, that it did not automatically flag. It was picked up preparing for a servicing, but by a maintenance manager. The system hadn't worked as intended for that one single component on one aircraft. So that had the potential to have endangered flight safety if it had not been caught.

FLTLT ROSE: What was the component of the aircraft you said.

MAJ MORE: I believe it was – I can't recall the exact component but it was to do with the nose landing gear actuator on the system.

FLTLT ROSE: So the maintenance manager at 5 Aviation Regiment thought that that component required servicing based on some documentation that he or she had in their office?

MAJ MORE: So scheduled maintenance, there's a whole variety of scheduled maintenance of the aircraft. Most of that is packaged into servicings, so with the maintenance manager. I believe it was the

5 maintenance manager, or a Sergeant working in our Integrated Planning cell, would have been preparing for that servicing, identifying all the required maintenance that was falling due and to be conducted, and noticed this particular piece of maintenance wasn't flagged to be conducted. I'm not sure of the exact circumstances, but I looked into it and realised it should have been caught by the system.

10 FLTLT ROSE: When you're saying that it did not have the requisite flag identifying that it required servicing, is that something within the MRH-90 itself, a system alert that tells you something needs servicing?

15 MAJ MORE: No, this is our Maintenance Management System, being CAMM2. So CAMM2 contains our Technical Management Plan which dictates all the required servicing and maintenance of the aircraft. So the system is designed to allow maintenance to be forecasted and accurately notifies when maintenance is recorded and doesn't – sorry, when maintenance is required and the aircraft will be showing “unserviceable” on the system until that maintenance is conducted. So it prevents an aircraft flying with outstanding maintenance.

20 FLTLT ROSE: So it wasn't showing up as unserviceable when it should have been?

25 MAJ MORE: Yes, for this component. Yes, if the maintenance manager hadn't picked it up, it would not have flagged as designed.

FLTLT ROSE: When that was reported, was it reported to the CAMSO?

30 MAJ MORE: So, that was, yes, reported immediately on being discovered to the BAMO as per my DOCAMD delegations, but at the same time, being a reportable occurrence, an email would have been sent to the BAMO, the CAMO – the Continuing Airworthiness Management Organisation – the CAM Services Organisation, and I believe the military type certificate holder.

35 FLTLT ROSE: Was it investigated?

MAJ MORE: Yes.

40 FLTLT ROSE: By who?

MAJ MORE: So the investigation of how that came about was conducted by the 5th Aviation Regiment, so as a Class C Aviation safety report. The, I guess, technical impacts or the impact to airworthiness would have been

investigated and looked at by the CAMO or the CAMSO on behalf of the CAMO.

5 MS McMURDO: So was the position then, before it was identified as a problem, was it – this fault that hadn't shown up in the maintenance program, had the potential to endanger life?

10 MAJ MORE: Yes, in the sense that, yes, the design analysis that's been – behind the maintenance policy, if dictated, has said it was – had decided it was only safe if maintenance was conducted at the interval required. So it had the potential to exceed that interval. I don't know, you know, it'd be hard to make an assessment about how, I guess, dangerous the potential if flown would have been to - - -

15 MS McMURDO: Yes. Sorry, I thought the effect of your evidence was that because some problem with the part hadn't shown up in the maintenance schedule, then the aircraft had been flying with a faulty part. Is that not correct?

20 MAJ MORE: So not faulty as such, but it was I guess technically unserviceable. So it was due – the part was due to be inspected to confirm the serviceability of the part.

25 MS McMURDO: Yes.

MAJ MORE: That confirmation, that inspection, had not taken place. So, yes, in a - - -

30 MS McMURDO: So it was flying with a part that wasn't up to its current service program.

MAJ MORE: Yes, ma'am.

35 MS McMURDO: Thank you. Thanks, FLTLT Rose.

FLTLT ROSE: Was this a fleet-wide issue?

MAJ MORE: In that case, no.

40 FLTLT ROSE: It was only for 5 Aviation Regiment?

MAJ MORE: Yes.

45 FLTLT ROSE: You said it was a reportable occurrence to CAMSO. Sorry, yes or no?

5 MAJ MORE: Yes, the main obligation of a reportable occurrence is to the CAMO, who then have further reporting obligations. The CAMSO, working on behalf of the CAMO, is obviously also notified about it. So, yes.

FLTLT ROSE: So if the Inquiry wished to request documentation, it would be to 5 Aviation Regiment or to the CAMSO?

10 MAJ MORE: I think the CAMO would be the best central organisation. 5 Aviation Regiment can definitely provide the information on the investigation.

15 FLTLT ROSE: Thank you.

MS McMURDO: Was there any grounding of the fleet as a result of that reportable occurrence?

20 MAJ MORE: No, that aircraft was unserviceable. That aircraft immediately was - - -

MS McMURDO: Got serviced

25 MAJ MORE: Was grounded in a sense, as in unserviceable, because there was an unserviceable component on it. But it was not identified to be a fleet-wide issue or have the potential to be a fleet-wide issue.

MS McMURDO: Thank you.

30 FLTLT ROSE: Did this issue occur again during your tenure as OC in the Squadron?

MAJ MORE: No.

35 FLTLT ROSE: If you could turn to paragraph 32 of your statement. In the bottom quarter of that page you state the sentence:

40 *If a defect on the aircraft is unable to be rectified due to no spare part procedure or time, then the maintenance manager, in consultation with an RM delegate –*

you suggest that you're an RM delegate?

45 MAJ MORE: I'm a Responsible Manager, so I have some delegates, they are Responsible Manager, so RM delegates.

FLTLT ROSE: So either you or one of your delegates?

MAJ MORE: Yes.

5

FLTLT ROSE:

10 *May decide that deferring the defect could be an option to allow the aircraft to return to the flying program. In these instances, a licensed and authorised individual conducts an Effect Flight Safety Assessment.*

MAJ MORE: Sorry, there's a correction, that should be, "Endanger Flight Safety Assessment".

15

FLTLT ROSE: Instead of "Effect"?

MAJ MORE: Yes, sorry.

20 MS McMURDO: Sorry, it should be "Endanger"; is that right?

MAJ MORE: "Endanger Flight Safety Assessment", EFSA.

25 MS McMURDO: E-n-d-a-n-g-e-r, is it?

MAJ MORE: Endanger, yes, ma'am.

MS McMURDO: Endanger.

30 MAJ MORE: I believe.

FLTLT ROSE: Then you continue:

35 *If the result of this assessment is no, then the defect can be differed - - -*

MAJ MORE: Sorry, that's supposed to be "deferred".

40 FLTLT ROSE: "Deferred" instead of "differed"?

MAJ MORE: Yes.

FLTLT ROSE:

45 *By an RM delegate as a logistical decision.*

MAJ MORE: Yes.

FLTLT ROSE:

5

Then if the EFSA –

which your evidence is an Endanger Flight Safety Assessment; is that correct?

10

MAJ MORE: Yes.

FLTLT ROSE:

15

Requires a limitation against the aircraft in order to achieve an answer of no, then the decision to defer must be accepted by the aircrew.

MAJ MORE: Yes.

20

FLTLT ROSE:

And in these cases the limitation will be entered into CAMM2.

25

MAJ MORE: Yes.

FLTLT ROSE: If I could take this part by part so that the Inquiry can understand this evidence. What does “deferring the defect” mean?

30

MAJ MORE: So that’s taking – when we say “defect” we’re talking about an unserviceability, so a part that is not, I guess, in the correct state that it should be, so broken, missing a screw. Yes, something along those lines. So a defect, so in that it couldn’t be rectified. Yes, so in that example there is a screw missing from a section on the aircraft. The rectification of that defect would be to replace that screw. So we’re talking about in the case where – or for whatever reason, it might be a situation or consideration to – for, yes, logistical or operational reasons, we’re unable to rectify that defect at that point in time.

35

40

FLTLT ROSE: So either you or one of your delegates could make a decision to defer rectifying the defect until a later point.

45

MAJ MORE: So the process is a licensed technician. So only a licensed technician that’s authorised to make an assessment would go through a procedure assessing whether that defect endangered flight safety. If there’s

any potential for that defect to endanger flight safety, then that defect cannot be deferred by a CAMO delegate. So the delegate, say RM delegate – the function of referring is actually technically a delegation of the CAMO.

5 FLTLT ROSE: If it was not able to be deferred because it did endanger flight safety, would that MRH-90 be grounded?

MAJ MORE: Yes, until – so the options at that point are – got to be careful when you say – talking about the word “grounded” because it can have different connotations. But the aircraft in that sense is still – remains
10 unserviceable until that defect is rectified. So if, however, there was an operational requirement to fly with that defect, our Defence Aviation Safety Regulations have procedures for escalation of that consideration. But it becomes a operator consideration that’s outside of the realm of the
15 Maintenance Organisation or the CAMO delegates.

FLTLT ROSE: So it is possible for an unserviceable aircraft to be flown if it’s operationally required?

20 MAJ MORE: Yes.

FLTLT ROSE: And you state that it has to be accepted by the aircrew.

MAJ MORE: By the military air operator. So there’s a couple of pathways;
25 one is applying to the Regulator for a military permit to fly, MPTF. The actual decision there still rests with the military air operator. Then I believe the process is, if for time or other reasons it’s not practical or possible to go through the military permit to fly process, the military air operator and, I guess, delegated operators have the ability to implement a Command
30 clearance.

FLTLT ROSE: Who’s the military air operator for MRH-90?

MAJ MORE: The Army military air operator is the Commander Aviation
35 Command, MAJGEN Jobson.

FLTLT ROSE: So there’s two processes that MAJGEN Jobson could have followed in respect to approving the flight of an unserviceable aircraft. It’s through – going through CASA?
40

MAJ MORE: DASA, Defence Aviation Safety Regulation (sic).

FLTLT ROSE: DASA.

45 MAJ MORE: Or a delegate of the Regulator.

FLTLT ROSE: And the other option is not to go through DASA?

5 MAJ MORE: Yes. This area is not my expertise. That is my understanding of the options available.

FLTLT ROSE: What do you mean when you say:

10 *If the Endanger Flight Safety Assessment requires a limitation against the aircraft in order to achieve the answer of no.*

What does that mean?

15 MAJ MORE: So that might be in relation to a – so equipment that is not essential to flight but may be essential to achieving a mission or operating in certain conditions. So if the aircraft was never planned – not planned to be flown for that particular mission-set, then a defect on that mission equipment would be an example of something that could be deferred. But in those situations the aircraft would be limited not to perform that role.
20 That limitation, one of the ways it's communicated is through CAMM2, our continuous (indistinct) Maintenance Management System. When a pilot is accepting the aircraft for flight, they're briefed and they sign for that aircraft with the understanding of that limitation.

25 FLTLT ROSE: So “the pilot”, do you mean the aircraft Captain or any of the pilots?

MAJ MORE: Sorry, in regard to what part of the question?

30 FLTLT ROSE: You said that limitation would be briefed to the pilot.

MAJ MORE: Yes, the pilot or pilots – the pilot accepting the aircraft for flight would have that briefed or displayed on CAMM2 and they accept it, and it's briefed by the maintenance manager as part of the dispatch to operator process.
35

FLTLT ROSE: So is it the case that – in your statement you say that:

40 *The decision to defer must be accepted by the aircrew.*

When you say “aircrew”, as I understood your earlier evidence, it actually isn't aircrew; it needs to be approved by the MAO.

45 MAJ MORE: No. So in the – when me or my delegates, as delegates of the CAMO, are deferring a defect for logistical reasons, a defect that's been

assessed to have no impact on flight safety, if that defect – so in order for the licensed member to make the assessment, it does not affect flight safety – sorry, I’ll start again.

5 In conducting the assessment about whether the defect endangers flight safety – I’m just trying to think of an example.

MS McMURDO: So could I just clarify then, what you’re being asked about in that sentence and following from paragraph 32 of your statement,
10 “If a defect on the aircraft is unable to be rectified”, et cetera, you’re being asked about that. Are you saying that in deferring the defect, that only relates to defects that would have no impact on flight safety?

MAJ MORE: Sorry, ma’am. Can you please repeat that?

15 MS McMURDO: Of course. Yes, just have a look at your statement.

MAJ MORE: Yes.

20 MS McMURDO: So FLTLT Rose is talking to you about part of that long paragraph towards the bottom of the page that starts:

If a defect on the aircraft is unable to be rectified due to no spare part procedure or time –

25 and then it goes on to say that in certain circumstances, with certain people looking at it and authorising it, the defect can be deferred and it can be okay to fly. But what I’m asking you is, I thought you just said, “But that would only happen if the defect was assessed as having no impact on flight safety”.

30 MAJ MORE: Yes.

MS McMURDO: So what I’m interested in I suppose to know is, on occasions was there ever in your experience, or your knowledge, a defect
35 that was unable to be rectified because no spare part procedure or time that could have an impact on flight safety was deferred and the aircraft given the okay to fly?

MAJ MORE: In my six months, I don’t recall an MPTF or a Command clearance being used on the MRH-90 to defer a defect, yes – no.

MS McMURDO: Is that procedure only applied when it has been assessed – the defect has been assessed as having no impact on flight safety? Or can it be applied when it could have an impact on flight safety?

45

MAJ MORE: So the military permit to fly and Command clearance process can be applied when – I'll speak to the Command clearance process. Yes, in the Command clearance process that exists when the aircraft is outside of its type certificate. So a defect has not been able to be rectified or a servicing has not been able to be conducted, so in a sense there's an element of risk. And the Command clearance process allows that operator, in operational necessity, to fly with that aircraft outside of the type certificate.

MS McMURDO: In other words you're saying, yes, sometimes there could be permission given to fly an aircraft with a defect which has an impact on flight safety, but a risk assessment is done about it. Is that what happens?

MAJ MORE: Yes.

MS McMURDO: Okay. And in the risk assessment, do you take into account operational needs, or is it purely a safety risk assessment?

MAJ MORE: I haven't been involved in a Command clearance decision, but yes, they are risk-based. So there's a technical input to the risk assessment, trying to quantify the level of airworthiness risk, and then that's balanced by the decision-maker against the operational need and the operational necessity.

MS McMURDO: Then taking you again to your statement, you say:

If a defect on the aircraft is unable to be rectified due to no spare part procedure or time, then the maintenance manager, in consultation with an RM delegate –

that's you or your delegate –

may decide that deferring the defect could be an option to allow the aircraft to return to the flying program. In these instances, a licensed and authorised individual –

so who would be the licensed and authorised individual who conducts the Endanger Flight Safety Assessment?

MAJ MORE: One of our licensed technicians.

MS McMURDO: All right. Thank you. Thank you, FLTLT Rose. I hope you don't mind me interrupting, but - - -

FLTLT ROSE: Of course not.

MS McMURDO: - - - it's important that I try and understand this myself.
Thank you.

MAJ MORE: And I have an example, ma'am - - -

5

FLTLT ROSE: Yes?

MAJ MORE: - - - to explain the limitation. An example is our flotation
system on the MRH-90. So the flotation system is only required to be
10 installed in certain flight profiles, like flying over water. It is not required
to be installed on the aircraft at all times. There may be a time where the
flotation system is unserviceable. We have the option to remove the
flotation system completely and the aircraft then would be fully serviceable,
or we could defer the rectification of the flotation system but with the
15 limitation that that aircraft is – the floats are not to – you know, the floats
are unserviceable and that aircraft is not to be flown in a profile that requires
a flotation device to be installed.

FLTLT ROSE: Theoretically, could it be possible that there is an
20 unserviceable or a defect in an aircraft and it is assessed by the licensed and
authorised individual, the licensed technician, as it would endanger flight
safety, that gets referred to the MAO and a Command decision is made to
still operate that aircraft because of operational necessity, and then at that
point does the aircrew have any decision-making in regards to whether they
25 fly that aircraft?

MAJ MORE: I couldn't speak to that. Yes, that's in the policies and
procedures and processes of aircrew and operators.

FLTLT ROSE: Just for completeness, that final sentence that starts at the
30 end of page 15, paragraph 32:

*Once all maintenance is completed or defects have been
appropriately deferred, the maintenance manager will conduct a
35 dispatch to operator and release the aircraft for maintenance,
ready to be accepted for flying by aircrew.*

MAJ MORE: Yes.

FLTLT ROSE: So that's the standard process: a defect is found, it's either
40 resolved or a limitation is placed on the aircraft, and the aircraft is released
back to aircrew?

MAJ MORE: Yes, the standard – what we're always trying to do is rectify
45 all defects or conduct all maintenance. So, yes, that's standard practice.

It's what we would be doing and when – yes, so – sorry, can you repeat the question.

5 FLTLT ROSE: I was just reading that sentence to you in respect of the usual process. So once the defect has been rectified or appropriately deferred, it can be dispatched to operator. Who is the operator?

10 MAJ MORE: Yes. So the aircraft – so normally it's not just a single defect. However, when the aircraft is ready, it is serviceable when the direct maintenance has been carried out and any defects have been rectified or those defects have been deferred. Then, you know, the aircraft is deemed serviceable and ready to be flown. And the process there, it's released from maintenance – so that's a maintenance manager role – ready for aircrew or released, yes, to be used in the flying program. So when we're talking about
15 aircrew, they're the unit pilots that are flying the aircraft that day.

FLTLT ROSE: If you could turn to paragraph 39 of your statement. At the bottom final two sentences on that page, page 18, you state that:

20 *As an example, the Maintenance Organisation itself has no authority to approve the deferral of a defect if it was assessed that the defect had the potential to endanger flight safety and thereby a risk.*

25 MAJ MORE: Yes.

FLTLT ROSE:

30 *Instead, these types of defects could only be approved by deferral by DASA through a military permit to fly or by the operator through command clearance.*

That's the process that you described in your evidence before?

35 MAJ MORE: Yes.

40 FLTLT ROSE: And you stated that during your tenure in 5 Aviation Regiment you had no experience with having to obtain Command clearance or approval for a deferral by DASA?

45 MAJ MORE: There was one incident where we considered a military permit to fly as an option, but when it was at the CAMO level they decided not to pursue it. So I was involved with the initial discussions about whether that would be a possibility and a decision was made to not accept any risk in that area and look at other options.

FLTLT ROSE: When you say “a decision was made”, who made that decision?

5 MAJ MORE: I believe – I can’t recall. It was someone in the CAMO organisation, so either the Continuing Airworthiness Manager himself or his Staff Officer Grade 1. I remember being informed by the Brigade Aviation Maintenance Officer that there was no appetite to pursue a military permit to fly in that situation and for that instance.

10 FLTLT ROSE: Did you have to go through either one of these options to get a military permit to fly or a Command clearance in relation to the issue with the downloading of the data that wasn’t being validated according to procedure?

15 MAJ MORE: No.

FLTLT ROSE: If you could turn to paragraph 28 of your statement. You state in the final two sentences – or the final sentence:

20 *5 Aviation Regiment maintainers were required to conduct maintenance on the 6 Aviation Regiment aircraft that were grounded at Proserpine following the accident.*

25 MAJ MORE: Yes.

FLTLT ROSE:

30 *During this period, the 5 Aviation Regiment maintainers were granted authorisation by Airbus RM to work under the processes and procedures of the Airbus Part 145 MO.*

MAJ MORE: Yes.

35 FLTLT ROSE: Is it your understanding that the Part 145 MO authorisation travels with a Regiment when it is deployed outside of its home base?

MAJ MORE: Yes.

40 FLTLT ROSE: So Airbus has the Part 145 MO for 6 Aviation Regiment?

MAJ MORE: Yes, they did.

45 FLTLT ROSE: And that continued when they went on exercise to Proserpine?

MAJ MORE: Yes.

5 FLTLT ROSE: Does that mean that Airbus maintainers travelled with
6 Aviation Regiment, to your understanding, to Proserpine?

MAJ MORE: I'm not sure.

10 FLTLT ROSE: Were you involved or did you travel with technicians down
to Proserpine, in this instance, after the incident?

MAJ MORE: No.

15 FLTLT ROSE: They were members of your team, however?

MAJ MORE: Yes.

20 FLTLT ROSE: Why were they required to perform that maintenance
activity?

MAJ MORE: My understanding is that the rationale – there was a number
of considerations. One was, I guess, to preserve the integrity of the
investigation. So the maintainers had been working – the maintainers at
Proserpine would have been working on the aircraft involved in the
25 accident. So – okay, yes, sorry, a couple of factors.

Those maintainers would have been affected by the accident themselves, so
there's human factors consideration there with any required maintenance
that was – any maintenance that was required. Yes, there would be
30 questions about how safe the – or, sorry, yes, how correctly that would have
been conducted by maintainers who had just been potentially concerned
they were involved in an accident and obviously impacted by knowing the
people involved.

35 And then as well, those aircraft, my understanding is that the other aircraft
at Proserpine were all quarantined and came under the authorisation of the
Defence Flight Safety Bureau. So there's – yes, from the integrity of the
investigation, it's logic to use maintainers that were not part of the
maintenance team that had been working on those aircraft prior to the
40 accident.

FLTLT ROSE: Who gave you this tasking?

45 MAJ MORE: That would have come down through Brigade, 16 Aviation
Brigade.

FLTLT ROSE: Was that given orally or in some sort of directive, written directive?

5 MAJ MORE: Initially it would have been orally, just because of the time sensitivities, but that was confirmed through a formal tasking, a written tasking.

10 FLTLT ROSE: How many of your maintainers went to Proserpine?

MAJ MORE: I can't recall. It was sort of a staged process. Initially there was a – I think, I believe, a small team had gone down to perform some initial actions for the Defence Flight Safety Bureau, such as I think they took fuel samples of the aircraft, downloading the data of those other aircraft. And then later on there was an effort, a maintenance effort, required to prepare those aircraft for ground transportation back to Townsville.

15 FLTLT ROSE: How many days were members of your team in Proserpine assisting with this work?

MAJ MORE: I can't recall. It was a number of weeks.

20 FLTLT ROSE: And under whose direction were they conducting this maintenance activity?

MAJ MORE: Can you clarify what you mean by "direction"?

25 FLTLT ROSE: You mentioned before that they were assisting the DFSB whilst the aircraft were in quarantine. The DFSB that was providing the taskings to the maintainers?

30 MAJ MORE: No, in the very initial stages those aircraft were quarantined and required the authority of the Defence Flight Safety Bureau to have any maintenance conducted on it. At a point in time, the DFSB would have released those aircraft from quarantine and handed them back over to 16 Aviation Brigade. And then it was, you know, a Commonwealth organisation decision about what then happened to those aircraft. I can't recall if that was a Brigade decision. It would have been, no doubt, a collaborative decision about what was to happen to those aircraft.

35 FLTLT ROSE: Do you recall how long the aircraft were in quarantine for?

40 MAJ MORE: No.

45

FLTLT ROSE: You said before you didn't attend Proserpine yourself.

MAJ MORE: Yes.

5 FLTLT ROSE: Who was commanding the technicians when undertaking this task at Proserpine?

MAJ MORE: They were under command control of the Officer Commanding of A Squadron, 5th Aviation Regiment.

10 FLTLT ROSE: Who was that?

MAJ MORE: MAJ Jeremy Costello.

15 FLTLT ROSE: I think, if I understand your evidence correctly before, some of the tasks that the maintainers did was downloading data from the aircraft that flew in the sortie on 28 July.

MAJ MORE: Yes, I believe so.

20 FLTLT ROSE: And taking the fuel out, defueling.

MAJ MORE: I can't recall the exact processes. I believe fuel samples were taken.

25 FLTLT ROSE: Sorry, yes, you did say fuel samples. And preparing the aircraft to be transported by road?

30 MAJ MORE: Yes. Yes, two sort of different processes, but yes. So I can't recall if it was the same people, the same team. I know there was supplementation at times because it was over an extended period of time. But, yes, the 5th Aviation Regiment maintainers, yes, did those tasks.

35 MS McMURDO: So did the 5 Aviation Regiment maintenance people, were they involved in checking the maintenance for the flight safety investigation or did the flight safety investigation have its own people examining it?

40 MAJ MORE: I believe they used the 5th Aviation Regiment maintainers to carry out the maintenance functions they required, but it would have been under their supervision and definitely under their direction.

45 MS McMURDO: And the maintenance, 5 Aviation maintainers provided information and reported to the DFSB on that, on their work. Is that right?

5 MAJ MORE: Yes, and while those aircraft were under quarantine there was a DFSB – my understanding – and I wasn't there – but there was a DFSB representative on site effectively controlling the site, and those aircraft and any maintenance of those aircraft would have been under that member's direction.

MS McMURDO: Direction and supervision. But the maintainers used were 5 Aviation maintainers?

10 MAJ MORE: Yes. Yes, ma'am.

MS McMURDO: Yes, thank you. Thanks, FLTLT Rose.

15 FLTLT ROSE: Where were the aircraft taken to once they left Proserpine by road?

MAJ MORE: To RAAF Base Townsville. They were unloaded at the 5th Aviation Regiment and taken across to the MRH Storage and Transition Facility.

20 FLTLT ROSE: That's in Townsville?

MAJ MORE: In Townsville.

25 FLTLT ROSE: Did you see the aircraft when it arrived at 5 Aviation Regiment?

MAJ MORE: I was on some personal leave around that time. I don't believe I was at Townsville when those aircraft arrived.

30 FLTLT ROSE: Have you seen those aircraft since?

35 MAJ MORE: I am unsure. I'm just trying to recall the last time I went over to the MRH Storage and Transition Facility and exactly where those – there may have been times – I can't recall exactly. I recall that there were space issues at the MRH Storage and Transition Facility. They hadn't obviously anticipated taking those, I believe it was five aircraft at that time. Those aircraft may have stayed within the 5th Aviation Regiment for a period of time before they were moved across. I can't recall if they were there when I returned from leave and whether I saw those aircraft.

40 FLTLT ROSE: You say five aircraft. Is that the three aircraft that flew the sortie plus the spare?

45 MS McMURDO: That makes four.

FLTLT ROSE: That makes four, yes.

MS McMURDO: My maths is that good.

5

MAJ MORE: Yes, I can't recall exactly. I believed it was five. Yes, if maybe it was four, it was four. I can't recall.

10 FLTLT ROSE: And as far as you're aware, those aircraft, whether they're four or five, are still at the storage facility in Townsville, as far as you're aware?

MAJ MORE: Yes.

15 FLTLT ROSE: Can you turn to paragraph 35 of your statement. You express an opinion and you state:

20 *It is my understanding that Army used its own maintainers and maintenance system at 5 Aviation Regiment instead of Airbus because it is focused on being prepared to deploy and operate in austere environments around the world and needs a deployable MO controlled by Army.*

MAJ MORE: Yes.

25

FLTLT ROSE: Is that still your opinion?

MAJ MORE: Yes.

30 FLTLT ROSE: And your understanding of why there was a different arrangement at 5 Aviation Regiment compared to 6 Aviation Regiment?

MAJ MORE: Yes.

35 FLTLT ROSE: And when you say "austere environments", what does that mean?

40 MAJ MORE: So it's a warfighting capability. It needs to be prepared. These are military aircraft, so austere environments are talking about operating in a warlike environment.

45 AVN HARLAND: Can I just ask, are there major differences between the Part 145 AMO under Airbus compared to the Part 145 AMO under an aviation Regiment, and does that create difficulties when you're transiting aircraft between the two organisations for maintenance?

5 MAJ MORE: Sir, I don't know if I'd say major differences, but they were their own 145 Maintenance Organisation, so their own policies and procedures. There were some commonalities, such as I know they used the same Maintenance Management System, CAMM2. We had the same maintenance manual, the IETP. They operated under the same regulatory system. But the exact processes and procedures, I couldn't speak to, having not worked in that organisation. But they had the potential to be different because they had their own written policy set.

10 AVM HARLAND: But did that create difficulties when you were accepting an aircraft from, just say, AAvnTC or 6 Avn that was under an Airbus AMO? Did that create issues for you when you accepted them into yours?

15 MAJ MORE: No. No, the policies and procedures around allotting an aircraft from one organisation to another organisation was a common process, so in that sense, no.

20 AVM HARLAND: Did you have confidence in the status of the aircraft when you got it, or did you have to do some validation to make sure you were comfortable with the configuration of that aircraft?

25 MAJ MORE: Yes, in general comfortable. I believe there was some sort of a acceptance check of the aircraft. During my time, we didn't receive – we didn't have any other aircraft allotted to our organisation. So actually I should qualify my first answer as I, in my time, actually don't have experience of an aircraft being allotted to my organisation to make an assessment about whether the differences would cause any issues.

30 AVM HARLAND: Okay. Thank you.

FLTLT ROSE: The final sentence in paragraph 35, you state:

35 *Regarding 6 Aviation Regiment, it is my understanding that the original plan was to only utilise an Airbus MO for the introduction period of MRH-90s to 6 Avn, and then once mature, and when the workforce was available, switch to an Army MO.*

40 Is that correct? That's your understanding?

45 MAJ MORE: Yes; qualified by, yes, to the extent that I, you know, can express an opinion, and that was in relation to my, I'd say, yes, limited understanding of the initial plan for MRH-90 to be put into the 6 Aviation Regiment. So, yes, that was in relation to you asking about the differences

between the two organisations. Yes, my understanding is the original long-term plan would've – eventually that would've been an Army Maintenance Organisation.

5 FLTLT ROSE: What do you mean by the word “once mature”? What does “mature” mean in this instance?

MAJ MORE: As a system – so the introduction of the MRH-90 capability into 6 Aviation was itself a discrete plan that would've had operational
10 capability milestones. So, yes, once – and as well talking about the maintenance workforce, so having enough trained technicians in that location, and the staffing arrangements and all those things – yes, once the system was, I guess, stable, yes, that's my understanding of the sense of the word.

15 FLTLT ROSE: Was it your understanding that the MRH-90 systems and processes had not matured, by the time of the incident, enough to allow there to be an Army MO instead of Airbus?

20 MAJ MORE: Yes, I couldn't speak to the decision-making around that, yes. Yes, I can't – yes, I couldn't speak to whether that plan had changed or the intent had changed, or what that assessment required; or, yes, what that decision point was for that decision. But I guess talking about the system as a whole, I guess obviously, yes, no, I'll leave my answer there.

25 FLTLT ROSE: In paragraph 36 you refer to the maintenance burden in 5 Aviation Regiment in 2023, and you said you would describe the MRH-90 maintenance burden there as constant and heavy compared to other aircraft. Why do you say that?

30 MAJ MORE: It had a – it was known to have a high – the terminology is maintenance man hours. So the amount of maintenance required to get a single flying hour was higher than other aircraft.

35 FLTLT ROSE: “Other aircraft” meaning the other aircraft that 5 Avn operated? Chinooks?

MAJ MORE: In the Army Aviation Fleet, so compared to the ARH and Chinook helicopters.

40 FLTLT ROSE: Did that mean there were more MRH-90 technicians required to keep the aircraft serviceable?

45 MAJ MORE: Hard to say based purely on my understanding of that figure being higher. I don't have intimate knowledge of how much maintenance

is required on other aircraft to make it serviceable over its life to make that comparison, unless if you want to rephrase that question.

5 FLTLT ROSE: This is in your statement. You've made this assessment, that:

In 2023 –

10 you said –

the maintenance burden for MRH-90s was constant and heavy compared to other aircraft.

15 Did you have some access to information to allow you to make that statement?

20 MAJ MORE: Yes, I knew our maintenance man hours – yes, maintenance man hours per flying hours was higher than other aircraft, but I'm not sure whether that – it's hard to say that means – it's, yes, hard to give you an answer on whether more maintainers are needed to get an aircraft serviceable. My instinct is to say yes, but I'm just trying to think through all the considerations there to make that judgment.

25 FLTLT ROSE: Just at the end, on page 17 – and it's a continuation of paragraph 36 – you state that:

There were a number of fleet-wide technical issues that contributed to the maintenance burden in 2023 –

30 and you list them, (a), (b), (c).

MAJ MORE: Sorry, which paragraph?

35 FLTLT ROSE: Page 17.

MAJ MORE: It's page 17, not para 17. Yes.

FLTLT ROSE: And paragraph (a):

40 *Conducting MGB chip detector inspections every five flight hours due to an OEM identified risk to the fleet of cracking in the planetary gear within the main gearbox.*

45 MAJ MORE: Yes, so expanding on some acronyms, the MGB being the main gearbox, and the OEM being the Original Equipment Manufacturer.

5 FLTLT ROSE: So there was a known issue that the OEM had identified and communicated to 5 Aviation Regiment about an issue that required regular checking to ensure that cracking didn't occur in the gearbox within – a part within the gearbox.

10 MAJ MORE: Yes, so early in 2023 it was communicated – the OEM would have communicated to the Military Type Certificate Holder, and indeed to our maintenance services organisation, about the risk with the global fleet, and the way 5 Avn was – the way that was communicated to 5 Avn was through a special technical instruction from the CAMO, or the CAMSO, and that special requirement for us in our organisation was to, yes, conduct chip detection inspections every five flight hours. That was before that special technical instruction occurred. That was not a normal requirement.
15 So that was an example of, I guess, an increased maintenance burden for that period that that STI was in effect.

FLTLT ROSE: Do you remember when that STI was issued?

20 MAJ MORE: It was early in the year. I believe in February. It may have been late January.

FLTLT ROSE: And it was still in effect at the time of the permanent grounding of the fleet?

25 MAJ MORE: No, my recollection is that incident had – technical issue had been satisfactorily investigated and resolved by the OEM, such that the advice was that inspection was now no longer required.

30 FLTLT ROSE: Do you recall when that was retracted?

MAJ MORE: Not exactly. You would – I believe it was in effect for around two or three months.

35 FLTLT ROSE: Subsection (b):

Additional engine inspections following the ditching of the A40-125 into Jervis Bay, and the removal and installation of some engines that were moved around the fleet.

40 Were some engines in the aircraft at 5 Aviation Regiment modified in accordance with the recommendations that flowed out of that incident at Jervis Bay?

5 MAJ MORE: My only – so I guess you’ve asked two questions there. My recollection was the only requirement for my Maintenance Organisation was to conduct inspections of engines in our fleet. So there was a – I recall a special technical instruction which related to – so there was a modification in the system called the semi-auto vent modification, and there was a requirement to inspect engines that had the potential to have been fitted to aircraft that had not had that modification incorporated. And so I can’t confirm – that was every – the number of engines we had to inspect, but there was an additional inspection required.

10 FLTLT ROSE: And you don’t recall if any of those engines were modified after the Jervis Bay incident?

15 MAJ MORE: So I believe you’re referring to the HP1 modification.

FLTLT ROSE: Yes.

20 MAJ MORE: I think that was another one of the questions in the statement. So my understanding is that was a modification conducted by the engine OEM, and overhaul and repair. I do not recall any of our engines being due for a repair or overhaul. I couldn’t be 100 per cent sure, but I don’t recall that, and so therefore the answer is, no, none of our engines would’ve had that modification (indistinct) after that event. Some of our engines may have already had that modification installed, but I don’t know the number.

25 FLTLT ROSE: Paragraph 37, sixth line down, you said that:

After the ditching in Jervis Bay, there was an operational pause for two weeks.

30 MAJ MORE: Yes.

FLTLT ROSE: Was that in 5 Aviation Regiment, or was that fleet-wide?

35 MAJ MORE: No, it was a – my understanding – my recollection is that was a military air operator fleet-wide. I’m trying to recall if that was a military air operator direction or a technical direction from the CAMO or the MTCH. I believe that was a military air operator direction, but it was, yes, fleet-wide.

40 FLTLT ROSE: So 5 Aviation Regiment returned to flying after that two-week operational pause.

45 MAJ MORE: I believe it was about two weeks, yes, when we were notified that that was no longer in effect.

FLTLT ROSE: Could you turn to paragraph 41 of your statement. You state that:

5 *There are recurring maintenance concerns regarding the MRH-90s at 5 Aviation Regiment in 2023 that affected the airworthiness and availability of the MRH-90 –*

10 and you list a number. If I could just focus on subsection (a), you refer to the forward-looking infrared, or the FLIR. Do you see that?

MAJ MORE: Yes.

15 FLTLT ROSE: Is that part of the night-vision device on the MRH-90?

MAJ MORE: So that's a piece of equipment that sits on the front of the aircraft. I believe that image can be fed into the helmet-mounted sight display. So in that sense it's related to that piece of equipment.

20 FLTLT ROSE: You state that:

It had a relatively high failure rate, and being the cause of regular unscheduled maintenance within 5 Aviation Regiment.

25 MAJ MORE: Yes, that was an – yes, it was an example of reliability issues with certain components. That was an example of something that I recall as failing, or presenting a defect earlier than the system was designed.

30 FLTLT ROSE: Was that a fleet-wide issue?

MAJ MORE: My understanding, that was an Australian fleet-wide issue.

FLTLT ROSE: What are the consequences of the FLIR failing mid-flight?

35 MAJ MORE: I think that's outside of my expertise to answer. That would be best to answer by an operator.

40 FLTLT ROSE: In your experience in 5 Aviation Regiment, had any reports come down to you that the FLIR had stopped working mid-flight?

45 MAJ MORE: I can't recall. I can't recall when the defects were identified. Yes, I could not recall whether – I definitely don't recall it being raised of mid-flight failures. That may have been the case. It may have been that installing a new FLIR that the serviceability check conducted by a maintainer resulted in the FLIR being unserviceable. It may be during a

start-up process in checking that the system is working by the pilot that it's identified as not working. So I'm uncertain if any of those were actually in-flight.

5 FLTLT ROSE: In subparagraph (c), halfway through in the second sentence, you state:

In general, 5 Aviation Regiment was the priority for parts –

10 and you're talking about spare parts –

and parts that were designated to the deeper maintenance line in Brisbane would often be diverted to 5 Aviation Regiment when required.

15

Do you see that?

MAJ MORE: Yes.

20 FLTLT ROSE: Does that mean that spare parts for the MRH-90 were diverted to 5 Aviation Regiment over 6 Aviation Regiment?

MAJ MORE: No, actually in hindsight, I believe that 6 Aviation was a higher priority. It was case-by-case, and dependent on what was happening at the time, and where the mission dictated, but we were a higher priority than the deeper maintenance facility in Brisbane.

25

FLTLT ROSE: Paragraph 49 of your statement you state that:

30 *As well as aircraft themselves, maintainers also conducted off-aircraft maintenance of components.*

And the final sentence you say –

35 *such as helmets and the MRH-90 helmet mounted-sight display, as well as aircraft life rafts.*

Do you see that?

40 MAJ MORE: Yes.

FLTLT ROSE: What maintenance did your technicians do to the HMSD?

MAJ MORE: I'm not sure of the exact detail. It would have been in accordance with the ITP, the interactive technical publication, for the MRH-90, and the Technical Management Plan.

5 FLTLT ROSE: What human factors, in your understanding, can lead to maintenance errors?

MAJ MORE: There's a number: fatigue, distraction, yes, inattention. Yes, they're some examples.

10 FLTLT ROSE: In regards to the fatigue, how was this managed when technicians were deployed as part of 5 Aviation Regiment's operations?

MAJ MORE: So there's a Fatigue Management Policy in our Brigade Standing Instructions, Logistics Series, which are also part of our Continuing Airworthiness Management Exposition. So that sets limits on the fatigue – sorry, the duty cycle, how many hours can be worked and how many consecutive days worked; also guidance on managing fatigue. That policy also sets out authorisations for any extension to those duty limits.

20 FLTLT ROSE: Does that management policy also include what kind of sleeping quarters the maintainers are to be housed in?

MAJ MORE: I don't recall it specifically dictating sleeping quarters, but in general they talk to considerations about sleep, try and provide an environment conducive to sleep.

FLTLT ROSE: In general, in your experience from being at 5 Aviation Regiment, where did maintainers sleep when they were deployed?

30 MAJ MORE: I believe for our deployment to assist the floods in Broome, they were in hotels. But we were prepared to – yes, so we were prepared to be deployed in the field environment. So in the field environment, in those circumstances, we'd be sleeping in sleeping bags, sometimes in swags, sometimes in what we call sleeping bags under what we call a hoochie, so a lean-to shelter. So, yes, they're the types of environments we could operate in.

40 I'm just trying to recall if, during my time, that occurred. I believe there was a week-long period where, yes, we were deployed at High Range Training Area, so all the A Squadron with the Maintenance Team, and they would have been in those sleeping arrangements.

FLTLT ROSE: One final question, Major. From a maintenance perspective, did you understand why the MRH-90 had to be grounded after the incident on 28 July 2023?

5 MAJ MORE: Sorry, can you just please repeat the question again?

FLTLT ROSE: From a maintenance perspective, were there any reasons that you became aware of why the MRH-90 had to be grounded permanently after the incident on 28 July?

10

MAJ MORE: From a – I think I’m, again, hung up on the word “maintenance perspective” there.

FLTLT ROSE: Were you privy to any discussions surrounding any maintenance issues that contributed to the reason why the MRH-90 had to be permanently grounded?

15

MAJ MORE: No.

FLTLT ROSE: Were you privy to any discussions where it was said that the MRH-90 was unserviceable and that is why it had to be grounded permanently?

20

MAJ MORE: No. As in – so just the word “unserviceable” there is confusing in that context. Is it possible you rephrase that question?

25

FLTLT ROSE: I think I’ve taken that as far as I need to. But just it was really to say were you given any reasons, after the permanent grounding of the fleet, as to why the MRH-90 had to be permanently grounded?

30

MAJ MORE: Yes. My understanding was the – I guess the initial grounding, the initial pause on flying, was, yes, because it was unknown the cause of the accident. So the military air operator had directed that we cease flying until it’s understood the potential causes for that accident, and then later on that became a government decision that we were going to cease flying the aircraft. So I couldn’t speak to the reasons for it. But, yes, that’s my understanding.

35

FLTLT ROSE: Those are my questions.

40

AVM HARLAND: Yes, I had just one. Just going back to fatigue management and operations in a field environment, did the maintenance team have other duties in the field environment; things like picquets or other related – other field deployment-related duties?

45

MAJ MORE: Is that specifically about – sorry, sir, is that in general or about a specific incident?

AVM HARLAND: In general.

5

MAJ MORE: In general, they could. Any time they were doing such things, that would count as part of their duty period. So that would be factored into the fatigue management of them conducting maintenance on an aircraft.

10

AVM HARLAND: So that would extend their duty period and therefore they'd have to restart their rest period if they picked up other duties?

MAJ MORE: Yes.

15

AVM HARLAND: That's great, thank you.

MS McMURDO: Just a very general questions, Major. Given your experience with the MRH-90 maintenance program, do you have any insights or evidence or opinions that you think could assist this Inquiry into the investigation of the crash?

20

MAJ MORE: No, ma'am, not that – yes, not from my understanding. Yes, in general, I mean it was a – the entire MRH-90 system, I would describe as a complicated system, so that's just the whole – all elements of the program. But I couldn't really express an opinion about what areas of the system may have been a contributing factor to this accident.

25

MS McMURDO: Thank you. Applications for cross-examination?

30

LCDR GRACIE: Yes.

MS McMURDO: How long do you think you'll be?

35

LCDR GRACIE: Maybe 20, 25 minutes, ma'am.

MS McMURDO: Okay.

40

<CROSS-EXAMINATION BY LCDR GRACIE

LCDR GRACIE: MAJ More, I represent the interests of CAPT Danniell Lyon, and I would like to start with your statement at paragraph 25, if you

don't mind looking at that. It's about the seventh-last line of that paragraph.
You say:

5 *At the start of 2023, 5 Avn Regiment was informed that it would
 cease operating the MRH-90 no later than August '23.*

MAJ MORE: Yes.

10 LCDR GRACIE: Was that conveyed to you in a directive, a written
directive, or was it something else?

MAJ MORE: It was formalised in a written directive called Plan Valiant.

15 LCDR GRACIE: Could you say that again?

MAJ MORE: Plan Valiant. I was verbally made aware of that intent prior
to that plan being formalised in writing.

20 LCDR GRACIE: When was the formalisation of the plan into writing, was
it as early as the start of 2023 or later?

MAJ MORE: I saw a draft of it in February 2023. I can't recall when the
signature from – yes, when it was signed. But a couple of months later.

25 LCDR GRACIE: Did you understand that the same planning was to operate
across the MRH-90 fleet?

30 MAJ MORE: No. So that was – that August 2023 end date was specific to
the 5th Aviation Regiment.

LCDR GRACIE: Do you know if there was a similar planning directive in
relation to 6 Avn?

35 MAJ MORE: My recollection was that, yes, it was a government decision
at the start of 2023 to cease flying the MRH-90 at the end of 2024, is my
recollection.

40 LCDR GRACIE: Yes, I understand that. I'm just wondering where you
get the date of August '23 from?

MAJ MORE: Yes, that was an Army Aviation Plan.

45 LCDR GRACIE: Was that plan also in relation to, as far as you know, if
you do, 6 Avn?

MAJ MORE: No. No, my understanding, that plan had 6 Avn flying till the end of 2024.

5 LCDR GRACIE: So was August the timeline given for 5 Avn so that it would coincide with the end of TALISMAN SABRE?

MAJ MORE: I couldn't say for sure the exact reasoning behind that date. My understanding was that was a factor.

10 LCDR GRACIE: It was a factor?

MAJ MORE: Yes.

15 LCDR GRACIE: Because it ended – was to end 31 or so July, wasn't it?

MAJ MORE: The exercise?

LCDR GRACIE: Yes.

20 MAJ MORE: Yes, it was around that time, yes. Yes, that was our last – I'm not sure if that was the whole decision for that date. For our mission at 5 Avn, we knew that Exercise TALISMAN SABRE was our last exercise we'd be contributing to before we ceased flying.

25 LCDR GRACIE: So prior to the accident, at least in relation to 6 Avn, if you can talk about it, 6 Avn was going to keep flying until December '23 the MRH-90s?

30 MS McMURDO: December '24, I think his evidence was.

MAJ MORE: '24, yes, that's my understanding. Yes, I'm not best placed to talk about the plan for 2024. There'd be many others in the organisation better placed to talk about that. But, yes, my understanding for the fleet was AAvnTC and 6 Aviation would continue flying until the end of 2024.

35 LCDR GRACIE: Well, just if it assists, ma'am, LTCOL Rick Watling yesterday said December '24.

40 MS McMURDO: Well, that was his evidence originally.

LCDR GRACIE: Yes.

MS McMURDO: And then you suggested that he'd said '23.

LCDR GRACIE: Well, I didn't suggest, I made a mistake, ma'am. So, sorry.

MS McMURDO: Okay, all right.

5

LCDR GRACIE: But what I will now suggest is that the December 2024 retirement of the MRH-90s from 6 Avn was brought forward to September '23.

10 MAJ MORE: Sorry, can you repeat that?

LCDR GRACIE: The retirement of the entire fleet, rather than being set for December '24, was brought forward to September '23.

15 MAJ MORE: I don't recall the exact dates, but yes, I was aware that there was a government decision – my understanding it was a government-level decision that, given the investigation was still ongoing, and for a number of factors, that, yes, they were – yes, decided to retire the fleet early.

20 LCDR GRACIE: You say in paragraph 25, at the end, that the final transfer of the 5 Avn fleet was planned for 21 September 2023.

MAJ MORE: Not planned for. So that was what actually – the physical transfer of the aircraft, although they hadn't flown since the accident, the physical transfer, the last one, as per my statement, left the unit, for
25 5 Aviation Regiment on 21 September 2023.

LCDR GRACIE: Thank you. You said – and you were taken to this, so I won't spend much time on it – but in paragraph 36 to 37 of your statement
30 you're dealing with and you were asked some questions about the reduced – sorry, the rate of effort that was reduced. Can you just explain again, "rate of effort", is it a planning scenario or is it something else?

MAJ MORE: Yes. The word "rate of effort" relates to the aircraft hours
35 flown. So it's both a planning figure, so how many aircraft hours do we want to fly this financial year, and then also I guess an actual figure, in the sense of how many were flown.

LCDR GRACIE: You say in 2023 it was a modest rate of effort. And was
40 that due to the reduction in the fleet from 12 to nine?

MAJ MORE: Yes. I'm aware that – so for a long time the contracted
45 planned flying hours were around 10,000 flying hours a year – I can't remember the exact figure – for the whole fleet. And that in the end of 2022, the target was drastically reduced in a deliberate manner by, I guess

they call it the Senior Leadership Group within Army Aviation, in an attempt to balance the capacity of the fleet, for the capacity of the organisation against the fleet.

5 So it was assessed at a much lower – given the actual realised maintenance burden of the fleet, the workforce that we had, what the priorities were for the leadership group, there was a reduced figure. So with that reduced figure came the plan to reduce down the number of aircraft at 5th Aviation Regiment to five until we eventually ceased flying.

10 LCDR GRACIE: And that would equate to a proportionate reduction in the personnel for the maintenance of the MRH-90s, wouldn't it?

15 MAJ MORE: Yes, there is – part of that plan, too, there was a – yes, well, knowing that we were going to cease flying in August, the eventual plan was that all those MRH-90 technicians at the 5th Aviation Regiment would then be used elsewhere in the capability.

20 LCDR GRACIE: Was it your understanding that the Airbus personnel were similarly reduced in numbers?

MAJ MORE: Yes. So there wasn't a plan to reduce the Airbus personnel at 5 Avn during that period, only at the end of that period. So end of the year 2023 was the plan.

25 LCDR GRACIE: I'm sorry to jump around, but just to take you to paragraph 31 of your statement, you say that the fleet replan was put into effect in about October '22.

30 MAJ MORE: Yes, I can't recall when that was signed, so that replan is the – what I was talking about there, that plan to reduce the number of aircraft to the 5th Aviation Regiment. I recall being briefed on the intention for that plan in October 2022. That plan was then to be implemented through the Fleet Planning Working Group. That was all prior to me arriving at the
35 5th Aviation Regiment, so I'm uncertain the exact dates that was (sic) decided.

40 LCDR GRACIE: Where you referred in your evidence to the – or 5 Avn historically underachieving in ROE, was that even more so in the last 12 months, from let's say October up to the end of the financial year in 2023?

45 MAJ MORE: So talking about underachieving, sorry, in general I knew the fleet had not been meeting its – had not flown near the target of the 10,000 hours. So, yes, including 5th Aviation Regiment, that was a

5 consideration for the replan. I'm not sure what – I can't recall the ROE target for the 5th Aviation Regiment for that final six months because that wasn't a – I guess at my level, that wasn't an important figure. My focus was just on ensuring the safe and effective maintenance system and trying to ensure we had aircraft available to meet the flying program.

10 LCDR GRACIE: Just give me a moment while I just try and locate something in another document. I might have put it unfairly and I apologise for that. The reference to historical underachievement was in the evidence of LTCOL Watling, so I apologise for that. You talked about a modest rate of effort, as opposed to historical rate of achievement.

MAJ MORE: Yes. Historical, yes.

15 LCDR GRACIE: To be fair to you – ma'am, could I ask MAJ More to have access to Exhibit 16, which is LCDR Watling's statement, since I wrongly put the words, or attributed those words - - -

20 MS McMURDO: Well, why don't you have access and then you can put it correctly to him if you're putting something. You're asking for an expert opinion, are you? You don't normally get witnesses to comment on other witness's evidence.

25 LCDR GRACIE: That's so, ma'am.

So where I suggested that you used the term "historically underachieved in ROE", you used the term "a modest rate of effort".

30 MAJ MORE: I think I was talking about – yes, for 2023. Actually, can you please direct me to where I talk about that, just to refresh myself as to the context of that word "modest"?

LCDR GRACIE: I think it's paragraph 36 of your statement. It's 37, sorry.

35 MAJ MORE: Yes. So I was making – yes, that's, I guess, a comparative statement to the historical ROE target for 5th Aviation Regiment and the fleet.

40 LCDR GRACIE: Was that modest rate of effort something that was driven also earlier than the last period of 2022/2023? Would you describe the earlier period as also being a modest rate of effort?

MAJ MORE: So talking about targets, rate of effort targets?

45 MS McMURDO: Are you finished with that exhibit?

LCDR GRACIE: I have, ma'am.

MS McMURDO: Thank you.

5

MAJ MORE: I think I was just trying to paint the picture that the rate of effort and target had been reduced for the 5th Aviation Regiment in 2023, yes.

10 Lcdr GRACIE: If the rate of effort is reduced from a planning point of view, would that be reflected in higher serviceability rates?

MAJ MORE: If all else was equal and you reduced the planned flying, then you'd expect serviceability rates to go up.

15

LCDR GRACIE: So if, for example, you might have had a serviceability rate for 2022/2023 of 73 per cent relative to planned hours, that would be quite high?

20 MAJ MORE: Sorry, serviceability rate?

LCDR GRACIE: Yes, at 73 per cent. That's relative to planned hours. That would be very high, wouldn't it?

25 MAJ MORE: From my understanding of the historical performance of the MRH-90 fleet, yes, 73 per cent sounds like a high figure, yes.

30 Lcdr GRACIE: That could be explained by the fact that you've got a reduced rate of effort, meaning that the planned hours are much less for that period?

35 MAJ MORE: Yes, so if all other things are equal. So the immediate – you have X number of aircraft and X number of maintainers and you immediately drop the planned flying, then it's unlikely aircraft are going unserviceable and that they wouldn't be accruing the flight hour-based maintenance liability.

40 Lcdr GRACIE: You made some reference to an example of the flotation system becoming unserviceable.

MAJ MORE: Yes.

45 Lcdr GRACIE: Can I just ask you something about that. You said you could either remove it or defer rectification and not fly in a – I think you said a profile that might require flying over water, something like that.

MAJ MORE: Yes.

5 LCDR GRACIE: I just want you to assume that, in the case of this particular accident, the hydrogen cylinders didn't deploy to deploy the emergency flotation system, the EFS. I don't know if you know about that?

MAJ MORE: I don't.

10 LCDR GRACIE: Just if you can accept that from me as an assumption. Can I also suggest that there are two possible scenarios. One is a system failure, in that there would be a pre-existing unserviceability or defect in relation to that which would possibly have been identified and deferred for rectification. That's one scenario. Would you agree with that?

15 MAJ MORE: Yes. I don't know how comfortable I feel providing an opinion about this example but, yes, I guess going along with it.

20 LCDR GRACIE: So one would be a system failure, that there was a systemic failure in the EFS. That's one possibility.

MAJ MORE: Yes. Yes, the system did not work. One possibility, as you said, there was a failure in the system, yes.

25 LCDR GRACIE: The other, and I don't know if it's one and the same, but it would mean that there was a loss of power to enable the deployment of the cylinders because it had been so severely impacted or damaged on impact.

30 MAJ MORE: Yes. I'm not familiar enough with the system in question.

LCDR GRACIE: Well, can I just ask this, only because it was your example?

35 MAJ MORE: Yes.

LCDR GRACIE: So if the hydrogen cylinders did not deploy – and, again, I want you to assume that they were full, or found to be full – what would explain that failure of the system? What, impact with water?

40 MAJ MORE: I'm not qualified to answer that question.

LCDR GRACIE: If there was a system failure that had been identified, that would be in the maintenance records if there was a decision to defer rectification?

45

MAJ MORE: Yes.

5 LCDR GRACIE: You also talked about a maturity in the system, and I think you said it hadn't matured. You're talking about the system hadn't matured by the time of the accident, meaning it hadn't stabilised.

10 MAJ MORE: Yes, I don't feel qualified to make an assessment on the 6th Aviation system. That comment was in relation to my understanding of the difference between why there was an AAP Maintenance Organisation at 6 Aviation compared to the 5th Aviation Regiment.

15 LCDR GRACIE: Would you agree with this proposition: that there was an immaturity in the system design and support system of the MRH-90?

20 MAJ MORE: I guess to the extent that it was clear that as an organisation we were still not fully satisfied with the MRH-90 capability as a whole, so the system as a whole, such that it got to the point that the government had made a decision to retire the fleet earlier and replace it with the Black Hawk helicopter.

25 LCDR GRACIE: Were you aware that the Australian National Audit Office used those words I've just said about the immaturity in the system design and support system in 2014 in describing the MRH-90?

MAJ MORE: I'm aware of that audit report, yes. I can't recall the exact words used around it, but yes, I'm aware of that audit report.

30 LCDR GRACIE: Would you agree with that assessment if they were the words "the immaturity in the system design and support system"?

MAJ MORE: Yes.

35 LCDR GRACIE: Since 2014?

40 MAJ MORE: Yes. I mean in my area, thinking about the word "support" in, like, for instance, the logistics, the supply system was not where we wanted it to be. There was availability of parts issues that were still present. So thinking about things like that, I'd say yes.

LCDR GRACIE: I won't be much longer. Could you look at paragraph 36(a), please. You were asked some questions about that.

45 MAJ MORE: Yes.

5 LCDR GRACIE: That's about the chip detector inspections every five flight hours due to an OEM identified risk to the fleet of cracking in the planetary gear within the main gearbox. Can you explain what the planetary gear is?

MAJ MORE: Only to the extent it's one of the gears inside the main gearbox.

10 LCDR GRACIE: You said an STI was issued in early 2023, you said January or February.

MAJ MORE: Yes.

15 LCDR GRACIE: And it was lifted by OEM and inspections were no longer required.

MAJ MORE: So the STI would have been lifted by the CAMO.

LCDR GRACIE: Okay.

20 MAJ MORE: But they would have got their information to inform that decision from the OEM NHI.

LCDR GRACIE: In your role, are you aware of what was done to remove the risk, as opposed to simply having the STI lifted?

25 MAJ MORE: Yes. I'm not the best person to speak to about it. But I was aware of – we received reports on the investigation. But – so from my understanding, the OEM discovered there was a potential risk with an earlier failure rate of that component, I believe, due to – actually, I don't feel comfortable talking about the cause. But that would be well documented in the reports given to the Commonwealth, that that required, from my understanding, a precautionary approach.

30 MAJ MORE: So in a worst-case scenario, I believe that it was something along the lines of, "The component could fail within 15 flight hours, therefore we are inspecting for signs of failure every five hours". That was until the OEM had completed their investigation to really understand to qualify that risk, I understand, to identify which gearboxes are actually affected. Some gearboxes then that were affected were then taken out of the fleet, or none of them were to be flown and others were then subsequently cleared. The OEM was able to identify that those gearboxes were not affected by the incident.

35

40

LCDR GRACIE: Just coming back to the question, I think you got to it at the end there. You were saying that there were inspections undertaken and that suspect gearboxes were taken out of the fleet.

5 MAJ MORE: Yes. So I believe there was three different, yes, I would say buckets that the main gearboxes were put into. There was those that were – by the end of the investigation, those were not affected, those that were clearly affected. Yes, like, I recall there was – yes, so some gearboxes that I think had about – were given one month of life. There were some that
10 were given about six months of life, and there were others that weren't caught up in the – I guess the – weren't affected by the incident.

But, yes, I must clarify I'm definitely not the best person to speak on that topic. There were a number of reports given to the Commonwealth about that, and that was a decision for the Military Type Certificate Holder and
15 the CAMO.

As a Maintenance Organisation, our obligation was to follow the instruction, the special technical instruction, or any other maintenance
20 directions, yes, such as not to fly or a gearbox becoming unserviceable after a certain period of time as directed by the Continuing Airworthiness Management Organisation.

LCDR GRACIE: You may not be able to answer this, so don't feel obliged to if you can't. But when we talk about – sorry, when you talk about the high cost of aircraft support, you're talking about the high cost of
25 maintenance to support the aircraft, I take it?

MAJ MORE: So high cost – did I use those words?
30

LCDR GRACIE: “High cost of aircraft support to make it serviceable over its life”, is my record. Maybe you want to put it in your own words now.

MAJ MORE: Yes.
35

LCDR GRACIE: Let me put it differently. In your opinion, is there a high cost of the maintaining of this aircraft?

MAJ MORE: Yes, I was aware that on the measurement of cost per flying hour, that MRH-90, the Australian fleet, was known to have a high cost per
40 flying hour.

LCDR GRACIE: That's all I was going to ask you, whether or not that cost is brought into the cost of the flying hours. Do you know that?
45

MAJ MORE: Yes, my understanding is that figure is derived as a full cost associated with the program. So that cost compared to the flying hours we're getting out of the program is where that figure would have come from.

5

LCDR GRACIE: I just want you to accept from me that there has been some evidence about \$48,000 an hour in this Inquiry. But I will also put this to you: there was officials at the Senate Foreign Affairs - - -

10 MS McMURDO: I'm not sure whether there has been, has there? It might be the 60 Minutes report you're thinking of, but that's been tendered. So there you are.

15 LCDR GRACIE: It could have been. Yes, it has, as Exhibit 6A, if you need it. But also, there was an identified cost of \$45,000 per flying hour given at the Senate Foreign Affairs, Defence and Trade Committee hearing in February '24 – February this year. So that's \$45,000 and that includes, you say, the cost of maintenance, does it? It's an overall cost?

20 MAJ MORE: The program manager would be best placed about what is in and out of that cost calculation, so the cost of the parts, the repairer parts, my understanding, that Airbus contract for provision of those maintainers, yes, they would have made up the cost, but definitely not – I don't have a full understanding of that cost bucket.

25

LCDR GRACIE: Look, there's only one other thing. Are you aware of comparable costs of the NH90 fleet elsewhere in terms of flying hours, cost per flying hour relative to the MRH-90?

30 MAJ MORE: Not absolute figures. In my previous role as the Technical Liaison Officer, I was aware that other nations – some other nations were experiencing high program costs as well.

35 LCDR GRACIE: Can I just put this finally to you: from the Official Information Act data from the New Zealand government from April '23, they identified a New Zealand dollar cost of 1400 per flying hour but it excluded workshop maintenance, salary depreciation and capital costs. But it still is a remarkably low figure compared to 48,000, even if you factor in maintenance, isn't it?

40

MS McMURDO: It's pretty hard for him to – he doesn't know whether you're comparing apples and oranges. I'm sure there will be other witnesses you can explore this with. I don't think this is this witness's area of expertise.

45

LCDR GRACIE: I will do that. Thank you, Major.

5 MS McMURDO: Before you leave, can I remind you that although this Inquiry isn't bound by the Rules of Evidence, they are a good starting point and for good reason. Putting something to one witness that another witness has said, if it's not expert evidence, is contrary to the Rules of Evidence. But we have to take particular care in this Inquiry where we're dealing with a hierarchical organisation, and you put to one witness what another witness who was higher in the ranks said, it's quite inappropriate.

10 LCDR GRACIE: I was careful, ma'am - - -

MS McMURDO: So I would ask everyone to take care not to do something like that in future, thank you.

15 LCDR GRACIE: I understand that, ma'am, and it's not something I would normally do, but it wasn't evidence that was going to be disputed.

MS McMURDO: I don't want to argue with you about it. I'm just - - -

20 LCDR GRACIE: I'm just explaining why I did it, ma'am. It wasn't disputed evidence. It was consistent, and so I wanted to be fair to the witness that he had that evidence.

25 MS McMURDO: Well, please take care in future not to do it in this Inquiry. Thank you. Are there any further applications to cross-examine?

LCDR TYSON: Thank you, ma'am. I'll be brief.

30 Major, my name is LCDR Tyson. I represent one of the interests of the deceased. You were asked a question about the role of human factors in maintenance error and you identified three factors: fatigue, distraction, and inattention. Do you remember that answer that you gave?

35 MAJ MORE: Yes.

LCDR TYSON: Would you also agree that another way that human factors can lead to maintenance error is if someone has taken a shortcut in not following all the steps in a required maintenance procedure?

40 MAJ MORE: Sorry, can you repeat the question?

LCDR TYSON: Well, apart from those factors, would you also agree that another way that maintenance error could result is if someone has

consciously not followed a proper procedure set out in a maintenance manual?

5 MAJ MORE: Yes, that is a way that maintenance has not been done correctly, if we're talking about human factors. They're the things that may lead to error, so if someone inadvertently conducts a maintenance error, a factor that led to that may have been they were heavily fatigued or they were distracted. If someone is deliberately not following policy, the terminology we talk about is a violation.

10 LCDR TYSON: Yes, and can you explain more that use of that term "violation" in this particular context. Can you explain that to the Inquiry, the types of things that a violation might involve?

15 MAJ MORE: Yes, so "violation" is quite a serious and a strong word. So yes, to use it in context, if someone knows that they have to carry out step A of the procedure and they decide that for whatever reason, but it's a deliberate decision, that they take a shortcut or not do that step, then – and, you know, it's not an approved deviation or anything like that, then yes, that would be a violation.

20 LCDR TYSON: And would a workaround be another example of a violation?

25 MAJ MORE: Yes, a non-approved workaround that, yes, was intentional. So I'm just trying to – so if there has been a safety event, when it's being investigated one of the tools we refer to is the Defence Flight Safety Bureau Safety Management Tool and that lays out guidance about how to assess an event, whether it's an error, a form of error, or a form of a violation. There's a flowchart in sort of making that assessment about the considerations an investigator or decision-maker would go through. So, yes, that can be – yes, but in the pure context of a violation, yes, deliberately and consciously not following the procedure when not authorised to do so would be a violation.

35 LCDR TYSON: And would you also agree that if someone has engaged in a violation, there's also a risk that that person has not properly documented that maintenance in CAMM2 or perhaps they've created a false entry in CAMM2 related to that maintenance?

40 MAJ MORE: Well, yes, in a sense that if they have deliberately not carried out a step and then they are certifying in CAMM2 that that maintenance has been done correctly, then yes, that's a false entry.

LCDR TYSON: Is this fair: that in terms of the maintenance workforce, you could broadly distinguish between maintainers who have got mechanical skills and avionics skills? Is that a fair characterisation?

5 MAJ MORE: Yes. Yes, they're the two main trades.

LCDR TYSON: And with those – across 6 Aviation Brigade, I think obviously 6 Aviation operate Chinooks and the AW139. Was there a higher proportion - - -

10

MAJ MORE: Sorry, 5th Aviation Regiment?

LCDR TYSON: Sorry?

15 MAJ MORE: 5th Aviation Regiment?

LCDR TYSON: No, the Brigade.

MAJ MORE: 16th Aviation Brigade?

20

LCDR TYSON: Yes, that across the Brigade it operated those different types of helicopters, didn't it?

25 MAJ MORE: Yes. ARH Tiger, yes, CH-47, Chinook, the MRH-90 and the AW139, and then you had training helicopters, the 135.

LCDR TYSON: Are you aware, in terms of the proportion of maintainers for the different helicopter platforms, was there a high proportion of avionics maintainers associated with the MRH-90 helicopters as compared to the other helicopters operated within the Brigade?

30

MAJ MORE: I couldn't make that assessment. I'm not – no, I can't recall, from my experiences with those other platforms, the proportion of avionics to mechanical technicians, no.

35

LCDR TYSON: All right. Now, obviously there are other countries that operate large fleets of the NH90 family of helicopters, such as France, Germany, Italy. To what extent did Australian Army Aviation benefit from the experience or learnings of other western allies who operated this type? Was there a system in place to learn from the experience of the other operators of this platform?

40

MAJ MORE: Yes, Australia was part of an organisation called the NATO Helicopter Management Agency, NAHEMA, based in Aix-en-Provence in France. And that organisation allowed a forum for nations to share

45

information with each other on their experiences operating the NH90 aircraft.

5 It also was a forum that allowed collective contracts, so the nations to come together and have a singular contract with the OEM and NHI to leverage, I guess, the collective bargaining power of all nations, and through that system there were working groups and initiatives where all nations contributed to prioritise NHI's, the OEM's of efforts in improving areas of reliability or logistics supply and sharing those experiences.

10 Also, as a – the liaison officer team would also meet directly with other nations and share experiences as they received presentations from nations about how they've been operating and where their areas of concern are. That will be then fed back into the Australian system for consideration.

15 LCDR TYSON: And would that filter down to maintainers sort of on the ground doing servicings and replacing parts in our helicopters? Is there a system in place to bring that learning down to the factory floor?

20 MAJ MORE: Yes, so in seeking feedback into those forums there was a process, the AASPO, which is to try and solicit information from the operational units about where those issues are. They'd also look at data about where the, I guess, issues are for the Australian fleet and feed that back to the team in France, and then represent at those forums.

25 LCDR TYSON: And just finally, you gave some evidence about fuel samples that were taken from some of the helicopters involved in this tragic incident. Which entity supplies the fuel that would have been used by the helicopters in TALISMAN SABRE?

30 MAJ MORE: Not sure, no.

LCDR TYSON: Do you know whether the fuel is actually tested? Does anyone take a sample of fuel that's been supplied? Is that part of the maintenance procedure before a helicopter flies?

35 MAJ MORE: Yes. Fuel brought into the Army Fleet for Army Aviation use, there is policies and processes for testing that fuel.

40 LCDR TYSON: All right. Thank you, ma'am.

MS McMURDO: Thanks, LCDR Tyson. Any other applications to cross-examine? No. Anything further from you, Flight Lieutenant - no.

45 Thank you very much, MAJ More, you're free to go.

MAJ MORE: Thank you, ma'am.

5 <WITNESS WITHDREW

MS McMURDO: I think I understand that lunch is ready for the families,
10 so we'll adjourn now until 1 o'clock.

HEARING ADJOURNED
HEARING RESUMED

15 MS McMURDO: Now, we have two witnesses this afternoon, COL Streit?

COL STREIT: That's correct.

20 MS McMURDO: We can sit until 5, if necessary. Hopefully, it won't be
necessary, but we can sit until 5, if necessary. But we cannot sit beyond 5.

COL STREIT: Thank you for that indication, Ms McMurdo. Can I also
25 indicate that I'll be in a position to make some brief closing remarks of this
hearing phase, in terms of where Counsel Assisting will be going next, and
the Inquiry's next hearing phase, including some areas that will be covered
in those hearing phases.

MS McMURDO: Thank you.
30

COL STREIT: Ms McMurdo, can I call LTCOL Christopher McDougall?

MS McMURDO: Yes.

35 <LTCOL CHRISTOPHER WILLIAM McDOUGALL, Affirmed

40 <EXAMINATION-IN-CHIEF BY COL STREIT

MS McMURDO: Yes, COL Streit.

COL STREIT: Thank you, Ms McMurdo.
45

LTCOL McDougall, please feel free to have a glass of water if you wish, before we start.

LTCOL McDOUGALL: Thank you.

5

COL STREIT: Can I begin by asking you just to state your full name.

LTCOL McDOUGALL: Christopher William McDougall.

10 COL STREIT: And you're currently a Lieutenant Colonel in the Australian Army; is that correct?

LTCOL McDOUGALL: The Australian Army Reserve.

15 COL STREIT: The Australian Army Reserve. When did you transfer to the Australian Army Reserve?

LTCOL McDOUGALL: 23 April this year.

20 COL STREIT: During 2021 and '22, were you the Commanding Officer of 5 Aviation Regiment?

LTCOL McDOUGALL: I was.

25 COL STREIT: Can I show you a document, please. Just hold on to that document briefly for a moment. Can I just ask you this: in terms of your attendance here today, you received some documentation from the Inquiry; is that right?

30 LTCOL McDOUGALL: Yes.

COL STREIT: And that included a section 23 Notice which required you to answer questions in the form of a statement; is that correct? Sorry, is that - - -

35

LTCOL McDOUGALL: Correct.

COL STREIT: Thank you. Did the section 23 Notice also require your attendance here today to give evidence?

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LTCOL McDOUGALL: It did.

COL STREIT: And did you also receive a copy of a Frequently Asked Questions Guide for Witnesses in IGADF Inquiries?

45

LTCOL McDOUGALL: I did.

COL STREIT: And a copy of my Instrument of Appointment?

5 LTCOL McDOUGALL: Yes.

COL STREIT: A copy of the extract of the Inquiry's Directions?

10 LTCOL McDOUGALL: Yes.

COL STREIT: Did you receive a copy of a Privacy Notice?

LTCOL McDOUGALL: I did.

15 COL STREIT: Thank you. Just have a look at the document that I have provided to you. Can I just ask you to confirm you're satisfied with the contents, before I ask you another question?

20 LTCOL McDOUGALL: Yes.

COL STREIT: Is that your statement comprising your evidence in this Inquiry?

25 LTCOL McDOUGALL: It is.

COL STREIT: Does it comprise 14 pages? Should be a page number, top right.

30 LTCOL McDOUGALL: It does.

COL STREIT: Does it comprise 35 paragraphs?

LTCOL McDOUGALL: Yes.

35 COL STREIT: Did you sign that statement on 22 April 2024?

LTCOL McDOUGALL: I did.

40 COL STREIT: Thank you. Are there any amendments or additions you wish to make to the statement?

LTCOL McDOUGALL: There are not.

45 COL STREIT: Thank you. I tender that statement.

MS McMURDO: Exhibit 18.

5 **#EXHIBIT 18 - STATEMENT OF LTCOL McDOUGALL
DATED 22/04/24**

10 COL STREIT: Thank you. If that statement, Exhibit 18, could remain
before you, LTCOL McDougall? What I propose to do is to take you
through various parts of your statement and just ask you additional
questions, if I may.

15 Can we begin with first your background and qualifications. So you were
appointed as an Officer Cadet within the Australian Army in
February 1998, and you graduated from the Royal Military College
Duntroon in 2002. Is that correct?

LTCOL McDOUGALL: Correct.

20 COL STREIT: Upon graduation from Royal Military College Duntroon,
were you allocated to the Australian Army Aviation Corps?

LTCOL McDOUGALL: Yes.

25 COL STREIT: And that was as a pilot?

LTCOL McDOUGALL: As a trainee pilot, yes.

30 COL STREIT: A trainee pilot. Is it the case you then went through a series
of training events and qualifications on different aircraft?

LTCOL McDOUGALL: Yes.

35 COL STREIT: That began with basic flight training in Tamworth in
September 2020?

LTCOL McDOUGALL: No, not September 2020.

40 COL STREIT: Sorry, September 2002.

LTCOL McDOUGALL: Yes.

COL STREIT: Was that on a fixed wing aircraft?

45 LTCOL McDOUGALL: Yes.

COL STREIT: You then attended the Army Helicopter School, and School of Army Aviation, from March 2003 to March 2004. Is that right?

5 LTCOL McDOUGALL: Yes.

COL STREIT: What aircraft were you taught to fly at the School of Army Aviation?

10 LTCOL McDOUGALL: The UH1H Iroquois.

COL STREIT: Commonly known as the Huey?

15 LTCOL McDOUGALL: Yes.

COL STREIT: At paragraph 5 of your statement you say you've flown 891.5 hours on the Iroquois helicopter. That's correct?

20 LTCOL McDOUGALL: That's correct.

COL STREIT: That included 128.3 hours using NVD. I take it "NVD" is night-vision device?

25 LTCOL McDOUGALL: Correct.

COL STREIT: What was the night-vision device, if you can recall, used in the Iroquois helicopter, or that you used?

30 LTCOL McDOUGALL: I don't recall the exact model, but it was ANVIS.

COL STREIT: And that's different to the TopOwl version used in the MRH-90?

35 LTCOL McDOUGALL: It is, correct.

COL STREIT: In relation to your total hours flown, you also have – within a subcategory, you have 324.1 hours as aircraft Captain?

40 LTCOL McDOUGALL: Correct.

COL STREIT: Is that solely or exclusively on the Iroquois?

LTCOL McDOUGALL: In the context of that paragraph, yes.

45 COL STREIT: You then go on in the paragraph to say you have flown

982.6 hours on the CH-47 aircraft. That's a reference to the Chinook?

LTCOL McDOUGALL: Correct.

5 COL STREIT: And that included 207.1 hours in the Chinook, using night-vision devices. Is that right?

LTCOL McDOUGALL: Correct.

10 COL STREIT: What's the night-vision device that's used in Chinook that you experienced?

LTCOL McDOUGALL: ANVIS.

15 COL STREIT: In Chinook, you have obtained 477 hours as an aircraft Captain; is that correct?

LTCOL McDOUGALL: Correct.

20 COL STREIT: You're not qualified as a pilot on the MRH-90, are you?

LTCOL McDOUGALL: I am not.

25 COL STREIT: So when you were CO of the 5th Aviation Regiment – which we'll turn to shortly – within the 5th Aviation Regiment in 2021 and '22, there was a Squadron, wasn't there, for Chinooks?

LTCOL McDOUGALL: There was.

30 COL STREIT: As the Commanding Officer, you commanded all Squadrons within 5 Aviation Regiment; is that right?

LTCOL McDOUGALL: Correct.

35 COL STREIT: In terms of the composition of 5 Avn at that time, can you just tell me what the Squadrons were, please?

40 LTCOL McDOUGALL: A Squadron, which operated the MRH-90; B Squadron, which introduced and operated the civilian AW139; C Squadron, which operated CH-47 Chinook. There was the Technical Support Squadron, which is the Maintenance Support Squadron for the aircraft within the Regiment; and the Logistics Support Squadron, which conducted the refuelling and logistics support functions within the Regiment, as well as the headquarters itself.

45

COL STREIT: Thank you. How many officers of the rank of Major can you recall reported to you in your command of 5 Avn?

5 LTCOL McDOUGALL: Off the top of my head, nine. I can count through them, if you need.

COL STREIT: Well, there were the Squadron Commanders, I take it?

10 LTCOL McDOUGALL: Five Squadron OCs; the Regiment Operations Officer; the Regiment Aviation Safety Officer; the Regiment's Standards Officer; and the Regiment 2IC.

15 COL STREIT: Paragraph 6 of your statement, if you could turn to that? You've set out in summary form, your various postings within the Army; is that correct?

LTCOL McDOUGALL: Correct.

20 COL STREIT: At paragraph (e) it seems, on the face of it, your first posting to 5 Aviation Regiment occurred when you were a CH-47 pilot. When did that occur, do you remember?

25 LTCOL McDOUGALL: So that's not quite correct. In November 2004, what was then 171 Operational Support Squadron, which was operating the UH1 Iroquois, was transferred from 1 Aviation Regiment to 5 Aviation Regiment, and became A Squadron of 5 Aviation Regiment in November of that year. And that's when I first posted to the Regiment.

30 COL STREIT: You subsequently – paragraph 6(e), you note that you were a Troop Commander times two. I take it that means you were a Troop Commander on two occasions?

LTCOL McDOUGALL: I was, once on Hueys and once on Chinooks.

35 COL STREIT: And do you roughly remember when that occurred?

LTCOL McDOUGALL: I think it was 2006, when I was a Troop Commander on UH1H, and 2009 for the CH-47.

40 COL STREIT: You've also identified at 6(e) that you were a Squadron OPSO. Can you just briefly explain which Squadron that was.

LTCOL McDOUGALL: C Squadron, and it was in 2008.

45 COL STREIT: Which Squadron, sorry?

LTCOL McDOUGALL: C Squadron.

COL STREIT: C Squadron was the CH-47?

5

LTCOL McDOUGALL: Correct.

COL STREIT: What's the role of the Squadron OPSO, in broad terms?

10 LTCOL McDOUGALL: In broad terms, it is to plan and synchronise the tasks within the Squadron, and to allocate those to the Troops for execution.

COL STREIT: Can I turn now to the part of your statement that deals with Army Aviation governance, which commences at paragraph 7? On page 3
15 of your statement, you say that:

NVDs are covered by a similar regime of documents, including operators' manual and technical manuals. My experience with NVD documentation is limited to the ANVIS systems only, as I did not train on or qualify in the use of TopOwl or any other form of NVD.

20

Just in relation to aspects of your role as the Commander of 5 Aviation Regiment: appreciating you were a trained Huey and Chinook pilot at the
25 time, who is it within the Regiment did you rely upon, as the Commanding Officer, to provide you information concerning the MRH-90 capability within your unit?

LTCOL McDOUGALL: From an operational perspective, the Regiment
30 Standards Officer and OC A Squadron. From a technical perspective, OC Technical Support Squadron, who was also the Responsible Manager, or RM, for the fleet.

COL STREIT: Was another person also the Regiment Standards Officer?

35

LTCOL McDOUGALL: Yes, that's the first person I said.

COL STREIT: Sorry, I missed that, my apologies. Paragraph 8 - - -

40 AVM HARLAND: Just before you move on there, COL Streit.

COL STREIT: Yes.

AVM HARLAND: Just a question regarding the hierarchy of Standing
45 Instructions there. Can I ask you to make comment on the useability of the

Standing Instructions, given that details of particular operations, for example, night vision, are contained at multiple levels in the SIs?

5 LTCOL McDOUGALL: Yes. The bottom line would be that they were useable at the pilot level, and from a Command perspective, and nested, would be my response to that.

AVM HARLAND: Okay, thank you.

10 COL STREIT: I should ask you as a matter of fairness: you're in the Reserve; when did you go into the Reserve, sorry?

LTCOL McDOUGALL: On 23 April.

15 COL STREIT: This year?

LTCOL McDOUGALL: Correct.

20 COL STREIT: That was your transition date, but when did you effectively stop performing Regular Army duties?

LTCOL McDOUGALL: December 2022.

25 COL STREIT: And in the time between December 2022 and today, have you been engaged in civilian employment?

30 LTCOL McDOUGALL: Yes. So for clarity, 2023 I took leave, completely separate from military or civil employment. And this year, 2024, I've been civilly employed.

35 COL STREIT: So to put that in context, in the preparation of your responses to the questions that you were asked in this section 23 Notice by the Inquiry, you've had to reach back effectively into your memory banks to assist in the compilation of your statement. Is that right?

LTCOL McDOUGALL: Yes, and I've also used notes and emails from the period to help jog my memory, yes.

40 COL STREIT: Thank you. Just take you to paragraph 8 of your statement, please. Down the bottom of that paragraph, third line from the bottom, you say – well, the sentence reads:

The process was usually marked by a long delay between PIRR submissions and any changes to documents.

45

First, if you're able to remember, what does PIRR stand for?

5 LTCOL McDOUGALL: So it's further up in the document, in the paragraph there.

COL STREIT: I see.

10 LTCOL McDOUGALL: The Publication Improvement Request. There's probably another R in there, but I don't know what it stands for.

COL STREIT: Sure. When you say, "The process was usually marked by long delay", do you understand what the reason for delay was?

15 LTCOL McDOUGALL: I couldn't comment on the specifics, no.

COL STREIT: What was the effect on the long delay?

20 LTCOL McDOUGALL: At times, it would mean that after a PIRR was submitted we would continue to use the document as it stood, until an updated version was released.

AVM HARLAND: Was there a mechanism to short-circuit that, if you needed to get information out more quickly?

25 LTCOL McDOUGALL: There were. A Special Flying Instruction or a Special Technical Instruction might be an example of those.

AVM HARLAND: Okay, thank you.

30 COL STREIT: Turn the page to paragraph 9. You say the Standards Officer at 5 Aviation Regiment fulfilled several roles during your tenure. They were your principal adviser on operational airworthiness. So when you use the phrase "operational airworthiness", what does that mean they were doing for you?

35 LTCOL McDOUGALL: They were ensuring that the system that we used within the Regiment was suitable, implemented, overseen, and effective; we had trained crews operating appropriately, within the limits of the rules and Regulations that were imposed.

40 COL STREIT: Down the bottom of that paragraph, you make the following observation:

45 *In 2021 and 2022, they –*

being the Standards Officer –

5 *were my principal SME on operating the MRH-90, as I was not qualified on the type. Whilst it was not a requirement for the STDO at 5 Avn in 2021 and 2022 to be MRH qualified, I saw it as a meaningfully safe measure to ensure my oversight and supervision of flying management system was well informed.*

10 I just want to ask you, does that mean when you took over as CO, you made a specific request to have an MRH-90 qualified Standards Officer, or is that just a happy coincidence?

15 LTCOL McDOUGALL: So I didn't make a specific request, but when I found out that my Regiment Standards Officer was going to be MRH-90 qualified, I was very happy with that.

20 COL STREIT: You go on in that paragraph to say you also employed the Standards Officer as an external check on field training operations to provide you relatively objective advice on the safety implications of decisions made while undergoing immersive collective training. Can you just explain why you took that step? First, I should ask you this: was that something that was not normally done, or not normally the role of the Standards Officer?

25 LTCOL McDOUGALL: I can't comment on how previous Commanders or other Commanders have used their Standards Officer, but I can say that from my experience, being on a collective training activity, they become very immersive and you seek to achieve as much as you can.

30 By removing them from the tactical scenario and giving them a role outside of that, the purpose was to have that external observation so that if they felt that we were starting to chase objectives that weren't within the bounds of a safe system, they could interject at any time and say, "Hey, you need to think about what you're doing".

35 COL STREIT: Who was the person who was your Standards Officer during your tenure?

40 LTCOL McDOUGALL: In my first year it was MAJ David Rees, and in the second year it was MAJ Michael Perkins.

45 COL STREIT: Paragraph 10, you give some evidence about routine airworthiness issues at 5 Aviation Regiment during your tenure. You identify that:

The primary forum for ensuring systemic airworthiness issues where reported was the annual Airworthiness Board.

5 Can you just explain what the annual Airworthiness Board was?

LTCOL McDOUGALL: An Airworthiness Board is an external review of an aircraft system, chaired by senior, experienced aviators within the Defence Aviation system to conduct an objective external review.

10 COL STREIT: The Defence Aviation system, is that an organisation that is separate to Aviation Command?

15 LTCOL McDOUGALL: It is. So the Defence Airworthiness Authority – and I say this in the context of 21/22; it may be different now – but the Defence Airworthiness Authority was the Chief of Air Force, who was responsible for all Defence Aviation.

20 COL STREIT: So at least during your tenure as the CO 2021/2022, does that mean there were two Airworthiness Boards?

LTCOL McDOUGALL: For MRH-90, yes.

25 COL STREIT: Do you recall, firstly dealing with the first Airworthiness Board, did that then generate a report about MRH-90 that you could access?

LTCOL McDOUGALL: I was – I do recall getting the report after that Airworthiness Board.

30 COL STREIT: Do you recall, for the second year of your command, receiving an Airworthiness Board report?

LTCOL McDOUGALL: I think it came out after I finished up.

35 COL STREIT: In your experience, does that mean although an Airworthiness Board may occur annually, it doesn't mean you're getting the report from the Board within the 12 months of that annual report period?

40 LTCOL McDOUGALL: So it will come out within the 12 months after the Board. In my case, the Board was held, from memory, quite late in '22, so I was no longer in the position when that report was released.

COL STREIT: Does that mean – well, in dealing with the first Board report, so for 2021, is your recollection it came out in 2022?

45 LTCOL McDOUGALL: Vaguely. I wouldn't want to put a date on it.

COL STREIT: Sure. But what it means, does it, is that the Board report that you receive in 2022 at some point in time is the Board's assessment of events and the airframe occurring the year before in 2021?

5

LTCOL McDOUGALL: Yes, up to the date of the Board, that's correct.

COL STREIT: You go on in that paragraph to say:

10 *Acute issues were raised by any available means, usually email, or in extremis, phone or IM.*

And then you provide an example. You say:

15 *An example of this would be the decision in early 2021 to pause MRH flying while the MRH-90 Responsible Manager ensured a level of competence with the documentation being provided for MRH-90 maintenance.*

20 What was that issue about, can you recall?

LTCOL McDOUGALL: So I vaguely recall that life-ing data associated with MRH-90 components was reviewed by our maintenance control section. When they alerted the RM that they had some concerns, he relayed those to me and I relayed those further up the chain. We agreed that whilst they conducted their review and established confidence, that we would not fly during that period, and subsequently the RM came back and said that he was confident with the data that he was getting, and we recommenced flying.

30

COL STREIT: The RM, Responsible Manager; is that what that means?

LTCOL McDOUGALL: Yes.

35 COL STREIT: Do you recall who that person was?

LTCOL McDOUGALL: That was MAJ Karl Fester.

COL STREIT: I take you to paragraph 11, please. You say:

40

I recall that a major governance challenge in 2021/2022 that impacted availability of MRH-90 aircraft were the maintenance procedures used within the MRH-90 technical system.

Can you recall what the maintenance procedures that were causing difficulty, what they were?

5 LTCOL McDOUGALL: I can't recall them in total. I can offer an example that my RM gave me at the time, which was that to conduct some routine maintenance tasks they had to remove parts or panels, conduct the task behind that panel, for example, replace the panel, go and do other tasks, and then they would have to come back, remove the same panel that they'd already removed before, do another task behind that panel, and replace the panel, and go away again, rather than doing everything that could be done behind that particular panel or with that part removed at the same time, and making it an efficient way of doing maintenance.

15 COL STREIT: You say in the body of paragraph 11, probably 12 lines up from the bottom, on the right-hand side it begins with this:

In the long term, the challenge of cumbersome and inefficient maintenance practices led to a degradation in aircrew experience and a chronically high tempo maintenance workforce.

20 What do you mean by that sentence?

25 LTCOL McDOUGALL: So the acute effects in the short term were compounded as time went on. An ongoing lack of availability of aircraft would overall reduce aircrew experience. So where for a week if flying were paused that could probably be absorbed, when availability is reduced for months at a time then that obviously has a cumulative effect.

30 COL STREIT: You, as the Commanding Officer, had a – the acronym is UTAP, so what's that called?

LTCOL McDOUGALL: Unit Training and Assessment Program.

35 COL STREIT: You had a training program for 12 months which you settled at the start of the year for what was to occur that year of training?

LTCOL McDOUGALL: So the UTAP was a standing document. It went through multiple years.

40 COL STREIT: I see. But the UTAP provided the training program for the year, and that included the amount of hours that pilots would have to fly, types of testing they would have to do, and other activities. Is that right?

45 LTCOL McDOUGALL: It wasn't specific on the exact amount of hours, but it gave a good guideline, yes.

COL STREIT: The bottom line, if I understand your evidence correctly, is where – and that was based on, was it, a level of availability of aircraft to do those tasks?
5

LTCOL McDOUGALL: So the hours in the UTAP were based on the amount of time required to achieve a skill or a qualification.

COL STREIT: Where you say in your observation when you were CO that:
10
The challenge of cumbersome and inefficient maintenance practices led to a degradation in aircrew experience –
that’s because the aircrew didn’t have available aircraft to do what they needed to do in your training program. Is that right?
15

LTCOL McDOUGALL: Yes.

COL STREIT: You then say in the next sentence:
20
Another challenge that didn’t necessarily affect the airframe availability was the huge amount of OIP applicable to the aircraft.
I might have missed where you’ve set out OIP before.

LTCOL McDOUGALL: Orders, instructions, and publications.
25

COL STREIT: I see. So the orders, instructions, and publications, is that a reference to the Airworthiness and Safety Framework applicable to the aircraft?
30

LTCOL McDOUGALL: In a roundabout way. If you go back to earlier in the statement where I listed all of those documents, that would be an example of the OIP that were applicable.

COL STREIT: I just want to turn now to paragraph 12.
35

AVM HARLAND: Could I just ask the witness, please, COL Streit - - -

COL STREIT: Yes.
40

AVM HARLAND: - - - would you assess that work tempo and the issues that you faced as sustainable in 5 Aviation Regiment?

LTCOL McDOUGALL: Sustainable for how long, sir?
45

AVM HARLAND: Over the year for an assessment, short term, medium term?

5 LTCOL McDOUGALL: They were sustainable because we deliberately drew boundaries around what we were doing. I think it comes out later in the statement where a good example of that would be the Plan Phoenix that I inherited when I took over command, and then updated during my period of command, where we acknowledged the sustainability of what we were doing, and sought to bound that in terms of capacity versus output.

10 AVM HARLAND: Is it fair to say that you felt you were somewhat constrained in delivering your Regimental outcomes?

15 LTCOL McDOUGALL: I would say yes, in a perfect world. However, the constraints that we had, we didn't make them up at the Regiment. They were agreed amongst the organisation, so I didn't feel that I had to dial back what we were doing. I felt I had to use the resources that I knew that we had to safely achieve what we were given.

20 AVM HARLAND: So there were conversations about how you would manage the issues that you were facing, and how you would deliver, and what you would deliver.

25 LTCOL McDOUGALL: Yes, absolutely. I wasn't doing this in isolation.

AVM HARLAND: Okay. Thank you.

30 COL STREIT: I was just taking you to paragraph 12. Paragraph 12, within the body you refer to something you describe as the "near miss in 2020". What's that a reference to?

35 LTCOL McDOUGALL: In November 2020, there was an incident during training where two MRH-90 passed quite close to each other. Subsequently, there was an air safety investigation conducted into that.

COL STREIT: The incident you describe, two MRH-90s passing quite close to each other, were they 5 Aviation Regiment MRH-90s?

40 LTCOL McDOUGALL: They were.

COL STREIT: Was that a flight where they were conducting a night sortie?

LTCOL McDOUGALL: Yes.

COL STREIT: To the extent you know, do you know any further information about what the actual – when you say “they passed close to each other”, what does that mean?

5 LTCOL McDOUGALL: If I recall correctly, they were somewhere in the vicinity of 40 feet from each other.

COL STREIT: Is that one passing across the front of the other?

10 LTCOL McDOUGALL: From memory, yes. In front of and slightly below.

COL STREIT: As a result of that particular matter, there was an Aviation Safety Investigation.

15 LTCOL McDOUGALL: Correct.

COL STREIT: And it generated a report, did it?

20 LTCOL McDOUGALL: It did.

COL STREIT: Did you have access to that report?

25 LTCOL McDOUGALL: When it was released, yes.

COL STREIT: What actions did you have to take, or were required to be undertaken, by Commands operating MRH-90, can you recall?

30 LTCOL McDOUGALL: I think it’s actually in here in paragraph 22. The only task that was translated to unit COs that came out of the MAO’s directive was that Commanding Officers were required to ensure that formation flying proficiency was included in the UTAP.

35 COL STREIT: Right. Do you recall whether there was – so that is something that you had to undertake within 5 Aviation Regiment at that time, but was there anything that was required in terms of refresher training, or retraining, or anything in relation to operating the aircraft at night in formation?

40 LTCOL McDOUGALL: There were lots of tasks given across Aviation Command. That’s the only one that was specifically tasked to the unit to achieve. I don’t recall any updated orders or instructions regarding that.

COL STREIT: Did you learn when you read the report – and if you can't recall, say so – but did you learn when you read the report what was the primary cause of the near miss, of the near collision?

5 LTCOL McDOUGALL: I don't recall a primary cause.

COL STREIT: Do you recall a cause?

LTCOL McDOUGALL: I recall some contributing factors.

10

COL STREIT: To your recollection, what were they?

15

LTCOL McDOUGALL: They included low recency in formation flying; low recency and experience across the MRH community as a whole; and deviation from briefed procedures.

20

COL STREIT: To your recollection, did the report - I withdraw that. Can I return back to paragraph 12. When you were informed of the outcome of the Aviation Safety Investigation into the 2020 near miss, two MRH-90s, you say in paragraph 12, third sentence:

I initially withdrew authorisation delegations for several flight regimes in periods of low illumination.

25

Why did you take that action?

LTCOL McDOUGALL: To ensure that flying operations at the Regiment had reduced risk, or minimised risk, so far as reasonably practicable.

30

COL STREIT: Did you have a concern, though, that low illumination was a factor in relation to – might have been a factor in relation to the near miss?

LTCOL McDOUGALL: It was also based on my experience, particularly in Afghanistan, where we constrained operations in low illumination.

35

COL STREIT: This is you exercising, even though it's not mandated; you've not been told to do this – this is you just using your experience; that is, putting in place some further protections in and around flight operations?

40

LTCOL McDOUGALL: Correct.

AVM HARLAND: With respect to authorisation, did you permit self-authorisation during your command?

45

LTCOL McDOUGALL: Only as a last resort.

AVM HARLAND: Thank you. Actually, why was that only as a last resort?

5 LTCOL McDOUGALL: It's the least preferable option. The authorisation process exists as an external check for a reason. If you take away the externality of that check, it's questionable how effective it can be.

AVM HARLAND: Okay. Thank you.

10

LTCOL McDOUGALL: Even when we had self-authorisation, the direction was that you were to discuss the flight with another qualified pilot as some form of external check on what you were doing.

15 AVM HARLAND: Thank you.

COL STREIT: That discussion – it's not necessary that discussion occurred face-to-face, is it? It could occur on the telephone?

20 LTCOL McDOUGALL: It could, yes.

COL STREIT: Just turning the page to page 6, dealing with the same paragraph, but one of the other actions you undertook is you say:

25 *I also reviewed and updated the Regiment's Plan Phoenix, which described how MRH-90 operations would be constrained to prioritise safety while the residual capability was maintained and grown during a period of complexity.*

30 Why did you undertake that action, review and updated the Regiment's Plan Phoenix?

LTCOL McDOUGALL: Specifically, I did it at the direction of the Commander 16th Aviation Brigade.

35

COL STREIT: What was the outcome of the update? What was the effect of updating it?

40 LTCOL McDOUGALL: So we re-released an updated version of Plan Phoenix.

COL STREIT: I see. So an existing plan.

45 LTCOL McDOUGALL: There already was a Plan Phoenix, and then after I reviewed it, updated it, and we released a new version of the plan. Yes.

COL STREIT: And Plan Phoenix is something you instigated, though.

5 LTCOL McDOUGALL: No, no, I took it over. So there already was Plan Phoenix when I took over, and in my first year I reviewed it and then released a new version.

10 COL STREIT: Again, in that paragraph, about the middle, you talk about in 2021 you released a revised version of the UTAP as part of a re-release of the unit SIs.

LTCOL McDOUGALL: Yes.

15 COL STREIT: That's Standing Instructions.

LTCOL McDOUGALL: Correct.

COL STREIT:

20 *This updated UTAP was designed to reduce the burden on QFIs to conduct as many flights as the previous version, and to better share available aircraft hours between junior pilots in order to enable them to grow their aviation experience, and the flying supervisors within the Regiment.*

25 Why was that necessary?

30 LTCOL McDOUGALL: We found that the training serials as they existed were – when we looked at the data of who was flying the hours available within the Regiment, a lot of that was being flown by flying instructors, aircrewman instructors, and to a lesser extent checking trainers.

35 COL STREIT: So it's a way of divvying up the hours a bit better for the juniors to get more experience?

LTCOL McDOUGALL: Yes.

40 COL STREIT: Just turning now to 5 Aviation Regiment, if I can. You've already described what comprised the Regiment in terms of the Squadrons.

LTCOL McDOUGALL: I apologise. To update my previous statement, I also had the Regimental Quartermaster as another major who reported to me.

45 COL STREIT: Yes. So how many is that then?

LTCOL McDOUGALL: I think we're up to 10 now.

COL STREIT: Ten Majors.

5 LTCOL McDOUGALL: Yes.

COL STREIT: Major is the first filled rank in the Army, isn't it?

10 LTCOL McDOUGALL: It is.

COL STREIT: It's an important rank.

LTCOL McDOUGALL: Yes, it is.

15 COL STREIT: And ordinarily a Major either has a significant staff function, or they're the Officer Commanding or Squadron Commanding of a subunit. That's right?

20 LTCOL McDOUGALL: Correct.

COL STREIT: You had 10 of those reporting to you as the CO.

LTCOL McDOUGALL: I did.

25 COL STREIT: You, as the Commanding Officer, did you then have a number of delegations assigned to you as a result of the overall Airworthiness and Safety Framework?

30 LTCOL McDOUGALL: Yes.

COL STREIT: Looking back now, in 2021/2022 – and caveating on the basis that things may have moved on – but at least back in that time, are you able to express an opinion to assist the Inquiry as to whether the overall

35 airworthiness delegation framework that you had on your shoulders was too much for one officer to manage?

LTCOL McDOUGALL: I wouldn't say it was too much for one officer to manage, with the caveat that nobody works alone.

40 COL STREIT: Yes.

LTCOL McDOUGALL: So, sure, the Commanding Officer has those delegations, but they seek advice and counsel from a wide variety of people

45 to assist them with that, both withinside the unit and externally.

COL STREIT: Was there any ability for you to delegate any of that authorisation down to individuals you considered were appropriate?

5 LTCOL McDOUGALL: So within unit SIs, some of those were absolutely delegated, yes.

COL STREIT: Were some simply mandated that they had to remain with you?

10 LTCOL McDOUGALL: Yes.

COL STREIT: As the CO?

15 LTCOL McDOUGALL: Yes.

AVM HARLAND: A span of command of 10 is quite broad at the unit level. Noting that gives you the opportunity to delegate, how did you find, as the Commander, your ability to be able to stay across all of the issues – noting that you had multiple aircraft types in 5 Aviation Regiment? How did you find that? Did you feel like you were connected with everything you needed to be?

20 LTCOL McDOUGALL: I did, and that's because I had those Majors to delegate to. My staff were my super power. Had I not had them, then there is no way I would have been able to accomplish anything.

AVM HARLAND: Okay. Thank you.

30 COL STREIT: You set out your role as CO in paragraph 14. There's no purpose in reading that out. Just want to turn to paragraph 15, role and function of – you say:

35 *The role and functions of Airbus at 5 Aviation Regiment 2022/2023 were for maintenance support - - -*

LTCOL McDOUGALL: 21/22, sir.

40 COL STREIT: I apologise:

2021/2022 were for maintenance support. They can best be considered as an extra maintenance Troop within the TSS during this time.

Then you go on to describe generally how they were employed. To your knowledge, was this a regime that existed before – that is, the role of Airbus – before you took command in 2021?

5 LTCOL McDOUGALL: I didn't make any changes to the way they were employed.

COL STREIT: So you've turned up as the CO, that regime's already in place. You've just inherited it?

10

LTCOL McDOUGALL: Correct.

COL STREIT: Did you ever learn as to the reasoning behind why 5 Aviation Regiment were operating in that way, with Airbus providing that support?

15

LTCOL McDOUGALL: No.

COL STREIT: Did you understand at the time when you were the CO that Airbus were employed differently at 6 Aviation Regiment, and at School of Army Aviation?

20

LTCOL McDOUGALL: It was never relevant, so I never questioned.

COL STREIT: Principally, is it fair to say Airbus were a workforce that were engaged to assist in the maintenance of MRH-90, but the responsibility for the maintenance sat within the uniform side of house in your command?

25

LTCOL McDOUGALL: What do you mean by "responsibility"?

30

COL STREIT: So the oversight of that maintenance, was that, for example, done by one of your OCs?

LTCOL McDOUGALL: So the OC TSS was the Responsible Manager, yes.

35

COL STREIT: Yes. And he reported to you?

LTCOL McDOUGALL: From a command perspective, technically he had his own reporting chain as well. So, for example, through the Brigade Aviation Maintenance Officer at 16 Brigade.

40

COL STREIT: That technical reporting line, is that part of the Airworthiness Framework?

45

LTCOL McDOUGALL: Overall technical airworthiness, as we used to call it, yes.

5 COL STREIT: So there's a command line to you as the Commanding Officer.

LTCOL McDOUGALL: Yes.

10 COL STREIT: Then he has a technical reporting line to his superior in the Brigade.

LTCOL McDOUGALL: Yes.

15 COL STREIT: That's 16 Aviation Brigade?

LTCOL McDOUGALL: Correct.

20 COL STREIT: Paragraph 14, I just return to this very briefly, last sentence, you say:

I reported directly to Commander 16 Aviation Brigade.

Who was that in 2021/2022?

25

LTCOL McDOUGALL: In '21, it was BRIG David Hafner; and in '22, BRIG Dean Thompson.

COL STREIT: Dean Thompson?

30

LTCOL McDOUGALL: Yes.

COL STREIT: Thank you. Paragraph 16, you say:

35

All personnel, whether Airbus or Defence, involved in Aviation operations in 5 Avn Regiment in 2021/2022 operated under the authorisations imparted through the operational and technical Regulations that governed Defence Aviation.

40 So just in relation to those matters, authorisations, were those authorisations already in place when you took command?

LTCOL McDOUGALL: And delegated as part of people taking over certain positions. So, for example, when an RM took over their position, they were delegated authorisations under those Regulations.

45

COL STREIT: I see. At paragraph 17 you said:

5 *During my tenure as CO, 5 Avn Regiment did loan aircraft to other
Aviation units.*

Can you just – if you recall, please say so – but are you able to assist the Inquiry as to what caused the need to loan aircraft to other units?

10 COL STREIT: So on Operation FIJI ASSIST, we embarked aircraft onto a Royal Australian Navy vessel. They also embarked one of their own as a ship's flight. During the operation, the Navy aircraft became unserviceable and they requested to use our aircraft with their crews to maintain safety framework for the operation, which we investigated and duly authorised.

15 COL STREIT: Does anything happen from a – can you just explain, if you're able to assist, the sort of handover/takeover of giving an aircraft to another unit in terms of responsibility for the aircraft and maintenance?

20 LTCOL McDOUGALL: There is – the procedures are written within Standing Instructions. In this particular case, we retained control of the maintenance throughout.

25 COL STREIT: Was that something that was mandated or something that you enforced?

LTCOL McDOUGALL: No, we decided it was best practice.

30 COL STREIT: What was the driving reason for your decision, if you can remember?

35 LTCOL McDOUGALL: They needed the effect of the aircraft, not the aircraft itself. The limitation was on aircrew, so it seemed to make the most sense to borrow their aircrew, as it were, as opposed to go through all of the administration that comes with transferring one aircraft – an aircraft from one unit to another.

40 COL STREIT: So there's a level of consistency in maintaining the maintenance of the aircraft.

LTCOL McDOUGALL: Maintaining the maintenance, and the administration of that maintenance, yes.

45 COL STREIT: With the same people who were doing it in your unit.

LTCOL McDOUGALL: Correct.

COL STREIT: So the other unit gets to fly the aircraft but your people keep it running.

5

LTCOL McDOUGALL: Yes. And in this particular case, they flew it for one sortie at a time. It's not as though it was a standing arrangement.

COL STREIT: Sure. No, I understand. Paragraph 18, if you could turn to that. You say:

10

In 2021/2022, 5 Avn operated civilian-registered AW139 aircraft.

And you go on to describe a contract with Toll. What was the reason why 5 Avn operated civilian-registered aircraft?

15

LTCOL McDOUGALL: So it was identified in the period leading up to this that there was not enough capacity within the MRH-90 system to support the amount of aircrew within 5th Aviation Regiment. So the Toll helicopters were leased to increase the amount of helicopters that were available to develop aircrew, particularly during their junior formative years.

20

AVM HARLAND: During that period, what can you tell the Inquiry about the use of the simulator, the MRH-90 simulator, to mitigate against low aircraft availability?

25

LTCOL McDOUGALL: So it was used quite a bit. I guess the primary issue that affected its being used more was that it was a different configuration to the actual aircraft themselves. And the instructors had to take pains to make sure that they didn't introduce negative habit transfer, where you learn and practice on one system and then employ another system. You want to make sure that the habits that you bring across from one to the other aren't negative habits that transfer and decrease the margin of safety.

30

35

AVM HARLAND: Understood. Why was it a different configuration? Was there a reason for that?

LTCOL McDOUGALL: There was, sir. It's outside my lane to go into exactly why that was. I understood that it was very complex to update the simulator and that that was done through a different process to the aircraft, and that's about as much as I can recall.

40

AVM HARLAND: So if I read that right, it was an old configuration of the aircraft. The aircraft had moved on but the simulator stayed in an old configuration?

5 LTCOL McDOUGALL: I wouldn't want to say that it was older or – I just knew that it was different.

AVM HARLAND: And did that stay the same until the aircraft was grounded finally?

10 LTCOL McDOUGALL: It stayed the same while I was the CO in '21 and '22.

15 AVM HARLAND: In terms of the difference between configuration, could you summarise what they were, roughly?

LTCOL McDOUGALL: No, I didn't fly the aircraft. If it was the CH-47, I could give you probably a detailed description, but for MRH, no.

20 AVM HARLAND: Thank you. That might be something we should chase up.

COL STREIT: Thank you. At paragraph 19 you identify:

25 *There were staffing level issues at 5 Avn Regiment throughout 21/22.*

And that:

30 *The issues were not limited to the MRH workforce, but affected the entire Regiment.*

35 You then go on to provide some detail in relation to that, including that you recalled that the areas most affected were aircrewman, ground crew, GCAS, GCMS, maintenance supervisors and transport supervisors.

What was the overall effect, therefore, on the staffing level issues at the Regiment on the conduct of MRH-90 operations?

40 LTCOL McDOUGALL: So for both MRH-90 and for everything that the Regiment did, we had to ensure that we didn't bite off more than we can chew. We would constrain the output of the Regiment to acknowledge the capacity with the people that existed within it.

45 COL STREIT: At paragraph 20 you say that:

The tempo of work for 5 Avn Regiment for 2021 and 2022 can be considered very high.

5 You go on to describe tasking in 2021 commencing with Operation FIJI ASSIST, followed closely by Op NEW SOUTH WALES FLOOD ASSIST. Can you just assist the Inquiry understand the impact of 5 Aviation Regiment being engaged in, effectively, civilian support tasks, how that affected ongoing training under the UTAP?

10 LTCOL McDOUGALL: So while you're doing civilian support tasks, you aren't training under the UTAP.

15 COL STREIT: So does that mean potentially a degradation in training that needs to be remedied at some point when the deployed subunit or unit returns to - - -

20 LTCOL McDOUGALL: Either a degradation in training that needs to be remedied or a capacity constraint that needs to be acknowledged and allowed for.

25 COL STREIT: Do you recall as a consequence of engagement in those civilian operations, were there any subsequent capacity constraints when the Troops came home to 5th Avn Regiment?

30 LTCOL McDOUGALL: Yes, there were. So using Plan Phoenix as an example, we developed capability milestones to describe the capability output that we sought to achieve. As a result of support to these operations, we would delay when we expected those milestones to be achieved.

35 COL STREIT: Did that result in a requirement for catch-up training?

40 LTCOL McDOUGALL: Yes. But as I say, more along the lines of delaying when the training occurred, as opposed to surge to try to achieve the training.

45 AVM HARLAND: What would happen if you came up against a hard requirement which was a scheduled exercise that you needed to support, but your UTAP had been delayed to the point where you didn't have aircrew with the proficiencies to be able to carry that exercise out?

LTCOL McDOUGALL: That almost exactly scenario happened on TALISMAN SABRE 2021, and through 16 Brigade, and then Headquarters Forces Command, we agreed with the training audience and exercise control that we would reduce the amount of support that we provided to the

exercise and we gave them very clear guidelines about what could and could not be achieved by the Regiment during the period.

5 AVM HARLAND: Thanks. And one follow-up question: is Defence aid to the Civil Community and Humanitarian Assistance Disaster Relief, is that a declared role for 5 Aviation Regiment?

10 LTCOL McDOUGALL: It is one of the preparation, preparedness requirements that the Regiment was required to respond to.

AVM HARLAND: Thank you.

COL STREIT: At paragraph 23 you say:

15 *The maintenance burden for MRH-90 at 5 Aviation Regiment in 2021 and 2022 was heavy and limited the Regiment's rate of effort.*

First, can you just tell me what "rate of effort" means in that context of that sentence?

20 LTCOL McDOUGALL: The amount of hours that could be – or airframe hours that could be generated by the fleet.

25 COL STREIT: So the maintenance burden was heavy and limiting the amount of hours the MRH-90s were available to be used for flights. Is that correct?

LTCOL McDOUGALL: Correct.

30 COL STREIT: You say that in the body of that sentence, paragraph 23, you recall that:

35 *The OC TSS, and as the RM for the Regiment's MRH fleet, undertook several procedural changes within the Regiment that markedly increased aircraft availability through his tenure.*

Can you recall broadly what some of those procedural changes were?

40 LTCOL McDOUGALL: One that I can remember specifically was very simple. He implemented a system of daily tasking whereby maintainers on the aircraft understood at the start of their day what it is that they were expected to achieve, which tasks were required to achieve it, the parts that were going to be needed for it, the tools that were going to be needed for it. He systematised the way that the minor tasks were done on a daily basis.
45 That's one example that I can recall easily. There were several others.

COL STREIT: Just take you to paragraph 24. You say:

5 *Post-graduate training in 5 Aviation Regiment over the period 2021/2022 was dictated by the UTAP.*

When you say “post-graduate training”, that’s a reference to pilots that have come from the School of Army Aviation as D CAT trainee pilots, qualified?

10 LTCOL McDOUGALL: And aircrewman, yes.

COL STREIT: And aircrewman. So they undertook training, subject to the UTAP, at 5 Aviation Regiment, to bring them up to a category that they could be engaged as a pilot in missions and aircrewman in missions. Is that correct?

LTCOL McDOUGALL: To move them through the category system to employ them across the span of the Regiment’s missions, yes.

20 COL STREIT: At paragraph 25 you say:

25 *Basic flying currencies for aircrewman at the 5th Aviation Regiment in 2021/2022 were dictated by Army Aviation SIs, usually in the form of three iterations of a certain flight mode in a three-monthly period.*

Can you recall what the three iterations were, what they had to do?

30 LTCOL McDOUGALL: I think the specific word is “landing”, but three circuits is what we generally undertook.

COL STREIT:

35 *Where the iterations had not occurred, a dual check with a QFI was required instead.*

What does that mean, sorry, for a layperson?

40 LTCOL McDOUGALL: So a Qualified Flying Instructor would take, or if it was an aircrewman, a Qualified Aircrewman Instructor would take, the uncurrent individual out and effectively test them and make sure that they are still at the standard required for that mode of flight.

COL STREIT: At paragraph 26 you talk about the effects of fleet cannibalisation. What did you mean by that, “the effects of fleet cannibalisation”?

5 LTCOL McDOUGALL: Parts were taken from unserviceable aircraft and moved over to other aircraft to return those aircraft to serviceability.

COL STREIT: So the complete sentence is:

10 *As noted earlier, MRH-90 flying was paused in early 2021 for approximately one week as a result of RM 5 Avn Regiment’s lack of confidence in the STIs being issued by AAP to mitigate the effects of fleet cannibalisation.*

15 What does AAP stand for?

LTCOL McDOUGALL: Airbus Asia-Pacific.

20 COL STREIT: So to your understanding, the Responsible Manager at 5 Avn had a lack of confidence in the STIs being issued by Airbus to mitigate the effects of fleet cannibalisation, and that lasted for about a week, that lack of confidence, did it?

25 LTCOL McDOUGALL: As I recall, yes.

COL STREIT: Further on in that paragraph, about six lines up, you say:

30 *During 2022, the systemic improvements introduced by the RM took effect, and fleet availability tended to be quite good.*

35 That’s availability of MRH-90s for tasking?

LTCOL McDOUGALL: Correct, which is, just to be clear, for training operations within the Regiment.

40 COL STREIT: Can I take you to paragraph 28. You say:

45 *There were reoccurring concerns, as noted above, regarding maintenance of OIP and cannibalisation affecting the MRH-90 aircraft.*

You then identify another issue by the unit in 2021 was the rate and amount of change affecting the platform as new flight manuals were released, new STANMANs and procedures were released for flying in IMC conditions. What does “IMC” stand for?

LTCOL McDOUGALL: Instrument meteorological conditions.

5 COL STREIT: What really does that instrument meteorological conditions – what does that mean?

LTCOL McDOUGALL: Flying in cloud, flying without being able to use the visual horizon to judge the aircraft attitude.

10 COL STREIT: Flying in weather conditions where you need to use instruments?

LTCOL McDOUGALL: Yes.

15 COL STREIT: In the last third of that paragraph, you say this:

After the commencement of Plan Palisade, 5 Avn Regiment was the lowest priority for the fleet support.

20 What does that mean?

LTCOL McDOUGALL: So in order to ensure that the 6 Aviation Regiment had the aircraft that it needed, and the AAvnTC and 808 Squadron within the Royal Australian Navy, the 5th Aviation Regiment was the last priority, for example, for replaceable items that there might have been a limited supply within the world for us to reach into.

COL STREIT: The last taxi in the rank to get a passenger?

30 LTCOL McDOUGALL: Sometimes, yes.

AVM HARLAND: Just looking at the description of your tenure, clearly a fairly challenging time, and obviously you navigated through that quite well. It describes a number of issues that popped up with the fleet, with the strength of personnel you had at the unit being substantially short. How often were you in touch with 16 Brigade and higher to renegotiate your tasking and the outputs that you were expected to do - - -

40 LTCOL McDOUGALL: All the time, sir.

AVM HARLAND: So a fairly well-worn path?

LTCOL McDOUGALL: Yes, and a very responsive one. I felt always that they understood where we were at and were doing their best to work with

the higher – and flagging headquarters to make sure that that message was understood across the organisation.

5 AVM HARLAND: You felt supported?

LTCOL McDOUGALL: Absolutely, correct.

AVM HARLAND: Great. Thank you.

10 COL STREIT: Could you just turn now to TopOwl, and this is at para 29 of your statement. You're not qualified on the TopOwl system, are you?

LTCOL McDOUGALL: I am not.

15 COL STREIT: So is it fair to say that matters concerning or information about TopOwl, there was a reliance upon your staff Regiment Standards Officer, Qualified Flying Instructors, et cetera, to provide you pertinent information if it was necessary.

20 LTCOL McDOUGALL: Correct.

COL STREIT: Now, in para 30 you say:

25 *5 Avn Regiment did not conduct unit-specific assessments on the use of TopOwl in 2021 and 2022 above the requirements of Army Aviation SIs and the categorisation currency requirements stipulated in the OIPs, such as STANMAN.*

30 Can you recall what those requirements were, if you're able to?

LTCOL McDOUGALL: The only thing that I'd be happy to say in this forum is that certain qualifications were required to be done using NVD. So, for example, a Command NVD assessment, by nature of the assessment, needed to be done whilst using NVDs.

35 COL STREIT: At paragraph 31, you say:

There were very few SAA graduates at School of Army Aviation.

40 LTCOL McDOUGALL: Correct.

COL STREIT: So there were very few SAA graduates into 5 Avn Regiment during your tenure and you do not recall your senior MRH-90 qualified aircrew OCA Squadron and Regiment Standards Officer noting

any deficiencies with TopOwl proficiency in the graduates that joined the unit.

5 You say you don't recall flying with any new graduates as a passenger; however, you do recall the MRH-90 pilots you observed during your two-year tenure being proficient as tactical aviators. You cannot make an assessment of their technical competence as MRH-90 pilots. That was effectively something, that last aspect, you relied upon, your subordinate instructors and Standards Officer to manage?

10 LTCOL McDOUGALL: And the wider MRH-90 airworthiness system, yes.

15 COL STREIT: And your expectation is they would report to you any particular issues - - -

LTCOL McDOUGALL: Correct.

20 COL STREIT: - - - that needed to be brought to your attention?

LTCOL McDOUGALL: Yes.

COL STREIT: At para 32 you say:

25 *I did not have any noted airworthiness concerns about TopOwl as a system for maintaining situational awareness and aircraft control.*

30 Is it your recollection that none of your senior staff brought to you any concerns that they had or may have had?

LTCOL McDOUGALL: That's my recollection.

35 COL STREIT: Now, can I just turn to dealing with your knowledge of the deceased aircrew, or knowledge of some of them. So you knew LT Max Nugent, albeit not well?

LTCOL McDOUGALL: Correct.

40 COL STREIT: How did you know him?

LTCOL McDOUGALL: I spoke to him once, that I recall, one-on-one, and once or twice in a group.

COL STREIT: Now, do you recall whether or not you flew with LT Nugent in 2022?

5 LTCOL McDOUGALL: No, certainly not as a pilot, given that I was not qualified on MRH-90 and he was not qualified on CH-47, so we never flew together.

10 COL STREIT: The Inquiry understands that LT Nugent posted from 5 Aviation Regiment to 6 Aviation Regiment at the end of 2022. You address this in part at your statement at paragraph 35. You say this: “With regards” – I withdraw that. You say this:

15 *I did not speak to LT Nugent directly about his posting to 6 Aviation Regiment for early 2023. Information was passed to LT Nugent through his chain of command and through the personnel management system via advice directly from me.*

20 Does that mean LT Nugent is effectively receiving information about his posting through your staff, your senior staff?

LTCOL McDOUGALL: So his direct communication was with his Officer Commanding and with the career management agencies.

25 COL STREIT: Who was his Officer Commanding?

LTCOL McDOUGALL: MAJ Ash Watt.

30 COL STREIT: Now, LT Nugent, we understand – that is, the Inquiry understands – by way of evidence received, that he undertook training at the School of Army Aviation in 2021 and then posted to 5 Avn at the commencement of 2022. Is that your understanding?

LTCOL McDOUGALL: I thought it was March ‘22.

35 COL STREIT: March ‘22. So therefore he spends less than 12 months at 5 Avn before he’s posted to 6 Avn. Are you able to assist the Inquiry understand – well, to the extent you’re able to and to the extent it was communicated to you – what was the reasoning process for posting LT Nugent to 6 Avn?

40 LTCOL McDOUGALL: So at the – I think it was the end of 2021, from memory, the government announced that they’d made a letter of offer to the United States seeking Black Hawks. It was understood that that was probably going to mean the 5th Aviation Regiment, as the last priority within the fleet, the MRH-90 fleet, would be the first one to support the

45

other areas within the fleet with personnel. We went to all of the MRH-90 qualified personnel and said:

5 *If a decision is made by government to purchase Black Hawks and you are subsequently released to go elsewhere within the MRH-90 fleet, where would you want to go?*

10 Max was one of the members who indicated that he would be willing to go to 6 Aviation Regiment.

15 AVM HARLAND: What was the normal process for posting somebody to 6 Aviation Regiment? How much time would they typically spend at 5 Aviation Regiment on MRH-90?

20 LTCOL McDOUGALL: That's a "how long is the piece of string" question there, sir. Ordinarily, you would expect that a pilot come to the 5th Aviation Regiment and at least be a C Category pilot potentially, or certainly from our perspective we would want to retain them for as long as possible to keep their skills and experience, but also acknowledge the fact that those skills and experience are very valuable across the organisation. So I would say that two to three years would be typical. It would be a figure that I would use. However, there is no one number that I would sit here and say that after three years is when we consider them for postings outside the 5th Aviation Regiment.

25 In accordance with the Army Pilot Employment spec, as a mid-level Captain, they were expected to make a decision about their career, whether they wanted to stream as a QFI, as a test pilot, as a Troop Commander, et cetera. That was another catalyst for where people might get posted to from that point. As I say in here though, putting a typical layer, a filter, over this scenario is difficult though because the entire context was atypical.

30 AVM HARLAND: I understand the drivers, I think. Had pilots with one year's experience or thereabouts been posted to 6 Aviation Brigade before in your knowledge?

35 LTCOL McDOUGALL: I wouldn't want to categorically say yes or no to that.

40 AVM HARLAND: Did you have any concerns about junior pilots going to what seems to be characterised as a more demanding role?

45 LTCOL McDOUGALL: I didn't have any concerns about them going there. I understand that they would be just as they would be in the 5th Aviation Regiment; they'd be supervised, mentored, trained and

developed within the unit training and assessment programs. The Regiments have different jobs but there's no reason for pilots not to be posted between one or the other.

5 AVM HARLAND: Would you anticipate 6 Avn might need to adjust their training program to take into account a more junior profile?

10 LTCOL McDOUGALL: I wouldn't want to comment on what the 6 Aviation – I was never in the 6 Aviation Regiment, so for me to comment on how they should change their business would be inappropriate.

15 AVM HARLAND: Yes, okay. Maybe I'll rephrase it. If you were in a unit that was operating at a higher tempo and complexity, and you received pilots who were significantly more junior, would you take pause to reconsider your training program?

LTCOL McDOUGALL: I would ensure that there was sufficient oversight and diligence in that particular context.

20 AVM HARLAND: Okay, thank you.

25 COL STREIT: Then you did just that, didn't you, with the November 2020 near miss, when you incorporated other restrictions for 5 Aviation Regiment in addition to those things mandated by Command?

LTCOL McDOUGALL: Obviously, a different context for your question, but yes, I did, sir.

30 COL STREIT: Yes. Nothing further, thank you.

MS McMURDO: Any applications for cross-examination?

LCDR GRACIE: No, ma'am.

35 SQNLDR GILES: Yes, ma'am.

MS McMURDO: Yes, please.

40 **<CROSS-EXAMINATION BY SQNLDR GILES**

45 SQNLDR GILES: Sir, my name is SQNLDR Giles. I represent the reputational interests for LT Nugent. As we have heard in the Inquiry – and I refer to paragraphs 34 and 35 of your statement – LT Nugent said that he

took a flight with the Commanding Officer of 5 Avn as well as receiving
posting orders from the CO of 5 Avn. Now, we've heard from you today
in relation to that evidence. Now, as you can appreciate, an Officer
Commanding and a Commanding Officer are two different people; isn't that
5 correct.

LTCOL McDOUGALL: That is correct.

10 SQNLDR GILES: These two phrases, for somebody that's not in the
military, may be confused.

LTCOL McDOUGALL: I agree.

15 SQNLDR GILES: Now, in relation to that, you gave evidence today to say
that the Officer Commanding for LT Nugent was a MAJ Ash Watt; is that
correct?

LTCOL McDOUGALL: Correct.

20 SQNLDR GILES: Now, was MAJ Ash Watt the Officer Commanding of
A Squadron?

LTCOL McDOUGALL: A Squadron, yes.

25 SQNLDR GILES: Now, the Officer Commanding, MAJ Watt, would she
– I assume it is she?

LTCOL McDOUGALL: He.

30 SQNLDR GILES: Was he a qualified MRH-90 pilot?

LTCOL McDOUGALL: Yes.

35 SQNLDR GILES: Would it be possible that LT Nugent flew with
MAJ Watt?

LTCOL McDOUGALL: It would be possible.

40 SQNLDR GILES: Thank you. Now, in relation to your evidence today,
you also said that from posting orders you would have your team, and that
may be the Officer Command, provide posting or future posting orders to
their subordinates. Is that correct?

LTCOL McDOUGALL: So the posting orders are released by the career management agency. The Officer Commanding would have discussed with the members what their desires were.

5 SQNLDR GILES: But, sir, it could be possible that, although the formal posting orders haven't come out, there would be a possibility that it's known where that person may go and the Officer Commanding may give them a heads-up to advise that posting orders will be coming in the future, and you are likely to be posted to this location prior to the formal posting order to come out to allow that member to be able to start to make arrangements?
10

LTCOL McDOUGALL: That is possible.

15 SQNLDR GILES: Thank you. I have no further questions, ma'am.

MS McMURDO: Thank you, Squadron Leader. Any other applications to cross-examine? No. Anything in response, COL Streit?

20 COL STREIT: No, thank you, Ms McMurdo.

MS McMURDO: Thanks very much, Lieutenant Colonel. Thank you for coming to the Inquiry, and you're free to go.

25 LTCOL McDOUGALL: Thank you, ma'am. Thank you, sir.

<WITNESS WITHDREW

30 MS McMURDO: COL Streit, are you wanting to go on or do you want to take a short break now?

COL STREIT: We've been going for nearly an hour and 20 minutes. Perhaps a very short comfort break.
35

MS McMURDO: Sure, yes. We'll take a 15-minute break and then we'll go through to the end. Thank you.

40

HEARING ADJOURNED

HEARING RESUMED

5 MS McMURDO: Yes, COL Streit?

COL STREIT: Thank you, Ms McMurdo. Can I call LTCOL Andrew Lean, please?

10 <LTCOL ANDREW LEAN, Affirmed

<EXAMINATION-IN-CHIEF BY COL STREIT

15 MS McMURDO: Yes, COL Streit?

COL STREIT: Thank you. LTCOL Lean, could you please state your full name.

20 LTCOL LEAN: Andrew Lean.

COL STREIT: You're a Lieutenant Colonel in the Australian Regular Army; is that right?

25 LTCOL LEAN: That's correct.

COL STREIT: You're currently the Commanding Officer of 5 Aviation Regiment. Is that correct?

30 LTCOL LEAN: That is correct.

COL STREIT: When did you take up your role?

35 LTCOL LEAN: In December 2022.

COL STREIT: Thank you. Hopefully you've got a clean glass in front of you and some water, so at your leisure, please feel free to make use of that.

40 In relation to your appearance here before the Inquiry, is it correct that you received a section 23 Notice which required you to answer some questions in the form of a statement?

45 LTCOL LEAN: That is correct.

COL STREIT: And the Notice also required your attendance to appear here today?

LTCOL LEAN: Yes.

5

COL STREIT: Did you also receive a copy of the IGADF Frequently Asked Questions Guide for Witnesses?

LTCOL LEAN: Yes.

10

COL STREIT: A copy of my Instrument of Appointment?

LTCOL LEAN: Yes.

15

COL STREIT: Have you also received a Privacy Notice in relation to your appearance here today?

LTCOL LEAN: Yes.

20

COL STREIT: Thank you. And last, but by no means least, did you receive a copy of the extract of the Inquiry's Directions?

LTCOL LEAN: Yes.

25

COL STREIT: I'd like to show you a document. Just take a moment to move through that document and satisfy yourself as to its contents. Is that your statement?

LTCOL LEAN: That is.

30

COL STREIT: And does your statement comprise 12 pages? The page number is on the top right-hand corner, if that assists.

LTCOL LEAN: It does, yes.

35

COL STREIT: And 42 paragraphs?

LTCOL LEAN: Forty-three, if you want to - - -

40

COL STREIT: Forty-three. I can't count, thank you. Forty-three paragraphs. Did you sign your statement on 22 April 2024?

LTCOL LEAN: Yes, I did.

COL STREIT: Are there any amendments or additions to the statement that you would like to make?

LTCOL LEAN: Just with paragraph 39, it should say:

5

At 5 Aviation Regiment, TopOwl had been used for day and night operations since 2016.

And quarter 1, 2016, is when we converted to night HMSD operations.

10

COL STREIT: I see. So how should the sentence read?

LTCOL LEAN:

15

At 5 Aviation Regiment in 2023, as TopOwl had been in use for day/night operations since 2016, all flights conducted in the aircraft and sim were conducted using TopOwl. And all pilots arriving at the Regiment were trained on TopOwl as part of their course.

20

COL STREIT: Thank you. Was that the only amendment or addition?

LTCOL LEAN: Yes.

25

COL STREIT: Thank you. I tender that statement.

MS McMURDO: I might just – sorry. That will be Exhibit 18, but before we tender it could I ask if you could just make that amendment to the actual statement, in paragraph 39. We'll just give you a pen to do that. If you'd

30

make the amendment and initial it, please. You've got a pen? You've got a pen there?

LTCOL LEAN: I don't, ma'am, no.

35

MS McMURDO: So that now reads 2016 instead of 2015?

LTCOL LEAN: Yes, ma'am.

MS McMURDO: Did you just initial it?

40

LTCOL LEAN: Yes, ma'am.

MS McMURDO: Thank you. Yes, that will be Exhibit 19, thank you.

45

**#EXHIBIT 19 – STATEMENT OF LTCOL LEAN DATED 22/04/24,
AS AMENDED**

5 COL STREIT: Thank you. LTCOL Lean, what I propose to do is keep
your statement in front of you. I should alert you to one thing: there's a
document that's in front of you that's laminated. On the side that's facing
down, it contains some information in relation to pseudonyms of certain
10 personnel. So if you're about to give me an answer that refers to a person
who is not addressed in your statement, then I will ask you to just turn that
document over and confirm whether or not that person has a pseudonym.
And if they don't, then you can indicate to me what their name is.

15 LTCOL LEAN: Yes.

COL STREIT: That might be a slow process, but something we need to do.
Thank you. Other than that, your statement has already been checked for
that particular issue; it will only arise if you mention somebody else.

20 Just in relation to your statement and your background and qualifications,
at paragraph 4 you say you enlisted into the Australian Regular Army on
24 January 2001; is that correct?

25 LTCOL LEAN: That is correct.

COL STREIT: You commenced training as a Cadet at the Australian
Defence Force Academy?

30 LTCOL LEAN: Yes, that's correct.

COL STREIT: What did you study?

LTCOL LEAN: I studied a Bachelor of Arts.

35 COL STREIT: You were at ADFA from January 2001 through to
December 2003.

LTCOL LEAN: That's correct.

40 COL STREIT: You then went and completed officer training at the Royal
Military College Duntroon in 2004.

LTCOL LEAN: Correct.

45 COL STREIT: Subsequently, a little way down the road, you completed

the French military equivalent of the Australian Command and Staff College, from August 2018 to July 2019.

5 LTCOL LEAN: That's correct.

COL STREIT: Does that mean you have a level of familiarity with the French language?

10 LTCOL LEAN: That is, I did French language training in 2017, for nine months at the School of Signals, prior to posting to France.

15 COL STREIT: Thank you. In terms of the stream in which you were in, you say at paragraph 5 you were in the command, leadership and management stream within Army Aviation. For a layperson, what does that mean?

20 LTCOL LEAN: So it means my career pathway is through the command pathway. So previous to this, I was an Officer Commanding A Squadron, and now I'm the Commanding Officer of 5 Aviation Regiment. And for future aspirations is to be Commander 16 Brigade and so forth.

COL STREIT: So trained as a pilot, but you're in the command stream, which means you're suitable for consideration for high level commands?

25 LTCOL LEAN: Yes. To compete for it, yes.

COL STREIT: Yes. In contrast, pilots can also be specialist service officers; is that right?

30 LTCOL LEAN: So there was an entry pathway which was specialist service officers or SSOs, which the Australian Army does not use anymore. They brought them in to predominantly be in the specialist pathway, or the flying pathway.

35 COL STREIT: So if I was a pilot in the Army, an MRH-90 pilot, and I wanted to stay flying as much as I could without – and sacrifice that to then not compete for career promotion progression, is there a different pathway which I could use?

40 LTCOL LEAN: At the present, there's only the GSO pathway; however, inside Aviation we have the command and leadership pathway, but there's also a specialised pathway, which is, as a Senior Captain, when you become a flying instructor, you move to that specialised pathway and progress along that pathway.

45

COL STREIT: I see. So when you're an instructor, you're called a Qualified Flying Instructor?

LTCOL LEAN: Correct.

5

COL STREIT: At that point you obtain that qualification, you come to a fork in the road: you can continue on the command stream if you wish, or you move to that specialisation as an instructor. Do I understand that correctly?

10

LTCOL LEAN: So, yes, once you get your qualification, 12 months post-qualification you move to that specialist pathway; however, it does not preclude you from coming back to compete for command positions, if you desire, in the future.

15

COL STREIT: So officers who had an overriding interest to remain flying as long as they could, if they became a QFI, there are certain processes where they could maintain that particular function as a QFI into the foreseeable future?

20

LTCOL LEAN: That is correct.

COL STREIT: Then they would perform that QFI function at either 1 Aviation Regiment, 5 Aviation Regiment, 6 Aviation Regiment, or at Oakey?

25

LTCOL LEAN: That is correct, yes.

AVM HARLAND: Before you just answer that question, are you aware of why the SSO Scheme was cancelled in favour of GSO only?

30

LTCOL LEAN: I am not fully across that one, sir, no. You would need to ask the Commander of Aviation Command, or someone inside Aviation Command as to that reason. I know there is an ultimate pathway or a direct entry officers' scheme being explored, but I do not believe that that's in – in play as yet.

35

AVM HARLAND: Okay, thank you.

40

LTCOL LEAN: No worries, sir.

COL STREIT: At paragraph 5 on page 1, and then over onto page 2, you set out various courses and your qualifications. You undertook basic flying training on fixed wing in 2005 through to 2006; is that correct?

45

LTCOL LEAN: That's correct.

5 COL STREIT: Then basic rotary wing training, Helicopter Qualification Course and Helicopter Tactics Course on the Kiowa helicopter from April 2006 through to September 2006.

LTCOL LEAN: That is correct.

10 COL STREIT: Then you completed your SA – 70A Black Hawk transition, and Regimental Officers' Basic Course from October 2006 to March 2007 at the School of Army Aviation.

LTCOL LEAN: Correct.

15 COL STREIT: You returned to the School of Army Aviation in October of that year, through to November 2013, and conducted a S-70A-9 refresher prior to taking over command of B Squadron in 2014. Is that correct?

20 LTCOL LEAN: That is correct. Yes, back end of 2013 I conducted a Black Hawk refresher.

COL STREIT: When you say "B Squadron", was that B Squadron 5 Aviation Regiment?

25 LTCOL LEAN: Yes, B Squadron 5th Aviation. All my Regimental time has been in 5 Aviation Regiment.

COL STREIT: Never been to 6?

30 LTCOL LEAN: Never been to 6.

COL STREIT: So from October 2014 to December 2014, you conducted an MRH-90 transition at the School of Army Aviation prior to taking over command of A Squadron in 5 Aviation Regiment in 2015. Is that correct?

35 LTCOL LEAN: That is correct.

40 COL STREIT: In April 2022, you were selected to take over command of 5 Aviation Regiment, and you were required to undertake a CH-47 conversion.

LTCOL LEAN: That is correct.

45 COL STREIT: Involving an aircraft qualification course which you did in the United States.

LTCOL LEAN: That is correct.

5 COL STREIT: That was prior to undertaking Australian standardisation on the CH-47, which you did in September to December '22.

LTCOL LEAN: Correct.

10 COL STREIT: So the bottom line is, when you're in command, you're qualified to fly an MRH-90?

LTCOL LEAN: Correct. When I was an Officer Commanding, so in charge of a flying Squadron, I was qualified to fly the MRH-90, yes.

15 COL STREIT: So as the CO of 5 Avn, when you took up your appointment you had previously held a qualification of flying an MRH-90.

LTCOL LEAN: That is correct.

20 COL STREIT: You held a current qualification to fly a CH-47.

LTCOL LEAN: Correct.

25 COL STREIT: And the MRH-90 and the CH-47 were the two main airframes existing in 5 Aviation when you took up command. Is that right?

LTCOL LEAN: That is correct.

30 COL STREIT: So although your qualification had expired on MRH-90 and you had a new qualification on CH-47, is it fair to say that you were able to walk the talk with the MRH-90 pilots, even though your qualification wasn't current?

35 LTCOL LEAN: Yes, I was able to talk to them and understand what they were saying. Yes.

40 COL STREIT: At paragraph 6 you set out your various posting history, and then you turn to Aviation governance, which you set out at paragraph 7 of your statement. What I'd like to do is take you straight over to paragraph 9, where you say:

The role of the Standards Officer at 5 Aviation Regiment in 2023/2024 is as the Senior Instructor within the Regiment.

Can I begin by asking you who was the – if you look at that list first – the Standards Officer in the Regiment for 2023/2024?

5 LTCOL LEAN: So the Standards Officer in 5 Aviation Regiment in 2023 was MAJ Michael Perkins, and in 2024 it is MAJ Cameron Dunne.

COL STREIT: Can you just explain the role of the Standards Officer in relation to MRH-90 at 5 Avn?

10 LTCOL LEAN: So in 2023, the Regimental Standards Officer was an MRH-90 pilot. But regardless of the type that the Standards Officer holds in 5 Aviation Regiment, they are seen as the Senior Instructor inside the 5th Aviation Regiment. So as I've said in my statement, the role is to:

15 *Support Command in generating and sustaining a generative safety culture, providing subject-matter expert advice, managing the unit's Standing Instructions and Special Flying Instructions, maintaining technical control over the unit's Qualified Flying Instructors and unit check Captains or unit check trainers, provide*
20 *oversight and standardisation of unit training and checking functions and ensuring aircrew compliance with authorised publication instructions, monitoring the unit's operating practices and liaisons with the Headquarters 16 Brigade and Avn Command Standards.*

25 COL STREIT: In 2022, can you just tell me the Squadrons that comprised 5 Aviation Regiment?

LTCOL LEAN: Sorry, 2023.

30 COL STREIT: 2023, I apologise.

LTCOL LEAN: So in 2023 we had A Squadron flying the MRH-90s, B Squadron flying the AW139, and C Squadron flying the CH-47 Chinooks. We also had Technical Support Squadron providing the deep level maintenance effect for CH-47 and MRH-90, as well as Logistics Support Squadron providing the ground logistics.

40 COL STREIT: At paragraph 10 you say:

If any member of the Regiment raises an airworthiness issue, they are able to report to their Troop Commander, OC, RASO, RSTDO, or raise it directly to myself.

45 So just a couple of acronyms there. OC is Officer Commanding?

LTCOL LEAN: That is correct.

COL STREIT: RASO, or razzo, is the?

5

LTCOL LEAN: The Regimental Aviation Safety Officer.

COL STREIT: Thank you. And RSTDO is the Regimental Standards Officer?

10

LTCOL LEAN: That is correct.

COL STREIT: Or raise it to you directly, they could. In your time as CO, did that ever occur? Did somebody just come and knock on your door?

15

LTCOL LEAN: So it has occurred. It occurred once from a member of the CH-47 workforce, relating to CH-47 specific things. Nothing ever with MRH-90.

20

COL STREIT: But it was nonetheless an avenue, effectively you having an open door for issues to be raised if a member wanted to come to you directly?

LTCOL LEAN: Yes.

25

COL STREIT: Now going to turn to paragraph 11 and focusing on 2023. You say:

30

2023: there were two major governance issues that impacted the availability of MRH-90 in 5 Aviation Regiment.

You say:

35

The first being the planetary gearbox Special Technical Instruction issued by Airbus, which required the aircraft to have the planetary gearbox magnetic chip detector checked every five aircraft operating hours.

You say:

40

This caused a significant replan for the MRH-90 fleet, as they were operationally deployed to Broome when this STI was released.

45

Just dealing with that first governance issue that you raise, what was the ultimate outcome in relation to that matter? Was it ultimately resolved?

LTCOL LEAN: It was ultimately resolved, yes.

COL STREIT: Do you remember when that occurred?

5

LTCOL LEAN: That occurred at the back end of quarter 1, from memory. There was inspections that were passed down, that were dealt with by the Maintenance Organisation side of 5 Aviation Regiment. And aircraft that we could continue to fly were prioritised, while the other ones underwent further inspections, I believe.

10

COL STREIT: The second issue you raise in that paragraph concerns the Jervis Bay ditching, which you say required engines to be inspected; that the semi auto modification had been completed, issued by Airbus. So what was that – the Jervis Bay ditching, is that a reference to the Jervis Bay ditching early of 2023 - - -

15

LTCOL LEAN: Yes.

20

COL STREIT: - - - of an MRH-90 aircraft?

LTCOL LEAN: Yes, sir.

25

COL STREIT: So what was the issue concerning – in your understanding, what was the issue concerning the engines that needed to be addressed?

30

LTCOL LEAN: So there was a modification that had been made to the MRH-90s prior to my time arriving back at 5th Aviation Regiment that provided an auto vent modification to – in the event of a subsequent start, to ensure that the aircraft would start. That's probably about the best I can explain it. Having that had been occurred in a lot of – so a lot of that occurred in my time out of the Regiment.

35

COL STREIT: At paragraph 12 you say:

I amended Special Flying Instruction –

and you've identified the number –

40

constraints to 5 Avn Regiment flying operations to allow subunit Commanders, MRH-90 and CH-47 Senior Instructor, CH-47F Wing, Instructor Development Officer CH-47F, and the SO2 Standards of CH-47 to authorise flights utilising the following profiles –

45

and then you describe them. Why did you do that? Why was that necessary?

5 LTCOL LEAN: So up until that point in time, the SFI that was in existence meant that for the profiles, being mixed-type NVD formation, terrain flight in less than two millilux illumination and NVD formation with turning rejoins in less than two millilux illumination, required authorisation by the CO. I had – I knew my subunit Commanders from working with them previously and had a fair degree of confidence that they would be able to
10 effectively apply sound judgment when it came to authorising sorties in those modes of flight. And then, rather than me being the only one who could authorise those modes, I delegated it back down to those individuals.

15 COL STREIT: The reason for the delegations, if I understand your evidence correctly in your statement, was something that had arisen out of the 2020 November near miss of two MRH-90s; is that right?

LTCOL LEAN: Yes.

20 COL STREIT: So in 2020, in November there was a near miss between two 5 Avn MRH-90s. That's correct?

LTCOL LEAN: Yes.

25 COL STREIT: And there was an Aviation Safety Investigation into that matter; correct?

LTCOL LEAN: Yes.

30 COL STREIT: It generated a report.

LTCOL LEAN: Yes.

35 COL STREIT: And the report required certain actions by Command.

LTCOL LEAN: Yes.

40 COL STREIT: I should say this, did you have an opportunity to read that report at some point in time?

LTCOL LEAN: I have, yes.

45 COL STREIT: I appreciate it's not a memory test and it's not something you were asked to prepare for, for this evidence. But in terms of an action on, given you've addressed it in your statement, did you have a concern

arising out of the November 2020 near miss, to the extent that you needed to ensure tighter controls in relation to flights within certain low illumination?

5 LTCOL LEAN: Given that that restriction had been placed by the previous
CO, rather than completely remove that restriction and push it back down
so that any authorising officer in the Regiment could conduct that, I wanted
to retain a sense of control over it so that we were continuing to build on
the experience of the aircrew in the organisation when it came to conducting
10 flight profiles such as those three listed there.

COL STREIT: Sure.

15 LTCOL LEAN: So by putting it down to my subunit Commanders or the
Senior Instructor of the CH-47 Wing, or the people who operated under the
5 Avn Flight Management System, it ensured that there was a level of
oversight for those missions' profiles that were deemed to be high risk.

20 COL STREIT: I should have asked you something; you've just reminded
me in your response. So you didn't turn up to 5 Aviation Regiment and
take over command in isolation of getting a brief from the former CO, I take
it?

25 LTCOL LEAN: No, we had a week-long handover.

COL STREIT: Yes. So there's standard military practice, is it, that there'd
be a handover from one Commander to another Commander?

30 LTCOL LEAN: Yes.

COL STREIT: Sometimes that might be in person, correct?

LTCOL LEAN: Correct.

35 COL STREIT: Sometimes it might be on the telephone or some video
system.

LTCOL LEAN: Correct.

40 COL STREIT: So you had a week-long handover where you've gone to
5 Aviation Regiment, a week with the current CO, who's briefing you about
all things concerning 5 Aviation Regiment. Is that right?

45 LTCOL LEAN: Yes.

COL STREIT: So that included, did it, a conversation around the limitation or restriction that he put in place as a result of the November 2020 near miss.

5 LTCOL LEAN: Yes. So as part of that handover we discussed all things relating to the Regiment, but I also had briefs from the key members of staff, and one of those was the Standards Officer and the Aviation Safety Officer throughout that week to bring me up to speed as to where the
10 5th Aviation Regiment was with regards to their own 5 Avn SIs and 5 Avn SFIs.

AVM HARLAND: Did you allow self-authorisation at 5 Avn under your command?

15 LTCOL LEAN: It is allowed, sir, but it is highly discouraged and all authorising officers are briefed to find an alternate authorising officer, and only if there is no other choice, to go down there. But where possible, bounce it off another member or other members of senior crews who are not authorising officers prior to conducting that.

20 AVM HARLAND: And in your mind, why was it not preferred to do self-authorisation?

25 LTCOL LEAN: Because having someone else there as an authorising officer provides that second set of eyes as to what you're going to do and also to make sure, with all the rules and Regulations that we have, that nothing gets missed when you're doing your authorisation.

30 AVM HARLAND: Thank you.

LTCOL LEAN: No worries, sir.

35 COL STREIT: I just turn now to that part of your statement that deals with the 5th Aviation - - -

MS McMURDO: Just before you leave that paragraph, can I just ask something?

40 COL STREIT: Yes.

MS McMURDO: Could you just do a bit of translating for me here in that paragraph, please. So you amended the "Regiment flying operations" to "authorise flights utilising the following profiles". So mixed-type night vision-device formation?

45

LTCOL LEAN: Yes, ma'am.

MS McMURDO: Terrain flight in - - -

5 LTCOL LEAN: Less than two millilux.

MS McMURDO: Less than two?

LTCOL LEAN: Millilux.

10

MS McMURDO:

Millilux illumination and night-vision devices formation turning rejoins in less than two millilux illumination.

15

So what's "two millilux illumination"?

LTCOL LEAN: That is a unit of measurement for light by night. It equates to roughly a clear night with no moon.

20

MS McMURDO: Thank you. That's very helpful to me.

LTCOL LEAN: No worries, ma'am.

25

COL STREIT: Just picking up on that, the level of illumination for a pilot using a night-vision device can be affected by whether or not a moon or part of a moon is present?

LTCOL LEAN: Yes, sir.

30

COL STREIT: Whether or not the aircraft is near or flying near to some other source of light which might be from a town, a house or a city?

LTCOL LEAN: Yes, sir.

35

COL STREIT: And any other source of light generated, even from, say, a search light?

LTCOL LEAN: Sir.

40

COL STREIT: Ships with their lights on in the ocean?

LTCOL LEAN: Yes, sir.

COL STREIT: So even a small amount of illumination, would that be sufficient to register as – on the scale that you’re describing?

5 LTCOL LEAN: I couldn’t really comment on that, sir. Without having measuring devices out there, I wouldn’t be able to tell you how much of a light source would amend that two millilux would go to 2.1 or 2.5.

10 COL STREIT: Sure. And the things that can affect the level of illumination if you’re flying at night, and otherwise a moon is present, might be flying through cloud?

15 LTCOL LEAN: Yes. But if you’re doing NVD formation you would not be flying through – sorry, NVD flight, you would not be flying through cloud, you’d be flying below the cloud.

COL STREIT: What about the effect of weather systems, including rain?

20 LTCOL LEAN: That would decrease the performance of the system, as in how far you would see. As it would if you were flying by day and it was in rain.

MS McMURDO: So you actually have a device that measures this, do you?

25 LTCOL LEAN: We don’t, ma’am, no.

MS McMURDO: No, you don’t?

LTCOL LEAN: No.

30 MS McMURDO: So it’s an assessment?

35 LTCOL LEAN: It is an assessment. As one of the SFIs that has been released in quarter 4 last year, it provides a rough guide for what 10 millilux, five millilux, two millilux, from memory, is. And we have tables and a program we use which assesses what millilux will be in the Townsville region. So we can apply the rules with regards to where we believe – or based on the best assessment, what is above or below two millilux.

40 MS McMURDO: Thank you.

COL STREIT: The Special Flying Instruction you refer to, was that the flying instruction issued by Commander Aviation Command in about October last year concerning certain restrictions on night flights.

45 LTCOL LEAN: Yes, sir.

COL STREIT: Across all airframes?

LTCOL LEAN: Yes, sir.

5

COL STREIT: And that instruction was issued as a result, was it, of a change to the Defence Aviation Safety Regulations from about February of that year?

10 LTCOL LEAN: I believe so, sir, yes.

COL STREIT: Also, the fact that there were three – well, there was the crash on the 28th of July 2023?

15 LTCOL LEAN: I believe so, sir.

COL STREIT: All right. And – well, I'll withdraw that. You don't have the instruction in front of you, so I'll move on. In 2023 – at paragraph 13, in 2023 you say:

20

The Regiment's posted strength was –

a particular number –

25 *and consisted of Army, Navy and RAAF members. There were six Squadrons.*

And you've identified them. You then say that the Regiment's posted strength in 2024 was reduced by the number you've identified in your statement. What was the reason for that?

30

LTCOL LEAN: So as part of the cessation of MRH-90 operations in the 5th Aviation Regiment, A Squadron closed. So there is no one posted to the A Squadron positions in 5 Avn. So that is the reason for the reduction in numbers.

35

COL STREIT: At paragraph 15 you identify within 5th Aviation Regiment – you say:

40 *Airbus contractors used primarily in maintenance support.*

So in 2023 they performed that role; is that correct?

LTCOL LEAN: Yes, sir.

45

COL STREIT: They're still performing that role?

5 LTCOL LEAN: Not anymore, sir. With the cessation of MRH-90s in the 5th Aviation Regiment, the contractors were moved over to the MSTF, the MRH-90 storage facility, I believe it is, on the other side of the airbase.

COL STREIT: I see.

10 LTCOL LEAN: And that's where they're operating – or they were operating from there.

COL STREIT: Can I just ask you this: in relation to the Squadron for the CH-47, who maintains that Squadron?

15 LTCOL LEAN: So are you talking about the maintenance workforce?

COL STREIT: Yes.

20 LTCOL LEAN: So that is – there is a maintenance element inside C Squadron. They have the FRTs, Forward Repair Troops, that enable them to maintain a level of deployability. Inside the Technical Support Squadron there are additional FRTs, and linked in with that there are the Boeing contractors.

25 COL STREIT: At paragraph 16 you say:

*Airbus maintenance operated under the 5 Avn Regiment
Responsible Manager, RM, OC LSS –*

30 I take it that's Officer Commanding Logistics Support Squadron?

LTCOL LEAN: Yes, sir.

35 COL STREIT: And he was the – or that position was the Responsible Manager at 5 Avn Regiment for maintenance of MRH-90?

LTCOL LEAN: Yes, sir.

40 COL STREIT: So in effect the Airbus contribution at 5 Aviation Regiment for MRH-90 was effectively a part of the workforce?

LTCOL LEAN: That is correct.

45 COL STREIT: But that workforce was managed by Officer Commanding Logistics Support Squadron?

LTCOL LEAN: Yes, sir.

5 COL STREIT: Paragraph 18, you say that – or the effect of paragraph 18 is you identify that 5 Avn operated two AW139 aircraft, and they'd been leased from Toll. Is that right?

LTCOL LEAN: That is correct.

10 COL STREIT: Why was it necessary to have leased aircraft from Toll?

LTCOL LEAN: So it occurred during my time away from the Regiment, but the MRH-90 system was underperforming in 2019 and 2020, to the point where it was not possible to generate sufficient ROE to keep both
15 A Squadron and B Squadron flying MRH-90s in Townsville. So a decision was made to lease two AW139s and transition MRH-90 aircrew across to the AW139 so that the aircrew could continue to fly and gain experience.

COL STREIT: So there's a level of maintaining currency and experience?
20

LTCOL LEAN: That is correct.

COL STREIT: In paragraph 19 you say:

25 *With the planned drawdown of MRH-90 from 5 Avn during 2023, A Squadron have reduced in size to one flying Troop with four deployed Forward Repair Teams.*

When did the drawdown start for MRH-90 at 5 Aviation Regiment?
30

LTCOL LEAN: I couldn't exactly tell you that, sir.

COL STREIT: That's okay. Well, perhaps if I try to assist this way. Was it on foot when you took command?
35

LTCOL LEAN: When I took command, I believe there was – there was an assigned plan about the drawdown of MRH-90 still.

COL STREIT: Yes.
40

LTCOL LEAN: There was planning that had been conducted in the background and we had identified, in the event that MRH-90 was to cease ops in Townsville at a point, where and what we would do with the workforce of the – what we would do with the MRH-90 workforce so that
45 we could continue to employ them.

COL STREIT: Paragraph 20, you say:

5 *Throughout 2023 and into 2024, 5 Avn Regiment supported a variety of exercises and operations through the Defence aid to Civil Community, Humanitarian Assistance Disaster Relief, through a variety of exercise, including TALISMAN SABRE and Sea Series.*

10 What can you recall what particularly – what Defence aid to Civil Community and Humanitarian Assistance Disaster Relief tasks there were in 2023 to 2024?

15 LTCOL LEAN: Yes, sir. If you go over the page, you'll see that I've listed it out there. So in January 2023, 5 Avn deployed four MRH-90s and three CH-47s to Broome post Tropical Cyclone Ellie for a period of six weeks. In approximately March, I believe it was, we deployed three CH-47 to Vanuatu for six weeks. A Squadron, with MRH-90, supported the
20 1st Aviation Regiment task group for four weeks during TALISMAN SABRE. And it was during that period of time the accident occurred and we ceased MRH-90 operations in the 5th Aviation Regiment.

25 COL STREIT: Dealing with the contributions to those Defence aid to the civilian community tasks, what was the – to your observation, that had an impact on unit training for MRH-90 pilots and aircrewman, did it?

30 LTCOL LEAN: It had an impact in the way that – we are limited in what we can and can't do when we deploy on DACC, DACC support missions, in that it's day-only and the tasking – we fly in regards to what tasking is given to the task unit when they deploy there – or the task group. So for the six weeks that the MRH-90s were in Vanuatu we were not conducting air mobiles, as you would say, which is the core business of the 5th Aviation Regiment.

35 COL STREIT: Yes.

40 LTCOL LEAN: However, the return back to Townsville, there was a deliberate lead-up process to have the workforce, the aircrew, ready to go for TALISMAN SABRE 23.

45 COL STREIT: So what you've just said, if I understood it correctly, means that when the pilots and the aircrewman are deployed and they're doing only day flights, or only permitted to do day flights, it means their training and currency for night flying starts to drop away?

LTCOL LEAN: It does. However, the detachment Commander has the authority and the ability to still conduct some night flying and instrument flying to ensure that those modes of flight are still current for when they return back to Townsville.

5

COL STREIT: Provided that can be fitted within the available flying hours of the aircraft - - -

LTCOL LEAN: Yes.

10

COL STREIT: - - - given what they were doing for a day job at that time.

LTCOL LEAN: Yes.

15

COL STREIT: Paragraph 21, you say:

There were no flying incidents involving 5 Avn Regiment MRH-90 in 2023.

20

In paragraph 22, you're referring to an Aviation safety report in relation to the main rotor blade positioned over an engine exhaust during an engine drying run.

So is that a reference to the Jervis Bay?

25

LTCOL LEAN: No, that is completely different. So this was an incident which occurred in Townsville. I can't recall if it was post the Jervis Bay one or post the cessation. Given that the 5th Aviation Regiment is so close to the coastline and it is what they call a salt laden environment, there is a requirement for us to conduct regular rinses of the engine to make sure that they don't corrode or degrade.

30

So at one of those points, given the uncertainty surrounding what occurred with either Jervis Bay or the Lindeman Island crash, they – we were authorised to conduct ground runs, but not engage the main rotor blades for that. So the rotor blade brakes were on and the aircraft – or the pilot who conducted the ground run did not identify that the blade had positioned itself over the engine exhaust, and for the drying run the engine exhaust was just blowing onto the main rotor blade and damaged the blade.

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40

COL STREIT: Could that have occurred before the accident on 28 July 2023? The reason I ask that is because the Inquiry understands that MRH-90 operations, flight operations, ceased immediately after the accident on 28 July.

45

5 LTCOL LEAN: Whilst they ceased in Townsville, there was still a requirement to rinse the aircraft and do the preservation on engines until the decision was made, and then there was a requirement to do preservation maintenance actions on the aircraft before putting them into storage. So I can't quite remember if it was post the ditching or the 28 July incident, as to when that exactly occurred.

10 COL STREIT: So that simply involves starting up the aircraft, engine running on the ground with the rotors going, but not gaining altitude?

15 LTCOL LEAN: So normally, in a normal scenario it would be the engine wash is put into the aircraft to wash it through and then the engines are started to do what they call a drying run to effectively get rid of all the water inside the engine with the rotors turning, so not moving the aircraft at all. But because of the uncertainty surrounding what had occurred, we had clearance to conduct the ground drying runs but with the rotors static.

20 COL STREIT: I see. At paragraph 23 you deal with an issue that you say was an increased burden on the Maintenance Organisation as a result of a planetary gearbox STI. This required the Maintenance Organisation to inspect non-indicating planetary gearbox magnetic chip detector in the main transmission at intervals of not more than five aircraft hours. You gave some evidence earlier, if I remember correctly, that that issue ultimately resolved. Is that right?

25 LTCOL LEAN: That is correct, yes.

30 COL STREIT: But the impact, when it did exist, was, what, that the aircraft couldn't be operated in excess of five aircraft hours before it had to be checked?

35 LTCOL LEAN: That is correct. So the main concern for us is that we had aircraft deployed in Broome at that period of time. So for us it was that operational and maintenance burden of when we had to do aircraft rotations between Townsville and Broome, or if we had to, how we would do that and then just the additional stressors on the Maintenance Organisation to take the required people out of Townsville to fly with that aircraft across to conduct those inspections as the aircraft transited.

40 COL STREIT: You then go on to say:

45 *Post the Jervis Bay ditching, there was a requirement to confirm the status of the engine modifications across the 5 Aviation Regiment fleet.*

Can you just explain what you mean by that?

5 LTCOL LEAN: So that was that auto vent modification we spoke about earlier, and so that was more of a checking behind the systems inside our – the systems that that modification had been installed on the aircraft.

COL STREIT: I just turn now to paragraph 26 of your statement. You say there that:

10 *MRH-90 at 5 Avn achieved an 82 per cent of hours allocated ROE in the financial year 2022/2023.*

First, what is ROE? Rate of effort?

15 LTCOL LEAN: Rate of effort.

COL STREIT: What does “rate of effort” mean?

20 LTCOL LEAN: Rate of effort means the allocated flying hours to the MRH-90 in 5 Avn for that financial year.

COL STREIT: So do I understand correctly that sentence in your evidence was that MRH-90 at 5 Avn achieved an 82 per cent – so 82 per cent of the hours that were requested for a rate of effort had been achieved?

25 LTCOL LEAN: The 82 per cent of the hours allocated to the 5th Aviation Regiment had been achieved.

30 COL STREIT: At paragraph 28 you say you had no reoccurring concerns at 5 Aviation Regiment that affected airworthiness outside of the HP1 blades and the planetary gearbox, is the evidence you’ve given earlier. Is that correct?

35 LTCOL LEAN: Yes. So that is correct.

COL STREIT: I just want to turn now to your own experience of flying the MRH-90. So you say at paragraph 30:

40 *The MRH-90 is a very capable aircraft which was let down by availability and reliability issues.*

What do you mean by that sentence?

45 LTCOL LEAN: So that is just reference to the publicised issues. So having flown the aircraft for two years in 2015 and 2016, and having conducted

some long range over water flights with the aircraft whilst deployed, the aircraft systems on it gave a very great – or a very high level of situational awareness.

5 What was let down was the fact that it would have a lot of unplanned unserviceabilities, as well as the ability at times to get spare parts to fix those unplanned unserviceabilities, or the time taken, meant that aircraft were on the ground for a little while and decreased the availability of the aircraft inside the Regiment.

10 COL STREIT: Did that have a correlating impact on junior pilots getting experience?

15 LTCOL LEAN: In the 5th Aviation Regiment, we had the simulator as well. So for the period of time when the aircraft were down or we had low serviceability, we were able to put pilots into the MRH-90 simulator to continue their progression in giving them experience.

20 MS McMURDO: We did hear that the simulator, though, at 5 Aviation was different to the actual helicopters.

LTCOL LEAN: It was a configuration behind the aircraft, ma'am, but for 25 95 per cent of what you were looking to do, you could achieve a level of currency and familiarity with the simulator and the aircraft.

MS McMURDO: Thank you.

COL STREIT: At paragraph 32 you say:

30 *The MRH-90 HMSD had similar capability to the older version green ANVIS-9 for night operations. I found the MRH-90 HMSD system provided better situational awareness at time in night flight for the ability to see through the image and around the projection on the screen.*

35 So that's your experience at the time that you were an MRH-90 pilot; is that correct?

LTCOL LEAN: That is correct, sir.

40 COL STREIT: So to put that in context, that experience is 2016?

LTCOL LEAN: 2015/2016.

45 COL STREIT: Thank you. In paragraph 33 you say:

In my experience, junior pilots did not have a difficulty flying in formation or at night.

5 That's your – sorry, your experience? When you say that, are you saying that as the CO of 5 Avn for the period you've been Commanding Officer or are you talking about your whole observation since being in various command jobs?

10 LTCOL LEAN: So for the questions under this, as the title of this one was the experience in flying an MRH-90 and the next one, experience using TopOwl, that's based on my recollection of my time as an Officer Commanding in 2015/2016.

15 COL STREIT: Now, para 35, you talk about formation flying and you say:

Operations at 5 Avn Regiment have the aircraft flying at spacing of five to seven rotor diameter during missions as the role is different to 6.

20 So does that mean – I withdraw that. Is it your understanding then that because 6 Avn role is different, that necessitated them, for aircraft, to fly closer to each other than five to seven rotor diameter?

25 LTCOL LEAN: I couldn't answer that, sorry. I've never been or flown in 6 Avn.

COL STREIT: Sure. But in any event, at 5 Avn, aircraft spacing and formation is five to seven rotor diameter?

30 LTCOL LEAN: So we can fly up to no closer than two rotor di if we require it, but given the missions and our air assault profiles that we fly at 5 Avn, we fly generally at that five to seven, and sometimes even out at 10 rotor di when we conduct our mission sets.

35 COL STREIT: At para 36 you say, "The open doors" – I withdraw that. In terms of paragraph 36, what is it – so I don't misread it, what is it you're effectively saying about the use of doors being opened and closed?

40 LTCOL LEAN: So in my experience, if the door is open or closed, it doesn't change my ability to see the horizon and maintain reference to that horizon. Having the door open would allow the aircrewman ability in a formation to provide potentially better situational awareness on the other aircraft, but I can't comment any more, other than that.

45

COL STREIT: Can I just turn now to the last page of your statement dealing with paragraph 42. You say:

5 *Post the incident on 28 July 2023, MRH-90 were grounded at 5 Avn and ceased operations. MRH-90 were due to cease operations at the conclusion of TALISMAN SABRE, at approximately 3 August 2023.*

10 So am I correct in understanding when you say that was prior to 28 July 2023, was it the plan that MRH-90 were due to cease operations at the conclusion of TALISMAN SABRE on 3 August?

LTCOL LEAN: Yes, sir.

15 COL STREIT: That's 5 Aviation Regiment MRH-90?

LTCOL LEAN: Yes.

20 COL STREIT: What was the reason for that cessation?

LTCOL LEAN: That was the information given to us under Plan Valiant, which was the MRH-90 withdrawal from Service plan signed earlier that year; that is, with effect August 2023, the 5th Aviation Regiment was to cease operations.

25 COL STREIT: To your recollection during your time as Commanding Officer, the period 2022 – sorry, when you start in 2023 up until let's say June 2023, did anyone from 6 Aviation Regiment come up to 5 Avn and use the simulator?

30 LTCOL LEAN: I wouldn't be able to give you a clear answer on that one, sir. The simulator was open for all members to use, so I know in the past we've had the three Squadrons, the Royal New Zealand Air Force people come across and use the simulator. I know in the past 6 Avn have used it, but I couldn't tell you if 6 Avn used it specifically during that period.

35 COL STREIT: Now, coming back very quickly, last question, to your CH-47 qualification. What's the night-vision device that's used in CH-47?

40 LTCOL LEAN: In CH-47 we use the white phos NVGs.

COL STREIT: All right, nothing further. Thank you.

45 MS McMURDO: Thank you.

AVM HARLAND: Just a couple of questions. Just regarding your span of command in 5 Aviation Regiment, you've got quite a few people under you and quite a scope of responsibility. How did you find managing that while you were in command, or how do you find managing that?

5

LTCOL LEAN: I put a lot of trust in my subunit Commanders and my principal staff to look after and command their people, and advise me where and when they need assistance to correct or to go in to bat and fight for them. My principal staff inside my headquarters as well, they draw me to issues or concerns. But I also get out and I walk around and I see and I speak to the members of the Regiment to find out what issues and concerns they have, and see what we can do to rectify and fix them moving forward.

10

AVM HARLAND: Just looking at the Defence Aviation Safety Regulations, do you have any concerns with 5 Aviation Regiment being able to implement and comply with the Defence Aviation Safety Regulations?

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LTCOL LEAN: I don't, sir. We had a DASA compliance audit about three weeks ago and they found no issues or concerns with the 5th Aviation Regiment.

20

AVM HARLAND: Another question: would you consider that four-ship formation, low level, at night, on NVGs, over water as complex?

25

LTCOL LEAN: I would, sir.

AVM HARLAND: Do you then consider that a 12-month currency for that type of formation operation is adequate?

30

LTCOL LEAN: That is the minimum currency. However, given the type of flying we do, or we did in the 5th Aviation Regiment with MRH-90s, and the number of exercises that the Squadron participated in, they would partake in that a lot longer – sorry, a lot more often than the minimum requirement.

35

AVM HARLAND: And you're in a scenario: you're about to authorise a four-ship formation, low level, night, low illum, NVIS sortie, over water and the crew haven't flown formation for – well, the last time they flew formation was 359 days ago, for example. How would you go about that authorisation?

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LTCOL LEAN: To be honest, sir, I probably wouldn't authorise that sortie. We would talk about the necessity as to why we needed to do that and try to understand why we hadn't done any lead-up prior to going straight into

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the night scenario, why we hadn't done any day lead-up before we went into the night lead-up. Which is generally what we do for mission scenarios; we look to do a day rehearsal before we go into the night rehearsal.

5

AVM HARLAND: So going back to my original question, do you think a 12-monthly currency for formation is adequate?

LTCOL LEAN: No, sir.

10

AVM HARLAND: Okay, thank you.

MS McMURDO: A couple of questions from me. Did you, yourself, in your two years in 2015/16 flying the MRH-90s, do a flight as described by AVM Harland; that is, overnight in a four-helicopter formation in fairly close proximity, up to two rotor diameters apart, in cloudy, showery conditions?

15

LTCOL LEAN: I would have to say I believe I would have, ma'am, yes.

20

MS McMURDO: You would have. Yes, all right. And then were you aware of the concern about the TopOwl following the software upgrade 5.10?

LTCOL LEAN: So that was upgraded post my time in the Squadron. I believe that was upgraded 2019/2020. So - - -

25

MS McMURDO: Before you were there, though.

30

LTCOL LEAN: No, after I was there.

MS McMURDO: After you were there.

LTCOL LEAN: So I flew in 2015/16, and I believe it was upgraded in 2019/2020. So I flew on the previous version of HMSD and image intensifiers to what they were flying on last year.

35

MS McMURDO: So your evidence about your satisfaction with the TopOwl related to an earlier version?

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LTCOL LEAN: Yes, ma'am.

MS McMURDO: Thank you. I suppose just a general question, then. Given your experience as an MRH-90 pilot yourself, and your experience

generally, do you have any insights that you could bring to this Inquiry that might help us with determining the cause of the crash?

5 LTCOL LEAN: I'm sorry, ma'am, I haven't been given any briefing as to what occurred other than there was an accident, so anything would be speculative.

MS McMURDO: Speculative. All right then. Okay, thank you.

10 LCDR Gracie?

LCDR GRACIE: Ma'am, I am pleased to say your questions about version 5.10 have meant that I can sit down and stay seated.

15 MS McMURDO: Well, I hope I haven't frightened you, LCDR Gracie. Is there any other questions? Yes, LCDR Tyson.

20 <CROSS-EXAMINATION BY LCDR TYSON

LCDR TYSON: Thank you, ma'am.

25 I'm LCDR Tyson. I'm for one of the deceased aircrew, sir. Sir, we've heard some evidence at the Inquiry about something called the "unusual attitude drill". Are you familiar with that procedure?

LTCOL LEAN: Yes.

30 LCDR TYSON: How many times in the course of your flying of an MRH-90 between 2015/16 did you undertake that drill?

35 LTCOL LEAN: I couldn't tell you that. We did simulator sorties where we practiced those drills, as well as during assessments for instrument flights regimes; that we would have conducted that as well. But as to how many times I have conducted that during my time flying MRH-90, I wouldn't be able to give you an answer on the times, sorry.

40 LCDR TYSON: Is it a drill that pilots would practice on the simulator specifically?

LTCOL LEAN: For the instrument flight assessment where it is primarily done, you can either do that in a simulator or in the aircraft as well.

LCDR TYSON: And in terms of the actual flying of the aircraft, it's not something that's incorporated in the training regime, that you somehow try to simulate the loss of orientation and then go through the parts of the drill?

5 LTCOL LEAN: You do that as part of the training, yes.

LCDR TYSON: So most MRH-90 pilots would have actually done that drill under simulated conditions?

10 LTCOL LEAN: They would have conducted it as part of their training system through the School of Army Aviation, prior to getting to the Regiment. And they would have conducted it in the aircraft and simulator at times while being at 5 Avn, yes.

15 LCDR TYSON: All right. Thank you, sir. Thank you, ma'am.

MS McMURDO: Thank you very much.

20 AVM HARLAND: Can I just ask, is there a specific currency requirement for conducting UA drills for pilots?

LTCOL LEAN: No, sir.

25 AVM HARLAND: There isn't, okay. Thank you.

MS McMURDO: Any other applications for leave to cross-examine? Anything further from you, COL Streit?

30 COL STREIT: No, thank you. If the witness could be excused.

MS McMURDO: Thanks very much, Lieutenant Colonel, you're excused.

LTCOL LEAN: Thanks, ma'am. Thanks, sir.

35 MS McMURDO: The Inquiry appreciates your assistance.

<WITNESS WITHDREW

40 MS McMURDO: Yes, COL Streit.

COL STREIT: Thank you, Ms McMurdo. That concludes the witnesses for this hearing. With the Inquiry's permission, I would like to make some

brief closing remarks in relation to the direction the Inquiry will now embark on for its next two hearings.

MS McMURDO: Yes, certainly. I think that would be helpful.

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COL STREIT: Can I begin by first making some observations about what an Inquiry process is, which might assist people in the audience and watching online to put in context some differences between an Inquiry and what might be their experiences before a Court or a Tribunal.

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An Inquiry such as this is a fact-finding process. It is necessarily dynamic in the sense that, unlike a case before a Court or a Tribunal, an Inquiry follows an investigative process to find evidence to answer questions in its Directions. Where the evidence may lead is not always clear nor anticipated.

15

By analogy, it's a bit like travelling down a river in a boat and every now and again venturing up the branch of a river to explore an issue. You then return to the main journey down the main river to the destination. Sometimes what is discovered when exploring the branch of a river is significant and will occupy the Inquiry's attention for a period of time. This can change the Inquiry's expected timeline and its plans. If the matter is not significant, the Inquiry can draw a line through that matter and return to its main journey.

25

In my opening address on the 27th of February this year, I observed the Inquiry was required to examine relevant matters before the crash of Bushman 83. Those matters are referred to as pre-incident in the Inquiry Directions. You can't properly understand what may have happened in the crash without understanding the state of relevant matters before the crash. There is little point rushing to the finish line and risk overlooking a critical matter. I repeat, there is little point in rushing to the finish line and risk overlooking a critical matter.

30

One of the important pre-incident matters to examine is the training provided by the ADF to MRH-90 pilots and aircrewman prior to the accident. This is relevant, in part, as I've said before, to the Inquiry's consideration of training provided to members of 6 Aviation Regiment, and in particular, the aircrew of Bushman 83. This week we have commenced that process in hearing evidence. We will continue that process relating to training.

40

But we have commenced, also, the process in hearing evidence about maintenance of MRH-90 aircraft, including evidence about the maintenance training provided to the ADF members at the Aviation

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5 Training Centre and at 5 Aviation Regiment. It was necessary to start the Inquiry's examination of maintenance in those organisations because being properly informed, understanding the process of maintenance training and maintenance performed on MRH-90 aircraft at the Aviation Training Centre at 5 Avn, will assist in understanding those similar challenges faced potentially at 6 Avn; and if there are differences in their maintenance processes, why did those differences exist.

10 It's important always to understand matters that comprise foundation evidence, before the Inquiry turns to examine matters at the heart of what this accident is about. One of the issues that has arisen this week, an example of the dynamic process of an Inquiry, is the management of aircrew fatigue and workload at 6 Aviation Regiment prior to 28 July 2023. And the Inquiry, in that regard, will recall the evidence of Mrs Lyon.

15 Another issue that's arisen is the maintenance of MRH-90 aircraft that were involved in the sortie on the 28th of July, and the blended workforce at 6 Aviation Regiment between ADF and Airbus. This issue of a blended workforce, the maintenance that was performed on those four aircraft that participated in the sortie on 28 July, and any potential issue of workforce fatigue in the maintenance space, will be examined by the Inquiry in future hearings.

20 The Inquiry also this week began hearing, in my respectful submission, very powerful evidence from members of the deceased aircrewman's families and that's all relevant to post-incident matters. We also heard the involvement of Queensland Police in the recovery operation after the crash of Bushman 83. Examination of the post-incident matters will continue in future hearings.

25 Can I say something briefly about the Aviation Safety Investigation final report. As I mentioned in my opening at the start of this week, and echoed my comments in my opening on 27 February, an Aviation Safety Investigation Team from the Defence Flight Safety Bureau was appointed to investigate the crash of Bushman 83. It's important to understand that the Aviation Safety Investigation is a separate and independent investigation in its own right. It is presently Counsel Assisting's intention to call representatives of the Defence Flight Safety Bureau to give evidence to the Inquiry after their investigation is completed. That intention may change, subject to what happens in the future.

30 The timeline for delivery of the Aviation Safety Investigation final report is a matter for the Defence Flight Safety Bureau and the Defence Aviation Safety Authority. I should inform the Inquiry that I had anticipated the Aviation Safety Investigation report would be delivered – or completed,

rather, by the end of July this year. I understand that is no longer the case. Our Inquiry does not know when the Aviation Safety Investigation report will be delivered. That is a matter for the Defence Flight Safety Bureau. However, the Inquiry will continue its endeavours in what it has been tasked
5 to do by the Inspector-General.

Where to next? Respectfully, our next hearing is 17 to 21 June 2024, a hearing of one week. Again, an Inquiry is a dynamic process. That one week may be extended. It's intended to call further evidence in relation
10 to the recovery operation. This will include Queensland Police representatives. It will include Defence representatives, including the Commander of the joint task force that was established to conduct the recovery operation from the ADF's perspective.

Counsel Assisting also intends to call expert evidence in relation to factors that can affect the human machine interface for MRH-90 pilots flying at night with NVDs at low altitude over water. We will also commence our examination of Defence's airworthiness and safety framework by calling relevant – or commencing to call relevant witnesses in that space.
15

Following that, scoping of the Inquiry will continue and there will be a further hearing on 5 to 16 August 2024, which is two weeks, to be conducted in Sydney. The hearing in June will be conducted in Brisbane. The hearing in Sydney, in August, will include private and public hearings.
20 Private hearings will be necessary, I anticipate, for the reasons that classified material will be called in evidence.

Public hearings will occur dealing with the following: evidence will be led from current and former 6 Aviation members, including those aircrew that were in Bushman 81, 82 and 84. Evidence will be led in relation to training of MRH-90 pilots and aircrewman at 6 Aviation Regiment in the period 2022/2023. Evidence will be led in relation to maintenance of MRH-90 aircraft that were involved in the sortie on the 28th of July 2023. Aircrew and other 6 Aviation Regiment personnel that were at Proserpine on 28 July
25 2023 will also be called. This incorporates those relevant individuals who did not fly but participated in various Command decisions, or other decisions, relevant to the matters the Inquiry is examining.

We will also address, in that two-week window, involvement of 6 Aviation Regiment personnel and the notification process to families of deceased aircrew.
40

Can I say something about what Counsel Assisting's role is? Counsel Assisting is not the mouthpiece of any organisation, person, or witness. Counsel Assisting's role is to assist the Inquiry. This includes ensuring
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5 fairness is provided to all persons that appear before the Inquiry so their
evidence can be heard and considered by the Inquiry. That does not mean
a witness won't face difficult questions at times. What it does mean is that
when difficult questions are asked of a witness, they will be asked fairly
and in a trauma-informed manner. If Counsel Assisting considers the
questioning of a witness is unfair, Counsel Assisting will object.

10 At the conclusion of the evidence, and when the Inquiry adjourns to prepare
its report, Counsel Assisting will not be making submissions as to potential
findings. These things are matters for the Inquiry.

15 Can I say something about courage? This week, evidence identified as an
issue to examine for the Inquiry concerns possible fatigue of aircrewman at
6 Aviation Regiment, including those deployed on Exercise TALISMAN
SABRE. Showing courage consistent with Defence values means that if a
person has information that would assist the Inquiry, can I encourage they
come forward and tell the Inquiry what that information is so we can act on
it. An individual can make a submission via the IGADF website. It can be
an open submission, it can be confidential, but I encourage the individuals,
20 if there are individuals there, to think about the people that have died and,
if they've got relevant information, to come forward.

25 Can I conclude my remarks by making a brief submission which has been
received by the Inquiry from members of WO2 Laycock's family. It reads
as follows. It's sent via an email and I will read it onto the record. It's sent
by Di Laycock on 1 May 2024 under cover of email at 8.23am. It reads as
follows:

30 *Dear Joe,*

*Phill Laycock's mum here. Firstly, many thanks for keeping us in
the loop regarding the Inquiry. Second, I notice that yesterday
mention was made by a witness about the support provided by the
Holsworthy Community Group. I would like to endorse that
35 support in terms of a donation made to our family by the group.*

*I wondered if you also are able to have the Commando Welfare
Trust, and the Legacy, acknowledged somewhere as both
organisations have been fantastic in providing support to our
40 grandchildren, who live with their mother on the South Coast.*

I won't say the location. It goes on:

45 *The trust is providing support, current and future, for the
three boys' education.*

I won't say their ages.

5 *While the South Coast Legacy Group has welcomed them with
open arms, they have also been to several meetings and a family
day. It has all helped so much with the ability of the boys to live
with the tragic loss of their dad.*

10 *Regards,*

Dr Di Laycock.

Those are my concluding remarks.

15 MS McMURDO: Thank you, COL Streit. Look, could I first thank the
Laycock family for their submission and input into the Inquiry; it's greatly
appreciated, of course, and the Inquiry wishes them the very best for the
future.

20 Could I just reinforce COL Streit's encouragement of anybody who has
information and is prepared to make a submission to the Inquiry to do so.
It can be confidential. It can be anonymous. And we do have the ability to
have private hearings, where that's appropriate. So far, we have received
21 submissions, some via email and some via our website. They are all read
25 carefully and, where appropriate, will be followed up.

So again, I encourage everybody who has relevant information to make
submissions to us. As I said at the beginning of the hearing, we can't act
on what we do not know.

30 We will now adjourn. I wish everybody safe travels to their homes,
wherever they may be, and we will resume at 10 am – probably here
somewhere at the Convention Centre, but details will be confirmed on the
website – on Monday, 17 June this year. Please adjourn the hearing.

35

**PUBLIC INQUIRY ADJOURNED UNTIL
MONDAY, 17 JUNE 2024 AT 1000**