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

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

PUBLIC INQUIRY

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

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0930, WEDNESDAY, 2 APRIL 2025

DAY 46

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**

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| Signed | | Date | | (Chair) |
| Signed | | Date | | (Recorder) |
| Signed | Epiq Australia Pty Ltd | Date | 30/04/25 | (Transcription) |

.MRH-90 Inquiry 02/04/25

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WITNESS LIST

Date: 02/04/2025

Name Of Witness

Page No.

| | |
|---|------|
| BRIG JOHN FENWICK (RETD), on former affirmation | 7087 |
| EXAMINATION-IN-CHIEF BY LTCOL HEALEY, continuing..... | 7087 |
| HEARING ADJOURNED | 7137 |
| HEARING RESUMED | 7137 |
| HEARING ADJOURNED | 7191 |
| HEARING RESUMED | 7192 |
| CROSS-EXAMINATION BY MAJ CHAPMAN | 7192 |
| HEARING ADJOURNED | 7241 |
| HEARING RESUMED | 7241 |
| CROSS-EXAMINATION BY LCDR GRACIE | 7251 |
| WITNESS WITHDREW | 7276 |

OFFICIAL

MS McMURDO: Yes.

LTCOL HEALEY: Madam Chair and Air Vice, I can advise that I'm continuing BRIG Fenwick's evidence.

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<BRIG JOHN FENWICK (RETD), on former affirmation

10 **<EXAMINATION-IN-CHIEF BY LTCOL HEALEY, continuing**

MS McMURDO: Yes, of course.

15 LTCOL HEALEY: And he notes he's still under his affirmation.

MS McMURDO: Of course.

BRIG FENWICK: Ma'am.

20

LTCOL HEALEY: So you'd agree that yesterday, just in a quick summary in terms of where we got to, we spoke about your role and function as the Director-General Aviation in Defence?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And that was prior to your retirement in 2021; is that correct?

30 BRIG FENWICK: Yes.

LTCOL HEALEY: And then you took the Inquiry through your Service Release – through the Service Release process?

35 BRIG FENWICK: Yes.

LTCOL HEALEY: And the regulatory procedures?

BRIG FENWICK: Yes.

40

LTCOL HEALEY: And you took the Inquiry to a number of documents that are regulatory in nature in terms of policy; is that right?

BRIG FENWICK: Yes.

45

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LTCOL HEALEY: I understand that we took the Inquiry through Plan Palisade as well.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: Amongst other things. So if I take you to paragraph 23 of your statement, and let me know when you're there.

BRIG FENWICK: Yes.

10

LTCOL HEALEY: You speak about there being a consistent and persistent desire to achieve capability timelines?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: And you state in brackets that:

(especially given the nature of the capability provided by Special Operations for domestic counterterrorism).

20

BRIG FENWICK: Yes.

LTCOL HEALEY: And the need to retire the Black Hawk.

25

BRIG FENWICK: Mm-hm.

LTCOL HEALEY: And that was due to its ageing nature and cost.

BRIG FENWICK: Yes.

30

LTCOL HEALEY: And the overarching philosophy was to accept slippage in capability outcomes at all times if safety was a consideration.

BRIG FENWICK: Yes.

35

LTCOL HEALEY: Can you just explain to the Inquiry what you mean by that?

40

BRIG FENWICK: I think it's a fairly well-accepted matter of record that the introduction of MRH-90 into the Army or into the ADF was at certain times behind schedule – pretty much consistently behind schedule. It required us, therefore, to continue to move capability replacement timelines. So clearly MRH was meant to be replacing the Black Hawk. We were continuously building and revising our plans on the basis of the

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achievability of certain outcomes for MRH, but always those capability timelines and so on were moved in order to avoid unsafe conditions.

5 LTCOL HEALEY: Thanks, sir, and I think you mention that in your next – in the next sentence there, that that can be seen – sorry, that philosophy was applied throughout the introduction of the MRH-90 into 6 Aviation?

10 BRIG FENWICK: Yes. So, in particular, I refer there to the Plan Palisade Steering Group. And within those Minutes and slides you can see that there are items which were expected to be occurring on time, which were not.

15 LTCOL HEALEY: Now, I see you're moving to that annexure. Would you like us to go to that annexure that you're looking at?

BRIG FENWICK: Sure.

LTCOL HEALEY: So I understand that that's – the slides are Annex 7?

20 BRIG FENWICK: Yes.

LTCOL HEALEY: But did you want to take the Inquiry to 7(a), or the slides?

25 BRIG FENWICK: Either/or. So the slides, if you move, for example, to – well, the slides are not numbered – it's approximately slide 8, if you move past "Tempo management", "Overview", "Palisade Program" you can see there the broad outline of what we're talking about. I can't read it out, I'm sorry, because it's "Protected".

30 LTCOL HEALEY: Perhaps just the heading of that particular page might be helpful for the Inquiry?

35 BRIG FENWICK: Yes. "Palisade Program". It's the illustration that has the two helicopters on it and the set of blue squares which represent MRH introduction.

LTCOL HEALEY: I've numbered those pages by hand. That's around page 6 if that's helpful for the Inquiry?

40 BRIG FENWICK: Thank you, that is.

LTCOL HEALEY: Yes.

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BRIG FENWICK: And then if you move to the next slide, which would be then slide 8. Is that correct?

LTCOL HEALEY: Slide 7? It has "Phase 3" at the top?

5

BRIG FENWICK: That's correct, sorry, yes. You can see there that there are items appearing in different colouration. And the items that are showing red are showing that they are behind schedule, not likely to meet schedule. And there is risk around those in amber. So there's a pretty consistent move to capability timelines in order to achieve safety objectives. If I then take you to the Minutes.

10

LTCOL HEALEY: Thanks, sir. So that's the - - -

15

BRIG FENWICK: The Minutes are 7(a).

LTCOL HEALEY: I'll just stop you there for one second, so the Inquiry can catch up.

20

BRIG FENWICK: Sure.

LTCOL HEALEY: So that's the Minutes titled, "Minutes of the Palisade Steering Group Meeting Held at Victoria Barracks, Sydney"?

25

BRIG FENWICK: Yes.

LTCOL HEALEY: 12 November '19?

BRIG FENWICK: Yes.

30

MS McMURDO: Yes, I've got those, thank you.

LTCOL HEALEY: Thank you. Go ahead, sir.

35

BRIG FENWICK: Sir, are you okay?

AVM HARLAND: Yes.

40

BRIG FENWICK: Yes. If you move to page 3, ma'am, you can see that there are consistent status reporting of progress to phases of things being on track, continuing to be resolved, or that are delayed, inclusive of, you can see there in paragraph (c)(3), where service – this is in November of 2019, there are a number of items which have, "Service Release delayed". Delayed because they're not ready and not on schedule, and that includes, at the very bottom of that page, you can see, "HMSD symbology".

45

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LTCOL HEALEY: Thanks, sir.

5 MS McMURDO: So was number 2, “the testing certification program” –
did that relate to the AATES testing?

10 BRIG FENWICK: Not the AATES testing of HMSD specifically,
ma’am. So there’s an overall testing and certification program that was for
principally the other role equipment that you can see at the bottom of that
page that needed actual modification to the aircraft, and that was of such a
nature, and the effect on the type certification basis, that they needed to be
done – not just planned and overseen by AATES, but actually needed to be
conducted by test pilots.

15 MS McMURDO: Thank you.

LTCOL HEALEY: Is there anything else from that Minute, sir, that
you’d want to bring to the Inquiry?

20 BRIG FENWICK: Not at this point, thanks, mate.

LTCOL HEALEY: And I’ll just take you to - - -

25 MS McMURDO: And when did you – there’s in blue pen next to (c),
“Noted”.

BRIG FENWICK: Yes, ma’am?

30 MS McMURDO: When was that put on, do you know? Is that your note?

BRIG FENWICK: No, ma’am, it’s not. If you go to the back page,
page 6, those annotations are by GEN Pearse, who is the Accountable
Manager.

35 MS McMURDO: Thank you. And presumably on the same date there,
14 February ‘20?

40 BRIG FENWICK: Yes, ma’am. So he’s initialled on the front page on
14 Feb, and on the back page on 14 Feb.

MS McMURDO: Thank you.

45 LTCOL HEALEY: So, sir, just in terms of the first page of that
document, if you can turn to that, you’ll see the attendees?

BRIG FENWICK: Yes.

LTCOL HEALEY: Can you just describe to the Inquiry, I guess, the visibility that people had in terms of what was going on?

5

BRIG FENWICK: Certainly. So this was at the end of 2019, and as I said to you yesterday, there was a number of Accountable Managers through this period. GEN Field was the Accountable Manager at the time in November '19. So when GEN Pearce took over from GEN Field in January-February this was one of the handover items to make sure that the Accountable Manager was across the details as the Accountable Manager's transferred responsibility – sorry, accountability. BRIG King, there as representing the CASG Band 2, and BRIG Short is representing the Commander of Special Operations Command.

15

LTCOL HEALEY: Thanks, sir. And I note that there's a COL Lynch? Correct?

BRIG FENWICK: Yes. So a number of my staff there are present. So COL Lynch – yesterday I told you I had two Directors who are principally airworthiness – sorry, yes, airworthiness-oriented: the Director of Operational Airworthiness, COL Lynch; the Director of Aviation Systems, Nigel Motley. And you'll also see there COL Connolly, the DACM, the Director for Air Capability Management. He was under the Land Capability side but was guiding the introduction in the service in this regard.

25

LTCOL HEALEY: And also LTCOL Hamlyn?

BRIG FENWICK: Yes, and LTCOL Hamlyn, as the Staff Officer Grade 1 Troop Lift Helicopter, was also the lead for Plan Palisade, as I recall it.

30

LTCOL HEALEY: Thank you, sir.

BRIG FENWICK: So importantly, further during this time, this plan, Plan Palisade, saw my oversight and lead to at some point be taken over by Commander 16 Brigade, so that it was brought into the operational unit. We had originally a timeline for that, so it was time-based; however, we need to change it to event-based because a number of things were running late and not on time, and the best way to manage the safety in that regard was for it to remain under my control until certain events were achieved.

40

LTCOL HEALEY: Thanks, sir. And just dealing with the next paragraph at paragraph 24?

45

BRIG FENWICK: Yes, I'll just come back to it.

LTCOL HEALEY: In your statement.

5

BRIG FENWICK: Yes. I'll pull it out. Yes?

LTCOL HEALEY: And you state there that every step of the introduction of the MRH-90, that Special Operations was subject to detailed and elaborative risk assessment. Is that correct?

10

BRIG FENWICK: Yes.

LTCOL HEALEY: And there's reference there to the seven-step risk plan matrix; is that right?

15

BRIG FENWICK: Risk process, yes.

LTCOL HEALEY: Sorry, risk process. And that's at Annex 3 of your statement; is that right?

20

BRIG FENWICK: Let me just check. It should be part of the direct – yes, it's part of the 1 of '19 MAO Directive.

LTCOL HEALEY: And we did briefly take the Inquiry to that seven-step process yesterday?

25

BRIG FENWICK: Yes.

LTCOL HEALEY: It's repeated here, and I did say yesterday that we'd return back to it, because you state there:

30

It's important in all risk assessment processes that analysis of previous incidents that informed hazard identification, current control analysis, consequences, and likelihoods –

35

can you just explain to the Inquiry what that means in terms of looking at Annex 3?

BRIG FENWICK: Yes. So the very first – so in that Annexure 3, the Directive, I'm now looking at Annex B, "The Seven-Step Process".

40

LTCOL HEALEY: Yes. My apologies to the Inquiry. So that's Annex B to the MAO Directive, and down the bottom you'll see at paragraph 7 the seven-step process.

45

BRIG FENWICK: Yes. So importantly, the first step is to establish the hazards and the risk environment, and clearly we would be negligent were we not to consider events that have previously occurred and therefore given
5 us some cause for concern.

LTCOL HEALEY: And when you say “events that had previously occurred”, and noting the security requirements in this particular setting, what are you meaning by that?
10

BRIG FENWICK: Well, in this particular instance we had a number of risk assessments around the MRH in particular, but clearly we went through another process for the introduction into Special Operations, and part of those hazards involved accidents that have led to fatalities in the past.
15

LTCOL HEALEY: And you do cover-off on that in your statement, I understand?

BRIG FENWICK: Yes.
20

AVM HARLAND: Is there a document we can go to that has these consolidated project risk assessments that you talk about?

BRIG FENWICK: There would be, but I don’t have it, sir.
25

AVM HARLAND: Is it available to the Inquiry? Because this sounds – you know, the way you’re describing it, this sounds like a really pivotal part of how the risks were managed with the introduction of MRH to the Special Operations role.
30

BRIG FENWICK: I think we’ll find it summarised in the Plan Palisade group meeting. So if you look at the back, sir. If you go back to what I’ve got as Annexure JRF 7?
35

AVM HARLAND: Yes.

BRIG FENWICK: And to the very last couple of pages?

AVM HARLAND: Yes.
40

BRIG FENWICK: You can see the risks articulated that were being tracked in that way, principally for Plan Palisade itself.

AVM HARLAND: So these are project risks rather than safety risks?
45

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BRIG FENWICK: Yes, that's true.

AVM HARLAND: Great. Do you have your safety risk assessment for the introduction of Plan Palisade?

5

BRIG FENWICK: I can't recall where that would be.

AVM HARLAND: Was there one produced?

10 BRIG FENWICK: Yes, and cumulatively. So as we went through, for example, the December '18 AATES testing for the SO approach, there were risks listed and then sought to be mitigated during that process.

15 AVM HARLAND: And they were the specific safety risks associated with operating MRH-90 in the SO role?

BRIG FENWICK: That's my recollection, sir, yes.

20 AVM HARLAND: If we could seek to have those available to the Inquiry, I think that would be useful.

BRIG FENWICK: Yes, sure.

25 LTCOL HEALEY: So just looking at those slides, and this might be leading you down a different path, but if you look at slide 18 of Plan Palisade, Annex 7?

MS McMURDO: So what's it headed?

30 LTCOL HEALEY: It's headed, "Overall OPAW Personnel Safety Risk is Assessed to Inform Decision".

MS McMURDO: Yes, I've got it.

35 LTCOL HEALEY: Does that, in part, answer the Air Vice-Marshal's question?

MS McMURDO: The one with the traffic lights on it, yes.

40 LTCOL HEALEY: Yes.

AVM HARLAND: This is a summary. This isn't a - - -

45 BRIG FENWICK: Yes.

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AVM HARLAND: This isn't a risk assessment or a plan?

BRIG FENWICK: No.

5 AVM HARLAND: This is just a slide. Yes.

BRIG FENWICK: Yes, I agree. It's a summary that presents where we were at, at the time, for the purpose of this Committee.

10 AVM HARLAND: And, equally, these to me read as project risks. What I'm specifically talking about is the safety risks associated with the introduction of MRH-90 to their Special Operations role.

15 BRIG FENWICK: So I suspect – because I'm trying to cast my mind back – that there was actually an articulated Plan Palisade, which I have not presented here. I think it would've been part of the actual plan.

AVM HARLAND: Yes, okay.

20 LTCOL HEALEY: We'll take that on notice, Air Vice-Marshal, and seek to acquire that document for the Inquiry.

AVM HARLAND: Thank you.

25 LTCOL HEALEY: Thank you.

MS McMURDO: Thank you.

30 LTCOL HEALEY: So, sir, just moving back to your statement. So at paragraph – we're up to paragraph 25?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And you state that it's important to note the risk assessment for the upgrade to the version 5.10 TopOwl; is that right?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And it was done, you state within a broader Context.

BRIG FENWICK: Yes.

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LTCOL HEALEY: And that was specifically in the broader context of the risk reduction contribution of HMSD Head-Up Display in the introduction of MRH-90, the Special Operations role.

5 BRIG FENWICK: Yes.

LTCOL HEALEY: And an important element of the IIS Plan. Can you just say what "IIS" stands for again?

10 BRIG FENWICK: Yes. Introduction Into Service.

LTCOL HEALEY: Yes. And:

15 *That was the refinement of the Special Operations approach needed to account for differences between the Black Hawk and the MRH-90.*

Correct?

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And what are you meaning by that paragraph?

25 BRIG FENWICK: So the introduction into service of the MRH to the Special Operations role was not only about the Special Operations approach, but it was probably one of the higher risks we were considering in the introduction. Certainly, it was a key element of the difference between the Special Operations role in 6 Aviation Regiment and how we conducted Aviation in 5 Regiment and other parts of this capability.

30 LTCOL HEALEY: Thank you. And so moving to paragraph 27 of your statement, you state there:

35 *In the context of risk being assessed, the introduction of MRH to Special Operations role, there was considerations that the Special Operations approach were given some significant weight.*

BRIG FENWICK: Yes. Certainly, in my professional judgment.

40 LTCOL HEALEY: And you state that:

This was a defining characteristic of Special Operations Aviation, as compared to the general support role.

45 BRIG FENWICK: Yes.

LTCOL HEALEY: And so what do you mean by that?

5 BRIG FENWICK: The Special Operations approach was only taught and practised in 6 Aviation Regiment.

LTCOL HEALEY: And what would you – you know, in terms of your subject matter expertise, what would you call a general support role?

10 BRIG FENWICK: More the kinds of roles and approaches and so on that we taught for use in 5 Aviation Regiment.

LTCOL HEALEY: Would Troop Lift be one of those?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: Thank you. And you state that the task had resulted in 20 fatalities in a 10-year lifespan of Army Aviation's history; is that right?

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And you considered and gave considerable weight to the outcomes and influences of those two tragic events from Aviation's past.

25 BRIG FENWICK: Yes, I did.

LTCOL HEALEY: Did you live through those experiences in terms of being in Army Aviation at that time?

30 BRIG FENWICK: Yes, I did.

LTCOL HEALEY: And you mention the first one there as the 12 June '96 collision of the two Black Hawk helicopters in Townsville. Correct?

35 BRIG FENWICK: Yes.

LTCOL HEALEY: And the 2 April 2006 accident involving a Black Hawk helicopter to the rear of HMAS *Kanimbla*; is that right?

40 BRIG FENWICK: Yes.

45 MS McMURDO: Could I just take you back to 26, and I know this is redacted, but the AATES test is – at JRF 8 – you say:

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The Special Operations approach is helpfully defined in the AATES flight test report.

5 Could you just give us the reference to that, just so we know exactly what you're talking about there?

BRIG FENWICK: Yes, ma'am, just one second, please, and I'll come to it.

10 MS McMURDO: JRF 8 to yours.

BRIG FENWICK: Yes. I recall there being illustrations in here, so I'll go to - - -

15 MS McMURDO: You can just give us the paragraph numbers that you're referring to. That'd be useful.

LTCOL HEALEY: Ma'am, if I can assist, it's "Introduction". So it's paragraph 1 of the introduction that defines Special Operations' approach – page 1.

MS McMURDO: Under the heading, "Background"?

25 LTCOL HEALEY: Yes.

MS McMURDO: So is that all you meant, Brigadier, or is it beyond that?

30 BRIG FENWICK: Further, ma'am, there are, in the annex – stand by – in the Annex C there are some illustrations of how the approach is conducted, in particular it is a very technical process where certain things are done at certain points in space to achieve a quick and safe termination point, and so there are illustrations in that annex that allude to that.

35 MS McMURDO: So Annex C, in the Introduction there's discussion, I think in a few paragraphs there, about the Special Operations approach. Is that what you were referring to?

40 BRIG FENWICK: Yes, ma'am.

MS McMURDO: Those two portions? Thank you for that. Yes? Yes, thank you, LTCOL Healey.

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LTCOL HEALEY: Thank you, Chair. And just moving to paragraph 28, sir, to your statement?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: You were the Troop Commander at 162 Reconnaissance Squadron in Townsville at the time of the Black Hawk collision; is that correct?

10 BRIG FENWICK: Yes, I was.

LTCOL HEALEY: And you state that the accident occurred in the final stages of an approach by two aircraft to a field site.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: On a Special Operations training exercise.

BRIG FENWICK: Yes.

20

LTCOL HEALEY: And that was at night on NVG?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: Can you just explain your understanding of that particular crash in terms of that paragraph?

BRIG FENWICK: So, in broad terms, the aircraft were turning on to an objective at night. The aircraft, due to an error in identification of landing sites, both began to converge, and the rate of closure was not picked up – also partly by the nature of the formation they were flying – and the aircraft collided.

30

LTCOL HEALEY: So did this lead to what became known as a Special Operations approach? Is that correct?

35

BRIG FENWICK: Yes. So it became a seminal accident for development of a more structured and trained approach, and also some changes to the way the formation was flown.

40

LTCOL HEALEY: And was that particular collision in the back of your mind as the DG Aviation back then?

BRIG FENWICK: Very much so.

45

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LTCOL HEALEY: And you state that the conduct of the approach was very structured and methodical?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: And was a key risk control to avoid a similar mid-air collision; is that right?

BRIG FENWICK: That's right.

10

LTCOL HEALEY: And has been a defining characteristic of ADF Special Operations Aviation since the late '90s?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: And you further state that developing your understanding of – or “our understanding of, and adapting this approach for the MRH was a key objective for the AATES testing”?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: Is that right?

BRIG FENWICK: Yes.

25

LTCOL HEALEY: And that resulted in the report that we just took Madam Chair to at JRF 8; is that right?

BRIG FENWICK: Yes.

30

LTCOL HEALEY: And there are some tactical details in that Special Operations approach that can be described in that report, correct?

BRIG FENWICK: Yes.

35

LTCOL HEALEY: And it's important to understand the risk associated with that approach, you state.

BRIG FENWICK: Yes. Which I can detail further in another hearing.

40

LTCOL HEALEY: Yes, thank you. At paragraph 29, just moving along, you state that at the time of the Black Hawk accident in 2006 you were posted as the Commander of 162 Reconnaissance Squadron in Darwin. Is that right?

45

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BRIG FENWICK: Yes.

LTCOL HEALEY: And that particular Black Hawk crashed into the rear deck of HMAS *Kanimbla*; is that right?

5

BRIG FENWICK: Yes.

LTCOL HEALEY: And that was an instance of controlled flight into terrain during the Special Operations approach.

10

BRIG FENWICK: Yes.

LTCOL HEALEY: By day, in good weather.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: Can you just further inform the Inquiry as to what you're saying there in that paragraph?

20

BRIG FENWICK: In short, by – I gave significant weight in my thinking to again the considerations of how approaches were being flown to terminal objectives by Special Operations crews. There are a number of outcomes of that Inquiry as you would expect, or the Air Safety Investigation, but principal among them was that the – there were characteristics of the Black Hawk which were known, when flown in particular profiles in the approach if the approach was not flown according to the stated parameters, and the aircraft was flown outside those parameters that time and it led to the accident.

25

30

LTCOL HEALEY: And did that provide an important learning outcome for Special Operations approach?

BRIG FENWICK: Yes, it did.

35

LTCOL HEALEY: And what was that?

BRIG FENWICK: There were aspects of – firstly, the characteristic of the aircraft, the Black Hawk, needed to be known and well trained and understood. And so then, in transferring that to moving from Black Hawk to MRH, it was important to understand what characteristics the MRH might have when pushed to similar tight limits in the approach.

40

LTCOL HEALEY: Thanks, sir. And you state that that accident happened during the day?

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BRIG FENWICK: It did.

LTCOL HEALEY: With an increased risk then likely at night in poor weather.

5

BRIG FENWICK: Yes.

LTCOL HEALEY: And that's just in your – that's your expert opinion?

10

BRIG FENWICK: That's my professional judgment.

LTCOL HEALEY: And for which aspects the HMSD Head-Up Display were a key risk mitigator?

15

BRIG FENWICK: Yes. Because they allowed more eyes outside and an understanding of distance and movement towards target.

LTCOL HEALEY: And you state that this led to the AATES testing in December 2018, the Special Operations approach?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: And was aided by the testing done by the Aircraft Maintenance and Flight Trials Unit of the Navy, the AMAFTU, to a ship underway in April-May 2019. Correct?

25

BRIG FENWICK: Yes.

LTCOL HEALEY: And just moving to paragraph 30. And you do have annexed to your statement the formal report, the AMAFTU. I'll take you to that if you don't mind, sir?

30

BRIG FENWICK: Yes.

35

LTCOL HEALEY: So that's at Annex 9?

BRIG FENWICK: Mm-hm.

LTCOL HEALEY: Just in terms of identifying that document, so it's the Aircraft Maintenance and Flight Trials Unit formal report 2019-23. Correct?

40

BRIG FENWICK: Yes.

OFFICIAL

LTCOL HEALEY: And it's the "MRH-90/LHD, Phase 3, First-of-Class Flight Trials 2019". Correct?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: So I'll just get you to leave that open while I run you through paragraph 30. And you talk about, at 30, that these two tragedies involved 20 fatalities in total. Correct?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And as you said previously, you lived through them. It occurred in your career?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: And they were significant influences on the approach to considering the risks involved in introducing the MRH-90 to the Special Operations role?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: And also the conduct of the Special Operations Approach. Correct?

25

BRIG FENWICK: Yes.

LTCOL HEALEY: And that required a number of analysis, activities and retraining for crews. Correct?

30

BRIG FENWICK: Yes.

LTCOL HEALEY: And you state the MRH flew differently to the S-70A-9 Black Hawk.

35

BRIG FENWICK: Yes.

LTCOL HEALEY: And you state, "In fact, in a number of ways it was better".

40

BRIG FENWICK: Yes.

LTCOL HEALEY: And what do you mean by that, sir?

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BRIG FENWICK: It had some characteristics of power performance at particular points in the approach that were advantageous and not present in Black Hawk.

5 LTCOL HEALEY: And there was a need to develop training for them. Correct?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: And training crews?

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And that required some resources?

BRIG FENWICK: Yes.

LTCOL HEALEY: And then at paragraph 31 you say:

20 *Validating this concern, the Special Operations approach for MRH-90 required thoughtful and diligent consideration because it was an activity with elevated risk.*

Correct?

25 BRIG FENWICK: Yes.

30 LTCOL HEALEY: And you highlight that the AATES report, in terms of the Special Operations approach December 2018, included recommendations for an additional five warnings and three cautions.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And they were to be included in the OIP.

BRIG FENWICK: Yes.

LTCOL HEALEY: Do you know what the “OIP” stands for?

40 BRIG FENWICK: Orders, Instructions and Procedures. Now, some of those would occur in the Standardisation Manual, and I think one or two were destined for other directions, but it was all within the Orders, Instructions, Procedures.

45 LTCOL HEALEY: Thank you. At paragraph 32 you state that:

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These two accidents are illustrative of the fact that there are many activities conducted by Army Aviation where, in risk assessment, the potential consequences are loss of an aircraft.

5

Correct?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: And you state:

This is the nature of flying, and particularly so when we are potentially flying in combat and in varied environmental conditions.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: You also state that:

20

It's true for risk profiles throughout Navy and Air Force, for all aircraft in the inventory, loss of aircraft or controlled flight into terrain are potential consequences of much of Military flying activity.

25

BRIG FENWICK: Yes.

LTCOL HEALEY: So what, in essence, are you saying there, sir?

30

BRIG FENWICK: I'm trying to draw us back to the principles of risk assessment. So there are many flying activities done throughout the Defence Force where the risk of that activity – or, sorry, the consequence of that activity may lead to a collision or flight into terrain, or some other aspect of an accident. It's then incumbent on the risk assessment to determine what the likelihood of that consequence is and to eliminate the risks or to apply sufficient mitigations that it becomes “insofar as reasonably practicable”.

35

LTCOL HEALEY: And are those risks ever going to be likely to be completely eliminated in that - - -

40

BRIG FENWICK: In some cases, they can be.

LTCOL HEALEY: Yes?

45

BRIG FENWICK: Not in every instance.

LTCOL HEALEY: And you state that:

5 *What matters beyond this is what we do as a system and as individuals to respond to the likelihood of these risks in order to eliminate the risk or to reduce it as far as reasonably practicable.*

Correct?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And:

15 *The simple existence of the potential loss of an aircraft is not a reason not to conduct an activity.*

Is that right?

20 BRIG FENWICK: Yes. I'm keen for that not to be misinterpreted. I'm not saying it's acceptable that we have a risk that is necessarily going to lead to a collision or accident. What I'm saying here is the consequence that that may occur is factored in as a hazard to the risk assessment, and then we make it as safe as we reasonably can to achieve our objectives.

25 LTCOL HEALEY: Is that because ultimately these – are you saying that that's because ultimately Special Operations' approach is combat?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: All right, thank you.

MS McMURDO: But it's not combat until it's combat, is it? Special Operations training isn't combat.

35 BRIG FENWICK: But we train - - -

MS McMURDO: So you want to protect the aircrafts more – and the lives of the trained aircrew as much as possible, in a way that you may not be able to do when there's combat, because combat changes the risks?

40 BRIG FENWICK: Certainly. But we certainly also train with a progression such that that move, the difference between combat and training, isn't as great. Otherwise, that's a large risk to bridge at that point in time.

45

AVM HARLAND: Could I just perhaps clarify there?

BRIG FENWICK: Yes.

5 AVM HARLAND: Is the consideration of risk that you would accept in training – noting that you’re training to allow people to operate in a combat situation – is that acceptance of risk a different proposition to what risks you may accept if you’re operating in a real combat situation?

10 BRIG FENWICK: Yes, because the risk versus reward construct changes. The actual context behind that risk you’re assessing changes. We would train to a level to be able to go into combat. And certainly I, as an attack pilot, trained to be able to attack a target, as well as receive fire from a target at the same time. But we would not push that in training, to a point
15 which was unreasonable. In combat, you may make a different risk assessment.

AVM HARLAND: Yes, and that’s clear. So there are two different approaches to accepting risk. One is in training, where you train to operate
20 in combat. And in combat you may accept a higher level of risk because the reward may be better. Is that really what you’re saying?

BRIG FENWICK: Right, but what I would also say is that the risk construct also makes sure that if that elevated risk is being accepted, it’s
25 being accepted at an appropriate level. So one of the really important strengths, in my view, of our Aviation Regulations, are that they allow us to have one set of regulations and instructions that are applicable in peacetime and training, and also in war.

30 So, for example, it allows the extension of flying hours at certain levels if you want to fly more hours in a day, in a week, and so on. It’s the same construct as you would understand for Air Force. But as you elevate those risks, then there are different levels at which that risk must be accepted so that it can be understood whether that’s an acceptable risk or not.

35 AVM HARLAND: Okay, thank you.

LTCOL HEALEY: And, importantly, sir, you finished that paragraph with controls and treatments that are available, and the key steps in the risk
40 process. That’s at the bottom of paragraph 32.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And they’re clearly identified in the MAO Directive that we went through at Annex 3?

BRIG FENWICK: Yes.

5 LTCOL HEALEY: I'm just going to move to another topic. So we're looking at the relevant chronological background - - -

10 MS McMURDO: Sorry, could I just take you back? Because I think it's an important point about this training for combat and the difference between training and combat, and the risk levels. So in practice then, how does that play out? So fatigue, obviously the chances are that in a real combat situation, particularly if things were not going well for the pilot and the pilot's team, they would have to operate under high tempo, fatigued conditions. Does that mean you have to train in high tempo fatigue conditions which elevate the risk significantly, even though it's peacetime?

15 BRIG FENWICK: You wouldn't routinely jump to that as a step, but there are methods and procedures that we use in training to understand how people may perform under those circumstances. So, for example, if we wanted to know - so I'll give you my own circumstance. As a young pilot, where we knew that we were at times going to be sleeping in austere environments, and maybe needing some method to help us sleep, we did a regime of testing on Temazepam to understand how it would affect us.

20 But it was done within a controlled environment, so that you wouldn't just leap to the use of Temazepam and then flying for 10 hours. It would be the case of using the sleep aid, and then in a very controlled environment, perhaps flying with another pilot who was not using the drug. You would then try to understand how it was affecting you and see how it worked. So there have been trials and so on conducted around those sorts of things in a very controlled and risk-managed way to try and help us understand the impact of operating in combat.

25 When we talk later, perhaps in the Closed Session, about the nature of the Special Operations approach and how close to real training comes, a lot of that has to do with warning time. So how much time does a unit have to move from its static training environment to a wartime footing? And there are certain capabilities within the Defence Force who have very short warning times.

30 MS McMURDO: Well, perhaps we can explore that more in the Private Hearing?

BRIG FENWICK: Yes, ma'am.

40 LTCOL HEALEY: Thank you, ma'am. Thank you, sir.

So, sir, I'd moved you to a new topic, and that's at the top of paragraph 33 of your statement, on page 7.

5 BRIG FENWICK: Yes.

LTCOL HEALEY: You outline at paragraph 7 of your statement your experience in the use of various night aids for flying.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: Those experiences of flying on a multitude of night-vision devices, many of which were less capable than TopOwl in visual acuity and information provision in low cue environments, contributed to your professional judgment. Is that right?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: And that's in terms of your decisions made on the implementation of TopOwl version 5.10. Correct?

20 BRIG FENWICK: Yes.

LTCOL HEALEY: How did they contribute to your decision?

25 BRIG FENWICK: So if we consider that professional judgment, one way of perhaps thinking about it is that it's comprised of training, education and experience. Experience probably being the most important build upon training and education because it develops your frame of reference to understand risks.

30 So the point that I'm making here is I had a range of experiences, so I had quite a large frame of reference with which to draw upon in exercising my professional judgment.

35 LTCOL HEALEY: Thanks, sir. And you further state that you had personal experience flying TopOwl.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: And your personal experience with these devices was significant aid to flight?

45 BRIG FENWICK: Yes.

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LTCOL HEALEY: You state, indeed, the best as a system support flight at night that you'd used in your career. Correct?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: Paragraph 34, you state in order to understand fully the decision-making process you undertook in relation to approval into service of HMSD TopOwl version 5.10, it's important to know the full history of testing and evaluation that was undertaken. Correct?

10

BRIG FENWICK: Yes.

LTCOL HEALEY: And that's in relation to the new upgrade of symbology. Noting you were already flying the TopOwl version 4?

15

BRIG FENWICK: I'm sorry, I missed that.

LTCOL HEALEY: Noting that you were already flying TopOwl version 4?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: You state that:

25

It's also important for the Inquiry to understand why we adopted TopOwl in the first place, when purchasing the MRH-90 fleet.

BRIG FENWICK: Yes.

30

LTCOL HEALEY: Do you just want to explain to the Inquiry what you're saying there?

35

BRIG FENWICK: Yes. So in the decision to acquire MRH, and certainly ARH in the first instance, it wasn't the case that we really had a choice to adopt a night flying aid other than TopOwl. Now, we could have retrospectively done it, but TopOwl was such a key element of the aircraft and its certification basis, that to then try and bring in a new system, untested, would have been problematic. It certainly just would not have worked in Tiger. Tiger relied heavily on the TopOwl for its sighting systems.

40

LTCOL HEALEY: Thanks, sir. You state at paragraph 35 that prior to the use of any version of TopOwl for an ADF aircraft, you were using ANVIS.

45

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BRIG FENWICK: Yes.

LTCOL HEALEY: And they were a night-vision goggle. Correct?

5 BRIG FENWICK: Yes.

LTCOL HEALEY: They were typically called “role equipment”?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: What’s the distinction between NVGs and TopOwl?
I think we raised this yesterday, but - - -

15 BRIG FENWICK: In terms of role equipment?

LTCOL HEALEY: Yes, and TopOwl.

20 BRIG FENWICK: So the key point here is that because TopOwl formed
a key part of the certification basis with the aircraft, any changes to it needed
to be treated in a different way when bringing it into service, as opposed to
a piece of role equipment which could actually be brought into service
under a different mechanism.

25 LTCOL HEALEY: And you state that at paragraph 36, don’t you, at the
top of page 8, where you state that:

*It was such an intrinsic part of the aircraft, not only receiving
information from the aircraft, but also sending information to it.*

30 Is that right?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And it was an important part of how the aircraft
worked and functioned. Correct?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: TopOwl was procured as part of the MRH-90.
Correct?

BRIG FENWICK: Yes.

45 LTCOL HEALEY: Rather than seeking any bespoke version. I think you
just took the Inquiry to what you were referring to there. Is that correct?

BRIG FENWICK: Yes.

5 LTCOL HEALEY: At paragraph 37 you talk about Army Aviation, between 2012 and 2015, were looking for a replacement to version 4.0?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: Why was that?

BRIG FENWICK: Firstly, it was part of a routine sequence of upgrades; so always trying to make it better. There were aspects of version 4.0 which were seen as capable of being improved, and that process was occurring through the OEM at the time. And that's my understanding of that history, because I was not in place in that time.

LTCOL HEALEY: You speak about Human-Machine Interface, which the Inquiry has heard quite a deal about.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: Factors of where and how information is presented.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: And which induced fatigue and reduced awareness. Correct?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And the lack of a distance to go reading.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: Which were important, in your view, in terms of the upcoming introduction of the MRH-90 to the Special Operations approach. Is that correct?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: Perhaps we'll talk more about that in a closed setting. Concurrent with this chronology at paragraph 38, you state the French military developed and introduced, by 2015, version 5.0.

45 BRIG FENWICK: Yes, this is my understanding of the history.

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LTCOL HEALEY: Version 5.10 was developed in response to German military requirements.

5 BRIG FENWICK: Yes.

LTCOL HEALEY: And they were, you state, focused on improving performance in a degraded visual environment.

10 BRIG FENWICK: Yes, as I have described it previously, which is principally around the termination point in a degraded visual environment, at the termination point with dust and snow and so on.

LTCOL HEALEY: Because I'm not in Aviation, is that at the landing
15 phase you're talking about?

BRIG FENWICK: Yes.

LTCOL HEALEY: Thank you.
20

AVM HARLAND: Were you aware of what features version 5.00 had, and whether that would satisfy Army's requirements?

BRIG FENWICK: No, sir.
25

AVM HARLAND: Did you enquire?

BRIG FENWICK: By the time that I became aware of the – I moved into the position, I enquired as to whether the move from 4.0 to 5.1 was the reasonable move, and I affirmed for myself, that that was reasonable. But
30 I don't recall thinking about 5.0.

AVM HARLAND: Was there any discussion about it, when the AATES "unacceptable" came in?
35

BRIG FENWICK: No, and I honestly can't recall it being an option.

AVM HARLAND: Okay, thanks.

40 LTCOL HEALEY: Thanks, sir. At paragraph 39 you state that the ADF was aware of these developments through Airbus.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And Military user groups.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: You have a note there about what you refer to as user groups.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: What are they?

BRIG FENWICK: So the user groups largely form two types, as I've put in the footnote there. One is user nations, so user groups brought together by Airbus as user nations of the aircraft. But also, the other user group was of the militaries, effectively. So the militaries would get together without Airbus, in consultation, and discuss their issues and limitations.

20 LTCOL HEALEY: Thank you, sir. You state that in his evidence, AIRCDRE Medved, on 4 March 2025, told the Inquiry that DASA could have simply adopted the use into service of HMSD TopOwl 5.10.

BRIG FENWICK: Yes.

LTCOL HEALEY: Why is that?

25 BRIG FENWICK: Because it was approved by a recognised Airworthiness Authority overseas. And by DASA's procedures, they could have – they could have – simply accepted that, but they didn't.

30 LTCOL HEALEY: Did you decide to accept that, at that point?

BRIG FENWICK: No.

35 LTCOL HEALEY: Thank you. At paragraph 40 you talk about you found that overwhelmingly you needed to ensure there was a safer and more effective Special Operations approach. Is that correct?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And that was to incorporate a number of adjustments to the information available in the HMSD for that approach profile.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And specifically, the distance to target. Correct?

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BRIG FENWICK: Yes.

LTCOL HEALEY: They were key aspects of mitigating risk on the conduct of Special Operations approach. Correct?

5

BRIG FENWICK: Yes.

LTCOL HEALEY: You were informed, weren't you, by the two previous fatal accidents? Correct?

10

BRIG FENWICK: Yes, as well as the AATES report.

LTCOL HEALEY: We'll cover that off in a different setting, in terms of the recommendations that came out of that Special Operations approach report.

15

BRIG FENWICK: Okay.

LTCOL HEALEY: At paragraph 41, you talk about on 29 May 2017, a decision was taken by the then Director-General of Aviation.

20

BRIG FENWICK: Yes.

LTCOL HEALEY: So that wasn't you?

25

BRIG FENWICK: No.

LTCOL HEALEY: And that was through DACM. What does DACM stand for again?

30

BRIG FENWICK: The Directorate of Aviation Capability Management.

LTCOL HEALEY: That decision, wasn't it, to pursue the HMSD 5.10 on the replacement of the 4.0? Correct?

35

BRIG FENWICK: Yes.

LTCOL HEALEY: That decision was made by the then Director-General of Aviation, to go to the 5.10 rather than to seek to develop a unique to Australia solution. Correct?

40

BRIG FENWICK: Yes.

LTCOL HEALEY: Which would've required unknown cost, in terms of money and time?

45

- BRIG FENWICK: Yes.
- 5 LTCOL HEALEY: And your recollection at paragraph 42 of the HMSD software upgrades was that it was a routine program.
- BRIG FENWICK: Yes.
- 10 LTCOL HEALEY: Provided by contract with Airbus.
- BRIG FENWICK: Yes.
- LTCOL HEALEY: And included European nations - - -
- 15 BRIG FENWICK: Yes.
- LTCOL HEALEY: - - - which we've spoken about. Do you recall that you were able to submit and request changes and upgrades desired with Airbus?
- 20 BRIG FENWICK: Yes.
- LTCOL HEALEY: Which were then consolidated and prioritised with other nations.
- 25 BRIG FENWICK: That's my recollection, yes.
- LTCOL HEALEY: Correction. Other user nations. That was for development and release by the OEM.
- 30 BRIG FENWICK: Yes.
- LTCOL HEALEY: What is the OEM?
- 35 BRIG FENWICK: The Original Equipment Manufacturer, so Airbus.
- LTCOL HEALEY: Airbus. And the 5.10 was one of these upgrades. Correct?
- 40 BRIG FENWICK: Yes.
- LTCOL HEALEY: That included a number of developments and improvements that you had sought.
- 45 BRIG FENWICK: Yes.

LTCOL HEALEY: And which you saw as a significant benefit.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: The main one being, as you alluded to earlier, about the presentation of distance to target information.

BRIG FENWICK: Yes.

10

LTCOL HEALEY: How is that a priority mitigator of risk?

BRIG FENWICK: It brings into the field of view for a pilot, while he or she is looking outside, key distance objectives for the conduct of the approach.

15

LTCOL HEALEY: Thanks, sir. We may revisit that. At paragraph 43, you spoke, as you recall, it wasn't possible to pick only those elements of the upgrade you desired. Correct?

20

BRIG FENWICK: That's correct.

LTCOL HEALEY: And discard the rest.

25

BRIG FENWICK: Yes.

LTCOL HEALEY: It came as something of a package.

BRIG FENWICK: Yes.

30

LTCOL HEALEY: But where a compromise was needed, detailed risk mitigation was conducted; is that right?

BRIG FENWICK: Yes.

35

LTCOL HEALEY: That was so you could safely accept perceived limitations, while receiving the benefits. Correct?

BRIG FENWICK: Yes.

40

LTCOL HEALEY: And improve safety measures, as safety necessary for requested features.

BRIG FENWICK: Yes.

45

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LTCOL HEALEY: What do you mean by “improved safety necessary for requested features”?

5 BRIG FENWICK: So it is incumbent upon us in the risk assessment that if there is an improvement to safety available, that is not grossly disproportionate in cost, then we must adopt it to effect SFARP.

10 LTCOL HEALEY: Thank you, sir. The next heading is the, “Flight Test Report of the Special Operations Approach”, which we’ll come back to. At paragraph 50 you state the Inquiry will note that you didn’t commence the role as DG Aviation until January of 2019. Correct?

BRIG FENWICK: Yes.

15 LTCOL HEALEY: So in terms of that Special Operations approach test by AATES in December 2018, you had no oversight of it?

BRIG FENWICK: No, I did not.

20 LTCOL HEALEY: But in January 2019, when you did assume that role, there was some relevant information for you at this time, that previously stated the intent to utilise the 5.10. Is that right?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And the outcome of the Special Operations approach, and the Plan Palisade timeline. Correct?

30 BRIG FENWICK: Yes.

LTCOL HEALEY: It was clear to you there were advantages in the version 5.10 software.

35 BRIG FENWICK: Yes.

LTCOL HEALEY: In the Special Operations role.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And we’ll talk to that later. But:

Sequencing of any such introduction was routinely considered, as we sought to have version 5.10 available to crews, to be trained.

45 Correct?

BRIG FENWICK: Yes.

5 LTCOL HEALEY: But you state there that it did not provide a time pressure upon Plan Palisade. Correct?

BRIG FENWICK: No. Sorry, can I just confirm where you're at now?

10 LTCOL HEALEY: Sorry, I'm at paragraph 51, sir.

BRIG FENWICK: Roger.

15 LTCOL HEALEY: So I'm about three-quarters of the way down that paragraph. My apologies.

BRIG FENWICK: That's okay. That's correct. So it didn't - - -

LTCOL HEALEY: So about the sixth line down.

20 BRIG FENWICK: That's correct. So the point I'm trying to make there is, there were numerous activities ongoing for the Plan Palisade schedule; 5.10 was not on the critical timeline.

25 LTCOL HEALEY: You state in the conclusion of that paragraph that the introduction of 5.10 was a planning factor, among many others.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: Correct?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And each of these had a greater significance on the critical path to Plan Palisade outcomes than did considerations of HMSD 5.10. Correct?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: Was that when you took the Inquiry to the Minutes previously, about various competing considerations?

45 BRIG FENWICK: Yes. So the Minutes and the slides in there are an illustration of the number of things that needed to occur to achieve the timeline. HMSD was a continual consideration. And I use the term "HMSD", not necessarily version 5.10. But making sure that we had

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whatever HMSD we needed and wanted in place at the right time, but it wasn't on the critical timeline.

5 LTCOL HEALEY: Thanks, sir. At paragraph 52 you state that in February '19 – so moving through the chronology in terms of what would ultimately become a Service Release decision by you – but in February '19, at the MRH Project Management Stakeholder Group, or the PMSG, it was projected that DASA approvals were imminent. Correct?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And that Service Release would occur by June '19.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: That was awaiting HMI assessment of gap training. What is "HMI"?

20 BRIG FENWICK: Human-Machine Interface.

LTCOL HEALEY: And the gap training needed?

25 BRIG FENWICK: So if we were to move from 4.0 to 5.10, there was an initial assumption that there would need to be an amount of gap training, such that pilots who were used to using 4.0 would know how to use 5.10 appropriately.

LTCOL HEALEY: Do you recall how that gap training took place?

30 BRIG FENWICK: Yes. So it depended upon whether you were already an MRH-90 pilot or not. So it would occur either as you were transitioning onto MRH, or it would happen on your SOQC, if you were moving from Black Hawk to MRH.

35 LTCOL HEALEY: Thanks, sir.

BRIG FENWICK: That's my recollection anyway.

40 LTCOL HEALEY: You state there the confirmation of suitability for a maritime environment with AMAFTU, in terms of the testing of April to May 2019 was one of those components.

BRIG FENWICK: Yes.

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LTCOL HEALEY: Annexed to your statement, 21 February 2019 slide for the PMSG?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: In that meeting – if you go to that? It's at Annexure 10. That annex is titled, "MRH-90 PMSG 21 February 2019"?

BRIG FENWICK: Yes. And I think the slide to move to is page 15, titled, "SF Capability Overview".

10

LTCOL HEALEY: And that's a green document?

BRIG FENWICK: That's correct.

15

LTCOL HEALEY: The page numbers are down on the left-hand side of each page, for reference to the Inquiry – well, particularly for that page. So to help the Inquiry, it comes after the page titled, "Special Forces status report".

20

MS McMURDO: We've got it, thank you. We've got it.

LTCOL HEALEY: Thank you, Madam Chair.

Sir, what's the significance of that particular capability overview that you're talking about there? Noting the sensitivity around security.

25

BRIG FENWICK: Yes, the purpose is to illustrate that at this point in time – so this was in February of 2019 – there were intentions to move to 5.10, if it was deemed appropriate. So there was still some – and that's in that slide, third from the bottom – so that is meant to illustrate to you that we certainly had an intention to move by about June 2019, but of course when the AATES testing in June 2019 determined that there would be a problem with that, then we delayed. So things were not being pushed ahead without due consideration.

30

35

LTCOL HEALEY: Thanks, sir. So, in other words, you were tracking a number of key aspects of capability?

BRIG FENWICK: Yes, indeed. And if you look in fact on the slide prior, you can see that at that time – so the slide prior is a Word document, "Special Forces Status Report Summary".

40

LTCOL HEALEY: Yes, sir.

45

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BRIG FENWICK: And I'll just check with, ma'am, are you - - -

LTCOL HEALEY: Page 40.

5 MS McMURDO: Yes.

BRIG FENWICK: Yes, so on the next key outputs, you can see under
"HMSD version 5.10" at this point in February '19, we were under the
impression that there would not be a problem, and so that DASA would
10 approve in due course – and that the IA is, if I remember rightly, integration
approval, but I would need to check that – to be granted in March. But that
did not occur, because it was in already.

LTCOL HEALEY: We'll get to that report by AATES that you're
15 referring to. But you certainly took the report by AATES quite seriously?

BRIG FENWICK: Absolutely.

LTCOL HEALEY: Thank you, sir. I did have you turned to Annex 9,
20 which is the AMAFTU report, and that's at paragraph 53 of your
statement.

BRIG FENWICK: Mm-hm.

LTCOL HEALEY: You state there at paragraph 53 that the first testing of
25 the HMSD version 5.10 was done by Navy.

BRIG FENWICK: Yes.

LTCOL HEALEY: And that was through what is the Aircraft
30 Maintenance and Flight Trials Unit, which we'll refer to as AMAFTU.

BRIG FENWICK: Yes.

LTCOL HEALEY: That was conducted in March to May of 2019.

BRIG FENWICK: Yes.

LTCOL HEALEY: And the report was released on 10 December 2019.
40 Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: You state that:
45

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While HMSD 5.10 was not the sole focus of the trials, assessment of the updated symbology set in the maritime environment was a component of the testing.

5 Correct?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: If you turn to page 45 of that AMAFTU report, you'll see paragraph 6.5.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: Did you want to take the Inquiry through some of those results?

MS McMURDO: Is that permissible?

20 BRIG FENWICK: It's FOUO.

LTCOL HEALEY: Yes.

25 BRIG FENWICK: I can provide an overall summary to that, noting that you can see the results in front of you, ma'am. But overall, of course, the AMAFTU First-of-Class Flight Trials were, as you can see from the report, covering many things, including how does the aircraft operate and move on its struts while it's on the ship, and many aspects.

30 But also part of that First-of-Class Flight Trials is approaching and taking off to the ship, and that involves an amount of flying in the maritime environment away from reference to the ship. It was my judgment, from this report, that there were advantages to be had in 5.10 over 4.0, in the maritime environment.

35 LTCOL HEALEY: Perhaps we can come back to that in more detail in another setting.

40 BRIG FENWICK: I think if I can draw your eye to 6.5.2, the actual paragraph below the table? Key for me is the improved ability to have eyes outside.

AVM HARLAND: Just without saying what it is, but could you just confirm whether that was qualified for a particular type of operations?

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BRIG FENWICK: Sorry, could you rephrase that, sir? I'm not quite sure what you're asking.

5 AVM HARLAND: In terms of the observations regarding TopOwl in that report, was that qualified for a particular type of operations?

BRIG FENWICK: Yes. Well, I think you're referring to some of the wording in there, after where it says, "satisfactory"?

10 AVM HARLAND: Yes, correct.

BRIG FENWICK: Yes, but I would include in that, sir, that if you are in that environment, it's inclusive of the maritime environment. As I say, if you are operating in that manner, then you are taking off and landing to the ship, and flying without reference to the ship at times. So if you're circling, for example, there are times where you have no reference to anything other than the ocean, for a horizon.

20 AVM HARLAND: Okay, thank you.

LTCOL HEALEY: So just building on that, sir, no land cues, is that what you're referring to, in the maritime environment?

25 BRIG FENWICK: Correct.

LTCOL HEALEY: Thank you.

BRIG FENWICK: No land, or the ship.

30 LTCOL HEALEY: Thank you. So paragraph 54 - back to your statement - sorry, is there anything else? Did you want to speak in generic terms about that report at this point?

35 BRIG FENWICK: No.

LTCOL HEALEY: Looking at 54, in terms of the report, there was four HMSD TopOwls provided to AMAFTU for the testing.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: And that testing was done during day and night.

BRIG FENWICK: Yes, and this is just a record of what's in the report.

45 LTCOL HEALEY: Right.

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BRIG FENWICK: But I don't think there's anything that needs to be withheld here.

5 LTCOL HEALEY: I'm sure I'll be told if there is, sir. So that testing was conducted between 23 March 2019 and 17 May 2019?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: And there was 8.5 days lost to poor aircraft serviceability?

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And a total of 42.8 hours of testing was conducted over 17 test sorties.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: With 160 deck landings. Correct?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: And the updated symbology was tested in a strictly maritime environment.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And by day, and by night?

BRIG FENWICK: Yes.

LTCOL HEALEY: And inclusive of a reduced visibility conditions.

35 BRIG FENWICK: Yes. My use of the quotation marks there is to indicate that is directly drawn from the report.

40 LTCOL HEALEY: Okay, thank you, sir. At paragraph 55 you state that you're aware of the details of the outcomes of the trials, in the period between their conduct and the final release of the report.

45 BRIG FENWICK: Yes. So what I'm indicating there is between the time of the conduct of the trials and the eventual report being produced, was the AATES trial of June 19, if I remember rightly. But I was aware of what had happened on these trials.

LTCOL HEALEY: Perhaps at this point I'll take you to Annex 11.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: That particular document is titled, "Minutes of the MRH-90 Project Management Stakeholder Group Meeting," correct?

BRIG FENWICK: Yes.

10

LTCOL HEALEY: Dated 30 October 2019?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: If you're looking at the front page there it says at paragraph 2 that you thanked members for their continued support and attendance.

BRIG FENWICK: Yes, I did.

20

LTCOL HEALEY: I'm just looking for the security classification of that document.

BRIG FENWICK: Yes.

25

LTCOL HEALEY: If you go to paragraph 15, is that what you're referencing when you're looking at Annex 11, in terms of the helmet-mounted sight display HMSD version 5.10? Is that right?

30

BRIG FENWICK: Yes.

LTCOL HEALEY: Is there any key takeaways under that heading in that particular document at Annex 11, under HMSD 5.10?

35

BRIG FENWICK: Yes, there are a couple. Firstly, that this clearly appears after the conclusion of the AMAFTU report. And 808 Squadron referred to there is the Naval Squadron for Aviation. They were keen to progress to Service Release on the basis of the AMAFTU testing alone. But we were quite determined throughout the MRH capability to not have a mixed fleet of software updates, so we actually chose to hold back if you like, Navy moving ahead with 5.10 so that we could confirm its use for the rest of Army Aviation.

40

The second point I'd like to highlight is that again, this is in October of 19. It was in about this period we were conducting a Special Operations

45

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Qualification Course, which we had previously wanted to get 5.10 onto. But there is a record there from COL Connolly that that was not achieved, and we looked forward to the next one.

5 The reason for raising this is, I'm aware that there is an impression that we were driving people hard for any particular date on 5.10, and that's just not the case. We did continually adjust and revise where we thought we would like to introduce it, for the least impact on the capability, but as the testing developed and we continued to explore its safety, we continued to move the
10 goalposts for introduction into service.

LTCOL HEALEY: Thanks, sir. At the top of the page 3 in that document, you've got an action item there.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: Can you see that?

20 BRIG FENWICK: Yes.

LTCOL HEALEY: That says that:

COL Connolly is to advise the PMSG of the outcome of the HMSD 5.10 OT&E activity.

25 BRIG FENWICK: Yes.

LTCOL HEALEY: What's that referring to?

30 BRIG FENWICK: So that's referring to what's become known as the OPEVAL. That would be occurring at the next – sorry, let me just confirm. This is a PMSG, so that would've occurred in the next PMSG, which if I think I remember rightly would've been you know, first quarter of 2020, when we would've known what the outcomes of that activity were.

35 LTCOL HEALEY: That's noting that this document on the front page is the date 30 October 2019. Correct?

40 BRIG FENWICK: Yes.

LTCOL HEALEY: Thank you, sir. I'll take you back to your statement, and we're up to paragraph 55. The key takeaways from the AMAFTU testing, as it related to 5.10, you state were that it reported no deficiencies in the HMSD 5.10. Correct?

45

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BRIG FENWICK: Yes.

LTCOL HEALEY: You acknowledged that:

5 *While there are aspects and characteristics of horizon line and pitch ladder were noted, no comment was made of unacceptability in any of the conditions experienced through the testing.*

BRIG FENWICK: That's correct.

10

LTCOL HEALEY: In table 6.1 of the report:

Assessments were made of HMSD 5.10, all of which were positive.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: And:

Indicated an overall improvement of the symbology set.

20

Correct?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: That's all on page 45 of the report?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: You further state – and we're at 55(d) of your statement – that the symbology was easily interpretable.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: Allowed aircraft to spend more time eyes out.

BRIG FENWICK: Yes.

LTCOL HEALEY: And in the words of the report:

40 *The symbology set allowed an increased aircraft awareness of the aircraft state.*

BRIG FENWICK: Aircrew awareness of the aircraft state, yes.

LTCOL HEALEY: Just what's your understanding of what that means? I know it's a direct quote from the report, but what does that mean in terms of your experience?

5 BRIG FENWICK: It gave the aircrew a better understanding of the aircraft's place in space; whether it was pitching up, pitching down, turning right, turning left.

10 LTCOL HEALEY: Thanks, sir. One question that arose that came to me prior to taking you through this particular paragraph: at this time in proceedings in the chronology, is it right that the HMSD 4.0 was the one that was in service at that time?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: Thank you. You state that even beyond the inclusion of distance to go symbology, your judgment was that:

20 *A key advantage of the 5.10 was the mitigation of risk in the Special Operations approach.*

Correct?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And more broadly, including flight in formation.

BRIG FENWICK: Yes, because it was an eyes out, it gave people more eyes outside.

30 LTCOL HEALEY: Right, and that's crew included?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: Is that what you're referring to? At (e) there, at 55(e) the report recommended further testing non-embarked, low-level at night.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And these recommendation conditions were included in the test set for the OPEVAL?

BRIG FENWICK: Yes.

45 LTCOL HEALEY: What's the "test set"?

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BRIG FENWICK: The things which were going to be done in the OPEVAL to you know, further explore it.

5 LTCOL HEALEY: Madam Chair, I note the time. Did you want me to keep going, or did you want - - -

MS McMURDO: Yes.

10 LTCOL HEALEY: Yes, thank you, ma'am. If we go to the next sub-heading, and that's the events surrounding the AATES test of June 19. Do you see that?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: At paragraph 56, in May 2019:

20

And has DASA involvement in the approvals of a number of new pieces of equipment and modifications to the MRH-90 when necessary and fundamental.

You arranged for the DG DASA to visit 6 Aviation Regiment. Correct?

BRIG FENWICK: Yes.

25

LTCOL HEALEY: And to be introduced to the unit?

BRIG FENWICK: Yes.

30

LTCOL HEALEY: And the aircraft and the new equipment?

BRIG FENWICK: Yes.

LTCOL HEALEY: You state:

35

This gave him further insight into the unit's Special Operations Aviation.

Correct?

40

BRIG FENWICK: Yes.

LTCOL HEALEY: The MRH-90?

45

BRIG FENWICK: Yes.

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LTCOL HEALEY: And, "To inform the MPTF." What does that stand for?

5 BRIG FENWICK: Military Permit to Fly.

LTCOL HEALEY: The DoSA-FT. What does that stand for?

BRIG FENWICK: The Delegate of the Safety Authority for Flight Test.

10 LTCOL HEALEY: Sorry to test you with all these, sir.

BRIG FENWICK: That's all right.

15 LTCOL HEALEY: And certification approvals. That's correct?

BRIG FENWICK: Yes, that's correct.

LTCOL HEALEY: Do you recall who the DG at DASA was at that time?

20 BRIG FENWICK: It was AIRCDRE Agius.

LTCOL HEALEY: Agius, thank you. At paragraph 70 you state that on 29 May 2019, while in Oakey for a number of other purposes, you visited AATES. Correct?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And you spoke at length with LTCOL Reinhardt.

30 BRIG FENWICK: Yes.

LTCOL HEALEY: Who we know has given evidence before this Inquiry.

35 BRIG FENWICK: Yes.

LTCOL HEALEY: You say you knew him well.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: You are both graduates of ADFA.

BRIG FENWICK: Yes.

45

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LTCOL HEALEY: And that was in 1991.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And he'd been the Unit Standards Officer at the 1st Aviation Regiment for a period while you were the Commanding Officer.

BRIG FENWICK: Yes.

10

LTCOL HEALEY: Would you say you had a good working relationship with LTCOL Reinhardt?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: At this time, the AATES testing on version 5.10 had not yet been done. Is that correct?

BRIG FENWICK: Yes.

20

LTCOL HEALEY: You state at paragraph 58 that, among other things, you recall LTCOL Reinhardt sharing with you a number of leadership and command challenges. Correct?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: That he was experiencing at AATES, with his staff.

BRIG FENWICK: Yes.

30

LTCOL HEALEY: Along with pressures he felt in his organisation; is that right?

BRIG FENWICK: Yes.

35

LTCOL HEALEY: And much of this was captured in his Minute to you, covering his Airworthiness Board submission on 23 April 2019.

BRIG FENWICK: Yes.

40

LTCOL HEALEY: I'll just take you to that annex, and that's at Annex 12 of your statement. Just let me know when you're there, sir.

BRIG FENWICK: Yes, I am.

45

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LTCOL HEALEY: Just to identify that document, it's titled, "Covering Minute to AATES 2019 AWB Submission". Correct?

5 BRIG FENWICK: Yes, and I just note that it's FOUO too.

LTCOL HEALEY: And it's digitally signed by Eamon Barton.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: That is, on my visibility, 23rd of the 4th, 2019.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And it's co-signed by COL Lynch on 24 April 2019?

BRIG FENWICK: Yes.

20 LTCOL HEALEY: What were the key takeaways? Noting the sensitivity of that document, what were the key takeaways from that Minute, in your role and your responsibilities as DG Aviation?

25 BRIG FENWICK: Yes, for me it was a clear indication of some of the pressure upon the unit, given the volume of things we were requiring of test and evaluation in that period. So again, to refer back to the Plan Palisade Steering Group, and the list of items that I showed you previously, which were being introduced into service, the majority of those required test and evaluation, to a significant degree.

30 So the pressure was on AATES during that period, and LTCOL Reinhardt made that quite clear to me. He presents in here an assessment of risk that that then presented for AATES. I'm just choosing my words carefully, given the classification. But he has tried to express to me the risks, particularly to safety, of a high tempo and continuing to push activity into AATES for AATES to do necessarily of themselves, and a desire for a release of that pressure.

35 LTCOL HEALEY: And that was through the period 2019 into 2020. Correct?

40 BRIG FENWICK: Yes.

LTCOL HEALEY: That's at paragraph 3?

45 BRIG FENWICK: Yes.

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LTCOL HEALEY: I note there's some other things there in paragraph 4.

BRIG FENWICK: Yes. And so key – well, yes, there's some other
5 issues, I guess, he's suggesting are consequences of this pressure. Then he
presents the risks as he sees them.

LTCOL HEALEY: And that's about being the poor regulator of
workload as an organisation. Correct?

10 BRIG FENWICK: Yes. So some of the issues here are within AATES as
it was then, you know, as it was developing and growing with its
personnel. There is no doubt that LTCOL Reinhardt took that upon himself
to fix; he was very responsible in that regard.

15 You'll see there that ascribed next to paragraph 3 is the capacity versus
workload, and I have scribed there, "That's my responsibility to help build."
So there was an engagement between the two of us to recognise what was
his to fix, and what I needed to try and help him with.

20 LTCOL HEALEY: So you're saying there, with the writing there – and I
was going to take you to that – it's your responsibility to build?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: Was that because it was part of your organisation, or -
- -

BRIG FENWICK: Yes. So AATES, it was commanded by the Aviation
Training Centre, so that it could operate under the Flight Management
30 System of the Training Centre. If I had taken it under direct command of
myself, I would've had to have created a separate Flight Management
System, just for AATES, so it was more efficient and gave a better safety
outcome for AATES to be administered with a Flight Management System
under the existing Flight Management System of the Training Centre.

35 So my responsibility was to the workload and the tasking for AATES,
because it was driven by me and my staff.

40 LTCOL HEALEY: So it's fair to say that AATES, during that period,
2019 to 2020, was struggling with its incapacity?

BRIG FENWICK: Yes.

45 LTCOL HEALEY: Thank you, sir. Just back to that document, it's
signed by LTCOL Reinhardt. Correct?

- BRIG FENWICK: Yes.
- 5 LTCOL HEALEY: And that's on 23 April 2019.
- BRIG FENWICK: Yes.
- LTCOL HEALEY: So he brought that to your attention; is that correct?
- 10 BRIG FENWICK: Yes, he did.
- LTCOL HEALEY: Thank you, sir.
- BRIG FENWICK: Yes, and we discussed it when I saw him.
- 15 LTCOL HEALEY: You say in your statement – just to be clear – that it's noteworthy that the LTCOL Reinhardt states the overall risk for the Army Flight Test System is low.
- 20 BRIG FENWICK: Yes.
- LTCOL HEALEY: And SFARP, as long as workload is matched to capacity.
- 25 BRIG FENWICK: Yes.
- LTCOL HEALEY: What did you take that to mean? Noting that you had discussions with him as well.
- 30 BRIG FENWICK: Yes. Well, if I didn't do something to manage his workload, then his risk in the Flight Test System would no longer be SFARP.
- LTCOL HEALEY: So you state that you sought to relieve AATES of testing.
- 35 BRIG FENWICK: Yes.
- LTCOL HEALEY: That could potentially be done by other means.
- 40 BRIG FENWICK: Yes. So I was quite discriminating then in what I needed AATES to conduct themselves, and what other testing could be done under their authority, and guidance, and leadership, but by other people.
- 45

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LTCOL HEALEY: So you state there that AATES would still have oversight of testing.

5 BRIG FENWICK: Yes, absolutely. It's required.

LTCOL HEALEY: And that's a requirement. Correct?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: But that testing was to ensure appropriate regulated conduct for testing and evaluation. Correct?

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And it's discussed further in your statement when you speak to the testing as it was conducted. Correct?

BRIG FENWICK: Yes.

20 LTCOL HEALEY: Is that an appropriate time?

MS McMURDO: Yes, sure.

25 LTCOL HEALEY: Yes.

MS McMURDO: We'll have a 10-minute break now. Thank you.

30 **HEARING ADJOURNED**

HEARING RESUMED

35 MS McMURDO: Yes, LTCOL Healey.

LTCOL HEALEY: Thanks, Madam Chair. Thank you, Air Vice.

40 Sir, I think we were at page 12 of your statement at paragraph 60, and previously we were discussing the events surrounding the AATES test of June 2019.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: Do you remember that?

BRIG FENWICK: Yes.

5 LTCOL HEALEY: At the top of page 12 of your statement you can see there it's titled, "Interim Flight Test Report 2018, MRH-12".

BRIG FENWICK: Yes.

10 LTCOL HEALEY: And that's the AATES report.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: As opposed to the AATES Special Operations approach report.

BRIG FENWICK: Yes, the June '18 report.

LTCOL HEALEY: Thanks, sir.

20 BRIG FENWICK: June '19.

LTCOL HEALEY: And following requests from the MRH Project Office. Who was the Project Office, the MRH Project Office?

25 BRIG FENWICK: At the time, the Director of the Project Office in the CASG was BRIG Thomas.

LTCOL HEALEY: And DACM?

30 BRIG FENWICK: Yes, COL Connolly, the Director of Aviation Capability Management.

35 LTCOL HEALEY: And under your authority, on behalf of the Accountable Manager – and you will recall yesterday we took the Inquiry through your delegations?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And in accordance with the OAMP, which we also went through, AATES undertook a testing regime on version 5.10. Correct?

BRIG FENWICK: Yes.

OFFICIAL

LTCOL HEALEY: The purpose of that flight activity is to assist in the development of training and flight procedures for the effective use of HMSD 5.10. Correct?

5 BRIG FENWICK: Yes.

LTCOL HEALEY: And that's in the Australian MRH-90 configuration.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: This was being done, among other things, in response to a highly desirable recommendation of the AATES December 2018 Special Operations report to look further into HMSD for the Special
15 Operations approach. Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: Whilst we're going through these particular
20 paragraphs, I ask you to turn to Annex 13, which is attached to your statement, and that's the actual AATES report.

BRIG FENWICK: Yes.

LTCOL HEALEY: Just have that open for now, sir, if that's okay, and I'll take you further through your statement. As you state, that testing was conducted – this is at paragraph 61 of your statement – the testing was conducted from 7 June 2019 to 11 June 2019.

30 BRIG FENWICK: Yes.

LTCOL HEALEY: And that was by AATES at Oakey in Queensland.

BRIG FENWICK: Yes.
35

LTCOL HEALEY: The testing was only able to achieve two sorties by day.

BRIG FENWICK: Yes.
40

LTCOL HEALEY: You state it was halted prematurely.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: Do you mean any criticism there by saying

“prematurely”?

BRIG FENWICK: No.

5 LTCOL HEALEY: We’ll come to that. At paragraph 62 you state on 14 June 2019 the AATES report was completed. Correct?

BRIG FENWICK: Yes.

10 LTCOL HEALEY: In it, it stated that the ambiguous attitude in the HMSD was an unacceptable risk to flight safety. Correct?

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And that the AATES report writer stated that it created scenarios where the perceived angle of bank was inconsistent with the attitude of the aircraft. Correct?

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And assessed it as a leading risk of controlled flight into terrain.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: I just want to take you to Annex 13, which is the AATES report.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: If you go to page 1, “Test scope and objectives”?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: You’ll see the background there.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: It states that under Plan Palisade, the MRH-90 HMSD symbology was being upgraded. Correct?

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And that was to conform with the Original Equipment Manufacturer’s symbology set.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: That is just to bring the Inquiry to know that this test was being done, is that right, by way of Op Palisade?

10 BRIG FENWICK: Yes, initially. So while there were advantages of 5.10 for the whole of the Aviation fleet – sorry, MRH-90 fleet, it was specifically to address limitations discovered in the Special Operations approach AATES report of December '18, and therefore under Plan Palisade that we wanted to progress 5.10 for safety in Special Operations.

15 LTCOL HEALEY: And that's a direct link to Op Palisade that we were talking about previously?

BRIG FENWICK: For Plan Palisade, yes.

20 LTCOL HEALEY: Thank you, sir. You took from the report, didn't you, at para 62 that the report – sorry, you took from the report that the distance to go information was assessed as satisfactory?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: And then further, at paragraph 63, the report concluded in order to make a fully informed decision on the risks involved, more information was required. Correct?

30 BRIG FENWICK: Yes.

MS McMURDO: So none of this is controversial. If we could speed it up a bit, I think?

35 LTCOL HEALEY: Yes, thank you, ma'am.

So you state at paragraph 64 that with the testing incomplete, you still needed to understand whether to proceed or not with version 5.10.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: Noting that at the time 4.0 was being used.

BRIG FENWICK: Yes.

LTCOL HEALEY: You state, as previously suggested, you had evidence of testing and certification from Europe, tests from the AMAFTU testing.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: And the report from AATES in June, the two-day sortie, where AATES believed that their risk assessment was not a fully informed one.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: You state further at 64 that you thus needed to develop a better-informed risk assessment in terms of whether to proceed with 5.10 or stay with 4.0.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: That's in the context of the risks being considered for the introduction of MRH-90 to Special Operations.

20

BRIG FENWICK: Yes.

LTCOL HEALEY: At 65 you note that, given the "unacceptable" finding in relation to horizon indications, that you recommended to seek more information.

25

BRIG FENWICK: Yes.

LTCOL HEALEY: And took the decision, as DG Aviation, to have version 5.10 upgraded – the upgrade further tested.

30

BRIG FENWICK: Yes.

LTCOL HEALEY: You have a subheading there, which is the, "DG Aviation Covering Minute to AATES 2009 AWB Submission". Do you see that?

35

BRIG FENWICK: Yes.

LTCOL HEALEY: You state that your decision to proceed to further testing by way of an OPEVAL was multi-factorial.

40

BRIG FENWICK: Yes.

LTCOL HEALEY: What do you mean by that?

45

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BRIG FENWICK: The manner in which we were going to proceed to further testing needed to be considered among other factors.

5 LTCOL HEALEY: And you state that that's evidenced in the statements and testimony of COL Lynch and COL Hamlyn.

BRIG FENWICK: Yes.

10 MS McMURDO: In paragraph 65, the last line, you say:

I considered the risk was not suitably categorised to be able to decide whether to proceed or not.

15 You couldn't have proceeded at that point, could you?

BRIG FENWICK: No, I mean overall, ma'am. So you're quite right, it would've been very questionable to proceed at that point. What I mean is to proceed with 5.10 at all, in due course.

20 MS McMURDO: I see. Yes, all right.

LTCOL HEALEY: The bottom of that page, sir, at 67, in deciding the next steps you consider the Minute from COL Reinhardt.

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And that was through COL Barton.

30 BRIG FENWICK: Yes.

LTCOL HEALEY: That's at JRF 12.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: That Minute was clear to you, that AATES was having issues with capacity; is that right?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And we've been through that.

BRIG FENWICK: Yes.

LTCOL HEALEY: Compounding that analysis – and this is over the page at page 13 – was the incomplete test of June 2019.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: Which added potential of another activity for the overloaded and critically stressed AATES organisation.

BRIG FENWICK: Yes. So, importantly, any follow-on activity from this was not previously scheduled, and would've had to have added to the program.

10

LTCOL HEALEY: Thanks, sir. So you decided to progress with the testing regime that would achieve the two remaining tasks.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: An activity which combined flight tests with Operational Evaluation. Correct?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: Utilising flight test pilots?

25

BRIG FENWICK: Yes.

LTCOL HEALEY: Instructors?

BRIG FENWICK: Yes.

30

LTCOL HEALEY: Unit pilots?

BRIG FENWICK: Mm.

35

LTCOL HEALEY: And the planning to be conducted by LTCOL Reinhardt and the AATES organisation. Correct?

BRIG FENWICK: Yes.

40

LTCOL HEALEY: You state that that wasn't an approach that was inconsistent with your procedures and instructions.

BRIG FENWICK: No.

45

LTCOL HEALEY: And was allowable.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And in accordance with the Airworthiness Test and Evaluation strictures.

10 BRIG FENWICK: Yes. So what I'm referring to there is if we had chosen to just proceed with effectively the OPEVAL, as OPEVAL is described in the OAMP, we could have achieved that under an authority that was different and separate to having AATES do it. But, importantly, I thought that was inappropriate, and there needed to be not just Operational Evaluation activities but indeed some testing activities appropriate for a Flight Test Organisation.

15 LTCOL HEALEY: You have made reference there to the Army Aviation T&E Manual.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: That was signed by SO1 AATES.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: And you've pulled out a component of that at 7.3.3.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: I won't take you to that annex, but you've stated there that you've cut out that particular paragraph under 68.

BRIG FENWICK: Yes.

LTCOL HEALEY: What are you referencing there?

35 BRIG FENWICK: Well, I'm referencing the test, the Army Aviation Test and Evaluation Manual, so our guide for how test and evaluation is to be conducted in Army Aviation. And what that shows is that it remains appropriate for AATES to guide and lead an activity, even if they don't fully conduct it themselves.

40 LTCOL HEALEY: So you sought what became an activity known as the OPEVAL?

45 BRIG FENWICK: Yes.

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LTCOL HEALEY: Do you see the subheading there, “Airworthiness Board Report”?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: That’s above paragraph 7 of your statement. You decided to proceed with an OPEVAL.

BRIG FENWICK: Yes.

10

LTCOL HEALEY: That was, you say, supported by the Airworthiness Board report. Correct?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: Taking you to Annex 15, noting that it’s “For Official Use Only”, are you making reference at page 4 there to paragraphs 7(k) through to (n)?

20

BRIG FENWICK: Yes.

LTCOL HEALEY: And that’s basically just a summary of what AATES’ capacity was at the time. Correct?

25

BRIG FENWICK: Yes, and therefore the oversight measures that I was taking in terms of their workload and so on was supported by the Airworthiness Board.

30

LTCOL HEALEY: And you largely sort of cover that in summary in paragraph 71.

BRIG FENWICK: Yes.

35

LTCOL HEALEY: Is there anything else in 71 that you need to draw to the Inquiry?

BRIG FENWICK: Bear with me.

40

LTCOL HEALEY: So back to your statement.

BRIG FENWICK: Yes. I think it highlights the active role that was supported by the Airworthiness Board that I needed to take in the management of AATES.

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AVM HARLAND: I can't find where it says the Airworthiness Board – the decision to proceed to OPEVAL was supported by the Airworthiness Board report. Could you please point me to that, that specific sentence? You've taken us to - - -

5

BRIG FENWICK: Yes, I have. Bear with me, sir, and I will find it.

AVM HARLAND: Perhaps by subpara and line, given it's FOUO.

10 LTCOL HEALEY: I think, sir, if I can help? I took it as a reference from paragraph 7 of that particular document, subsection (k) through to (n) in terms of AATES' capacity.

BRIG FENWICK: Yes, that's right. So while – I pick up your point, sir.

15

AVM HARLAND: So it doesn't - - -

BRIG FENWICK: It's not the procession to OPEVAL per se. It's the methodology by which it was conducted, I think is supported; that is, AATES' oversight of another organisation doing it because of workload. So I take your point, "the decision to proceed with an OPEVAL" is poor wording. I think that this statement in the Airworthiness Board supports my approach to the methodology that I used for the OPEVAL, which is AATES' planning and leadership, and conduct by others. Yes.

25

AVM HARLAND: Yes, because it seems to point more towards the management of capacity, and that this was an outcome, but the way I read para 70 is that it's actually – I can't see that as being a correct statement, based on what I'm reading in - - -

30

BRIG FENWICK: No, I accept that, and I'll withdraw that.

AVM HARLAND: Okay. Thank you.

35 LTCOL HEALEY: Sir, looking at paragraph 72 of your statement, it also states that – that report states that there's detailed poor safety reporting cultures at AATES.

BRIG FENWICK: Yes.

40

LTCOL HEALEY: Which could have contributed to the insufficient resources to meet task load requirements. Correct?

BRIG FENWICK: Yes.

45

LTCOL HEALEY: And, as the DG Aviation, it was your duty to ensure that in driving positive safety behaviours, that you were careful in not over-allocating to AATES during that period.

5 BRIG FENWICK: Yes.

LTCOL HEALEY: And that this action, on your part, was specifically noted as a positive for the improvement of safe flying culture at AATES.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: That's at para 7(n) of that particular annexure.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: Moving on to the OPEVAL report, so paragraph 73, the OPEVAL process was instigated, you state, to serve two purposes.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And that's at paragraph 73.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: The first point you raise is to explore the characteristics highlighted and left incomplete in the 29 AATES report.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And to perform a level of Operational Evaluation suitable to inform your approval.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: Your operational approval for use in Army.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And for COMFAA approval in Navy. Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: And you make reference to Annex 11.

BRIG FENWICK: Yes. So in Annex 11 is the Minutes previously referred to where Navy was accepting for the methodology they were going to employ with the maritime support helicopter, that they had sufficient information to progress to Service Release already, but I did not for Army.

5

LTCOL HEALEY: Thank you, sir. At para 74 you state it was a significant activity, the OPEVAL, aimed solely at exploring and understanding the characteristics of 5.10.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And whether or not to proceed with it. Correct?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: In order to meet those two objectives, it had the same level of authorisation and planning scrutiny.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And that was by AATES, as the June '19 activity.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: You attached the manual, but do you just want to summarise your points (a), (b) and (c) of paragraph 74?

BRIG FENWICK: Yes. So the decision was taken to make it – for the flight test that needed to occur, that it was a CAT 2 flight test. That was the decision by AATES. It had AATES' oversight of the whole activity, including planning and conduct. The team was brought together to conduct the OPEVAL, had significant flight test experience.

30 So LTCOL Langley was, I think, at the time our most experienced flight test pilot, as well as LTCOL Norton. It brought together a range of operators, some of whom were MRH qualified, but not Special Operations. Some of whom were Special Operations qualified. So principally it brought together a broad range of views on just where the weaknesses and strengths might be.

40

I actually believed it to be significantly – it was a significant activity that covered off on a fair amount of diligence, in my view. I'm not quite sure what more we could have done.

45 LTCOL HEALEY: And you recall the OPEVAL was conducted in

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November 2019.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And upon familiarising yourself with that report, you note there was 10 sorties.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: With 12 aircrew.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And that included Navy, 5 Aviation, 6 Aviation, pilots, Standards Officers and flight test crew.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And the activity resulted in the production of the OPEVAL report.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: You note at paragraph 76 at the bottom of page 14, distance to go symbology display, and that it was reported it reduced pilot workload.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And scan requirements during high workload phases of flight. Correct?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And that this was an enhancing feature for Special Operations approaches. Correct?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: Turning the page, to paragraph 77, you speak there about attitude and horizon presentations in the HMSD 5.10.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And note the report concluded that both

presentations were performing as planned and designed.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And in particular the horizon line, which performed without error when observed with the head in line with the X-axis of the aircraft, was considered to aid in the Special Operations approach, and for DVE approaches.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: What do you mean by, “when observed with the head in line with the X-axis of the aircraft”?

15 BRIG FENWICK: When looking forward, aligned forward.

LTCOL HEALEY: Thank you. At paragraph 78 you noted that when the aircraft looked out at 90 degrees on the X-axis, the horizon line could present with a minor difference of less than 10 degrees.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: You state that was less than a 3 per cent difference.

25 BRIG FENWICK: Yes.

LTCOL HEALEY: You also note that it was your understanding the Inquiry has seen visual representations of this from a statement from COL Norton.

30 BRIG FENWICK: Yes.

LTCOL HEALEY: And the indication in the device still matched with the horizon.

35 BRIG FENWICK: Yes.

LTCOL HEALEY: And it remained an aid, not a detriment, to aircrew awareness with their eyes looking outside.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: And the trial aircrew did not report this presentation as confusing. Correct?

45

BRIG FENWICK: Yes.

LTCOL HEALEY: Nor did it lead to any instances of disorientation in testing.

5

BRIG FENWICK: Correct.

LTCOL HEALEY: And you state that the OPEVAL report, it reported specifically as not being dangerous.

10

BRIG FENWICK: Yes.

LTCOL HEALEY: It was reported as not useful for many aspects of flying. Correct?

15

BRIG FENWICK: Yes.

LTCOL HEALEY: And that was principally because the primary intention of the aid was for the terminal stages of an approach in DVE.

20

BRIG FENWICK: Yes.

LTCOL HEALEY: You state when a pilot should be looking ahead.

25

BRIG FENWICK: Yes.

LTCOL HEALEY: You state it's incongruent with its intended use.

30

BRIG FENWICK: Yes.

LTCOL HEALEY: You finish that paragraph by stating that it's your understanding that in the last three years of flying, since the introduction of 5.10, there has been no reports of disorientation due to this presentation. Is that right?

35

BRIG FENWICK: Yes, that's my understanding.

LTCOL HEALEY: At paragraph 79 you state that despite the findings of the OPEVAL testing itself, the final report recommended treatments to reduce the risk to SFARP.

40

BRIG FENWICK: Yes.

LTCOL HEALEY: And that was on the basis that controls existed, were accessible.

45

BRIG FENWICK: Yes.

5 LTCOL HEALEY: You go on to say aircrew gap and ongoing training should incorporate those three elements under (a), (b), and (c).

BRIG FENWICK: Yes.

10 LTCOL HEALEY: Can you just run us through those, please?

BRIG FENWICK: So the pitch scale animation was a presentation again of – as you looked off-axis, it presented pitch essentially as roll. It was something that needed to be understood in order to fly safely. Then the requirement therefore to align yourself with the aircraft, should you be making attitude changes relative to the HMSD, notwithstanding that the HMSD is an aid to flight, not a primary flight instrument. And then incorporation of the line-of-sight alignment forward for HMSD attitude reference in unusual attitude recovery, and then a warning in our OIP that the HMS line of sight must be aligned with the longitude aircraft axis when conducting a UA recovery, which is not actually different to the method of conducting a UA recovery anyway.

25 LTCOL HEALEY: Thank you, sir. And just attaching to something that you mentioned, so it's an aid?

BRIG FENWICK: Yes.

LTCOL HEALEY: And are pilots trained to look at primary displays?

30 BRIG FENWICK: Yes.

AVM HARLAND: I'm just trying to reconcile that in my own mind. So what I understand you're saying there is that the TopOwl version 5.10 HMSD is not a Primary Flight Display.

35 BRIG FENWICK: Yes.

40 AVM HARLAND: And therefore should not be used for setting attitude on the aircraft.

BRIG FENWICK: Yes.

45 AVM HARLAND: But in your guidance in terms of gap training, it directs that:

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When making attitude changes using the HMSD as an attitude setting reference –

that's subpara (b) –

5

and incorporation of LOS alignment forward for HMSD attitude reference in unusual attitude recovery, with a warning that HMS/S line of sight must be aligned with longitudinal aircraft axis when conducting a UA recovery.

10

I guess I kind of read that to say that you are using it as a Primary Flight Display.

15

BRIG FENWICK: No, that's not the intention, sir. The intention is that it is an aid, and therefore you can – so if you are looking outside and a part of your UA recovery – because this is an aid to visual flight, not an aid to instrument flight, you would be looking outside and looking for a horizon, and so on. So you might set wings level using it, and what you can see outside. It's an aid in visual flight.

20

AVM HARLAND: But that's not what para (b) says. It says:

When making attitude changes using HMSD as an attitude setting reference.

25

It doesn't talk about a visual horizon outside.

BRIG FENWICK: Okay, sir.

30

AVM HARLAND: I guess I'm just trying to understand what the limitations were because we've gone through this conversation about the HMSD being used as an aid, but not as a Primary Flight Display, and that Primary Flight Displays should be used as the primary reference for attitude in the aircraft, and other things.

35

BRIG FENWICK: Yes.

40

AVM HARLAND: So in that sense, if you're setting an attitude Reference, should you not be using the Primary Flight Display and not the HMSD?

BRIG FENWICK: Yes.

45

AVM HARLAND: That's not clear in my mind. I would be confused if I was reading that, and trying to understand how I could employ the

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aircraft. Perhaps a follow-on question. Where in the Flight Manual or the Standards Manual does it say that the TopOwl attitude reference is a primary flight aid but is not a Primary Flight Display, therefore cannot be used to set attitude?

5

BRIG FENWICK: I don't think it does for the attitude reference, necessarily. I am fairly sure, from my recollection, that it does refer though to the HMSD overall as an aid to flight, not a Primary Flight Display. That's my recollection from my last read of the STANMAN.

10

AVM HARLAND: So how would the aircrew who fly the MRH-90 get an understanding that they're not really supposed to use the attitude reference on the HMSD to set the attitude of the aircraft?

15

BRIG FENWICK: Because it's an aid. It's an aid to visual flight, not an instrument flight, Primary Flight Display. So the STANMAN, if I recollect correctly, says the HMSD is an aid to visual flight. And I'm fairly confident that, particularly for instrument flight, it would say, "Use Primary Flight Displays". I would need to check the STANMAN itself, sir, but that is my recollection of the way it presents.

20

AVM HARLAND: And in para (c) you talk about:

25

The HMS/S line of sight must be aligned with the longitudinal axis when conducting UA recovery - - -

BRIG FENWICK: Yes, to avoid - - -

30

AVM HARLAND:

- - - for HMSD attitude reference in unusual attitude recovery.

So that's saying use the HMSD reference in - - -

35

BRIG FENWICK: No, I don't think it is, sir. I think what it's saying is make sure you're aligned with the axis of the aircraft, and as you're conducting a - because you are trying to avoid the potential for any erroneous information. So if you align yourself with the axis of the aircraft, conduct your UA recovery, then you are not going to be presented with anything that's unusual.

40

It's not asking you to set the attitude using it, but it is saying if you were looking straight ahead, as you would normally do a UA recovery, you will not be presented with any information that is not consistent with where you're at.

45

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AVM HARLAND: Yes, I guess I remain confused.

5 BRIG FENWICK: So if I take away the day case and I look at the night case - - -

10 AVM HARLAND: The case where there is no visual horizon, that pretty well says to me that I can use the HMSD to set my attitude for the UA recovery. And we've heard from human factors experts that one of the key antidotes to spatial disorientation is to revert to the clocks, or revert to instruments, a Primary Flight Display - - -

BRIG FENWICK: Yes.

15 AVM HARLAND: - - - to break yourself out of that spatial disorientation, or an illusory effect. And that's what I read there. So I'm just reading the words and I'm confused. I think that there may well be some nuance behind that, that if I'm reading it, it sort of says I can do it.

20 BRIG FENWICK: Okay, sir. So it's not the intention that the HMSD is used as a Primary Flight Display, it is a flying aid.

25 AVM HARLAND: Was that written in the Flight Manual or the Standards Manual?

30 BRIG FENWICK: I'm pretty confident it's in the Standards Manual. I would need to check because I wouldn't want to be held to that if it was not there, but it is my recollection – so every aircraft I have flown with a Head-Up Display, it is a flight aid, it is not a Primary Flight Display. And, indeed, in the testing that we conducted, it was not held to the same standards as Primary Flight Displays, which have to be very accurate because of the nature of the way that they're used. So it would be inconsistent with the rest of our history of flying and performance to switch to having a Head-Up Display that was now a Primary Flight Display. It has never been the case.

35 AVM HARLAND: Okay. We'll continue on. Thanks.

40 LTCOL HEALEY: Thank you, sir. You make reference at paragraph 80 in your statement at page 15 that the OPEVAL report said there was no loss of situational awareness. Correct?

45 BRIG FENWICK: I'm sorry, we're now referring specifically to during the OPEVAL, aren't we?

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LTCOL HEALEY: Yes.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: So paragraph 80.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: So back on the OPEVAL.

BRIG FENWICK: Yes.

LTCOL HEALEY: Unusual attitude or confusion on aircraft attitude encountered during testing.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: And notwithstanding stated deficiencies, the HMSD 5.10 symbology was assessed as compliant.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: With critical operational issues when compared to 4.0, and was satisfactory. Correct?

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And you also understood the OPEVAL report – that the LOS conformal attitude – LOS?

30 BRIG FENWICK: Line of sight.

LTCOL HEALEY: Conformal attitude presentation of the pitch scale was undesirable, but compliant with the original design specifications of 5.10. Correct?

35 BRIG FENWICK: Yes.

LTCOL HEALEY: You have in brackets there:

40 *(Thus, it was suitable for technical aspects of Service Release by MTCH and amendment to aircraft configuration).*

Correct?

45

BRIG FENWICK: Yes.

LTCOL HEALEY: And “MTCH” again?

5 BRIG FENWICK: Military Type Certificate Holder.

10 LTCOL HEALEY: Thank you. The bottom of the page there, at 81, you stated that overall when considered along with other data, this report appeared to you to conclude that the 5.10 version of HMSD TopOwl was safer than 4.0 in more situations and in more environments.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: Why do you say that, sir?

BRIG FENWICK: So the other data to which I’m referring is the collection of information presented, both through the AATES December ‘18 Special Operations Approach, the June ‘19 AATES report, and then this OPEVAL – or, sorry, and also the AMAFTU testing. I had quite a bit of information to go through and reconcile, and I concluded that it was safer to move with 5.10 than to stick with 4.0.

25 LTCOL HEALEY: Thank you, sir. I’m just going to move to another topic. So the top of page 16 of your statement, you’ll see that it’s underlined, the “AATES response to the Aviation Branch, HMSD 5.10 OPEVAL dated 16 March 2020”.

BRIG FENWICK: Yes.

30 LTCOL HEALEY: If I can get you to turn to Annex 18? It’s attached to your statement?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: There is an important chronology here, isn’t there, in terms of the events that led up to your Decision Brief? Correct?

BRIG FENWICK: Yes, this is an important additional piece of information that I had to incorporate in my decision.

40 LTCOL HEALEY: So you received the OPEVAL response on 16 March 2020. Correct?

45 BRIG FENWICK: Yes.

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LTCOL HEALEY: And then a Decision Brief on 20 March 2020, some four days later. Correct?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: And you can see there in Annex 18 that you've been "for information" on that particular document at the top of the page. Correct?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And that document, if you turn to page 3, is signed by LTCOL Reinhardt. Correct?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: That was on 16 March 2020.

BRIG FENWICK: Yes.

20

LTCOL HEALEY: You state it wasn't a surprise.

BRIG FENWICK: No.

25 LTCOL HEALEY: Why is that?

BRIG FENWICK: Because my team, specifically COL Lynch and others, were in constant communication with COL Reinhardt and the rest of the team, and with me. This was an encouraged formalisation of the AATES' viewpoint because the OPEVAL was conducted under the auspices of AATES. I had expected that AATES might provide a view of the outcome of the OPEVAL in that OPEVAL report. It's not inconsistent, or inconceivable, that they did not. It was not abnormal, but I had thought that they would. And so then when I knew that they remained concerned, I encouraged them to write formally.

30

35

LTCOL HEALEY: Thank you. You will see at that very first page of that Minute there's quite a number of different people "for information" that are listed there, or different organisations. Correct?

40

BRIG FENWICK: Yes.

LTCOL HEALEY: So it seems that that Minute was widely spread.

45 BRIG FENWICK: Yes.

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AVM HARLAND: If I'm to go to the OPEVAL report, which is JRF 16? Noting your expectation that perhaps AATES would have been involved, we've heard evidence that they weren't involved in the production of the report. So AAvnTC was an addressee there.

BRIG FENWICK: Sorry, at the very start? Yes.

AVM HARLAND: On the front. So the AAvnTC SO1 T&E, is that the Head of AATES?

BRIG FENWICK: Yes.

AVM HARLAND: So they were an addressee on the report.

BRIG FENWICK: Yes, sir.

AVM HARLAND: But we understand they weren't actually involved in the production of the report. Was that briefed to you when you were presented this?

BRIG FENWICK: At the time it was presented to me?

AVM HARLAND: Yes, that they - - -

BRIG FENWICK: It was apparent, sir.

AVM HARLAND: That they weren't involved in the report production?

BRIG FENWICK: So I don't know what discussion happened in the preparation of the report, but it's clear that there was no AATES' position here, and it was signed by COL Langley, as opposed to COL Reinhardt, representing the Flight Test Organisation.

AVM HARLAND: Or COL Norton, who was the Director.

BRIG FENWICK: Sorry, Colonel who?

AVM HARLAND: COL Norton was the Director. LTCOL Norton, I understand was the Director for this flight test.

BRIG FENWICK: Yes, sure. Yes, they could have been, but LTCOL Norton was not in AATES either. So I guess it was the AATES' view fully represented in here. And I think it's clear from LTCOL Reinhardt deciding to write a separate Minute that it wasn't.

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AVM HARLAND: Okay. Thanks.

LTCOL HEALEY: Thank you, sir.

5

Just building on that, so you're looking at paragraph 83 of your statement. This response stated that AATES agreed with the distance to go assessment of enhancing.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: That the symbology brightness is unsatisfactory.

BRIG FENWICK: Yes.

15

LTCOL HEALEY: And the symbology DCL mode is undesirable.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And:

The response, however, stated that AATES had not changed –

sorry, I'll just repeat that.

25

The response, however, stated that AATES had not changed its assessment of the HMSD 5.10 as the main risk was that in low visibility, low cue, no horizon environments of high workload, the flying pilot will be unable to ignore erroneous information directly in front of them.

30

Correct?

BRIG FENWICK: Yes.

35

LTCOL HEALEY: And he could become disoriented, leading to an impact with the ground, loss of aircraft, and multiple casualties. Correct?

BRIG FENWICK: Yes.

40

LTCOL HEALEY: And you state that you found the response by AATES difficult to follow.

BRIG FENWICK: Yes.

45

LTCOL HEALEY: And speculative.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And why is that?

BRIG FENWICK: So it presented with the “unacceptable” finding and they didn’t change their view on that, which I accept, and the reasons for doing that. So not going backwards and changing. I still did not feel like it was providing me a risk assessment, which I thought it might do, but by the same token, it was also providing me with the go-ahead. Look, in truth, LTCOL Reinhardt gave me a position, but he also gave me a way to move forward. He gave me a way to move forward on Service Release, and he gave me a way to move forward on the risk controls to be incorporated.

15 LTCOL HEALEY: Looking at Annex 18 on page 3 of that Minute. Is that where you state that he gave you a way forward?

BRIG FENWICK: Sorry, bear with me.

20 LTCOL HEALEY: It’s paragraph 6, page 3 of the response, the Minute from Reinhardt.

BRIG FENWICK: Yes. Yes, that’s right.

25 LTCOL HEALEY: COL Reinhardt, I should say. Did paragraph 6 give you an understanding that that gave you a bit of a go-ahead? Is that correct?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: Provided that you abided by some of the mitigations. Correct?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: You state further, going back to your statement at paragraph 83, that:

40 *The AATES testing of June 2019 had not been flown in low visibility environments, such that the comments were being made from a testing observation and the following on testing in the OPEVAL did not support such an assertion.*

BRIG FENWICK: Yes.

45

LTCOL HEALEY: You state that:

It also seemed incongruent that AATES would not recommend gap training as a risk mitigator if there were perceived issues.

5

BRIG FENWICK: Yes.

LTCOL HEALEY: What are you saying there, sir?

10 BRIG FENWICK: So what I didn't have – notwithstanding that in the original June '19 AATES report with the "unacceptable" finding it said that gap training was not necessary with dual instruction, but it also said provided that the anomaly was overcome. So we then further characterised the risk around that presentation and, as I've said, in my view, the risk
15 wasn't presenting in the same way that AATES had speculated that it would, or extrapolated that it would, and so I still thought it was odd that there wasn't an articulation from AATES of the gap training required, but it was in the OPEVAL.

20 LTCOL HEALEY: And you understood, didn't you, that from an AATES' contention, pilots less capable than MAJ Wilson would not have the skill or awareness to avoid disorientation in such an environment?

BRIG FENWICK: Yes.
25

LTCOL HEALEY: In contrast to that assertion, you state:

*The OPEVAL testing done with pilots of at least equivalent experience to MAJ Wilson, as well as pilots with less total flying time, but with more operational flying experience, did not feel
30 susceptible to this vulnerability as posited by AATES.*

BRIG FENWICK: Yes. And I commend AATES for, at the time, utilising what they felt they could do with the testing they'd conducted in
35 June '19, and tried to extrapolate out for future events, or different environments. By giving us that, we then tested it with those other people, and in the other environments, and what they had suggested might occur did not appear to be occurring.

40 LTCOL HEALEY: So at paragraph 84 you now had these three reports that had tested 5.10 upgraded symbology.

BRIG FENWICK: Yes.

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LTCOL HEALEY: And that was the AMAFTU, the AATES flight test of June 2019, and the AATES OPEVAL of November '19?

BRIG FENWICK: Yes.

5

LTCOL HEALEY: And you state that between the AMAFTU testing and the OPEVAL, 5.10 had been tested at night.

BRIG FENWICK: Yes.

10

LTCOL HEALEY: In a maritime environment, and low cue environments. Correct?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: And you then were satisfied that it could be approved into service with appropriate warnings and mitigation through training. Correct?

20

BRIG FENWICK: Yes.

AVM HARLAND: Was formation conducted as part of the OPEVAL?

BRIG FENWICK: No, sir.

25

AVM HARLAND: So was there a limitation on formation flying in the Service Release?

30

BRIG FENWICK: No. No, so the original June '19 report focussed on those low cue environments and so on, and it said that we suspect spatial disorientation in those environments. And that would be consistent with a single aircraft operating in those environments potentially needing to look out to 90 degrees to maintain orientation and so on. Because the OPEVAL was progressing the limitations perceived by the June '19 report, it wasn't in formation that it was felt this would present. These were typically characteristics of an aircraft on its own becoming susceptible – sorry, not the aircraft, but the pilots becoming susceptible to the visual illusions and losing orientation, and needing to use their display, or incorporated as part of an aid for orientation, which again is part of what the off-axis problem would be.

40

In formation, you are principally looking very much sort of within your forward field of view anyway, focussed on the aircraft in front of you. So it is not an environment that I would have considered this form of disorientation would present.

45

AVM HARLAND: Just a combination of aircraft lighting, the overlay of the symbology, that wasn't a consideration for tests in terms of releasing this in an unrestricted way?

5

BRIG FENWICK: I was not seeing anything in the reports that gave me that indication that would be a problem.

AVM HARLAND: Okay. Thank you.

10

LTCOL HEALEY: Thank you, sir. Just moving on, in paragraph 84 you state it was not just acceptable, but represented an improvement in capability and safety. Is that right?

BRIG FENWICK: Yes.

15

LTCOL HEALEY: And you say:

20

The AATES response to the OPEVAL confirmed that any residual risk could be mitigated at some level.

And you refer to SFARP.

25

BRIG FENWICK: Yes.

LTCOL HEALEY:

30

By training categorisation, OIP, and/or restrictions on operations in low visibility, low cue, no horizon environments.

Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: Now, there's a subheading there, "Decision Brief", for yourself on the HMSD 5.10 dated 20 March 2020.

35

BRIG FENWICK: Yes.

LTCOL HEALEY: Now, that Decision Brief, as alluded to earlier, came four days after the response from AATES in relation to the OPEVAL report. Correct?

40

BRIG FENWICK: Yes.

45

OFFICIAL

LTCOL HEALEY: So if you've got any doubt, sir, just look at the top of paragraph 82. You'll see boldly underlined that it says "16 March".

BRIG FENWICK: Yes.

5

LTCOL HEALEY: Correct?

BRIG FENWICK: Yes.

10

LTCOL HEALEY: So moving back to paragraph 85, you state that there has been some consternation and issue made with the two Decision Briefs that you had made.

BRIG FENWICK: Yes.

15

LTCOL HEALEY: That were signed by you, I beg your pardon.

BRIG FENWICK: Yes.

20

LTCOL HEALEY: And the first of those Decision Briefs followed the response to the OPEVAL report, as alluded to earlier.

BRIG FENWICK: Yes.

25

LTCOL HEALEY: And you do have that annexed to your statement at 19.

BRIG FENWICK: Yes.

30

LTCOL HEALEY: It has been referenced elsewhere in the Inquiry, but essentially that Decision Brief dated 20 March 2020, some four days after the AATES response to the OPEVAL sought your recommendations to the MTCH for introduction into service of the HMSD 5.10. Correct?

35

BRIG FENWICK: Yes.

LTCOL HEALEY: You note it was drafted by COL Hamlyn. Correct?

BRIG FENWICK: Yes.

40

LTCOL HEALEY: And cleared by COL Connolly.

BRIG FENWICK: Yes.

45

LTCOL HEALEY: And it was comprehensively consulted, you state.

BRIG FENWICK: Yes.

5 LTCOL HEALEY: And lists the following members as being consulted over the page, page 17, as COL Lynch.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: LTCOL Reinhardt.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And LTCOL Reinhardt was AATES at the time; is that correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: COL Norton.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: Sorry, LTCOL Norton. LTCOL Satrapa.

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And is that CMDR Baxter?

BRIG FENWICK: Yes, it is.

30 LTCOL HEALEY: Where was CMDR Baxter?

BRIG FENWICK: He was consulted on behalf of the Fleet Air Arm, so Navy.

35 LTCOL HEALEY: You state there, at paragraph 87, moving back to your statement, that noting that the Decision Brief was given to you for approval some four days after AATES had provided their response, and that LTCOL Reinhardt was one of those members listed as being consulted in the Decision Brief.

40 BRIG FENWICK: Yes.

45 LTCOL HEALEY: You were satisfied there was no further objections from AATES; is that correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: And that's on the release of the upgraded
symbolology.

5

BRIG FENWICK: Yes.

LTCOL HEALEY: You further state that the AATES response to the
OPEVAL and this Decision Brief left you satisfied that any concerns with
the off-axis horizon information could be mitigated. Is that right?

10

BRIG FENWICK: Yes.

LTCOL HEALEY: Through suitable control measures in training and
OIP.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: So you subsequently, in your delegation from the
MAO Accountable Manager, provided a recommendation to the MTCH,
which you said yesterday was the engineer. Correct?

20

BRIG FENWICK: Yes. So the Military Type Certificate Holder is the
SPO, the Systems Program Office, and the Chief Engineer acting on behalf
of the organisation.

25

LTCOL HEALEY: Thank you. And that was to provide
recommendation to the MTCH to approve Service Release on the basis of
controls, and controls you would implement for Army and operational
use. Correct?

30

BRIG FENWICK: Yes.

LTCOL HEALEY: You state that COMFAA would approve operational
use in Navy.

35

BRIG FENWICK: Yes.

LTCOL HEALEY: Thank you.

40

AVM HARLAND: Did you speak to LTCOL Reinhardt about this?
Given the kind of gravity of the decision you were making, did you engage
with him, and just confirm that your – because what you've described there,
you've gone through a reasonable decision process, and set your
expectations. Did you speak to LTCOL Reinhardt?

45

BRIG FENWICK: So I don't have a record of it, but my recollection is, yes, and as I've stated before, I knew LTCOL Reinhardt pretty well, and I think we had an open exchange of understanding.

5

AVM HARLAND: Okay. Thanks.

LTCOL HEALEY: Thank you, sir. Just moving to the second Decision Brief, and that's at the top of paragraph 88, and that is Annex 20 to your statement. You state there that the second of the Decision Briefs was sent to you by COL Lynch on 20 April. Correct?

10

BRIG FENWICK: Yes.

LTCOL HEALEY: 2020.

15

BRIG FENWICK: Yes.

LTCOL HEALEY: And it was very difficult for the Inquiry, from my recollection, to read the actual date that you'd signed it. In fact, I had to take a photo, I think, to expand it.

20

BRIG FENWICK: Yes.

LTCOL HEALEY: But I believe it was 21 April. Correct?

25

BRIG FENWICK: Yes, it was. Sorry, the 20th, I think. And now we're going to be in the same dilemma we had before, but it's the 20th, I'm pretty confident.

30

LTCOL HEALEY: Okay, sir. And that was for the recommendation for the Head-Up Display 5.10 for use in Taipan. Correct?

BRIG FENWICK: Yes. Sorry, it does look like it's the – so I've written in my statement the 21st. I'm sure I would have checked that, notwithstanding I can't see it there, but sent to me on the 20th by COL Lynch, and me signed on the 21st, if it – it's all within a day or so.

35

LTCOL HEALEY: I'm reasonably certain the Inquiry read it as 21 April with some close scrutiny.

40

BRIG FENWICK: Yes, my apologies.

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LTCOL HEALEY: Then you talk about distinction to be drawn between this Decision Brief of 21 April 2020 and the Decision Brief of 20 March 2020.

5 BRIG FENWICK: Yes.

LTCOL HEALEY: Can you just tell the Inquiry what that distinction is, looking at paragraph 89?

10 BRIG FENWICK: Yes. So the purpose of the March brief is to make the MTCH suitably informed, such that the CCB and the other - - -

MS McMURDO: Could you not use the acronyms, please?

15 BRIG FENWICK: I'm sorry, ma'am. Yes.

MS McMURDO: Thank you.

20 BRIG FENWICK: So that the Military Type Certificate Holder and the Configuration Control Board, who are the authorities for proceeding with Service Release, had the information they needed for their checklist to be able to incorporate the change. The purpose of the second brief was effectively to confirm the controls and risk assessment, and it was the authority for the change of OIP and other controls within the Army
25 operational environment so that we could proceed.

LTCOL HEALEY: Thank you, sir. So they were clearly two distinct Decision Brief events.

30 BRIG FENWICK: They served two different purposes, yes.

LTCOL HEALEY: And the Army MAO Accountable Manager – sorry, I don't like using acronyms, but MAO again?

35 BRIG FENWICK: Military Air Operator.

LTCOL HEALEY: Was subsequently notified of this decision, including discussion at the Plan Palisade Steering Group in June 2020.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: Noting that's a "Protected" document, and these were further accepted and implemented in Navy by COMFAA.

45 BRIG FENWICK: Yes, by the Commander of the Fleet Air Arm.

LTCOL HEALEY: Under his own authority, and the Accountable Manager for Navy.

5 BRIG FENWICK: Yes. So the point I'm making there is the Configuration Control Board and the Military Type Certificate Holder changed the configuration of the aircraft being used in both Army and Navy through the single authority, but operation within the Navy came under the operational authority of the Accountable Manager for Navy, and within
10 Army it came under the authority of the Accountable Manager for Army.

LTCOL HEALEY: So did you have an established chain of communications with COMFAA in your role?

15 BRIG FENWICK: We regularly communicated.

LTCOL HEALEY: Thank you, sir. At paragraph 90 you state that one element that occurred in the time between the two briefs being signed by you was the confirmation of the controls to achieve mitigation of risks, so
20 far as reasonably practicable. Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: And specifically with the request to use the
25 go-around feature.

BRIG FENWICK: Yes.

LTCOL HEALEY: You state it was considered this would be
30 advantageous use of this feature.

BRIG FENWICK: Yes, when first considered.

LTCOL HEALEY: Of the AFCS. What does that stand for?
35

BRIG FENWICK: The Aircraft Flight Control System.

LTCOL HEALEY: And to assist the pilot should he or her find themselves disoriented.
40

BRIG FENWICK: Yes.

LTCOL HEALEY: But you state that that was subsequently removed.
45 Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: Why was that?

5 BRIG FENWICK: On further examination of the implications of that control, we determined that we didn't know enough about how that function operated to properly use it as a control, and therefore we were not confident that if we were to use it, that we were still at SFARP.

10 LTCOL HEALEY: Thank you, sir. You state there that the first – and I think we've mentioned this – but the first brief refers to the AATES position on the issue.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And the second incorporates into it the risk assessment and set of controls.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: For effect through training and OIP, which is the – “OIP” again?

BRIG FENWICK: Orders, Instructions and Procedures.

25 LTCOL HEALEY: It will stay in my brain at some point, but I'm apologising, it's not at the moment.

BRIG FENWICK: That's okay.

30 LTCOL HEALEY: And you consider that this risk was being treated, so far as reasonably practical, without this control.

BRIG FENWICK: Yes, I did.

35 LTCOL HEALEY: Across the page, at page 18 of 23 of your statement, looking at paragraph 91, you state that some concern has been raised about the time between these briefs being signed.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: And that while you cannot account for time used in the period, there are some contributing factors there from (a) through to (d).

45 BRIG FENWICK: Yes.

LTCOL HEALEY: Do you just want to briefly summarise those particular factors?

5 BRIG FENWICK: It was at the point at which we identified that we could, and should, move forward on 5.10. I wanted to initiate as quickly as possible the process inside the Program Office, and so that brief was produced for me as the priority among the briefs because the operational piece could be done later. Once that was done, there was no rush for the
10 second brief, and there were other higher priority tasks for the same staff.

So at the same time that same staff were raising an investigation authority for the Orroral Valley fire, as well as some other activity for other pieces of equipment in the Special Operations capability, and notwithstanding that in
15 that very same period we moved quickly to COVID lockdown procedures for the first time, and so there was a significant amount of disruption involved in that.

My operational airworthiness staff were physically located in many
20 locations, and then it became an issue of trying to sequence where the work could occur, and how it could occur, given stay at home orders and the like.

LTCOL HEALEY: You state at paragraph (d) there that this started to occur from 24 March, the restrictions in movement.
25

BRIG FENWICK: Yes.

LTCOL HEALEY: What year was that?

30 BRIG FENWICK: That was 2020.

LTCOL HEALEY: Thank you, sir. Then at 92 you state – in your statement at paragraph 92, the Decision Brief was a more thorough document, focussed on your authority.
35

BRIG FENWICK: Yes.

LTCOL HEALEY: To implement training controls for operational use. Correct?
40

BRIG FENWICK: Yes. So not just my authority for the Accountable Manager, I had an authority and a requirement to provide the advice to the Military Type Certificate Holder, but this was focussed on the training and controls part of my authority.
45

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LTCOL HEALEY: Thank you, sir. Then you go on to talk about Aviation Standards, placing a training familiarisation package into ADELE.

5 BRIG FENWICK: Yes. ADELE being a Defence online training system.

LTCOL HEALEY: Thank you, sir. And the gap training in the aircraft itself, it would occur. Correct?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: Despite AATES concluding in their initial tests that no gap training was required.

15 BRIG FENWICK: Yes.

LTCOL HEALEY: Utilising dual instruction.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And you reference Annex 22 of your statement.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: Do you want to go to that for me, please?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And again, noting the sensitivities of that document, but it's titled, "Aviation Capability Training Implementation Plan". Correct?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: And that's on the front page, and HMSD version 5.1.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: This is version 1.0. Correct?

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And the approving authority was COL Andrew Thomas.

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5 BRIG FENWICK: Yes. So he was the Director of the Systems Program Office. So because this was still part of the project, the Training Implementation Plan was – sorry, project delivery – the Project Implementation Plan was issued under his authority as part of the MRH Project.

LTCOL HEALEY: Thank you, sir. Turning the page, it's roughly page 3.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: There's no page numbers, but you'll see that there's endorsements and approvals.

15 BRIG FENWICK: Sorry, bear with me. One, two, three.

LTCOL HEALEY: Yes, "Document Endorsements and Approvals". It's in big, black, bold writing.

20 BRIG FENWICK: Well, it should be easy to find then, shouldn't it?

LTCOL HEALEY: Just checking you're on Annex 22.

25 BRIG FENWICK: Yes, the Training Implementation Plan.

LTCOL HEALEY: Yes.

BRIG FENWICK: I'm sorry. Yes, got it.

30 LTCOL HEALEY: You'll see that there's some endorsements there of this particular document.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: The first one is an appointment – sorry, the second one down, it's been endorsed by SO1 Training Branch Aviation.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And that's LTCOL Timothy Baker.

BRIG FENWICK: Yes.

45 LTCOL HEALEY: And Commandant Aviation TC. What's that?

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BRIG FENWICK: The Army Aviation Training Centre, and the Commandant is also the Training Authority.

LTCOL HEALEY: And that was COL Barton.

5

BRIG FENWICK: Yes.

LTCOL HEALEY: And Director Aviation Capability Management, COL Connolly.

10

BRIG FENWICK: Yes.

LTCOL HEALEY: So is that the appropriate spread in terms of endorsements, in terms of this training package?

15

BRIG FENWICK: I feel like it encapsulated everyone who had a view.

LTCOL HEALEY: Thank you, sir. In terms of looking at that document, if you turn the page, is there anything – noting that it's an "Official" document, is there anything in there that you'd like to raise to the Inquiry about what was going on generally in relation to the training?

20

BRIG FENWICK: Yes, so the key thing here, I think, is that it illustrates, particularly under Part 2, the introduction into service, that's IIS, gap and sustainment training, goes into some detail and with reference to dates on which things would occur, but also the requirement to track it in PEX. So in paragraph 16 there is a reference – pilots – sorry, I realised I've started reading, but there is a reference there to PEX, which is short for Patriot Excalibur, and it is the tracking mechanism for training and qualifications for our pilots – sorry, aircrew. And, importantly, this was being very closely tracked to make sure that we did not have people operating on two systems of software.

25

30

LTCOL HEALEY: Just on PEX, would you have to be – would that show qualification in PEX?

35

BRIG FENWICK: Yes, it would show, and it would show your progress towards that qualification. So it would have a method for recording that you'd done the online gap training, that you'd done any other training that was required, and you would not be able to be authorised to fly unless you'd done it. And, importantly, it would also – if there were any changes to Orders, Instructions and Procedures that were not yet formally in place, for example, in the Standards Manual, you would have to clear on PEX that you had read the appropriate amendment, such that you could progress flying.

40

45

LTCOL HEALEY: So what you're essentially saying in summary is if you hadn't progressed under PEX, you couldn't fly.

5 BRIG FENWICK: Correct.

LTCOL HEALEY: Using the HMSD 5.1.

10 BRIG FENWICK: That's right.

LTCOL HEALEY: Is there anything else in that document, sir, that you'd like to raise to the Inquiry?

15 BRIG FENWICK: No.

LTCOL HEALEY: Thank you. I will raise one more thing in that document at paragraph 21. What is that saying there about sustainment training?

20 BRIG FENWICK: So I'm having to remember what that would be referring to because I don't recall offhand. Bear with me.

LTCOL HEALEY: That's okay. If you don't know, that's fine, sir.

25 BRIG FENWICK: I think what this is referring to, in the introduction into service we allocated priority for particular things. So some of the – and again, it was a little bit about where the money was coming from in the project. So there was some project money being used to implement, and the priority for that was into 6 Aviation Regiment, but then there would've
30 been sustainment training of existing crews in the rest of Army Aviation in that period, quarter three. So it was follow-on activity, and you'll see in the schedule in paragraph 24 reference to the organisations and the priorities afforded to that schedule.

35 LTCOL HEALEY: Thank you, sir. Just moving to paragraph 93 of your statement in terms of how controls were deployed – developed, I beg your pardon. There has been a suggestion that all the controls which were applied to the testing should have been automatically transferred to the operational risk treatments.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: What do you say to the Inquiry about that particular suggestion?

45

BRIG FENWICK: Yes. So it is true, and I accept, that there were many controls put upon the OPEVAL, but that is – and, indeed, I am familiar with an articulation that it's the most controls that some pilots have seen. I think that's pretty consistent with the nature of the activity. For example, in the
5 June '19 AATES activity with only one or two pilots who were test pilots presenting, you just would not need as many controls to conduct that testing. When we then look at the expanse and range of pilots who were going through the OPEVAL, you have to account for the experience and frame of reference of each of those pilots in developing the risk controls.

10 And, of course, it's also designed such that the activity can be safely conducted by people who have not yet been trained on the equipment. However, once a gap training system has been initiated that implements the controls, then it's not necessary to transfer every control that was in the test
15 over to full operational capability.

LTCOL HEALEY: Thank you, sir. Sorry, just give me a moment because you've mentioned quite a fair bit of what you've mentioned in paragraph 93. You mentioned CRE. Can you just tell the Inquiry what
20 CRE is again?

BRIG FENWICK: Yes, I always struggle to remember this, but it's the configuration, role and environment, I think I recall, and it is the bounds around which a certification basis is established for an aircraft. And so it is
25 then – the CRE, the certification basis, as long as the aircraft is operated within that, we are authorised to do that as the Army. When you are going to do something which steps outside that, then that's the time at which you need a Military Permit to Fly to allow you to do that under the auspices of flight test or other schemas, but also under the authority then of the Defence
30 Aviation Safety Authority who issues the Certificate of Flight.

LTCOL HEALEY: Thank you, sir. And that's a really good segue into the next subparagraph at the top of page 19 of your statement, where you talk about the NTC, or the certificate holder approval for Technical Release.
35

BRIG FENWICK: Yes.

LTCOL HEALEY: So there needs to be some – is it right that there should be some separation from Service Release as opposed to Technical Release?
40

BRIG FENWICK: It's the technical aspects of Service Release. Yes. So Service Release in that context is about changing the configuration of the aircraft.

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LTCOL HEALEY: Is it fair to say that that's the last step of the process in terms of 5.10 coming into effective operational use?

5 BRIG FENWICK: Yes, it is. Yes, it's the last step in the technical aspects of changing the configuration of the aircraft. You would then need to conduct the gap training in other aspects of the operational release to do that.

10 LTCOL HEALEY: So the final approval for Technical Release would be the decision of the – again, it's the Control Board. Is that right?

BRIG FENWICK: Yes, the Configuration Control Board and the Military Type Certificate Holder.

15 LTCOL HEALEY: You state that LTCOL Marshall did that on - he was the certificate holder. That's the Chief Engineer. Is that correct?

BRIG FENWICK: That's my understanding.

20 LTCOL HEALEY: On behalf of that acronym, AASPO. What does that stand for?

BRIG FENWICK: The Army Aviation Systems Program Office.

25 LTCOL HEALEY: And this is a separate accountability to approve changes to the configuration of MRH-90 itself. Correct?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And not a decision you can make.

BRIG FENWICK: No.

35 LTCOL HEALEY: At paragraph 95 you state it's worth noting the distinction between technical and operational approval.

BRIG FENWICK: Yes.

40 LTCOL HEALEY: Can you just briefly run the Inquiry through that, please?

45 BRIG FENWICK: This is principally the point that I've already made, which is the technical change to the aircraft occurs across the whole fleet, whether it be Army and Navy, consistently on the authority of the Configuration Control Board and the Military Type Certificate Holder, but

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then for the operational use, Army and Navy may have different methods of operating, and therefore it's under a separate authority that operational airworthiness is conducted.

5 LTCOL HEALEY: So you state that COMFAA issued an approval to operate 5.10, just as you did.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: And you state later in that paragraph that Navy were keen to introduce and implement the use of 5.10 in the Navy fleet of aircraft.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And that was prior to the completion of the OPEVAL.

BRIG FENWICK: Yes, they had stated a position that they wanted it prior to our completion of it.

20 LTCOL HEALEY: And you state that they were confident of its benefits over 4.0.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: But Army chose to further categorise the risk before agreeing implementation across the fleet.

BRIG FENWICK: Certainly to characterise it, yes.

30 LTCOL HEALEY: And that was for final Technical Release by the certificate holder. Correct?

BRIG FENWICK: Yes.

35 LTCOL HEALEY: Just moving to paragraph 96 – and we're starting to get to the conclusion of your statement – you talk about timeframes and perceived pressures.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: At paragraph 96 you state that you were confident that your view, and that of your staff, was to consider this problem properly and with appropriate attention.

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BRIG FENWICK: Yes.

LTCOL HEALEY: And that was to all aspects of the upgrade. Correct?

5 BRIG FENWICK: Yes.

LTCOL HEALEY: And simply not to do it urgently.

10 BRIG FENWICK: Yes.

LTCOL HEALEY: Are you saying there that you didn't feel constrained by any timing constraints?

15 BRIG FENWICK: I certainly had time pressures, but no, it was never the case that those time pressures impacted on safety and doing things properly.

LTCOL HEALEY: And that's because each of these issues under the management of the introduction of the MRH-90 into the Special Operations role were significant undertakings.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And they required significant diligence and attention.

25 BRIG FENWICK: Yes.

LTCOL HEALEY: And that's where you talk about due to the potential for risk.

30 BRIG FENWICK: Yes, and that risk, I would like to just expand upon that.

35 LTCOL HEALEY: Please, sir.

40 BRIG FENWICK: There were a lot of activities occurring during this time, as I've said already, and the MRH had proven to be a difficult aircraft to bring into service, requiring significant attention, and while adhering to procedures, sometimes a desire to circumvent procedures. For example, we could have tried to find a methodology to implement use of 5.10 under some other form of instrument rather than Service Release. But across the system I had a concern highlighted to me in a number of other areas, including Airworthiness Boards and the advice of staff, that the continual repeated behaviour potentially of doing things other than doing them right was

leading people to believe in a sense of normalised deviance, that that was a way to continue to behave.

5 So I was adamant that we would do these things right, even if it took time, even if it took additional time, and we would use the correct procedure, like Service Release, and it would be done properly.

LTCOL HEALEY: And you reference that in paragraph 97, don't you?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: In terms of the 5.10 upgrade, which you state was evidenced by the fact that it took – I'll repeat that – which is evidenced by the time it took for the work to be done, which was over nine months or
15 more. Is that correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: From the provision of the 2019 June AATES report
20 to a decision to implement into service. Correct?

BRIG FENWICK: Yes.

LTCOL HEALEY: With those risk mitigations and controls in place.
25

BRIG FENWICK: Yes.

LTCOL HEALEY: You state that there were some delays. Correct?

30 BRIG FENWICK: Yes, we were initially – on initial indications, we thought we would be able to bring this into use in about the June-October timeframe of 2019, and that was repeatedly moved back. And, in fact, I think at the time where I was signing the Decision Briefs in March '20, we then were aiming for an April Special Operations Qualification Course, and
35 I don't think we achieved that. I think we weren't – it wasn't fully implemented until much later that year.

LTCOL HEALEY: Is that what the SOQC is the acronym for?

40 BRIG FENWICK: Yes, it is.

LTCOL HEALEY: And, essentially, you state:

The introduction of the MRH-90 into 6 Aviation against the

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tension of the necessary time on the Black Hawk was delayed in order to make sure it was done as safely as possible.

- 5 BRIG FENWICK: Yes.
- LTCOL HEALEY: At paragraph 98 you refer to a Minute you wrote to COL Thomas.
- 10 BRIG FENWICK: Yes.
- LTCOL HEALEY: That was recommending the release of version 5.1.
- BRIG FENWICK: Yes, that's the March – it occurred in March, yes.
- 15 LTCOL HEALEY: And that was based, to your knowledge, at the Configuration Control Board?
- BRIG FENWICK: Yes.
- 20 LTCOL HEALEY: They considered it. Correct?
- BRIG FENWICK: Yes.
- LTCOL HEALEY: And DASA approved the change.
- 25 BRIG FENWICK: Yes.
- LTCOL HEALEY: And you were finalising the operational controls for operational use. Correct?
- 30 BRIG FENWICK: Yes.
- LTCOL HEALEY: Then you talk about a detailed sequence.
- 35 BRIG FENWICK: Yes.
- LTCOL HEALEY: And that sequence was?
- 40 BRIG FENWICK: Well, the sequencing was of the implementation of software in a measured way so that we didn't end up with fleets of multiple versions of software. It was detailed in the sense that again during this period we needed to move engineers and trainers, and a whole bunch of people around the country in order to achieve the timelines. That included, because of COVID, getting them to places two weeks ahead of time, so they
- 45 could quarantine and so on.

So it was a very, very involved process of trying to sequence everything, but also in a safe way so that training aligned with the arrival of software, software took place, it was tested, certified. It was detailed.

5

LTCOL HEALEY: Thanks, sir. And I think you've answered this basically, but there was some issue made of the determination to implement 5.10 on 24 April 2020 as a deadline?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And you note that's not the case?

15 BRIG FENWICK: Yes. I've referred to this. That became the goal. So once I'd made the decision in March to proceed – March and April to proceed. We set a goal of April because we had an upcoming SOQC – sorry, Special Operations Qualification Course. But again it – that was a goal – those goalposts moved again once it became unreasonable to expect it to occur.

20

LTCOL HEALEY: Thanks, sir. COVID restrictions being one of those?

BRIG FENWICK: Yes.

25 LTCOL HEALEY: Now, the second-last subheading was your understanding of the circumstances surrounding the crash of Bushman 83. Correct?

30 BRIG FENWICK: Yes.

30

LTCOL HEALEY: And at paragraph 100 you make some comments about the hearings at the Inquiry:

A number of people referred to DVE - - -

35

BRIG FENWICK: Yes.

LTCOL HEALEY:

40 *- - - and other language.*

I think you've covered that.

45 BRIG FENWICK: Yes, I think so.

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LTCOL HEALEY: And at paragraph 101:

It's been suggested that Bushman 83 was operating in a maritime environment.

5

BRIG FENWICK: Yes.

LTCOL HEALEY: Is there something you'd like to say about that?

10 BRIG FENWICK: Yes. I just wanted to be very specific about the language, because if it's not used consistently where it has meaning, then will people interpret it according to their frame of reference. So I'm not fully familiar with the circumstances in which Bushman 83 and the formation found itself. I'm not privy to that detail. But I have noticed that
15 at times, in trying to assist witnesses with understanding what it is, without giving them the full details, we are using terms like "maritime" and the like.

20 And I've attested here that I believe we tested in a maritime environment, but on the basis of things I've seen in public, I accept that Bushman 83 was overwater but not what I would call a maritime environment in the sense that it was devoid of other references other than the ocean for orientation. And that has meaning then if we are asking witnesses whether things are within the Standards Manual, whether they are within the
25 constraints of what we expect to do, or otherwise.

LTCOL HEALEY: And you don't know the circumstances in specifics?

30 BRIG FENWICK: I do not.

LTCOL HEALEY: Because you retired from the role in May 2021; is that correct?

35 BRIG FENWICK: Yes.

LTCOL HEALEY: And you state at paragraph 103 that COL Norton, in his statement, went to some lengths to explain the difference between low light and low cue environments.

40 BRIG FENWICK: Yes.

LTCOL HEALEY: And did you just want to quickly summarise what that is?

45 BRIG FENWICK: Yes. So he went to some length to explain the

5 difference between low light and low cue, which are not necessarily correlated in every instance. And while I accept that some of my statements here about my experience have created some amusement, it is my experience of what low cue can mean, and sometimes just what you have to use to orientate yourself and stay flying. And I'm grateful that we are not asking our pilots today to use the same level of equipment I was using in the mid-90s when I refer to that experience.

10 But it matters when we're asking people about what their experience is, because it affects their professional judgment and their ability to make professional judgments, and if we don't have a common frame of reference, then we are not adhering to that same judgment.

15 LTCOL HEALEY: Thanks, sir. And you state at paragraph 104 that you understand from open sources that this formation was flying in poor weather.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And you accept that to be true?

BRIG FENWICK: I do.

25 LTCOL HEALEY: But you say some other aspects, that conclusion should not be assumed.

30 BRIG FENWICK: Yes. So the key point here I think is there was a suggestion when another witness was questioned that maybe the formation was operating outside the constraints and considerations of the Standardisation Manual, or that this was in some form necessarily Special Operations activity. I would argue that – again, without knowing the full detail of the conditions – I would assume that because they were flying in formation at low level, they were at least in visual flight conditions, visual meteorological conditions, and therefore there are certain things that would be certainly within the confines of what the Standardisation Manual would consider normal.

40 LTCOL HEALEY: Thank you, sir. And you mention there that, the standard set of conditions, they were to which Glenn McCall referred to?

BRIG FENWICK: Yes.

LTCOL HEALEY: In the STANMAN?

45 BRIG FENWICK: Yes.

LTCOL HEALEY: And then you conclude under that subheading, “Conclusion”, that you remain confident that the use of the TopOwl 5.10 was appropriate released?

5

BRIG FENWICK: Yes.

LTCOL HEALEY: Sorry, I withdraw that. “Appropriately released”?

10 BRIG FENWICK: Yes.

LTCOL HEALEY: And you state that it’s as supported by the Comcare investigation?

15 BRIG FENWICK: Yes.

LTCOL HEALEY: And you’ve annexed that at 23 to your statement.

20 BRIG FENWICK: Yes.

LTCOL HEALEY: And can you tell the Inquiry – well, perhaps I’ll take you to that annex just quite quickly, noting the time. Is there specifics there where you say that that was supported by the Comcare investigation?

25 BRIG FENWICK: Yes, the majority of this report is looking at the use of FLIR for operational flying, but it also does make comment on the implementation of the HMSD, and I will just see if I can find the specific paragraph.

30 LTCOL HEALEY: Just while you’re doing that, sir – so I’ll just take the Inquiry to that. It’s called, “The Inspector Report”. And in the background it states that:

35 *On 3 December ‘21 Comcare received information alleging namely that the Army was operating TopOwl and Forward-Looking Infrared systems of MRH in a manner that is exposing workers and other persons to unnecessary WHS risks.*

40 So that’s the nature of the document that we’re looking at.

BRIG FENWICK: So, in particular, I’ll just move to the summary perhaps, on the last – on page 4, paragraph 15:

Importantly, Comcare is looking at whether we’ve met our

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obligations under the WHS Act and therefore either eliminating risk or reducing it SFARP.

And he states that he's –

5

satisfied that the use of the MRH-90 and the TopOwl have been appropriately authorised by relevant technical agencies.

10 LTCOL HEALEY: Thank, sir. You state that the procedures and instructions as agreed by DASA were followed.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And, indeed, often more was done than could have been minimally justified under the instructions.

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And that the risk was suitably categorised according to the procedures and regulations required.

BRIG FENWICK: Yes.

25 LTCOL HEALEY: And the upgrade was appropriately approved by people authorised to do so. Correct?

BRIG FENWICK: Yes.

30 LTCOL HEALEY: And Accountable Managers were informed.

BRIG FENWICK: Yes.

35 LTCOL HEALEY: At paragraph 160 you state that you remain confident the risk to operate MRH-90 in all conditions is enhanced with version 5.10 over 4.0?

BRIG FENWICK: Yes.

40 LTCOL HEALEY: And you have not been made privy to any evidence that 5.10 has led to any instances of spatial disorientation. Correct?

BRIG FENWICK: I'm not aware of any, no.

45 LTCOL HEALEY: And your understanding from the Regulator, there's been no safety incidents associated with version 5.10?

BRIG FENWICK: No.

5 LTCOL HEALEY: Which would suggest revision of the original risk assessment.

BRIG FENWICK: Yes.

10 LTCOL HEALEY: On that basis you can't see, you state, that the process to implement was flawed.

BRIG FENWICK: Yes.

15 LTCOL HEALEY: And you further state at 107 that the Inquiry has heard from a number of witnesses, many of whom were your staff or worked indirectly for you?

BRIG FENWICK: Yes.

20 LTCOL HEALEY: And do you just want to summarise, as best you can of 107, what you're saying there?

25 BRIG FENWICK: The majority of witnesses to this Inquiry have in some way, at some level, been members of my staff across the Board, and not all of them have agreed with each other. And, indeed, that is part of a positive safety culture, in my view, that we were able to sort through a number of issues, all of us hearing each other and dealing with them in a respectful way.

30 It is difficult for a witness to sit here and have their decisions and things dealt with. And I just wanted to recognise in the public forum that every one of those people were professional, they were diligent, they continuously thought about the safety of their fellow aviators. And it's with the deepest respect that I'm grateful I've had the opportunity to work with them.

35 And it would be unfortunate for anyone to interpret that – even though we rightly, through this Inquiry process, interrogate the actions and behaviours of people, not one of them in my view has let anyone down.

40 LTCOL HEALEY: And at paragraph 108, which is the second-last Paragraph, you state that there was periods of significant turbulence.

BRIG FENWICK: Yes.

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LTCOL HEALEY: And I think you've raised that in terms of damaging fires in 2020 and the prolonged effects of COVID.

BRIG FENWICK: Yes.

5

LTCOL HEALEY: And that particularly your staff were focused on solving problems thoughtfully, with best intentions in mind and the safety of their fellow aviators.

10 BRIG FENWICK: Yes. They were all incredibly aware of their responsibilities. None of them took that responsibility lightly. Every one of them gave significantly of themselves in the interests of those who were flying the aircraft.

15 LTCOL HEALEY: And you say it came at the expense of their relationships and family at times.

BRIG FENWICK: In some cases, there's been some flow-on effects, yes.

20 LTCOL HEALEY: But it was done, and done for many years, and you remain immensely proud of those you served alongside with.

BRIG FENWICK: I am.

25 LTCOL HEALEY: And the last paragraph, do you want to say something there as well?

30 BRIG FENWICK: I'm incredibly saddened by the events of – that occurred for Bushman 83 and the accident. It is a tragedy to me that I have my career bookended by an accident in '96 that killed classmates of mine, and we've also had another accident at the other end of my career, and that makes me incredibly sad, and I hope that this process can bring some peace to families.

35 LTCOL HEALEY: Thank you, sir. Madam Chair, that's all I've got for the public.

MS McMURDO: Yes.

40 LTCOL HEALEY: It's probably quite good timing.

MS McMURDO: Yes. Yes, I can.

45 LTCOL HEALEY: But we can return with the private.

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MS McMURDO: I might just get some new assessments on time, I think, just to see how we're going, and cross-examination. So, LCDR Gracie?

5 LCDR GRACIE: My assessment's gone up, ma'am.

MS McMURDO: Yes, I thought it might have.

10 LCDR GRACIE: Although I understand that MAJ Chapman is going first. So that - - -

MS McMURDO: Are you? I thought you'd be going at the end.

LCDR GRACIE: Are you going at the end?

15 MAJ CHAPMAN: Not sure.

MS McMURDO: I don't know whether - I thought that was the usual.

20 MAJ CHAPMAN: (Indistinct).

MS McMURDO: Well, anyway, so if he goes first, you might not be as long?

25 MAJ CHAPMAN: Correct.

MS McMURDO: But then - - -

MAJ CHAPMAN: I expect at least an hour and a half.

30 MS McMURDO: Would you prefer to go first or second?

MAJ CHAPMAN: I would prefer to go first.

35 MS McMURDO: First. And no one else has any objection to that?

LCDR GRACIE: No.

40 MS McMURDO: No. So about an hour and a half. And I suppose then it will depend on that before you can give adequate assessments. All right, we'll adjourn and resume at 1.45. Thank you.

HEARING ADJOURNED

45

HEARING RESUMED

5 LTCOL HEALEY: Madam Chair, Air Vice-Marshal, I can indicate we're not going to go to Private Session now, and that that is the conclusion of the evidence.

MS McMURDO: Okay. Thank you.

10 LTCOL HEALEY: May it please.

MS McMURDO: That makes things a lot easier, administratively. Thank you. Yes, MAJ Chapman.

15 MAJ CHAPMAN: Thank you, Chair.

<CROSS-EXAMINATION BY MAJ CHAPMAN

20 MAJ CHAPMAN: Good afternoon, sir.

BRIG FENWICK: Hi.

25 MAJ CHAPMAN: You have your folder there?

BRIG FENWICK: Yes.

30 MAJ CHAPMAN: Thank you. So, sir, when we left your evidence on 20 November 2024 you recall we'd commenced discussing version 5.10 – recommendation for Service Release of 5.10?

BRIG FENWICK: Yes.

35 MAJ CHAPMAN: And my questions and your answers had gone into some detail up to that point of the Minute that you sent to COL Thomas on 20 March? Do you recall that?

BRIG FENWICK: Yes.

40 MAJ CHAPMAN: And at that time, so 20 March, you also assigning the first of two Decision Briefs recommending Service Release of 5.10, correct?

45 BRIG FENWICK: Yes.

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MAJ CHAPMAN: And the Inquiry's referred to the first of those Decision Briefs as "the March Decision Brief", and you know what I'm talking about there?

5

BRIG FENWICK: Yes.

MAJ CHAPMAN: And can I just ask you to go to JRF 19. And grateful to you and your Counsel for preparing this collection of documents.

10

BRIG FENWICK: Yes.

MAJ CHAPMAN: And – thank you, sir – and so since you've given your evidence, we now know from other evidence that your decision in this brief, and indeed in the later April brief were not the last step in the approval process to physically – to physical installation of 5.10. Correct?

15

BRIG FENWICK: No, I'm not sure what you're referring to there, sir.

MAJ CHAPMAN: I understand your evidence previously was – you gave some evidence I think on the last occasion that your decision to approve Service Release was the final step in – before physical installation?

20

BRIG FENWICK: Right. Sure. Yes.

25

MAJ CHAPMAN: Yes. But it's the case, isn't it, that, as you've given some evidence this morning, that final step prior to physical installation is the CCB or Configuration Control Board consent?

BRIG FENWICK: Before it goes into the aircraft, yes.

30

MAJ CHAPMAN: Yes. And you're aware, aren't you, that the CCB, Configuration Control Board, delegated that Service Release function to the Military Type Certificate Holder, then COL Marshall?

35

BRIG FENWICK: Yes.

MAJ CHAPMAN: Thank you. Now, just looking at his March Decision Brief that was sent to you, that's one that was cleared by Director of Capability Management; is that right?

40

BRIG FENWICK: Yes.

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MAJ CHAPMAN: And without going into the detail of that, noting the security classification, it's a brief which clearly indicates that it proposes that you support Service Release of 5.10. Do you agree?

5 BRIG FENWICK: Yes.

MAJ CHAPMAN: And that both DACM and DOPAW – so Director of Operational Airworthiness – supported that course of action? Do you agree with that?

10

BRIG FENWICK: Yes.

MAJ CHAPMAN: And so you have, in this brief, recommendations from two key figures, recommending that you support Service Release of 5.10. Agree?

15

BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you agree that, for a decision such as this, it was necessary for you at a minimum, as the decision-maker, to consider the position of the DOPAW in making that decision?

20

BRIG FENWICK: Yes.

MAJ CHAPMAN: And also DACM?

25

BRIG FENWICK: Yes.

MAJ CHAPMAN: And that's because DACM, Director of Aviation Capability Management, provides input from the point of view of the Capability cell. Correct?

30

BRIG FENWICK: Yes.

MAJ CHAPMAN: And that DOPAW provides input from the Operational Airworthiness cell?

35

BRIG FENWICK: Yes.

MAJ CHAPMAN: And is it the case that if either of those two had not agreed to recommend Service Release, as in this Minute, you may not have proceeded to approve the recommendation?

40

BRIG FENWICK: I may not have.

45

MAJ CHAPMAN: Now, there are just a few aspects of this document – and again we’re at the March Decision Brief – that I need to take you through, though I’ll do it hopefully in an oblique way, having regard to the security classification. So can you first go to paragraph 3 under “Background”. Do you see that?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you see that you are being told basically that the distance to go function was an essential requirement for the purposes of the aircraft carrying out Special Operations approaches?

BRIG FENWICK: I’m just looking for that.

MAJ CHAPMAN: I draw your attention to the parentheses in paragraph 3.

BRIG FENWICK: I see. Yes, thank you.

MAJ CHAPMAN: And in the context of Plan Palisade, the essentiality, if I can put it like that, was a significant factor in terms of you agreeing to move forward towards Service Release?

BRIG FENWICK: You know, at this point I’m applying my professional judgment, too, to this. I certainly considered it very important, yes.

MAJ CHAPMAN: So you considered the essentiality of – as it’s described – of version 5.10 to be a significant factor. Correct?

BRIG FENWICK: Yes.

MAJ CHAPMAN: Yes. And it was significant because you were being told that the Special Operations approach could in effect not be conducted without it; is that right?

BRIG FENWICK: No, I didn’t believe – my recollection is that’s not the case. So it could be conducted under 4.0, but it would’ve come with significant complications and other things that I didn’t at that point understand.

MAJ CHAPMAN: Yes, and you’ve given some evidence about that. And do you agree whether the assessment as to whether something like distance to go – the distance to go feature is essential is a subjective assessment?

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BRIG FENWICK: Yes, I think I can agree to that.

MAJ CHAPMAN: And are you aware that as part of the OPEVAL
5 process pilots – there was a process by which a survey was taken of pilots
to ask them to respond to the essential nature of the distance to go function
in the operation of the aircraft?

BRIG FENWICK: I'm aware that they were asked a question. I can't
10 remember whether "essential" was used as the word, but broadly I'm
familiar with the questionnaire, yes.

MAJ CHAPMAN: Yes. Can we just go to that. And I'm at JRF 16. And
this is in evidence, Chair. It's the OPEVAL.

15 MS McMURDO: Yes.

MAJ CHAPMAN: Can you go to – just let me know when you've got that,
sir.

20 BRIG FENWICK: Yes, I'm at the Annex B.

MAJ CHAPMAN: Thank you. You're ahead of me. So it's in
landscape, in Annex B2. And do you see that's "Task question
25 response"? And do you see down to serial 6? And do you see there – are
you there, sir?

BRIG FENWICK: Yes, sir.

MAJ CHAPMAN: And do you see there that there's a specific question
30 posed to in this case 12 pilots in terms of, "If the distance to run information
was not present" – and something's redacted – "would that affect your
ability to run the Special Operations approach?"

BRIG FENWICK: Yes, I see that.

MAJ CHAPMAN: And do you agree with me that the focus of that
question is that pilots are being asked in effect whether they're able to
conduct the Special Operations approach without the distance to go
40 function? Do you agree?

BRIG FENWICK: Yes. Notwithstanding distance to go function in the
Head-Up Display, not - - -

MAJ CHAPMAN: Yes.

45

BRIG FENWICK: Yes.

MAJ CHAPMAN: And while it's not said there, whether they are able to
conduct these approaches using version 4, which we know didn't have the
5 distance to go function? Do you agree with that?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And it's the case, isn't it, to your understanding, that
10 version 4, while it didn't have the distance to go function, it also was not
encumbered with the ambiguous attitude problems either? Do you accept
that?

BRIG FENWICK: With the pitch and roll?
15

MAJ CHAPMAN: Correct.

BRIG FENWICK: Yes.

MAJ CHAPMAN: Now, just to return to the survey, and just tracking
20 along a number of those responses, do you agree that you have something
there in the order of about six or seven of the 12 pilots surveyed expressing
the view that the Special Operations approach can still be conducted
without the distance to go function?

BRIG FENWICK: Yes.
25

MAJ CHAPMAN: Seven, I'm reminded, and grateful to my friend.

30 So do you agree that we have in this survey at least half of the pilots, the
operators, saying that distance to go was not necessary?

BRIG FENWICK: No, I don't agree with that.

MAJ CHAPMAN: You don't agree with that?
35

BRIG FENWICK: Not that it wasn't necessary. So what this is saying is
they believe that they can still do it without it – okay, no, I can concede that,
sorry. Yes.

MAJ CHAPMAN: Thank you. And based on the responses, do you
40 agree with me that it could not reasonably be suggested that the distance to
go function was essential, as you had been led to believe in the March
Decision Brief? Do you agree with that?

45

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BRIG FENWICK: Yes. And that would be my own assessment from reading that at the time, I think.

5 MAJ CHAPMAN: And those responses even included, in the last column you will see, the Test Director of the OPEVAL, LTCOL Norton?

BRIG FENWICK: Yes, I agree.

10 MAJ CHAPMAN: And even he agreed that it was not, in effect, necessary. Do you agree?

BRIG FENWICK: Yes.

15 MAJ CHAPMAN: And do you agree that you were provided with a copy of the OPEVAL report?

BRIG FENWICK: Yes.

20 MAJ CHAPMAN: And had you seen, at the time that you made the decision in March 2020 for Service Release, the results of this questionnaire?

BRIG FENWICK: It's my recollection that I would have read it, yes.

25 MAJ CHAPMAN: And specifically, the question and the answers to it relating to serial 6?

BRIG FENWICK: Yes.

30 MAJ CHAPMAN: Now, in your evidence in your first and amplifying statement it makes clear, doesn't it, that the subject of version 5.10 was very much a topic being closely tracked by you?

35 BRIG FENWICK: Yes.

MAJ CHAPMAN: And I think your evidence is it was among a whole range of issues which were inflicting the MRH-90?

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you recall that in the OPEVAL – so this is JRF 16 – that the DTG feature was characterised as representing an enhancing feature?

45 BRIG FENWICK: Yes. It was my consideration that it made the

approach easier and safer.

MAJ CHAPMAN: And there are statements made also in the OPEVAL to the effect that it would improve situational awareness by not requiring
5 pilot's eyes out on approach, and information of that nature?

BRIG FENWICK: Yes.

MAJ CHAPMAN: Yes. Though do you agree that the OPEVAL itself –
10 at least your recollection of it – does not refer to the distance to go function being essential?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And that is language which appears to have been
15 introduced into the Decision Brief in March 2020?

BRIG FENWICK: I can see that it's there, yes.

MAJ CHAPMAN: And do you accept that the use of the term
20 "essential" in your Decision Brief implies at least that the inclusion of the distance to go function was a critical requirement?

BRIG FENWICK: It could be seen that way. But I would say that it – I
25 did read the OPEVAL, is my recollection, and I formed my own view of the criticality or not of it.

MAJ CHAPMAN: Did you understand though the reference to
30 "essential" to imply that it was a critical requirement?

BRIG FENWICK: It was my understanding that "essential" had been, if I
remember rightly, the original articulation in some other documentation,
and I think this was a reflection of that. So whether this then made me feel
that I could not progress without it, I did not – I felt that I could progress
35 without it. So I did not feel compelled by this to necessarily put it through for that nature.

MAJ CHAPMAN: If I understand you correctly, you're saying that you
40 made your own assessment?

BRIG FENWICK: Correct.

MAJ CHAPMAN: But though do you accept the proposition that what's
45 being briefed to you in the terms in which it's briefed implied that it was a critical feature? It was a critical feature?

BRIG FENWICK: I can't speak for the intention of the writers, but - - -

MAJ CHAPMAN: But just plainly on the face of the language?

5

BRIG FENWICK: Yes.

MAJ CHAPMAN: Yes. Though as we now know, the criticality of that feature was not a view that had been taken by at least half of the pilots tested. Is that right?

10

BRIG FENWICK: Yes, I would say that's true.

MAJ CHAPMAN: Do you agree then that invoking language in the March Decision Brief including "essential" rather overstated the true position?

15

BRIG FENWICK: I think it's unfortunate and it could have misled me, yes, but I don't believe it did.

20

MAJ CHAPMAN: And that is important in the context of your decision, do you agree, because you were being briefed by your staff to make a decision which in reality did not reflect the results of the questionnaire?

BRIG FENWICK: I do not. I'm not trying to be difficult here. I don't interpret that that sentence, as it's stated there, is trying to reflect the outcome of the OPEVAL. I think it's trying to reflect a previous assessment of how important distance to go was, so in particular the AATES approach of December '18.

25

Now, I know that it – I think it's "highly desirable" in the AATES report. Is that right? I can agree with you that it is potentially misleading to a decision-maker.

MAJ CHAPMAN: Yes. Which is really - - -

30

BRIG FENWICK: Whether it comes from the OPEVAL or not. I can't say where's that coming from.

MAJ CHAPMAN: Just to understand, my questions are going to the quality of what you were being briefed about and the contents of those briefs. So my next question is, had this Decision Brief accurately reflected the view of the pilots as taken in the survey, do you agree that it would not have been described as "essential" in the Decision Brief?

40

BRIG FENWICK: Yes.

MAJ CHAPMAN: And so you're agreeing then that the characterisation by – in the staff work was incorrect?

5

BRIG FENWICK: Well, it wasn't reflecting the OPEVAL, but I – again, I can't – the way that it's presented there, I can't necessarily state that the intention was to say this was an essential requirement on the basis of the outcomes of the OPEVAL.

10

MAJ CHAPMAN: Thank you. And you've accepted, I think, that you consider the characterisation of the "essential" requirement as being misleading?

15

BRIG FENWICK: Yes.

MAJ CHAPMAN: And is it the case that if it had been left at "enhancing" – and you know what I'm referring to there - - -

20

BRIG FENWICK: Yes.

MAJ CHAPMAN: - - - "an enhancing feature" as opposed to "essential", that it may have given you pause to consider other courses of action than Service Release? Do you agree with that?

25

BRIG FENWICK: I believe that I took those things into consideration anyway.

30

MAJ CHAPMAN: And those other courses of action may have included additional testing and engagement with the OEM to address the ambiguous symbology?

35

BRIG FENWICK: Yes. And, indeed, I would say that we intended to do that in due course. That was the nature of the interim measure we were proceeding with.

40

MAJ CHAPMAN: Now, just staying with this March Decision Brief for a moment longer, do you see – or is it your recollection – perhaps it's better approached in this way: is it your recollection that there were three forms of testing which preceded this March Decision Brief?

BRIG FENWICK: Are you referring to the AMAFTU, the June '19, and the OPEVAL?

45

MAJ CHAPMAN: Spot on, sir. Thank you.

BRIG FENWICK: Yes.

5 MAJ CHAPMAN: And do you agree that in this Decision Brief to you, that those testing serials, as well as their outcomes, were summarised in this March document?

BRIG FENWICK: I think it was attempting to do that, yes.

10 MAJ CHAPMAN: Yes.

BRIG FENWICK: In fact, I think the references allude to each of those. So if you look at the references, each one of those activities to which you allude are referenced there, yes.

15 MAJ CHAPMAN: And just to be clear, when they're referenced, does that mean that you're provided with a copy of that particular report as part of this pack, or it's just referencing - - -

20 BRIG FENWICK: Not necessarily, but I can assure you that I have read them all.

MAJ CHAPMAN: And I think you agreed that, in any event, possibly for convenience the authors of the March Decision Brief summarised the salient findings of each of those tests?

25

BRIG FENWICK: And as much as anything, because this is meant to be a record of decision, yes.

30 MAJ CHAPMAN: And you're likely aware that the Inquiry's heard evidence from a number of witnesses concerning each of those testing activities, including from you?

BRIG FENWICK: Yes.

35

MAJ CHAPMAN: And do you agree that having been referred to in this Decision Brief, each of those testing activities provided context in terms of informing your decision as to Service Release?

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: So you'd agree they were matters that you relied on and took into account in making your decision?

45 BRIG FENWICK: Yes.

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5 MAJ CHAPMAN: So I'll just go through them briefly, noting you've given quite a lot of evidence today about them. So the first is the First-of-Class Flight Trials, and you deal with this at I think paragraph 55 of your statement?

BRIG FENWICK: Yes.

10 MAJ CHAPMAN: So there is evidence to the effect – you may be aware – that as recently as yesterday – from the DoSA-FT Navy who authorised the First-of-Class Flight Trials activity – are you aware of his evidence?

BRIG FENWICK: No, I'm not.

15 MAJ CHAPMAN: Well, his evidence was to the effect that the context in which Navy conducted that testing of 5.10 and Special Operations approaches are markedly different.

20 BRIG FENWICK: Yes, that would - - -

MAJ CHAPMAN: Do you agree with that?

BRIG FENWICK: That wouldn't surprise me.

25 MAJ CHAPMAN: Do you agree with that, that they are markedly different?

BRIG FENWICK: So, sorry, can you just repeat it?

30 MAJ CHAPMAN: Certainly. The DoSA-FT Navy gave evidence to the effect that the First-of-Class Flight Trial assessment, when compared with the Special Operations flying, are different contexts.

35 BRIG FENWICK: Yes?

MAJ CHAPMAN: That's what he said, in effect.

BRIG FENWICK: Okay. Sorry, yes?

40 MAJ CHAPMAN: And my question to you, do you accept the proposition that the context in which the First-of-Class Flight Trials was conducted and the Special Operations approach activities are different contexts?

45 BRIG FENWICK: Yes.

MAJ CHAPMAN: And there's been other evidence to the effect that because those two contexts are different, it would be possibly misleading to read the First-of-Class Flight Trial test as supporting Service Release of
5 5.10. Are you aware of that evidence?

BRIG FENWICK: No.

MAJ CHAPMAN: And what I want to suggest to you, sir, is that it was
10 somewhat misleading to advance to you in this case, as a decision-maker, the First-of-Class Flight Trials as supporting Service Release. Do you agree or disagree with that?

BRIG FENWICK: I disagree with that. It was a piece of evidence that
15 could reasonably be included in my overall assessment.

MAJ CHAPMAN: And you've made the point just earlier that the First-of-Class Flight Trials reports was part of your Decision Brief documentation?
20

BRIG FENWICK: Yes.

MAJ CHAPMAN: And you've read that. And was it your understanding that that report concluded that Navy, in the broad, did not consider that there
25 was any issue in the performance of the 5.10 symbology?

BRIG FENWICK: Yes.

MAJ CHAPMAN: Though were you aware that the authors of that report
30 caveated it – or qualified that view on the basis that it was limited to embarked operations?

BRIG FENWICK: Yes. So we're now actually I think raising the issue that the Air Vice-Marshal raised, and I'm not sure if we're now referring to something that was FOUO, but that limitation, as I said earlier, is inclusive
35 of any environment that I needed to consider. So it's a maritime environment.

MAJ CHAPMAN: Though, obviously enough, the AMAFTU reporting
40 was not opining as to Special Operations Approach Profiles?

BRIG FENWICK: No.

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MAJ CHAPMAN: So did you take those two different contexts into account when making a decision as to the weight that you would give the First-of-Class Flight Trial report for your own Decision Brief?

5 BRIG FENWICK: Yes.

MAJ CHAPMAN: And what I want to suggest to you, sir, is that given the different contexts, there was in fact virtually little value in the First-of-Class Flight Trial report for the purposes of your decision to
10 approve Service Release of 5.10. Do you agree or disagree?

BRIG FENWICK: I don't agree with that.

MAJ CHAPMAN: And did you at any stage repechage the authors of the March Decision Brief, or anyone on your staff, concerning the reliance that they had placed on the First-of-Class Flight Trials in the March Decision Brief?
15

BRIG FENWICK: I don't recall.
20

MAJ CHAPMAN: And so I want to suggest to you, sir, that there was no questions raised or discussions had because, on its face, the First-of-Class Flight Trial result suited the outcome that was being sought, which was Service Release of 5.10. Do you agree or disagree?
25

BRIG FENWICK: Well, I can't speak to whether most discussions or not occurred – as I said, I don't recall. But what I would say is, I don't think that it is reasonable to conclude that flight testing of the symbology in a relevant environment should not have been considered in my decision-making. I would think that I should have reached to whatever I had available to me to make a more complete decision.
30

MAJ CHAPMAN: Did you put, just as far as you can recall, significant weight on the First-of-Class Flight Trial result in terms of your decision in the March Decision Brief?
35

BRIG FENWICK: I can't recall what weighting I might have given it. But it certainly was part of the package of my thinking.

MAJ CHAPMAN: So it was more than negligible weight, it represented some weight in your decision?
40

BRIG FENWICK: Yes. There was nearly – I can't remember how many hours – a lot of hours testing. It was in an environment that was relevant. So while we're talking about embarked operations, it's a maritime
45

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environment where you are flying without reference to anything other than the ocean. I think I should have considered it, and I did.

5 MS McMURDO: There's more than the ocean though, isn't there?
There's the ship and the things on the ship, and so forth?

10 BRIG FENWICK: Well, yes. When you're approaching the ship, ma'am, and in fact departing it. But at some point in that operation you are turning away from the ship and circling around, and you've got no reference to the ship at some point, and you only have reference to the environment.

15 MAJ CHAPMAN: Now, moving on from that testing activity, I'll ask you some questions about the AATES testing. So in terms of that testing, the March Decision Brief, do you agree, only dealt briefly with that, noting that it was conducted at a particular time of day. Do you agree with that?

BRIG FENWICK: Yes. During the day?

20 MAJ CHAPMAN: Yes.

BRIG FENWICK: Yes.

25 MAJ CHAPMAN: And it uses the words "only". Do you see that in the margin?

BRIG FENWICK: Yes.

MAJ CHAPMAN: In the summary of the AATES report.

30 BRIG FENWICK: Yes.

35 MAJ CHAPMAN: And do you agree, sir, as others have, that the way that is being expressed to you in this brief is to imply that the AATES testing was in some way incomplete?

BRIG FENWICK: I think it's a fact that it was incomplete.

40 MAJ CHAPMAN: Well, incomplete in the sense that they could have done more. Do you agree with that?

45 BRIG FENWICK: I don't think that – I did not interpret that there was an implication here. So I think it's a statement of there was an intention to do more. It only achieved a certain amount and that was an established fact at that point.

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MAJ CHAPMAN: And I think you've referred to this at paragraph 65 of your additional statement where you say it was ended – this is the AATES testing – was ended prematurely.

5 BRIG FENWICK: Yes. And there's nothing implied by that, other than it was intended to go longer and stopped earlier than it was intended.

MAJ CHAPMAN: Thank you, sir. And are you aware that there's been some evidence to this Inquiry to suggest that the AATES report was rushed or lacking in detail?
10

BRIG FENWICK: I have heard that.

MAJ CHAPMAN: Do you agree with those characterisations?
15

BRIG FENWICK: It was certainly done quickly. And I'm grateful for it, because there were a number of – so you will have seen in a number of these things, like the First-of-Class Flight Trials, that from the event to the report is quite some time. But I think AATES knew that we were relying on some outcomes of this for certain subsequent events to occur around Service Release and I think they turned this around incredibly quickly.
20

Now, it meant that there were probably some things that were missing from it that might have happened had the report had more time to be produced, but I'm actually grateful that they gave me the artefact and therefore allowed us to reconfigure our planning for other things.
25

MAJ CHAPMAN: So were you aware at the time – and this is March 2020 – that AATES had deliberately terminated their testing when they identified the ambiguous attitude?
30

BRIG FENWICK: I've read the report.

MAJ CHAPMAN: And you accept that's what they did?
35

BRIG FENWICK: Yes.

MAJ CHAPMAN: And you were aware that they were required to do so because to proceed in the face of that "unacceptable" finding would have breached a condition of their Military Permit to Fly?
40

BRIG FENWICK: I accept that.

MAJ CHAPMAN: And do you accept that – well, first of all, did you read, and have you read, the AATES Flight Test Plan?
45

BRIG FENWICK: No.

5 MAJ CHAPMAN: Would you accept from me that there are conditions in the Flight Test Plan to the effect to say that the serials should be terminated if they discovered any “unacceptable” finding?

10 BRIG FENWICK: I would have thought that was actually routine for a test activity.

MAJ CHAPMAN: And were you briefed about the sequence of events by either AATES or their staff in terms of how the AATES testing progressed and stopped?

15 BRIG FENWICK: It’s my recollection that, yes, I discussed that with LTCOL Reinhardt. That’s my recollection.

MAJ CHAPMAN: Can I ask you to go to 4(b) – and again, not reading it out because of the classification. We’re in the - - -

20 BRIG FENWICK: I’m sorry.

MAJ CHAPMAN: I’m sorry, the Decision Brief, the March Decision Brief, so JRF 19.

25 BRIG FENWICK: Yes.

MAJ CHAPMAN: And if you could just go to 4(b).

30 BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you agree – I’ll just let you read that.

35 BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you agree, sir, that the characterisation in that paragraph of the AATES testing failed to brief you, again, as the decision-maker with necessary context as to why the AATES testing was terminated?

40 BRIG FENWICK: Sorry, I’m just re-reading it.

MAJ CHAPMAN: Certainly. Certainly.

BRIG FENWICK: Yes, in the context of your question. Re-reading it in the cold light of day, as we are here, I can see how you may interpret that. I would say that - - -

5 MAJ CHAPMAN: Well, I'm asking you to agree or not with that characterisation as I've just put it to you.

BRIG FENWICK: Well, I think it's contextual, in that this Decision Brief came to me after a year's worth of work almost. And so this wasn't the first
10 time, and only time, it was being presented to me in a concept. And so I had context and my staff, I think, understood that I had background to understanding this.

MAJ CHAPMAN: So do you say it did brief you or it did not brief you
15 with the necessary context as to why the AATES testing was terminated?

BRIG FENWICK: I felt like I was informed because I had the context that sat behind this. So if I had no context or experience in this, then reading that would have been misleading. But I did have that context.
20

MAJ CHAPMAN: And just picking up on that point, I want to suggest to you that it was misleading the characterisation in 4(b) to the extent it suggests that AATES had failed to complete their full range of testing. Do you agree with that?
25

BRIG FENWICK: I'm sorry. Can you ask that again?

MAJ CHAPMAN: Certainly. Picking up on what you've said about misleading and reading it in the terms that it is there, do you agree that it
30 was misleading because it suggested that AATES had failed to complete their full range of testing as they were required. Do you agree or disagree?

BRIG FENWICK: It does not state that the full range of testing was not completed. Is that what you're asking?
35

MAJ CHAPMAN: If you just focus on that first sentence, and I'm not going to read that out.

BRIG FENWICK: Yes. No, that's okay. No.
40

MAJ CHAPMAN: The rest of it isn't germane to the question, really. You'll know the reference in that first sentence and it's whether, reading that, you would take the view that it implied if not – well, it implied that the testing by AATES was incomplete.
45

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BRIG FENWICK: No, it doesn't state that.

MAJ CHAPMAN: I know it doesn't state that. My question – or the proposition is, do you accept that it implies that it was incomplete?

5

BRIG FENWICK: No, I don't. I don't think it makes a statement about completeness at all.

MAJ CHAPMAN: I'll move on. Can we go to the OPEVAL? So this is in the Decision Brief at 4(c). Do you see that?

10

BRIG FENWICK: Sorry, so still on the brief?

MAJ CHAPMAN: Sorry, yes, the brief. So just - - -

15

BRIG FENWICK: Yes.

MAJ CHAPMAN: Immediately below 4(c), that's a reference, isn't it, to the OPEVAL?

20

BRIG FENWICK: Yes.

MAJ CHAPMAN: And this is – just so everyone's following – in effect, a summary of the OPEVAL finding?

25

BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you see there, sir, again, that we have a characterisation of testing by Standards as being more complete. Do you agree with that?

30

BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you agree that it implies to you, as the decision-maker, that the OPEVAL testing was more comprehensive than the AATES testing?

35

BRIG FENWICK: Yes.

MAJ CHAPMAN: And that's because you'd accept it was.

40

BRIG FENWICK: Yes.

MAJ CHAPMAN: And, therefore, that the OPEVAL testing was more valid? Do you agree it implies that in the Decision Brief?

45

BRIG FENWICK: Sorry, let me re-read it. I don't think it makes a comment on validity. It makes a comment on the extensiveness of - - -

5 MAJ CHAPMAN: I accept it doesn't make a comment on validity. My question is whether, reading this, you accept that it implies that the OPEVAL testing had a greater validity than the AATES testing? Do you agree or disagree?

10 BRIG FENWICK: I think it certainly implies that it examined the issue raised at the June AATES testing and came up with a different set of outcomes to that.

15 MAJ CHAPMAN: But I suggest to you it does imply that the OPEVAL testing had a higher validity than the AATES testing. And I gather you disagree with that.

BRIG FENWICK: I'm sorry, I'm not trying to be difficult.

20 MAJ CHAPMAN: No, no.

BRIG FENWICK: These things were happening in a sequence. So the OPEVAL, it was clear to me was trying to address issues identified in the June testing and so, yes, it was testing that outcome. That was its purpose, yes. So in terms of validity, yes, I think it was more valid.

MAJ CHAPMAN: And this part of the Decision Brief is also presenting to you the OPEVAL as being it should be preferred over the AATES testing. Do you agree with that?

30 BRIG FENWICK: Well, I think it was certainly applying a different assessment, yes.

MAJ CHAPMAN: Just over the page, we have the paragraph 6. Again, without going into the detail of it, it essentially makes the claim that the ambiguous attitude issue was something that could be managed or was manageable. Do you agree with that?

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: And you understood that again, as a decision-maker, that to mean manageable in a context of AATES' earlier finding that it was unacceptable?

45 BRIG FENWICK: Yes, that there was a way through.

MAJ CHAPMAN: And so reading this, sir, did this suggest to you that having conducted the OPEVAL, the “unacceptable” issue had now been sufficiently treated or could be managed in order to allow it to proceed to Service Release of 5.10? Do you agree with that?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And next we have in paragraph 8 of the March brief, reference being made to the AATES response to the OPEVAL. Do you see that?

BRIG FENWICK: Paragraph 7, yes.

MAJ CHAPMAN: I’m sorry. Correct, paragraph 7. My apologies. You see that, sir?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And you have included in that document, sorry, in your bundle, the AATES response, which is a JRF 18, I believe?

BRIG FENWICK: Yes.

MAJ CHAPMAN: And do you agree that a step taken by SO1 AATES, LTCOL Reinhardt, in sending this Minute was extraordinary. Do you agree with that?

BRIG FENWICK: It was unusual.

MAJ CHAPMAN: And, my words, it was extraordinary in that you had AATES saying that they did not change their view as to unacceptability with the benefit of review of the OPEVAL testing. Correct?

BRIG FENWICK: Correct.

MAJ CHAPMAN: And had you, in your experience, ever seen a Flight Test Organisation, of its own volition, making a statement such as this, maintaining their opposition?

BRIG FENWICK: No. But as I’ve stated already, one of the things that – so I had not seen a lot of these sorts of reports before this point either. So I didn’t have extensive experience of being a decision-maker in this regard. I was expecting that I would get a view from AATES, given that they had overseen the activity in the planning. And I think I had expected

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that to come through in the OPEVAL report. And when it didn't, I welcomed this Minute.

5 And do you agree that it was AATES' position in sending this Minute was to reinforce that they maintained their view that version 5.10 was an unacceptable risk to flight safety?

10 BRIG FENWICK: Well, that's not the actual statement in there. I think that he goes on to say that he thinks that the pitch roll perspective of 5.10 - - -

MAJ CHAPMAN: It's "For Official Use", sorry, sir.

15 BRIG FENWICK: Sorry.

MAJ CHAPMAN: Sorry, sir.

20 BRIG FENWICK: That's all right. No, thank you. The specific words of the risk to flight safety is well stated in this brief, from my recollection.

MAJ CHAPMAN: Well, I'll put it another way. We have in the first determination – that's the AATES testing – a determination that it represented unacceptable risk to flight safety. Do you accept that?

25 BRIG FENWICK: Yes.

MAJ CHAPMAN: And then we have in this Minute, AATES saying they have not changed their view from their first report. Correct?

30 BRIG FENWICK: Yes, on this characteristic.

35 MAJ CHAPMAN: So you would accept that this is again just simply reiterating that they didn't change their view as to the unacceptability of 5.1 as a risk to flight safety? Do you agree with that?

BRIG FENWICK: Yes.

40 MAJ CHAPMAN: Thank you. And there is a description, do you see, at paragraph 7(a) of this document – I'll just get this reference. I withdraw that. Based on this document and your responses to the documents that I've taken you to – in fact now I recall my earlier proposition. It was actually in relation to the March Decision Brief.

45 BRIG FENWICK: Yes.

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MAJ CHAPMAN: If we could just go over to that.

BRIG FENWICK: Yes.

5 MAJ CHAPMAN: And do you see – noting, “For Official Use Only” –
that we have at 7(a) a description of the manifestation of the risk that
AATES had warned about?

BRIG FENWICK: Yes. I think this is a summary of - - -

10 MAJ CHAPMAN: A summary.

BRIG FENWICK: Yes.

15 MAJ CHAPMAN: It’s not AATES’ words. But this is a summary of that
manifestation of the risks that they were warning about. Do you agree with
that?

BRIG FENWICK: Yes.

20 MAJ CHAPMAN: Yes. Now, just based on your responses, I just want
to put to you a few matters. Do you agree that the March Decision Brief
did not sufficiently equip you to make an informed decision as to risk to
proceed with the recommendation for Service Release of 5.10?

25 BRIG FENWICK: In and of itself, if I’d not made myself familiar with
all the references, I think that’s a possible interpretation.

30 MAJ CHAPMAN: Do you agree that this Decision Brief, the March
Decision Brief, was framed in terms which suggested to you that the issues
that had been identified by AATES had been either ameliorated or
sufficiently treated by the OPEVAL to then allow you to approve
progression of Service Release?

35 BRIG FENWICK: Yes.

40 MAJ CHAPMAN: Do you agree that in making your decision, as you did
in March and later in April, that you did not fully appreciate, based on the
material put before you by your staff, the nuances of aspects of the
OPEVAL testing and the First-of-Class Flight Trial testing?

BRIG FENWICK: No, I don’t agree with that. I consider that I made
myself fully aware.

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MAJ CHAPMAN: Do you agree, sir, that the AATES response to the OPEVAL, in particular, represented a significant and clear caution to you in terms of proceeding to Service Release?

5 BRIG FENWICK: Yes. And it indeed includes a number of things. It gives me a path to Service Release. And it gives me a number of things to do.

10 MAJ CHAPMAN: And do you say that the caution issued by AATES, the Flight Test Organisation, formed part of your overall risk assessment for 5.10?

BRIG FENWICK: Yes.

15 MAJ CHAPMAN: Though, despite that caution, you took the decision to proceed with Service Release in any event. Do you agree with that?

20 BRIG FENWICK: Yes. Included in my decision was consideration of this in the path and my overall assessment that it was still safer for 5.10 than for 4.0.

25 MAJ CHAPMAN: And would you agree with this proposition, sir, that as a piece of staff work to a Commander, having regard to the complexities of the issues that were being determined, the March Decision Brief was manifestly lacking in detail necessary for you to support Service Release?

BRIG FENWICK: I think it's fair to say that, on reflection, here in hindsight, it could have been more fulsome. But I didn't feel underdone.

30 MAJ CHAPMAN: And do you agree that particularly being on notice of the AATES response, it was a course of action open to you to decline to approve the recommendation for Service Release?

35 BRIG FENWICK: Yes, it was.

MAJ CHAPMAN: And it was a course of action open to you to direct further investigations and assessments to further address the AATES response?

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: Though that didn't occur, did it?

45 BRIG FENWICK: Well, I don't think there was anything else that I felt needed to be done.

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MAJ CHAPMAN: And that's because, in your staffs' assessment, which you endorsed, you had minimised risk of any introduction of 5.10 so far as reasonably practicable.

5

BRIG FENWICK: Yes. And more specifically, not just the introduction of 5.10 but the overall operation of the aircraft. So it was my view that remaining on 4.0 was not as safe as progressing with 5.10, notwithstanding these considerations.

10

MS McMURDO: Was there any reason for that view, other than the distance to go feature?

BRIG FENWICK: There were a number of things, ma'am, sir. There were a number of aspects of 5.10 in terms of reliability and testing. There were the aspects of bringing a number of parts of the symbology in closer to a particular field of view, which there was sufficient evidence in all of the testing that that was an advantageous thing for being eyes outside more often. So it wasn't solely on distance to go, ma'am, no.

20

MS McMURDO: Anything else?

BRIG FENWICK: I will have put it in here. But there were a number of aspects that gave me a view on that. Well, I can try and find it perhaps.

25

MS McMURDO: So they're in your statement, are they?

BRIG FENWICK: I'm sorry?

MS McMURDO: They're in your statement?

30

BRIG FENWICK: I think they are. I think they're beyond - - -

MS McMURDO: Well, if they're in your statement, that's fine. Thank you.

35

BRIG FENWICK: I think they are, ma'am. It's more than just distance to go. But that was the important - - -

MS McMURDO: Thank you.

40

MAJ CHAPMAN: Can I take you now, sir, to JRF 20? So we're now at the April Decision Brief.

BRIG FENWICK: Yes.

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MAJ CHAPMAN: And just to be clear, this is the second Decision Brief that was put up to you only about a month after the first one. Do you agree with that?

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BRIG FENWICK: Yes.

MAJ CHAPMAN: And among the differences, the first Decision Brief was put up by the Director of Capability Management. Do you agree?

10

BRIG FENWICK: Yes.

MAJ CHAPMAN: And this one was put up by OPAW, so Operational Airworthiness?

15

BRIG FENWICK: Yes.

MAJ CHAPMAN: And this one – so we're on the April – was drafted by COL Norton and cleared by then DOPAW COL Lynch.

20

BRIG FENWICK: Yes.

MAJ CHAPMAN: And this one – I think there was debate with my learned friend about this, but I think we're all agreed it was around 20 April 2020?

25

BRIG FENWICK: Yes, I think it was given to me 20, signed 21st.

MAJ CHAPMAN: Signed 21st. Thank you. And do you agree that in this Decision Brief we have, among the three recommendations for you, one is to recommend Service Release of 5.10 – the last?

30

BRIG FENWICK: Yes.

MAJ CHAPMAN: And this is an "Unclassified" document, so we can discuss this openly. And it's the case, isn't it, that this is the second occasion that you have agreed to recommend Service Release of 5.10, the first was in the March brief.

35

BRIG FENWICK: Yes.

40

MAJ CHAPMAN: And just trying to reconcile – I know you've given some evidence about this, but reconcile these two documents, the March and April Decision Briefs. You say, I think, that they served different purposes. Is that your evidence?

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BRIG FENWICK: Yes.

5 MAJ CHAPMAN: And do you agree that a Decision Brief, generally, is for a Commander to make a decision with respect to a course of action?

BRIG FENWICK: Yes.

10 MAJ CHAPMAN: And that in the case of the March Decision Brief, that was whether to support Service Release of 5.10?

BRIG FENWICK: Yes, to allow me to – it prompted me to write to COL Thomas, yes.

15 MAJ CHAPMAN: And that in the case of the April Decision Brief, that was also whether to support Service Release of 5.10. Correct?

BRIG FENWICK: Yes, but from my Operational Airworthiness staff.

20 MAJ CHAPMAN: So, while it may be accepted that they provided different explanations and from different sources, I just want to suggest they did not serve a different purpose; they both served the same purpose in the sense of seeking your approval for Service Release. Do you agree with that?

25 BRIG FENWICK: Yes, it certainly does in the recommendations there. I accept that it is misleading in that regard, but it contains an Operational Airworthiness detail in the brief that was necessary.

30 MAJ CHAPMAN: And you've just accepted this was drafted by COL Norton, and he was the Test Director of the OPEVAL?

BRIG FENWICK: Yes, I think that was his role in the OPEVAL. Sorry, I'd have to check to confirm.

35 MAJ CHAPMAN: No, quite all right. And this was cleared by the DOPAW, so COL Lynch.

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: And you've signed that. So this is, as I've mentioned, about a month following the March Decision Brief, and I can read out what the recommendation is. It's the relevant recommendation, so it's recommended – I'll read out the three of them.

45

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It is recommended that you note that the unacceptable risk to flight safety determined in the initial AATES flight assessment was reassessed as undesirable through OPEVAL.

5 And you indicated “Noted”.

BRIG FENWICK: Yes.

MAJ CHAPMAN: Next?

10

Note that Army Military Air Operator will retain a low ECO-1 risk to personnel safety for operation of HUD version 5.10 in Army Taipan as Orders, Instructions, Procedures and ADELE training packages ensures the risks related to HUD V5.10 are minimised so far as reasonably practicable.

15

Noted.

BRIG FENWICK: Yes.

20

MAJ CHAPMAN: And the last is:

To recommend that to the Taipan Military Certificate Holder on behalf of Army Military Air Operator Service Release of HUD 5.10 for use in Taipan.

25

Recommended.

BRIG FENWICK: Yes.

30

MAJ CHAPMAN: So just a few questions from this document. Do you accept that the OPEVAL presented to you an assessment of the performance of version 5.10 to be compared against the “unacceptable” AATES finding?

35

BRIG FENWICK: Yes, against those characteristics.

MAJ CHAPMAN: Though you accept, don’t you, that the AATES finding in and of itself of unacceptable was not something that could be technically reassessed? It stood.

40

BRIG FENWICK: It was. And it was AATES’ view, yes.

MAJ CHAPMAN: But it’s an assessment that formally stood and could not be reassessed, is that right, other than by AATES?

45

BRIG FENWICK: Yes. It can't be changed, yes.

MAJ CHAPMAN: It can't be changed. So can you just explain, to the extent you have knowledge of it, 3(a), where it talks about:

5

Note the unacceptable risk to flight safety determined in the initial AATES flight assessment was reassessed as undesirable through OPEVAL.

10 BRIG FENWICK: Yes. So it's my interpretation of that, and my recollection of the full process is that AATES' assessment of that as unacceptable stood with a caveat at the time that more needed to be done to inform that assessment. So that stood and was not changed. However, the characteristics then needed to be reviewed for the possible implications that
15 were being stated in that report.

And so, yes, I think the use of the word "assessment" there is relevant. It was assessed and a study was done of that, and then assessed as to whether the risks were suitably now treated to move forward.

20

MAJ CHAPMAN: But we have – it's perhaps slightly different. The proposition is, accepting that the AATES – as you did – that the AATES' "unacceptable" finding could not be changed other than by AATES. You agree with that?

25

BRIG FENWICK: Yes.

MAJ CHAPMAN: But we have here in plain language in 3(a), we have staff wrote to you, asking you to note that the initial AATES flight test
30 assessment was reassessed as undesirable, which is lower than unacceptable. Do you agree with that?

BRIG FENWICK: That's what it says, yes.

35 MAJ CHAPMAN: So isn't this suggesting to you, again, as a decision-maker, that there had been in form and substance a reassessment of the "unacceptable risk" down to "undesirable"?

40 BRIG FENWICK: Of the risk, yes. Not of the assessment of the symbology.

MAJ CHAPMAN: Could I ask you to go, please, to paragraph 8 of the April Decision Brief, and it says – so this is just over the page, under "System Differences". Do you see that? Sorry, under "Hazard Analysis"?
45

BRIG FENWICK: Yes.

MAJ CHAPMAN: And it says in the middle there, it says this:

5 *AATES correctly identified that as the pilot looked further from the
X-axis ahead, the roll indication decreases from actual value to
zero and that it could lead to confusion under low cue
environments, possibly a UA –*

10 unusual attitude –

leading to a CFIT event.

Do you see that?

15

BRIG FENWICK: Yes, I can see that.

MAJ CHAPMAN: So don't we have in this passage, in a Decision Brief
put up to you, where the authors are saying that they agree with the AATES
20 identification of the ambiguous attitude issue?

BRIG FENWICK: What they're saying is that they have – yes, they've
correctly identified the behaviour of the system.

25 MAJ CHAPMAN: But they agree with the identification by AATES of
the ambiguous attitude. Correct?

BRIG FENWICK: Yes. Of the behaviour of the roll out.

30 MAJ CHAPMAN: And we have COL Norton and COL Lynch both
agreeing with the contention put by AATES that this could result in
controlled flight into terrain.

35 SQNLDR SCHMITT: Well, I object, ma'am. SQNLDR Schmitt.
I appear for COL Lynch. These questions were directly put to COL Lynch
at the time of his examination and he disputed that contention. Now, this
witness is being asked to provide opinion about what is in the brief. The
author of the brief has already been asked and provided what that
40 meant. What this witness – sorry, the question went to what was being
conveyed to him, and COL Lynch has already provided that evidence.

MS McMURDO: Well, it's appropriate that the question he asked as to
what he understood by what was said to him.

45 MAJ CHAPMAN: That was the extent of it, Chair.

MS McMURDO: Thank you.

MAJ CHAPMAN: So, sir, do you need me to rephrase that.

5

BRIG FENWICK: Well, in that context, I understand that to say that AATES correctly identified the behaviour of the symbology, not necessarily that AATES was saying it was correct, that it could lead to continuation under low cue environments and possibly UA.

10

MAJ CHAPMAN: And it's the case that while you have taken issue in aspects of your evidence with the characterisation of DVE conditions – and I might pause there. Do you accept you've taken some issue with the characterisation?

15

BRIG FENWICK: Yes, I've just tried to be clear on what we mean.

MAJ CHAPMAN: Yes, thank you. You agree that at night, in weather, overwater qualifies broadly as a low cue environment?

20

BRIG FENWICK: Potentially, yes. So again, as COL Norton has previously stated, those descriptors can lead to a low cue environment. But there can be other mechanisms by which you achieve cuing, and that was part of the evidence I was trying to give about some of my experiences.

25

MAJ CHAPMAN: And having, I think, followed some of the evidence in this Inquiry, are you aware that the Inquiry has received evidence, including from eyewitnesses in the formation to suggest that Bushman 83 was flying in a low cue environment?

30

BRIG FENWICK: I have heard that language used. Yes, I haven't seen the evidence, but - - -

MAJ CHAPMAN: But you're aware that that's evidence that's been received by the Inquiry?

35

BRIG FENWICK: I'm just trying to think. So I'm aware of discussions, and been privy to the discussions, where that terminology has been used to describe it, yes.

40

MAJ CHAPMAN: What I want to suggest to you, sir, is that it was potentially misleading again of Standards Branch to present to you for decision in this April Decision Brief what amounted to an attempt to recast the AATES assessment to "undesirable". Do you agree with that?

45

BRIG FENWICK: Where do you draw that from?

MAJ CHAPMAN: 3(a), "Reassessed as undesirable".

5 BRIG FENWICK: Yes, on reflection that is a misleading statement.
And if I can just clarify why I say that, please? So the "unacceptable"
terminology was used to describe the symbology and possibly presenting
as a risk to flight safety in the initial AATES flight assessment. It wasn't
10 that risk that was reassessed to undesirable. It was the symbology
representation that was actually reassessed to undesirable. And that comes
out in the OPEVAL. Does that clear - - -

MAJ CHAPMAN: So you're drawing a distinction between the risk being
15 undesirable and the performance of the symbology as being undesirable?

BRIG FENWICK: Yes.

MAJ CHAPMAN: Perhaps that can be dealt with another way. I want to
suggest that, in fairness, it was misleading to you because we have in
20 paragraph 8 of the Decision Brief that Standards, itself, agreed with the
AATES assessment as to the behaviour of the symbology. Do you agree
with that?

BRIG FENWICK: Yes. To the behaviour, yes.
25

MAJ CHAPMAN: And knowing what you do now, do you agree that the
characterisation of 5.10 as undesirable and carrying low risk assessment did
not reflect the true risk associated with this upgrade? Do you agree with
that?
30

BRIG FENWICK: No.

MAJ CHAPMAN: You don't?

35 BRIG FENWICK: No, I don't.

MAJ CHAPMAN: And that's because it didn't reflect the true risk
because the AATES assessment, which is referred to in the April brief, had
not changed from unacceptable. Do you agree?
40

BRIG FENWICK: So I agree the AATES risk assessment had – sorry, the
AATES assessment of the symbology had not changed from unacceptable,
yes.

45 MAJ CHAPMAN: And if unacceptable was the reference point for this

risk assessment, I'd suggest that the result could not possibly have been low risk.

5 BRIG FENWICK: Well, it was reduceable to low risk in my view and that's reinforced by the AATES response. So by the time I've seen this brief, I've seen the AATES response and so I'm incorporating that into my thinking. And, in fact, I'm not sure if it's a reference. Yes, it is. And as I've said when I've read the AATES response, it says that the symbology, their assessment remains unacceptable and didn't change it.

10 And I accepted that for a number of reasons. In particular, the integrity of the test environment. There was no statement of the risk at that point and I interpreted that to be deliberate because then COL Reinhardt went on to say that the risks of the symbology could be mitigated such that it was acceptable and could proceed to Service Release.

15 MAJ CHAPMAN: Sir, but isn't it the case that we only get to – and this is again being staff to you – but we only get to an assessment of low risk based on the “undesirable” characterisation in the Decision Brief?

20 BRIG FENWICK: I would agree with that, yes.

MAJ CHAPMAN: And if the “unacceptable” characterisation was the reference point, as opposed to “undesirable”, you would not think that one could arrive at a low risk assessment?

25 BRIG FENWICK: If it had stood. But, as I say, the - - -

MAJ CHAPMAN: Well, they did stand. Your evidence is, unless it's different, the “unacceptable” finding did stand. Is that right?

30 BRIG FENWICK: Yes.

MAJ CHAPMAN: So my proposition is, it seems inherently inconsistent that you have an “unacceptable” finding which stands, and then an assessment made as to low risk. They can't stand together. Do you accept that?

35 BRIG FENWICK: Well, no. Because the “unacceptable” finding did not incorporate then risk controls to bring the risk to low.

AVM HARLAND: Could we just perhaps go back to the March '20 brief, paragraph 7(a)?

40 BRIG FENWICK: Yes, sir.

AVM HARLAND: In terms of risk, noting that it is “For Official Use Only” document, does para 7(a), in the last sentence, articulate, after the presentation of the AATES response to the OPEVAL, a risk level?

5

BRIG FENWICK: Yes, it does.

AVM HARLAND: And is that risk level higher than low?

10 BRIG FENWICK: Yes, it is.

AVM HARLAND: So would you accept that that was the risk level that AATES retained and advised you of prior to, and still stood, when the 20 April brief arrived on your desk?

15

BRIG FENWICK: Yes. Although I’d not seen that risk assessment at that point. So you’ll note from the June - - -

AVM HARLAND: It was in - - -

20

BRIG FENWICK: Sorry to interrupt, sir. But from the June ‘19 AATES testing an AVRML risk assessment wasn’t done. So again, I can’t recall my interpretation of this at the time. But looking at it now – can I just check whether that’s from the – because that paragraph is summarising the AATES view. I just can’t check whether that comes from the response or not.

25

AVM HARLAND: But you would agree that it’s notifying you of a risk level that’s higher than low in their assessment?

30

BRIG FENWICK: That’s what I’m just trying to check, sir, whether it was in the assessment of AATES or in the assessment of the team that wrote the brief. And so I’d just like to check back. Because I can’t recall any response from AATES that an AVRML risk assessment was done that concluded medium. I can’t see that in the AATES response.

35

AVM HARLAND: But para 7 – in the lead-in to para 7, the preamble to 7(a) basically states what those two comments in (a) and (b) are.

40 BRIG FENWICK: Fair. Yes – and fair. And, look, sir, in fairness, this brief was consulted with LTCOL Reinhardt. So, yes, you’re right.

AVM HARLAND: So in that sense we’ve got a difference between two risk levels.

45

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BRIG FENWICK: Yes.

AVM HARLAND: And that means you've really got to balance two
different opinions in going forward. And in going forward, did you have
5 access to the risk assessments other than the commentary here?

BRIG FENWICK: No, sir, I didn't.

AVM HARLAND: Because we've heard commentary, but I haven't
10 seen, as yet, a risk assessment.

BRIG FENWICK: No, I - - -

AVM HARLAND: Other than the bowtie, which does not articulate the
15 risk level.

BRIG FENWICK: I can't recall seeing it, sir.

AVM HARLAND: Would that have been important, given you're
20 balancing two different opinions about something which is fairly profound?

BRIG FENWICK: Yes. I just can't recall the process at the time.

AVM HARLAND: Perhaps we should seek those - - -
25

MAJ CHAPMAN: Yes. Sir, did you seek any briefing from the authors
of the April Decision Brief, being COL Norton or COL Lynch, as to how
they assessed risk to personnel safety as low in the light of the AATES
30 finding?

BRIG FENWICK: No. But I'm just having another look at that while
we're here.

MAJ CHAPMAN: Yes.
35

BRIG FENWICK: So the assessment of medium in the March brief
I think is specifically talking about the pitch information. Let me just
confirm. So it's talking specifically about the pitch and roll aspects of
that. Paragraph 11 of the April brief would appear to be referring to low
40 risk overall MRH operations with 5.10, not just that element.

Now, I honestly can't recall whether there is a - so the one in
paragraph 11 of April is a summary of overall, with the medium included
within the overall - and overall it came to low. I'm sorry, I just can't recall.
45

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AVM HARLAND: Yes, because I guess really what I'm interested in is trying to understand what controls could have been in place between the March '20 brief, which had an elevated level of risk for a particular part - - -

5 BRIG FENWICK: Yes.

AVM HARLAND: And that's not going to wash out unless there are specific controls applied, and that would be done through a structured AVRMA, Aviation Risk Management process.

10

BRIG FENWICK: Yes.

AVM HARLAND: Which would be documented.

15 BRIG FENWICK: Yes.

AVM HARLAND: And that's really what I'm after.

20 BRIG FENWICK: No, I understand that. I'm sorry, I don't recall where it would be. I can't - - -

AVM HARLAND: Do you think one exists?

25 BRIG FENWICK: I do. Only on the basis of the fact that we've come to these levels somehow. So it would be surprising to me that there wasn't one done that led to this assessment being presented to me like this.

30 AVM HARLAND: But that's really where I'm trying to go with this, and understand what additional controls were put in place, whether they were appropriate and whether they led to the newly assessed level of risk. Now, one question just before we go back to MAJ Chapman. Did you see yourself in a position as adjudicating between a standing of unacceptable risk that AATES had expressed and a risk that had been done in another testing regime, a CAT 4 regime versus a CAT 2 regime?

35

Did you feel like you were adjudicating between those two assessments? Or did you feel like the decision you were making accepted that the OPEVAL assessment of "undesirable" had overturned the "unacceptable"?

40 BRIG FENWICK: It had re-characterised the risk in my view. So I was presented with the AATES June '19 assessment and it said from the view of the pilot who flew it, I think, that other people are going to have difficulty with this in, you know, the stated environments. And so I then had to take that and see whether that proposition - which was a proposition; there had been no evidence at that point that it had occurred. And I note too that in

45

the December '19 Special Operations approach testing, that there was a circumstance of spatial disorientation under version 4.0. So I was not of the opinion that spatial disorientation in the MRH under night-vision devices was in some way exclusive to 5.10.

5

So I then had to extrapolate that and see whether it did actually apply to a broader range of pilots other than the one who had flown in June '19. Hence, the OPEVAL. What that did for me was it better gave us an understanding of the performance of 5.10. Why it was doing what it was doing, because that was not understood in June '19. And whether the proposition provided by MAJ Wilson was, in fact, manifest in the environments and with the people that he said it would occur.

10

And I certainly felt that that risk, that proposition, had been re-characterised from its original intent, proof of proposition. Does that answer your question?

15

AVM HARLAND: I think it does. Because what I'm getting there is that you felt that the OPEVAL assessment had overridden the initial AATES assessment from the initial report with respect to that "unacceptable" finding.

20

BRIG FENWICK: It had certainly helped me understand better the risk. So, yes, in the collection of documents I had in front of me, yes, I was trying to weigh up the different views and so on. And I felt it had significant weight in my thinking and the risk assessment, that once we had the June '19 with the re-characterisation and exposure of other people to the symbology, that yes, it certainly came out with additional weight for me. I carried it higher in my thinking.

25

30

AVM HARLAND: Understood. Yes, that's really what I was trying to understand. And that's notwithstanding the fact that in the month prior, in the March brief, the AATES Team, through their boss, had advised that although they accepted a number of other changes in the OPEVAL findings and they accepted a number of things in the OPEVAL report, they still stood by their initial assessment of unacceptable.

35

Did that give you pause for thought that maybe this required some more deeper analysis because they'd effectively conceded a number of other points as a result of reviewing the OPEVAL report, but they weren't able to concede this one? Did that give you pause for thought in terms of how you balanced that?

40

BRIG FENWICK: It gave me considerable pause for thought because I was not unaware of what I was doing in the process. But I certainly held a

45

view that we could proceed with it safely, but we should, notwithstanding that, still seek to get rid of it. So it was, in my mind, that it needed to go at some point but we could proceed with it safely. Indeed, safer with it than without it.

5

AVM HARLAND: And you referred at – my apologies, MAJ Chapman just I'll sort of skip to this. In the Minute March '20 to you it talks about, in para 9, the last paragraph – and without going into the detail – but it talks about doing things in the future to do exactly what you talked about, to

10

reduce it - - -

BRIG FENWICK: Yes.

15

AVM HARLAND: Can you give the Inquiry an idea of what those things were in the time since March '20 until July '23?

BRIG FENWICK: I'm sorry, could you tell me where you're looking specifically?

20

AVM HARLAND: The March '20 Decision Brief, which is - - -

BRIG FENWICK: Yes.

25

AVM HARLAND: - - - JRF 19, para 9, the last sentence. It talks about what you just said there, that you felt that - - -

BRIG FENWICK: Yes, absolutely.

30

AVM HARLAND: - - - you needed to eliminate this risk or reduce it somewhat. In the time between March '20 and July '23, what progress was made and what was done in that time?

BRIG FENWICK: The key progress made in that time was the government decision to remove MRH from the ADF.

35

AVM HARLAND: But the crews are still exposed to that risk in the intervening period.

40

BRIG FENWICK: Understood, sir. And it is my understanding – not that I have been in the role since '21 – but it's my understanding that getting that change would have, indeed, taken longer than it took us to convince government to get rid of the aircraft and no longer use it.

45

AVM HARLAND: So if you could have changed an aircraft - - -

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BRIG FENWICK: And so it was somewhat overcome by events.

AVM HARLAND: Yes, okay.

5 BRIG FENWICK: I was instrumental – so in 2020 was the year of
developing the business case for a government decision on whether to
continue with MRH-90 or not. And that decision was announced by
government. The decision was made through 2021, and I left service in
10 May '21. So I can't speak for what decisions have been made between that
time.

AVM HARLAND: No, understood. Thank you. MAJ Chapman.

15 MS McMURDO: Just while you're interrupted, one question from me.

BRIG FENWICK: Yes, ma'am.

MS McMURDO: In the Decision Brief 20 April, where you were before
in paragraph 10 on page 3, it talks about:

20 *A full risk analysis will be contained in future OT-CRM.*

BRIG FENWICK: Yes, ma'am.

25 MS McMURDO: Was that done, do you know?

BRIG FENWICK: I believe so.

30 MS McMURDO: But it's not with the material you've given us? We
can chase that up.

BRIG FENWICK: No. But I do believe it's part of COL Lynch's
evidence that he stated it was done. And on the basis of that, I have no
reason to believe that it wasn't.

35 MS McMURDO: Okay, thank you. Do you know when?

BRIG FENWICK: No, ma'am, I don't. No, I don't.

40 MS McMURDO: Thank you.

MAJ CHAPMAN: So just while we're on the subject of risk
assessments. So you've given evidence in your statements and also today
at various points that your decision to recommend Service Release was
45 informed by risk assessment generally. Do you agree with that?

BRIG FENWICK: Yes.

5 MAJ CHAPMAN: And an example of this is paragraph 35 of your first statement – and you probably don't need to turn it up.

BRIG FENWICK: Okay.

10 MAJ CHAPMAN: It simply refers to conducting the OPEVAL. You say:

We could consider all aspects of the problem, all elements of risk and determine the safest and best way forward.

15 Do you recall that?

BRIG FENWICK: Yes, I think that's the intention.

20 MAJ CHAPMAN: And another is from your second statement, I think at paragraph 21, where you reference:

The introduction of MRH was the subject of detailed planning and risk assessment.

25 BRIG FENWICK: Yes.

MAJ CHAPMAN: And we take it, do we, that this included detailed risk assessment with respect to 5.10?

30 BRIG FENWICK: Yes, so the risk assessment I think I'm specifically referring to there is about Plan Palisade.

MAJ CHAPMAN: Yes, Plan Palisade.

35 BRIG FENWICK: And 5.10 would have been included in that.

MAJ CHAPMAN: And a further example is paragraph 24 where you again refer to detailed and collaborative risk assessment is informing your decisions.

40 BRIG FENWICK: Yes.

MAJ CHAPMAN: You refer at paragraph 24 to the seven-step process being mandated. Do you see that?

45 BRIG FENWICK: Yes.

MAJ CHAPMAN: You include the reference there, which I think we went to yesterday, JRF 3, which is GEN Bilton's Directive with respect to risk assessment.

5

BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you agree that the seven-step risk assessment approach is both mandated and integral to a Commander's decision-making process?

10

BRIG FENWICK: Yes.

MAJ CHAPMAN: In the next paragraph of your statement – we're at 25 – you say that:

15

With respect specifically to 5.10, it is important to note that the risk assessment for upgrade to 5.10 was done within a broader context.

BRIG FENWICK: Yes.

20

MAJ CHAPMAN: Just to return to briefly, if I may, to JRF 20, which is the April Decision Brief, do you see there, sir, at the end – and this has been referred to by the Air Vice-Marshal at – I think it's flag A – but in any event, it's the colourful flow chart. Do you see there that that is the bowtie risk analysis?

25

BRIG FENWICK: Yes.

MAJ CHAPMAN: Obviously enough, it's correct to describe that as a risk assessment process.

30

BRIG FENWICK: Yes, it's a representation of the risk process having been taken.

35

MAJ CHAPMAN: But is this process, the bowtie risk analysis, different to the seven-step risk analysis process?

BRIG FENWICK: No, it's my recollection that the seven-step process leads to this as a representation of the outcome of that process. So I would've taken that the seven-step process was done. I would've just expected my staff to do that, on that basis, and then the bowtie was a presentation for me at the time.

40

MAJ CHAPMAN: It's not a suggestion certainly that you would be conducting the risk analysis yourself, though your evidence is, is it, that this bowtie analysis represents, as it were, a summary of the seven-step analysis?

5

BRIG FENWICK: That's my recollection of how it was included, yes.

MAJ CHAPMAN: So you wouldn't expect to see, is it your evidence, a bowtie risk analysis such as this, together with another documented form of risk analysis?

10

BRIG FENWICK: Not necessarily. I mean, I clearly accepted it as the representation at the time. I can't remember if there was more detail provided.

15

MAJ CHAPMAN: Now, this appears in the April – or annexed to the April Decision Brief. Correct?

BRIG FENWICK: Yes.

20

MAJ CHAPMAN: Just going back briefly on this one point to the March Decision Brief, do you agree that that was not supported by any documented risk management analysis at all?

25

BRIG FENWICK: Well, not in its presentation to me, no.

MAJ CHAPMAN: So in the March Decision Brief you recommend Service Release in the absence of a reference which records the risk analysis. Do you agree with that?

30

BRIG FENWICK: I'll just check the brief and make sure it's not mentioned somewhere else. So I'll need to just check. Yes, I can't see any reference to one there.

35

MAJ CHAPMAN: And certainly there's no bowtie analysis which is attached to the March risk assessment.

BRIG FENWICK: No, there is reference to application of an AVRМ template, but other than that, no.

40

MAJ CHAPMAN: And that was a decision made notwithstanding the requirement of GEN Bilton's Directive that the risk management process is to be undertaken and recorded. Do you agree?

45

BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you agree that to the extent there's any risk analysis conducted and documented in respect of 5.1, it appears to be limited to the bowtie risk analysis in the April brief?

5

BRIG FENWICK: With what we've currently got in front of us but, as I say, I'm not sure what else might exist, to be honest. I can't recall.

MAJ CHAPMAN: I'm not asking you to speculate about it. I would just ask you that to the extent of your knowledge, sitting here today, your understanding is that documented risk assessment that you were presented with was the bowtie analysis alone.

10

BRIG FENWICK: That's my recollection.

15

MAJ CHAPMAN: Now, I think the Chair took you to this, but briefly at 10 of the April brief there was the statement that:

A full risk analysis will be contained in the future OT-CRM.

20

Correct?

BRIG FENWICK: Yes.

MAJ CHAPMAN: I think your answer is you think that there may be a full risk analysis documented somewhere, though you have not seen it. Is that right?

25

BRIG FENWICK: So I can't recall seeing it. That's not to say that I didn't, but I cannot recall seeing it, and I accept the evidence of COL Lynch that he said it had been done.

30

MAJ CHAPMAN: Given the reference in the April brief to the risk assessment not yet being available – and just to be clear in that, do you agree that the April brief refers to the full risk assessment essentially being forthcoming?

35

BRIG FENWICK: Well, I think it talks more about it being included in the OT-CRM.

40

MAJ CHAPMAN: Well, it says, just to be fair about this, at paragraph 10:

A full risk analysis will be contained in the future OT-CRM.

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And then goes on to describe the risk, and then there's this reference to an initial bowtie analysis, which is at flag A. Do you see that?

BRIG FENWICK: Yes.

5

MAJ CHAPMAN: Did you read that to mean the first proposition, that a full risk analysis had or had not been conducted at the time of this April brief?

10 BRIG FENWICK: My recollection is that one had been done, but it's inclusion in the OT-CRM had not – at that time, had not.

MAJ CHAPMAN: Is there any reason – well, I'll ask this question. Did you ask DOPAW or anyone else in your staff to produce to you a
15 documented version of that full risk analysis?

BRIG FENWICK: I don't know. I can't recall.

MAJ CHAPMAN: You can't recall. Is there any reason why you would
20 not defer Service Release of this upgrade pending receipt of that full risk analysis, given we're talking about a context involving the potential of CFIT?

BRIG FENWICK: That would make sense, on reflection. But, as I say,
25 I've been involved in this process throughout repeatedly for a good, solid nine months. I had a good understanding of the risk profile.

MAJ CHAPMAN: So is it your evidence that you'd accept now that the
30 decision for Service Release ought to have been deferred pending your review of the full risk analysis?

BRIG FENWICK: No, I cannot recall how that played out, so I wouldn't like to make that statement.

35 MAJ CHAPMAN: You don't agree.

BRIG FENWICK: No.

MAJ CHAPMAN: Could you next go to paragraph 23 of your
40 amplifying statement? Do you have that there, sir?

BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you see there you talk about the desire to meet
45 capability timelines?

BRIG FENWICK: Yes.

5 MAJ CHAPMAN: And though – these are my words – that that desire would yield to issues of safety.

BRIG FENWICK: Yes.

10 MAJ CHAPMAN: So, in other words, while there was a commitment to achieving capability milestones, you would not take a decision to proceed if there was an issue of safety that was brought to your attention.

BRIG FENWICK: That's true.

15 MAJ CHAPMAN: Now, was it the fact that you received, as part of the April Decision Brief, notice that AATES was still concerned about the risk of 5.10? Do you agree?

20 BRIG FENWICK: Yes, and I had AATES' response.

MAJ CHAPMAN: And do you agree that the "unacceptable" decision was the highest level of concern that AATES could express with respect to the upgrade?

25 BRIG FENWICK: Yes, with that specific piece of the symbology.

MAJ CHAPMAN: So you had at April this AATES concern. You had the statement in the brief that a full risk analysis may have been completed. Is that correct?

30 BRIG FENWICK: I am expecting that it was, yes, in my recollection.

MAJ CHAPMAN: I just wanted to suggest to you, sir, that this was the precise circumstance that you were presented with, was one where capability timelines ought to have yielded to issues of safety. Do you agree, or not?

BRIG FENWICK: Yes.

40 MAJ CHAPMAN: And I want to suggest to you that you could not have made an informed decision as to the safety of this upgrade going forward without your review of the complete risk assessment, which you did not have. Do you agree?

45 BRIG FENWICK: I don't recall.

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MAJ CHAPMAN: My question was that you could not have made an informed decision as to the safety of this upgrade without a review of the complete risk assessment. Do you agree?

5

BRIG FENWICK: I felt that I was well-informed on the risks.

MAJ CHAPMAN: So you disagree. You, as the Commander, took the decision to proceed with Service Release, obviously based on information which you had been briefed by your staff.

10

BRIG FENWICK: Yes.

MAJ CHAPMAN: Did you have any discussions with COL Lynch or LTCOL Norton, or anyone else for that matter, with respect to the underlying risk assessment material, and the assessment of risk?

15

BRIG FENWICK: We talked often about the risks involved, and how to or not to proceed, absolutely, but I can't recall any specifically.

20

MAJ CHAPMAN: Are you aware that the Inquiry has received some evidence that no one appears to be aware of any risk assessment having been updated onto the OT-CRM with respect to 5.10?

25

BRIG FENWICK: I'm not aware of that.

MAJ CHAPMAN: Do I take it that result, if true, would surprise you?

30

BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you agree, if it's the case that the OT-CRM, when that document is produced, does not contain a risk assessment, that you'd accept a full risk assessment was not completed?

35

BRIG FENWICK: No, I wouldn't accept that. Just because it's not in the OT-CRM, doesn't mean it doesn't exist.

MAJ CHAPMAN: You say at paragraph 32 – and I paraphrase – that there's a risk of loss of life which attends to all Military flying activities.

40

BRIG FENWICK: Yes. Sorry, do I actually say it in that manner?

MAJ CHAPMAN: That was my - - -

5 BRIG FENWICK: Yes, so what I'm saying there is – I'm not saying that everything we do has the potential for loss of life. What I'm saying is many of the things we do across the whole of ADF Aviation – it is a potential consequence of a number of them that accidents leading to loss of life could occur.

10 MAJ CHAPMAN: Just going back to a previous question on the OT-CRM. Do you accept that it's important that the basis for a decision such as this, that the information relied on is recorded – it's documented and recorded? Do you agree with that?

BRIG FENWICK: It's the purpose of the OT-CRM, to do exactly that.

15 MAJ CHAPMAN: You've given evidence that Defence has a responsibility to reduce the risks so far as reasonably practical.

BRIG FENWICK: Yes.

20 MAJ CHAPMAN: And that you, as a Commander, had responsibility by virtue of the directive from the Military Air Operator, who bears the risk.

BRIG FENWICK: So to be clear, I was not a Commander.

25 MAJ CHAPMAN: I'm sorry. You, as the Director-General.

BRIG FENWICK: Yes.

30 MAJ CHAPMAN: Sorry, I withdraw that. You, as the Director-General, had the responsibility, by virtue of the directive from the Military Air Operator, had that responsibility by virtue of the directive from the (indistinct)?

BRIG FENWICK: Yes.

35 MAJ CHAPMAN: Thank you, and I want to suggest that recommending Service Release in the circumstances that I've outlined did not reduce the risk so far as reasonably practicable. Do you agree or disagree?

40 BRIG FENWICK: I disagree.

MAJ CHAPMAN: And that was because Service Release was recommended without a number of controls being carried over from the Operational Evaluation testing. Do you agree with that?

45 BRIG FENWICK: That's your proposition.

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MAJ CHAPMAN: Yes, my proposition.

BRIG FENWICK: Okay.

5

MAJ CHAPMAN: Do you agree or disagree with that?

BRIG FENWICK: So I don't agree. Well, you'd need to be specific, I'm sorry, about which controls you felt needed to be transferred across because not all controls that were part of the test activity would need to be brought across.

10

MAJ CHAPMAN: It's further on, though we can address it now. The two controls specifically being – and there's been evidence about this – flight below two millilux and in the absence of a visual horizon.

15

BRIG FENWICK: I'm not sure where they were transferred, or why they weren't, if they weren't.

MAJ CHAPMAN: So you're not aware of whether or not they were transferred over into Service Release as limitations on the use of 5.10?

20

BRIG FENWICK: I can't recall.

MAJ CHAPMAN: The second proposition as to why I'm putting to you Service Release – that you did not reduce risk so far as reasonably practicable – is because Service Release was recommended without the full picture of risk being assessed by the terms of the April brief, because the underlying analysis was not provided to you. Do you agree?

25

30

BRIG FENWICK: No.

MAJ CHAPMAN: I'd just like to – moving on, Chair. I'm probably not too far off. I'd just like to return to JRF 19 in a different respect, and that's the 20 March brief. I'll not read out these parts, but is it your recollection that this document represented that elements within your staff were satisfied that version 5.10 was fit for Service Release?

35

BRIG FENWICK: Yes.

40

MAJ CHAPMAN: Is it your recollection that they were satisfied about the ambiguous attitude issue, that it could be managed with controls being put in place?

BRIG FENWICK: Yes.

45

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MAJ CHAPMAN: Would you agree that it was not being suggested to you at that time in this brief that the ambiguous attitude issue did not exist?

5 BRIG FENWICK: That's true.

MAJ CHAPMAN: Yes, and instead that it existed, was accepted, and could be managed with training, controls, et cetera.

10 BRIG FENWICK: Yes.

MAJ CHAPMAN: Do you agree it was your understanding at the time in March that it was not because the ambiguous attitude issue had been fixed or corrected?

15 BRIG FENWICK: That's true.

MAJ CHAPMAN: And it was still extant.

20 BRIG FENWICK: It was still extant, and we wanted to remove it, but it was acceptable risk.

MAJ CHAPMAN: Could you just briefly go to paragraph 5 of that Decision Brief?

25 MS McMURDO: How much longer will you be? I'm just conscious that we've been going a while, and it probably - - -

MAJ CHAPMAN: Certainly, I can pause there.

30 MS McMURDO: You're not about to finish?

MAJ CHAPMAN: No. No, I'm not, I'm afraid.

35 MS McMURDO: How much longer do you think you'll be?

MAJ CHAPMAN: Perhaps half an hour.

MS McMURDO: Yes, I think we'd definitely better have a break.

40 MAJ CHAPMAN: Sorry.

MS McMURDO: Cross-examination and time estimates now? A long time?

45

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LCDR GRACIE: I won't be less than 45 minutes, ma'am.

MS McMURDO: I think the chances of us finishing by 5.30 today are not good, are they?

5

LCDR GRACIE: No.

MS McMURDO: No. I'm afraid you might have to make arrangements to come back tomorrow at 1 o'clock, when we resume. Anyway, we'll have a break now, a 10-minute – 15-minute break.

10

HEARING ADJOURNED

15

HEARING RESUMED

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

20

BRIG FENWICK: Thank you.

25

MS McMURDO: Yes, MAJ Chapman.

MAJ CHAPMAN: Thank you, Chair.

30

Sir, could you just return and maybe go to JRF 19? So that's the March brief.

BRIG FENWICK: Yes.

35

MAJ CHAPMAN: Could you go, please, to paragraph 5 of that document, and just read it.

BRIG FENWICK: Yes.

40

MAJ CHAPMAN: And without repeating what's there due to the classification, do you agree that a software fix to the ambiguous attitude was a possible course of action that could be explored?

BRIG FENWICK: In due course. Not immediately.

45

MAJ CHAPMAN: You say "in due course" because of what you've said in your other evidence about these updates going through essentially cycles.

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BRIG FENWICK: Yes, the time it would take. And we couldn't do it ourselves, and the time it would take to do it.

5 MAJ CHAPMAN: Just if you go to paragraph 43 of your second statement, please?

BRIG FENWICK: Yes. I'll just turn that up.

10 MAJ CHAPMAN: You gave evidence there, as you did this morning, that it's not possible to take elements of an upgrade – so this is version 5.10 – and discard the rest as it came as something of a package. Is that correct?

BRIG FENWICK: Yes.
15

MAJ CHAPMAN: Are you there referring to Army taking, for instance, the distance to go function, though with it, you also had to take this ambiguous attitude feature?

20 BRIG FENWICK: Yes, so ideally in this case we would take all the things we wanted, but discard that. I don't recall that being an option.

MAJ CHAPMAN: Do you recall engaging with anyone on your staff, including the DOPAW, DACM, any of those key positions, to investigate
25 whether a software solution could be obtained to remove the ambiguous attitude issue?

BRIG FENWICK: I recall that being a topic of discussion, yes.

30 MAJ CHAPMAN: Who did you discuss that with?

BRIG FENWICK: So exactly whom, I'm not sure, but I recall it being – I think it would've been DACM, so COL Connolly, in the context of him being the lead for the software sustainment system.
35

MAJ CHAPMAN: Yes, so your evidence, is it, that you raised with him that one course of action may be to look at a software solution that removed the ambiguous attitude. Is that - - -

40 BRIG FENWICK: I actually don't think I initiated that. I think it was done responsibly by them before, and then presented to me as a problem.

MAJ CHAPMAN: Do you know why, doing the best you can to recall
45 back then, that issue, or the exploration of that possible fix – or what the end point, end state, of that was? Let me withdraw that and start

again. What was the outcome of that discussion or that brief to you, about the steps that DACM had taken, or the staff had taken, to explore that as an option?

5 BRIG FENWICK: So my recollection is an enquiry with Airbus, in routine conversation with Airbus, to see whether it was possible, what the current timeline was of any particular fix. We were seeking, in particular, I guess, to understand if we were going to have to wait for the whole new next package, or whether this was something that could be done for us in a
10 bespoke fashion.

MAJ CHAPMAN: In that bespoke fashion, are we talking about that MOD 4, or that - - -

15 BRIG FENWICK: No, so that's different. No, what I'm really talking about is something more practical in the sense that Airbus already had all of the software information, and then we would be asking them to extract just a bit of it and issue it to us as a separate entity for Australia only.

20 MAJ CHAPMAN: So your understanding was that that enquiry was made?

BRIG FENWICK: I believe so.

25 MAJ CHAPMAN: And your understanding of that is through COL Connolly?

BRIG FENWICK: That would be my recollection, yes.

30 MAJ CHAPMAN: Can you go to paragraph 51 of your statement? You make the point that in Plan Palisade the introduction of MRH to the Special Operations role was not a factor in the introduction of 5.1. So in effect there was no time pressure for the introduction of 5.1?

35 BRIG FENWICK: No, not if I was unsure of its safety.

MAJ CHAPMAN: If there was no time pressure imperative here, and that capability, in your evidence, yielded to issues of safety, why, instead of recommending Service Release, did you not decline Service Release and
40 have it returned for further assessment?

BRIG FENWICK: I was satisfied. So I was satisfied that it was suitable for Service Release. It was safer. So, again, the longer that we maintained a system that I didn't believe was the safest, was not suitable, and it seemed
45 appropriate to move forward with it.

MAJ CHAPMAN: Can you go to paragraph 39, please, of your statement, and you refer there to evidence given by AIRCDRE Medved on 4 March 2025? Do you see that?

5

BRIG FENWICK: Yes.

MAJ CHAPMAN: You say there, to suggest that – well, AIRCDRE Medved's evidence, you say, would suggest that version 5.10 could have been adopted on the basis of the German certification of the testing.

10

BRIG FENWICK: Yes, certainly in the technical sense. So, yes.

MAJ CHAPMAN: By the letter of the regulations, that is correct, though you'd also accept, don't you, that the ADF were required – or there was an obligation on the ADF to test the upgrade here for domestic configuration, role and environment?

15

BRIG FENWICK: Yes.

20

MAJ CHAPMAN: And that was necessary because it could be unsuitable in the configuration in role and environment here, which is different to the German position.

25

BRIG FENWICK: Yes.

MAJ CHAPMAN: And you're not suggesting here, by that paragraph, are you, that the testing that was conducted here was unnecessary?

30

BRIG FENWICK: No.

MAJ CHAPMAN: In paragraph 41 you refer to there being something of a trade-off in time in accepting version 5.10:

35

As developing the unique Australian solution would have unknown costs in terms of money and time.

BRIG FENWICK: Yes, so there I'm referring to the concept of MOD 4.

40

MAJ CHAPMAN: There you're referring to it. So that's not in the context of 5.1?

BRIG FENWICK: So let me just check. Para 41, are we - - -

45

MAJ CHAPMAN: Yes, it refers to 5.1.

5 BRIG FENWICK: Yes, so a decision taken before my time, and my understanding of that is there was, as you know, the MOD 4 exploration done with DSTG, and really I'm referring – in the “unique to Australia solution” there, I'm referring to that, not to some mechanism of changing 5.10. I don't think that was ever explored in 2017.

10 MAJ CHAPMAN: Though your earlier evidence was that the question, you think, was asked by COL Connolly in relation to a bespoke software fix to remove the ambiguity. Correct?

15 BRIG FENWICK: Yes, but post the June '19 AATES. So once that characteristic of what – had been identified as problematic, we then enquired whether there was a way to remove it in and of itself, which would have manifested as a unique to Australia solution. But what I'm referring to in this paragraph is the decision that was made in 2017 to adopt 5.10, or pursue 5.10 rather than a unique to Australia one, off the back of the DSTG work.

20 MAJ CHAPMAN: I understand. Just moving on, and you've also given some evidence about the resourcing at AATES at the time of the OPEVAL.

25 BRIG FENWICK: Yes.

MAJ CHAPMAN: Your evidence is to the effect that AATES had these resourcing issues, and that played a part in your decision to have Standards conduct the Operational Evaluation.

30 BRIG FENWICK: Yes.

MAJ CHAPMAN: Now, there's been some evidence about who took the decision to progress with the Operational Evaluation. Was that, to your knowledge, a decision you took, or one that DACM took, or even DOPAW?

35 BRIG FENWICK: I think by the OAMP, by my recollection of that, this process was done under my authority. Now, COL Connolly worked for me, and he and I talked about this regularly. So the construct of the idea was between him and I, and I think done under my authority, is my recollection.

40 MAJ CHAPMAN: If timing for the introduction was not so much of an issue, why was this decision not taken to defer Service Release pending AATES being supplemented with additional resources that they may require to conduct the further testing?

45

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BRIG FENWICK: That could have been done, but that would have been postponing Service Release for several years, possibly, at that point because - - -

5 MAJ CHAPMAN: That was an option? You accept that was an option?

BRIG FENWICK: I accept it was an option, but I certainly – deferring 5.10 for the period of a couple of years like that was not something I wanted to do.

10

MAJ CHAPMAN: You gave some evidence earlier today by reference to JRF 12, which is COL Reinhardt's Minute to you about the resourcing issue he identified.

15 BRIG FENWICK: Yes.

MAJ CHAPMAN: And I think you said that you annotated the document to say, "My responsibility to build".

20 BRIG FENWICK: Yes, to build capacity in AATES over time. Yes.

MAJ CHAPMAN: Accepting that it was your capacity – sorry, your responsibility to build capacity and resources in AATES, can you just explain what steps you took to build that capacity?

25

BRIG FENWICK: Yes, so really what I'm talking about there is growing more test pilots. So we did in that period, by my recollection, identify people for Test Pilots Course, find more spots on Test Pilots Course, and so on. Now, somewhere in that period.

30

MAJ CHAPMAN: You say, sir, at paragraph – can I take you to 68 – that it was your preference for Standards to conduct this activity because it was consistent with the airworthiness tests and evaluation structures.

35 BRIG FENWICK: Yes.

MAJ CHAPMAN: Though do you accept that this was an exception to the rule, in that ordinarily tests and evaluation would be conducted by the Flight Test Organisation?

40

BRIG FENWICK: It depends on the type of test and evaluation.

MAJ CHAPMAN: So you disagree that ordinarily – what, this sort of testing?

45

BRIG FENWICK: So the element – well, as I’ve stated, there were two forms of testing occurring in the one activity. Some of it was still flight test related and would be a normal – you would expect a Flight Test Organisation to do, and then the other was Op Evaluation. And, actually,
5 under the terms of how Op Evaluation is conducted, it can be conducted under a different set of authorities.

MAJ CHAPMAN: But the assessment of 5.1 concerned Human-Machine Interface. Do you agree with that?
10

BRIG FENWICK: Yes.

MAJ CHAPMAN: And my proposition is that ordinarily that would be conducted by the Flight Test Organisation and not Standards; is that right?
15

BRIG FENWICK: Yes.

MAJ CHAPMAN: Moving on to paragraph 84 of your statement – just turn to that, please. You say that AATES’ response – so this is in the context of – it says:
20

AATES’ response to the OPEVAL confirmed that any residual risk could be mitigated at some level, in my mind, so far as reasonably practical by training categorisation, restrictions on operations, low visibility, low cue, and no horizon environments.
25

BRIG FENWICK: Yes.

MAJ CHAPMAN: Just unpacking that, you’re referring there to training on the ADELE package, is that right, amongst other things?
30

BRIG FENWICK: And my recollection is there was some dual instructions.

MAJ CHAPMAN: There were some dual instructions. When you refer to mitigating risk by imposing restrictions on operations – and you’ve given some evidence about this – isn’t it the case that there were no restrictions recommended by your staff on Service Release of 5.10 specifically concerning low visibility and operation without a visual horizon?
35
40

BRIG FENWICK: So I’m not a hundred per cent sure on this because there are some aspects of operations at low light levels that were not only specific to the HMSD symbology, but specific to other concerns like visual acuity. So there were, to my recollection, restrictions placed on that already, if you like, that could have encapsulated the requirement here.
45

MAJ CHAPMAN: Is it your evidence that there were restrictions, to your knowledge, on Service Release of operating below two millilux or without a visual horizon?

5

BRIG FENWICK: Not on the Service Release, but that allowed the Service Release such that – so here where I’m referring to, for example, the placement of restrictions in OIP – Orders, Instructions, Procedures – Standardisation Manuals and so on, which would have been in areas about conduct of operations in low light, as opposed to necessarily just about the HMSD. Do you see what I’m saying? There were low light restrictions because of the visual acuity, particularly at the time before we had upgraded the image intensifiers, and that was not specific to the symbology, but it encapsulated and reduced the risk that was needed in the same environment.

10

15

MAJ CHAPMAN: And accepting that though, one consequence of these two specific controls – and I’m just using them as examples – was that not being applied to Service Release, was that pilots were permitted to be flying conditions which effectively had not been tested. Do you agree with that?

20

BRIG FENWICK: No.

MAJ CHAPMAN: So you don’t agree that pilots were permitted to fly in conditions which had not been tested?

25

BRIG FENWICK: Testing had been conducted which allowed us to understand the risks sufficiently for flight to be conducted.

MAJ CHAPMAN: Do you agree that the OPEVAL testing did not permit flight below two millilux, or in the absence of a visual horizon?

30

BRIG FENWICK: In the testing itself?

MAJ CHAPMAN: Yes.

35

BRIG FENWICK: I think that’s in the report.

MAJ CHAPMAN: Indeed.

40

BRIG FENWICK: Yes.

MAJ CHAPMAN: So all I’m saying is that those two specific controls were not carried over to Service Release. You agree with that?

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BRIG FENWICK: Not specifically around the HMSD. I can't recall whether they were still controls that were in OIP, but for another reason.

5 MAJ CHAPMAN: Well, to take it further, I'd say on the basis that – assuming that those controls were not taken over to Service Release, that would have permitted the pilots to be flying in conditions which had not been the subject of testing.

10 BRIG FENWICK: Yes.

MAJ CHAPMAN: And permitting flight in conditions which, according to AATES and the DoSA-FT, required controls being placed on the OPEVAL activity. Is that right?

15 BRIG FENWICK: So as I said earlier, the controls that are placed on an OPEVAL activity are done because of the constraints involved in the OPEVAL. They're not necessarily transferred across to operational flying.

20 MAJ CHAPMAN: While we do not know precisely the weather conditions of the accident, there's been significant evidence, including, as I say, from eyewitnesses, that the conditions were poor and possibly deteriorating. Are you aware of that?

25 BRIG FENWICK: Yes, I think I can agree with that.

MAJ CHAPMAN: Assuming that the flight below two millilux, and in the absence of a visual horizon, had been applied to Service Release, do you accept that if the conditions reached that point, that pilots would be required to terminate the activity?

30 BRIG FENWICK: No, not necessarily. I can't recall the nature of the controls that were in the Standardisation Manual at the time, but as I think you've already got evidence from Glenn McCall, the Standardisation Manual articulates a set of conditions in which you are bound, but then if
35 you are flying in different conditions, it doesn't mean you can't do it, but a risk assessment has to be applied to do it. So I would expect to see some risk assessment that was specifically applied to those conditions for the mission.

40 MAJ CHAPMAN: Is your evidence to say that notwithstanding that there may be these controls on the use of HMSD 5.10, that pilots could proceed with a sortie where effectively it's in breach of those control measures?

45 BRIG FENWICK: So if it's in the Standardisation Manual, there is a method for it. If it's in the Standing Instructions for Aviation Operations,

then that is a different construct, and I'm sorry, I'm just not familiar with what is in Standing Instructions for Aviation Operations at the time of the accident. I can't speak to that.

5 MAJ CHAPMAN: Just moving on to three brief topics. The first is that can you just describe to the Inquiry what qualification or training that you received as Director-General to enable you to act as the Delegate of the Military Air Operator in terms of assessing risk?

10 BRIG FENWICK: Yes, we do an Operational Airworthiness Course, I think it was called. So it was to – you know, particularly in the circumstance that I was in, having been out of Aviation for a year or two, I did the Operational Airworthiness Course, and that's also the course that we took the Accountable Manager through whenever we had a new
15 Accountable Manager. And each time there was a new Accountable Manager, I would sit with that person and go through the course with them as well.

MAJ CHAPMAN: Are you aware separately of evidence from this
20 Inquiry that the Operational Specifications did not permit or authorise the OPEVAL flight test?

BRIG FENWICK: I've just become aware of that, yes.

25 MAJ CHAPMAN: Do you consider – is that a significant issue to your mind at the time of conducting the OPEVAL?

BRIG FENWICK: At the time of conducting the OPEVAL, I would not have checked that.

30 MAJ CHAPMAN: Sorry, you would not have checked that?

BRIG FENWICK: I would not have checked the – I would have
35 expected the Flight Test Organisation to apply for the MPTF against the appropriate OPSPEC, and for it to be clear. Now, I'm aware now that the OPSPEC had been changed to effectively not allow Army to conduct a flight test. I would certainly have expected at the time that if the intent was from the Aviation Safety Authority to remove Army's ability to conduct a flight test totally, that someone would at least let the Accountable Manager
40 know, or me, and I did not.

MS McMURDO: Do you suspect that it was – as the Captain from the Navy said yesterday, it looked as though there was an errant “not”, a “not”
45 there that shouldn't have been there?

OFFICIAL

BRIG FENWICK: So I have seen that, and I would agree because on the very same - - -

5 MS McMURDO: That would be your most likely interpretation of it, otherwise it just was nonsensical?

BRIG FENWICK: Yes, it would not make any sense to remove from Army its capacity to do flight test altogether. Certainly not without letting us know.

10 MAJ CHAPMAN: Those are my questions. Thank you, sir.

MS McMURDO: Thank you. Now, how long do you think you'll be, LCDR Gracie?

15 LCDR GRACIE: It won't be less than 45 minutes.

MS McMURDO: Okay.

20 LCDR GRACIE: I'll try and keep it under an hour.

MS McMURDO: Other applications to cross-examine? Yes.

25 LCDR TYSON: Ma'am, given what's already happened, I'll be relatively brief. About 10 minutes.

MS McMURDO: Other applications?

30 COL GABBEDY: Three minutes, ma'am.

MS MUSGROVE: About two.

MR O'MAHONEY: Possibly none at all. If I do ask any questions, it will only be brief.

35 MS McMURDO: It will be brief. Okay. Let's see how we go. Yes, thank you, LCDR Gracie.

40 **<CROSS-EXAMINATION BY LCDR GRACIE**

LCDR GRACIE: Sir, as you know, I represent the interests of CAPT Danniell Lyon of Bushman 83.

45

BRIG FENWICK: Yes.

5 LCDR GRACIE: Thank you. I know it's been a long day. I just want to tidy up two pieces of your evidence that we've just dealt with. You made reference to COL Lynch's evidence in relation to the OT-CRM, the Operational and Technical Combined Risk Management Tool.

BRIG FENWICK: Yes.

10 LCDR GRACIE: And you said that the effect of his evidence was that it was done to his satisfaction – I'll just characterise it, if you don't mind? It's about transcript 4690, for cross-referencing. It was put to him by LCDR Tyson that, "You did the full risk analysis," and he said:

15 *Look, my Directorate absolutely did it. My airworthiness staff went through and did the risk analysis and incorporated it within the OT-CRM.*

20 Well, based on what Counsel Assisting has said, it doesn't appear to be in the OT-CRM. COL Lynch said that he had not seen it, the matrix. He said he had an expectation that it would have reflected the risk controls.

BRIG FENWICK: Yes.

25 LCDR GRACIE: But could not say that he saw it himself. Your evidence – and I think it was his evidence too – was to the effect, because it wasn't in the OT-CRM, it didn't mean that it wasn't done. Okay. You've said that today?

30 BRIG FENWICK: That the risk assessment wasn't done?

LCDR GRACIE: Yes.

35 BRIG FENWICK: Yes, I agree.

LCDR GRACIE: But the problem that I see from that approach to the evidence – and it's speculative – is this, that the manual itself says this:

40 *DOPAW maintains the OT-CRM matrix to record risks retained by Commander Forward Command.*

BRIG FENWICK: "Forces Command". Yes.

45 LCDR GRACIE: Forces Command. Thank you.

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The OT-CRM matrix is to be briefed to the Commander Forces Command annually, or prior to relevant AWBS.

That's the Airworthiness Boards, I take it?

5

BRIG FENWICK: Yes.

LCDR GRACIE:

10

The OT-CRM matrix is to be included as part of Commander Forces Command handovers.

A lot of commands there.

15

BRIG FENWICK: Yes.

LCDR GRACIE: We're in the Military; we're used to that. My question is this: if the risks aren't recorded in the matrix, how is the Commander Forces Command apprised of the risks?

20

BRIG FENWICK: Well, it is the primary mechanism to do it. In particular, the real benefit of the OT-CRM was to try and describe aggregated risks. So when decisions were being made, it was routine, particularly if I was making a decision on behalf of the Accountable Manager, for me to brief the Accountable Manager on that decision, and therefore the risk that he or she was taking on, based on the decision I'd given. So individual risks were briefed, but the OT-CRM, as I say, its real value was the aggregation and the ability to brief on everything together.

25

30

LCDR GRACIE: But there were parts of it. One is to record the risks that are to be retained by Commander Forces Command.

BRIG FENWICK: Yes.

35

LCDR GRACIE: That's the first. The second is, is to be briefed annually, or prior to, an Airworthiness Board.

BRIG FENWICK: Yes.

40

LCDR GRACIE: That's the second. And the third is, is to be included for a handover of Commander Forces Command to ensure a continuing chain of knowledge.

BRIG FENWICK: Yes.

45

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LCDR GRACIE: So without it being in there, we have those three possible shortcomings in the information that's going to the Commander Forces Command.

5 BRIG FENWICK: If it's not in there?

LCDR GRACIE: If it's not in there.

10 BRIG FENWICK: Yes.

LCDR GRACIE: And from what Counsel Assisting has said, that's the position that they've taken.

15 BRIG FENWICK: Well, yes, I'm yet to see that that's the case.

LCDR GRACIE: But you can't say that it is the case that - - -

20 BRIG FENWICK: Well, I certainly don't have access to it, and I think, as COL Lynch said, during the period there was a movement from the OT-CRM onto AVIART, which was the new database, and the OT-CRM, and then subsequently AVIART, which was after my time, was reviewed at the Safety Committees, the bi-annual Safety Committees. And I don't think that there was one in the period for me after this decision and before I retired.

25 LCDR GRACIE: I want to move onto something else - - -

BRIG FENWICK: Please.

30 LCDR GRACIE: - - - which was just towards the end of your evidence to Counsel Assisting. I'll put this proposition. I think I've got it accurate, but tell me if it needs some tweaking, or if it's incorrect. You accepted that the Service Release to permit flight operations was without the test controls of the OPEVAL.

35 BRIG FENWICK: Without all of the transfer of the - yes.

40 LCDR GRACIE: You then qualified it because you said, "because the OPEVAL constraints may not be precisely carried over into the operational role".

BRIG FENWICK: Correct.

45 LCDR GRACIE: But isn't that the point, that they should be?

BRIG FENWICK: No. So when the Flight Test Plan is constructed and there are controls put in place, those controls are put in place for the safe conduct of the flight test or Operational Evaluation activity. That has a different risk to ongoing flight of operations. And I'll give you an example. In this particular OPEVAL, for example, there were pilots who were MRH-qualified, but who had not seen 5.10 before, and so the first time they're exposed to it is during the conduct of the test activity. That has a risk associated with it.

When the Service Release is given, and other pilots are using 5.10, it is with training put in place, gap training, dual instruction, a whole bunch of other procedures. So a risk control that would sit inside the test activity to keep someone safe when they're seeing it for the first time is not necessarily a control that would be transferred into operational activity, because those risks are being mitigated in a different way.

LCDR GRACIE: Except there's a twist to that because the first thing is, if I recall the Flight Test Plan prepared by AATES, the first thing that you had to do was a ground test on the symbology.

BRIG FENWICK: Mm.

LCDR GRACIE: That was the first. The second is one would assume that as part of that ground test, or as part of the flight briefing, they would have been informed about the off-axis display.

BRIG FENWICK: Possibly.

LCDR GRACIE: You would hope so, I would think.

BRIG FENWICK: Yes.

LCDR GRACIE: And that brings you into that third scenario where you see – I know I've used this before, but in that movie Sully, where he says, "You are taking up human factors because you've already told them what to look for", and so they're going into that OPEVAL with that very specific matter in mind, but at the same time with a full visual horizon. So they're not really testing it with the human factors that might operate in a low cue environment, which is what AATES warned about.

So what you've got, I suggest to you, is that if you say that you're going to carry this over into the operational environment without those constraints, you've unleashed those constraints that were identified as necessary for the safe testing and evaluation in the OPEVAL, and you've put it into the

operational environment in the very conditions, low cue conditions, that AATES warned about.

5 BRIG FENWICK: Well, I'm not really in a position to speculate about that because what I would say is that AATES certainly were a part of the development of the risk controls of bringing it into Service Release, and so I think it's a reasonable expectation that if there was that concern, that that would have been dealt with.

10 LCDR GRACIE: But there was that concern, sir, with respect. The finding of "unacceptable" remained. That was the AATES assessment. "Unacceptable" says in terms of the definition in the AATES reports:

15 *It prevents a weapons system performing operational task or liable to cause accidents.*

Recommendation terminology: something must be done.

20 *Recommendation level: essential.*

BRIG FENWICK: Yes.

25 LCDR GRACIE: What was done?

BRIG FENWICK: Well, what was being done is it was being introduced with a set of controls that we believed brought the risk to an acceptable level, with an intention to have it removed.

30 LCDR GRACIE: Well, let's just look at those controls. The only really specific – I'm sorry, I withdraw that. The first control was that this was an interim capability only. That's the first. Can you point to those words anywhere in either of the two Decision Briefs that came to you? They may be there. I'm not suggesting they're not, but I can't see them.

35 BRIG FENWICK: Well, do you want me to try? I mean, I do remember them being in the – if I remember rightly, the AATES response, which - - -

40 LCDR GRACIE: They are, and - - -

BRIG FENWICK: - - - formed a part of my decision-making.

45 LCDR GRACIE: Well, that's an interesting thing, because the AATES response, if we look at the 16 March 2020 repechage document - - -

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BRIG FENWICK: Yes.

LCDR GRACIE: I don't know what tab it is that you have.

5 BRIG FENWICK: Yes, that's okay. I know the one.

LCDR GRACIE: Paragraph 7(b) says, "If this modification" – sorry, paragraph 7 says:

10 *If this modification is progressed to Service Release, then AATES recommend:*

(a) the hazard is tracked in the OT-CRM.

15 BRIG FENWICK: Yes.

LCDR GRACIE: Well, that's a bit of an unknown still –

20 *(b) it is considered an interim solution whilst a fix is designed for incorporation on the MRH-90 fleet.*

BRIG FENWICK: Yes.

25 LCDR GRACIE: Now, those words, "interim solution" or "interim capability", do not seem to appear anywhere in the Decision Briefs that went to you.

30 BRIG FENWICK: No, but I'm not sure that that's necessarily significant because if you look at the brief, which I think is the April brief, it does refer to removing the problem in due course, so setting a – as I explained to the Air Vice-Marshal, we were going to move forward with it with the controls in place, and then still seek to remove it from the - - -

35 LCDR GRACIE: It says, "Investigate options".

BRIG FENWICK: Yes.

40 LCDR GRACIE: "For eliminating the risk entirely". It does not say it will be conducted or flown as an interim capability, with any limitations.

BRIG FENWICK: Well, what are you defining as an "interim capability" in that sense? What does it mean?

45 LCDR GRACIE: A temporary measure.

BRIG FENWICK: To my mind, it was a temporary measure. It still, in my view, as I have stated earlier, needed to proceed to Service Release. There was no other appropriate mechanism, in my view, to seek a deviation. Which a deviation is a technical term for deviating from the type
5 certification basis. And while we could have done that and sought Military Permits to Fly for operations for that period, in my view, that was continuing a set of behaviours in trying to find ways to keep moving and do the right thing. So it needed to be capable of progressing to Service Release and it needed to be done properly.

10

LCDR GRACIE: But your Minute of 20 March - - -

BRIG FENWICK: Yes.

15 LCDR GRACIE: - - - in relation to the first Decision Brief – I think the second one was just a sign-off.

BRIG FENWICK: Sorry, my Minute to COL Thomas?

20 LCDR GRACIE: Yes. I apologise.

BRIG FENWICK: Yes.

25 LCDR GRACIE: On 20 March, says that you're satisfied that HMDS V5.10 is suitable for use. You don't say, "as an interim measure" or "interim capability", or with any constraints, or any other qualifications. It's just Service Release.

30 BRIG FENWICK: There's no need for that Service Release to go – for that advice to go into the CCB and that – sorry, Configuration Control Board in that way. The Configuration Control Board then applies a checklist to its decision-making process which is inclusive of have the appropriate controls and mechanisms been put in place. So they actually go through that process before they issue Service Release.

35

LCDR GRACIE: While we're on that Minute, you actually say:

As a result of that activity –

40 being the OPEVAL –

I'm now satisfied that it's suitable for use.

So just park that statement there. So:

45

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Advise Aviation Branch conduct an OPEVAL to further examine the issue. As a result of that activity, I'm now satisfied it's suitable for use.

5 Right?

BRIG FENWICK: Yes.

10 LCDR GRACIE: What I want to ask you is this: the impression I had was that there were perhaps two lines of possibility in terms of what informed your decision-making – if I could find my notes? The first is, that if you go to the Decision Briefs, on my assessment – I'll put them to you – that there's some errors, some omissions, and some perhaps misleading statements. And I will find my – sorry, ma'am, there's not much room on
15 these desks. I apologise, ma'am.

The first is that if you look at this statement, I want to suggest to you that it's an error. You've been taken to it, but I just want to identify these things. So the first error I just want to put is that there was a reassessment
20 of AATES' finding of "unacceptable" to "undesirable". I think you agreed that that was not the case. And were you present for LTCOL Norton's evidence?

25 BRIG FENWICK: No.

LCDR GRACIE: It was certainly the effect of his evidence that he never intended to reassess it. So it would be wrong to say that is what I'm suggesting. So that's an error. The second is an omission, for example, there was no reference to the flight controls that were imposed, the 24 flight
30 controls that were imposed.

BRIG FENWICK: In the test flight, in the test plan. They were a reference to the controls in the test plan, yes.

35 LCDR GRACIE: Thank you, yes. And there was, in terms of perhaps another omission, reference to it being an interim capability only. It certainly doesn't say that.

40 BRIG FENWICK: I think it goes on to say that we will not accept this. So it's an undesirable characteristic out of the OPEVAL, and therefore we will do something about it.

LCDR GRACIE: Explore options?

45 BRIG FENWICK: Yes.

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LCDR GRACIE: That's as high as it goes. But in relation to perhaps a mischaracterisation or something misleading, can I suggest to you that the description of the AMAFTU finding was somewhat misleading. It talked about it being satisfactory in a maritime environment. Well, it was actually limited to embarked operations that were described as very different to the SO operations that we're discussing. And it had the requirement or recommendation for further testing in low flight at night. And that's not in there either, to give it context.

10

BRIG FENWICK: No, but I knew that. I'd read the report.

LCDR GRACIE: That's what I want to know. You've said, on several occasions, that these things weren't misleading because you had that context.

15

BRIG FENWICK: Yes, I felt satisfied that I understood it. Can I just clarify a point? Or be clear from you what you interpret as – so I've said that I think "embarked operations" includes the maritime environment, certainly where that testing was done. And so, as part of flying in embarked operations, you fly in the maritime environment.

20

LCDR GRACIE: You do.

BRIG FENWICK: Yes. Then the second point is, could you please give me a distinction around what you're seeing as the Special Operations nature of the activity that was occurring? Because are you - - -

25

LCDR GRACIE: You're not flying in an environment where you have fairly large visual cues on an approach, aft approach to a ship, which, as we saw in the AMAFTU reports, lots of lines for viz. You've got spotlights, you've got a whole lot of visual cues for a very large ship on your approach. And it's a very different flying environment, I would suggest, to perhaps an SO approach where you might be doing an extraction.

30

35

BRIG FENWICK: There are a number of similarities if you're going to fly the SO approach to the back of a ship. And I think that is part of my evidence of what happened in 2006. So flying at an SO approach to the back of a ship is not grossly different in terms of the thing you have to do to flying to a confined area.

40

LCDR GRACIE: Were you present for the evidence of CAPT Davison yesterday - - -

45

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BRIG FENWICK: No.

5 LCDR GRACIE: - - - who said that you could not compare the two, in broad terms? He said they're completely different profiles. Would you not accept that, if I put it correctly?

10 BRIG FENWICK: I just want to make sure we get the context appropriate to what you are comparing. So I think the profile of flying in Special Operations – so, for example, my understanding of where the Bushman formation was, whether we contest whether it was overwater or in maritime, while it's a Special Operations Unit, they were not doing anything at the time that I'd necessarily consider Special Operations requiring some additional level of controls for a Special Operations.

15 LCDR GRACIE: Well, perhaps it's worth looking – so I want to draw the distinction that was picked up by AMAFTU between embarked operations that they regard as satisfactory and further testing in relation to something. So if you look at the AMAFTU report, which is JRF 09, I think, in your statement? Yes.

20 BRIG FENWICK: Yes.

LCDR GRACIE: Can you go to paragraph 6.5.2, please, sir?

25 BRIG FENWICK: Yes.

LCDR GRACIE: You will see that last sentence – and bearing in mind it's FOUO.

30 BRIG FENWICK: Sorry, sorry. I'm still going, mate, sorry.

LCDR GRACIE: My apologies.

35 BRIG FENWICK: 6.5.2?

LCDR GRACIE: It's page 45 of the - - -

BRIG FENWICK: Got it. Yes.

40 LCDR GRACIE: Just have a read of that last sentence, which I want to suggest provides a dichotomy between embarked operations and those other matters that might be more relevant to Army.

45 BRIG FENWICK: So when I read that, I read that as being inclusive of a maritime environment.

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LCDR GRACIE: “Non-embarked”, it says.

BRIG FENWICK: It says “for embarked”.

5

LCDR GRACIE: No, the first one does, but the second one says “non-embarked”.

BRIG FENWICK: “For further testing”. Yes, okay.

10

LCDR GRACIE: So do you agree with me that that second sentence is more akin to the sort of things Army might be operating in - - -

BRIG FENWICK: Yes. And so I interpret that as leading us towards the next set of testing.

15

LCDR GRACIE: And that was the AATES test.

BRIG FENWICK: Well, yes. Except that the June ‘19 AATES test was already planned and in progress when this was written. And notwithstanding the outcome was found before the test. So that test was scheduled. It wasn’t necessarily as a result of this, yes.

20

LCDR GRACIE: I don’t know if you know, but MAJ Lamb, who was involved in the flight test controls for the AATES testing and the OPEVAL, had liaised with CAPT Davison, who was - - -

25

BRIG FENWICK: Yes, I would expect it. Yes.

LCDR GRACIE: - - - I think the author of this – well, certainly involved in it. He accepted it. So it was prepared, reviewed, approved and accepted by him as – yes?

30

BRIG FENWICK: Yes.

35

LCDR GRACIE: And just while we’re here, did you notice in the schedule that’s above 6.5.2 in the second-last block in relation to those role indications which seems to stand in contrast to the experience of the pilots in the OPEVAL and - - -

40

BRIG FENWICK: Yes, the reason to do more testing, I think.

LCDR GRACIE: Yes. So what I was going to ask was, in relation to, as I’ve characterised it – and you don’t have to accept it, sir – but the errors, omissions or some incomplete or misleading statements in the Decision

45

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Briefs, I think the position was that you've exercised your own professional judgment in relation to your decision to approve Service Release.

BRIG FENWICK: Yes.

5

LCDR GRACIE: And so that's one matter, about whether or not you felt you might've been misinformed by Standards in terms of the material that was presented to you. The difficulty I have with that is that in your Minute to – was it COL Thomas?

10

BRIG FENWICK: Yes.

LCDR GRACIE: In your Minute to COL Thomas, you used, as I pointed out before, the words "as a result of the OPEVAL" you were satisfied that it's okay for Service Release. So it does seem that you've placed quite a lot of weight on the OPEVAL.

15

BRIG FENWICK: It was the last and most recent of the testing activities, yes. It was trying to encapsulate the things which other testing had not completed.

20

LCDR GRACIE: Well, it's fairly specific:

As a result of that activity, I'm now satisfied.

25

BRIG FENWICK: Okay.

LCDR GRACIE: And can I suggest to you - - -

BRIG FENWICK: But that's not to suggest that it's the only thing I looked at.

30

LCDR GRACIE: No, but I wanted to explore how much weight you put on it.

35

BRIG FENWICK: Okay.

LCDR GRACIE: And what was apparent from your first statement, which is Exhibit 103A, you said this at para 35, you thought:

40

The OPEVAL was considered prudent to put the assessments of AATES into their operational context - - -

BRIG FENWICK: Yes.

45

LCDR GRACIE:

5 *- - - with people responsible for the development and training of
pilots' Standards and seeking greater fidelity on the issues raised
by AATES by an additional test pilot with broader Army
operational flying experience.*

I think that's a reference to LTCOL Langley, is it?

10 BRIG FENWICK: Yes.

LCDR GRACIE: Who had - - -

15 BRIG FENWICK: And inclusive of LTCOL Norton, also a test pilot with
extensive operational experience.

20 LCDR GRACIE: But you know, don't you – or do you know that at the
time of the OPEVAL LTCOL Norton was not current to fly at night, so did
not do any night testing.

BRIG FENWICK: I do know that.

25 LCDR GRACIE: Do you know that he didn't hold a current MRH
qualification?

BRIG FENWICK: I don't think that's true. He was the
SO1 Standards - - -

30 LCDR GRACIE: I'm sorry, as a test pilot, I should have put. Sorry.

BRIG FENWICK: Right, yes. But the activity didn't hinge on him
being current in those things at the time.

35 LCDR GRACIE: But he was put forward as the Test Director without
having MRH currency as a test pilot.

BRIG FENWICK: Yes, but that's not out of the confines of what's
acceptable.

40 LCDR GRACIE: Well, it's just that you seem to emphasise that they're
test pilots, because you volunteered LTCOL Norton as being a test pilot.

45 BRIG FENWICK: Yes. So the fact that he's uncurrent doesn't mean that
his professional judgment and experience as a test pilot disappears.

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LCDR GRACIE: No. But it's the weight you attribute to it though, isn't it, sir? You might want to give it a little bit less weight than perhaps the fully qualified, current AATES test pilots and who were specifically, and very proficient, in the MRH platform.

5

BRIG FENWICK: No, I'm not sure that that quite plays out the same. When you've got a test activity – and I'm not trying to devalue MAJ Wilson in this discussion – but, yes, he was certainly qualified current, suitable to do the testing. When he does one part of it, I think that's an issue. And also I would say that he was a very experienced instructor. My recollection is he was a relatively new test pilot.

10

So the wealth of experience that sat amongst those with test pilot skills, qualifications, experience – no, I'm not sure I can say that somehow the Wilson individual needed to outweigh the others.

15

LCDR GRACIE: It's not just Wilson though, is it? There's MAJ Lamb and there's LTCOL - - -

20

BRIG FENWICK: But he didn't fly it.

LCDR GRACIE: No, but there's a peer review process. There's – I've forgotten his rank – I think he's MAJ Zahara, the Engineer. So Captain is it, thank you. So, you know, I don't want to think that AATES are being belittled here. It's in your evidence at JRF 17, the AATES OPEVAL refers to AATES as being resourced with specialist approval operation – sorry:

25

AATES is resourced with specialist flight test aircrew that provide expert advice related to Human-Machine Interface –

30

among other things –

aircraft performance and handling, instrumentation, test techniques and test methods.

35

BRIG FENWICK: Yes.

LCDR GRACIE: You've got the organisation with that experience that are there to, and are responsible for, Army rotary-wing aircraft, certification acceptance, role approval, Operational Evaluation and investigations.

40

BRIG FENWICK: I have a lot of respect for the Flight Test Organisation at AATES. Yes.

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LCDR GRACIE: And insofar as LTCOL Langley is concerned, you refer to him as an additional test pilot. Yes, he was. Do you know how many hours he had on an MRH-90?

5 BRIG FENWICK: Not off the top of my head.

LCDR GRACIE: 216.4. All right, so it's not a lot, is it?

10 BRIG FENWICK: For a test pilot, I think it is.

LCDR GRACIE: See, part of the problem seems to be – and I've suggested this to, I think, LTCOL Chapman – you could be a CAT C pilot on an MRH-90 but be a CAT A QFI.

15 BRIG FENWICK: Yes.

LCDR GRACIE: And what I want to suggest is that your reliance upon the – I think as you put it, "The team brought together" – this is in your second statement, at paragraph 74(b):

20 *The team brought together to conduct the OPEVAL had more flight test experience ...*

25 BRIG FENWICK: Cumulative.

LCDR GRACIE: What, LTCOL Langley and Norton?

BRIG FENWICK: Yes, than MAJ Wilson. That's my recollection.

30 LCDR GRACIE: And MAJ Lamb?

BRIG FENWICK: No, no, no. So he didn't fly it. So the people who are flying it and actually making their assessment based on what they see was greater, and I certainly gave that some weight, you're right.

35 LCDR GRACIE: And did you give any weight to the fact, sir, that the test required the OPEVAL pilots to always maintain a visual horizon, both night and day?

40 BRIG FENWICK: As a control for the test, yes, I'm aware of that.

LCDR GRACIE: So where's the trade-off in the great experience and depth of knowledge of the two test pilots, as we call it, in the OPEVAL and the test pilot who flew the various profiles that are set out in the test plan, without those constraints that the OPEVAL pilots had?

45

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BRIG FENWICK: I'm sorry, can you ask that question again?

5 LCDR GRACIE: Yes. Where is your trade-off – it's one thing to talk about the expertise of the two test pilots and the QFIs across a range of pilots – 12 pilots, let's say – relative to the expertise and qualifications of the AATES test pilot? One is performing outside the usual flight controls, if you like. There were certainly controls put in the Military Permit to Fly. But, generally, they're flying to test things outside of control.

10 BRIG FENWICK: Outside of the certification basis of the aircraft, certainly. Yes.

15 LCDR GRACIE: Yes, the OPEVAL had far more controls to the point where the AATES test determined, after daytime testing, that it could not progress to night testing. That was in the test plan?

BRIG FENWICK: Yes.

20 LCDR GRACIE: That was approved by, was it DoSA?

BRIG FENWICK: By the DoSA-FT.

25 LCDR GRACIE: By the DoSA delegate, yes. So they got to that point and stopped.

BRIG FENWICK: Yes.

30 LCDR GRACIE: And they were flying certain profiles that are set out in the test plan. There's the hover. There's the circuit. There's ground test. There's all those things. The OPEVAL didn't do that. The OPEVAL is flying in an environment where you have to maintain visual horizon at all times. So what I want to suggest is that it might be one thing to rely upon the test pilots in the OPEVAL as being more experienced, and you having
35 greater faith in them, but the conditions of the test are within a safe and controlled flight control environment.

BRIG FENWICK: Yes, and they were for the June '19 AATES test.

40 LCDR GRACIE: Well, slightly different. They weren't given 24 test controls requiring them, importantly, to not fly below two millilux or - - -

BRIG FENWICK: Well, it was conducted by day, and I would assume from that that that required – that they would have a visible horizon. So the

visible horizon control was around being able to progress to the night elements.

LCDR GRACIE: Yes.

5

BRIG FENWICK: And keep that safe. So I'm not quite sure what trade-off you feel I had to make.

10 LCDR GRACIE: Well, the trade-off is that you have a Flight Test Organisation with those specific roles and qualifications telling Army Aviation that there was an unacceptable risk of a controlled flight into terrain in certain low cue environments due to the symbology - - -

15 BRIG FENWICK: Extrapolated from the day test activity, and so – and I did hear MAJ Lamb refer to this, right. So one of the skills of a test pilot is to be able to do a form of testing and then extrapolate that to other environments and so on. So I accept that that was done by MAJ Wilson. But I also think that there were two test pilots in the OPEVAL who similarly had those skills and I wouldn't, by the way, confine that level of expertise
20 of exercising professional judgment to be able to extrapolate one environment to another to just test pilots. But I think there was an equivalent process done by at least equivalent skilled people.

25 LCDR GRACIE: Can I say then, sir, that is the trade-off. You just simply had a preference for the OPEVAL test pilots' view over the AATES test pilot view?

30 BRIG FENWICK: In the end, because more testing was done. So a greater range of testing was done. It wasn't about the individuals per se. It was that appropriately qualified and trained individuals conducted more testing that allowed me to better understand the risks.

35 LCDR GRACIE: Can I just ask you to explain this then, please, sir? At paragraph 74(c) you say - - -

BRIG FENWICK: Sorry, this is off my old statement or - - -

LCDR GRACIE: The current one.

40 BRIG FENWICK: Yes.

45 LCDR GRACIE: You say that you considered it "being the OPEVAL, a higher level of scrutiny and diligence being applied through this activity" – the OPEVAL – "than would have been available had I asked AATES to do the further testing in isolation".

BRIG FENWICK: Yes, I stand by that.

5 LCDR GRACIE: So you're effectively saying that AATES, whatever their view was, was not going to assist you.

10 BRIG FENWICK: No, no, no. The point that I'm making there is, the OPEVAL not only included flight test people, it included QFIs, MRH-qualified people, SO qualified people. AATES did not have – so my point there is if AATES had conducted it in isolation, so if I just asked AATES to do the activity, given their workload and resources, they would not have been able to do it.

15 And so we were able to achieve a higher level of scrutiny and enquiry, in my view, by conducting the activity in this method with AATES planning and oversight – both LTCOL Reinhardt and MAJ Lamb.

20 LCDR GRACIE: You keeping saying, “oversight”, sir, and I appreciate that others have given similar evidence, but there wasn't oversight. They prepared a test plan to enable a Military Permit to Fly to be issued.

BRIG FENWICK: Mm-hm.

25 LCDR GRACIE: That's as far as I'm aware. There was no oversight. They didn't oversee the operation and evaluation process.

30 BRIG FENWICK: They created the right environment for it to occur. I understand the distinction you're making. But it is certainly within the process and requirement that it was done appropriately. It was LTCOL Reinhardt's recommendation to us to do it this way.

35 LCDR GRACIE: Yes. And I don't know if you heard his evidence that he felt that the OPEVAL was an attempt by Army Aviation to circumvent or bypass the AATES test.

BRIG FENWICK: I haven't seen or heard that evidence. But it seems inconsistent with his request of us to do it.

40 LCDR GRACIE: Well, do you recall that there was a TERC? I think it was two weeks after the AATES test came out. And I think it was SO1 Standards who suggested the OPEVAL, not LTCOL Reinhardt.

45 BRIG FENWICK: That may well be the case, that he may have suggested it. But I thought there had been some evidence tendered where LTCOL Reinhardt actually had asked for it. But maybe I'm mistaken.

LCDR GRACIE: I think there was an email and the question was, “Are you happy for us to do it?”, or there was an offer put to him and he said, “Happy for Standards to do it”. It was something to that effect.

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BRIG FENWICK: Okay.

LCDR GRACIE: It was fairly loose, I’ll say that. But one thing that I want to just touch upon is this: the OPEVAL test is conducted, I want to suggest, with a very different rigour than the test done by the Flight Test Organisation under a Category 2(b) test. Do you agree with that?

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BRIG FENWICK: It’s done to a different set of requirements. I think this discussion around rigour probably deserves additional rigour. So the statement of the category or decision upon the kind of category is really a statement of the testing to occur, is my understanding and interpretation. So, for example, if there is an amount of flight test beyond the certification basis, then it is classified as Category 2.

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One of the implications of that classification is then who can authorise and approve the MPTF and so on. If it’s CAT 4, then it is describing a different type of test. One of the implications of that is that it can be conducted with a different level of lower level of supervision and application. And that’s in the Flight Test Operating Manual, but if you look at the table in the Flight Test Operating Manual that describes who can authorise those categories of flight test, while it was classed Category 4, it was approved at the levels for Category 2.

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So it had an equivalent level of authorisation and oversight. And the category in that sense is then just again, a different descriptor of the kind of testing that’s going to occur. So the rigour is appropriate to the testing that’s needed.

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LCDR GRACIE: Just so I understand your evidence, because I might’ve misunderstood it. Are you saying that the Category 4 test equivalent for the OPEVAL evaluation and testing regime was effectively the same as the controls for the Category 2 test by AATES?

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BRIG FENWICK: No, I’m saying that it was authorised at the same level. So, for example, if a certain rank or position needed to authorise CAT 2 but at CAT 4 it could be a certain lower level of personal position, it is in fact the case that it was still authorised at the level of Category 2, even though it was Category 4. So I’m suggesting it had a higher level of oversight than you would normally get for a Category 4.

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LCDR GRACIE: Except, if I understand it correctly too, in terms of the evidence, the delegation from – sorry, the DoSA-FT delegation was for a Military Permit to Fly for a flight test. That’s as far as the OPEVAL Military Permit to Fly went, isn’t it?

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BRIG FENWICK: That’s all that’s required.

LCDR GRACIE: But, there wasn’t an operational Military Permit to Fly, was there, after that - - -

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BRIG FENWICK: For the OPEVAL?

LCDR GRACIE: After the OPEVAL.

BRIG FENWICK: No. No, because we were proceeding to Service Release, which would change the certification basis of the aircraft and therefore no MPTF would be required.

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LCDR GRACIE: And again, I don’t know if you heard the evidence yesterday, did you, or - - -

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BRIG FENWICK: I heard some of MAJ Lamb’s but not of the Captain’s.

LCDR GRACIE: Did you hear the evidence of MAJ Lamb to the effect that it was never – sorry, the intent for the flight test controls for the OPEVAL was for those substantive controls to be carried through the interim capability and not into SR?

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BRIG FENWICK: I heard him say that.

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LCDR GRACIE: And what’s your take on that?

BRIG FENWICK: It is difficult to comment on that in the context that it was the first time I heard it yesterday that MAJ Lamb did not think it was going to press to Service Release.

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LCDR GRACIE: The other issue I’ve got is, how does this Category 4 test sit relative to the Category 2 test then? If the AATES assessment remains unchanged in relation to a Category 2 test, and you’ve got a Category 4 test with an additional 24-odd flight controls, is it your professional judgment as to which outcome you prefer?

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BRIG FENWICK: So the Category 2 test was testing particular aspects of the symbology. Hence why it was Category 2, because it was also testing

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does it perform in the way we expect? Is it interacting with the aircraft appropriately? Does it make the lights turn off and shut down and, you know, so on?

5 Though elements that required it to be at Category 2, it is my view and recollection that those were satisfied in the original testing and therefore didn't need further testing at Category 2 level. And so it's not a question of whether I weighted one more than the other, it is merely a description of what form of the testing was occurring.

10 LCDR GRACIE: All that we know then is, at the end of the OPEVAL, there had not been conclusive testing of the effect of the ambiguous off-axis symbology under full test conditions. Would that be right?

15 BRIG FENWICK: No, I'm not sure I agree to that.

 LCDR GRACIE: Who did that testing then?

 BRIG FENWICK: Well, where is it? Where is it that it wasn't done?

20 LCDR GRACIE: Well, it couldn't be done via the OPEVAL.

 BRIG FENWICK: We had the flight test part of the activity in the OPEVAL. So it was doing two things. We had an MPTF that allowed a certain amount of testing to be done that still needed to be done. And then we had the OPEVAL that was not operating as a test event in that way. And it certainly gave me a view on the suitability or otherwise of that particular feature of the symbology.

30 LCDR GRACIE: So in terms of the AATES finding of "unacceptable", that "something has to be done", is that just put to one side then because of the outcome of the OPEVAL?

 BRIG FENWICK: The outcome of the OPEVAL informed me that it could be proceeded within a safe manner, but that it still needed to be fixed at some point. And the response from SO1 AATES, or LTCOL Reinhardt, in my view, gave me that – so he restated his position, but he also gave me a method to continue to progress.

40 LCDR GRACIE: Let's just look at the controls then. Because in the first Decision Brief that went to you on – the March Decision Brief, if you could just turn that up, please?

45 BRIG FENWICK: I really need to see what my number is here. It's all right, I've got it here.

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LCDR GRACIE: Thank you. I didn't get all of your annexures copied,
so - - -

5 MS McMURDO: It's 19. 19.

LCDR GRACIE: Thank you, ma'am.

BRIG FENWICK: Thanks, ma'am. Yes, sorry, mate, go ahead.

10 LCDR GRACIE: Thanks, sir. And if you can just look at paragraph 6?

BRIG FENWICK: Yes.

15 LCDR GRACIE: Standards' OPEVAL concluded 5.10 is satisfactory.
Sorry, I just see the classification of this.

BRIG FENWICK: Yes, can you refer me to – I can't read that.

20 LCDR GRACIE: It's the first sentence.

BRIG FENWICK: Yes.

LCDR GRACIE: I mean, AATES never expressed any concerns with
25 respect to version 4, did they?

BRIG FENWICK: No. Although, I did have a circumstance of spatial
disorientation under version 4.

30 LCDR GRACIE: Their only concern was 5.10, I think.

BRIG FENWICK: Yes. I'm sorry, can I - - -

LCDR GRACIE: IIT dissipated - - -

35 BRIG FENWICK: Sorry, can I just say too, so there were two things
about version 4.0. One is, we did have a case of spatial disorientation under
4.0.

40 LCDR GRACIE: Is that the November '20 - - -

BRIG FENWICK: In the December '18 AATES Special Operations
approach test.

45 LCDR GRACIE: I know what you mean, yes.

BRIG FENWICK: And also in the Special Operations approach testing of December '18 it highlighted a number of things that should be done in order to continue to progress the Special Operations approach and the introduction into Special Operations.

Then MAJ Wilson did the June '19 testing that did not resolve a method to continue under 4.0.

So December '18 said, "Here are the things that we think should change from 4.0". And if we had reverted back to that, we would still have needed to find a methodology to ameliorate the risks that were identified in the December '18 test sufficient to continue with 4.0.

Now, that's not to say that that wasn't an option, and an option considered. But that would still have needed to be done.

AVM HARLAND: Could I just clarify? The incident you talk about with spatial disorientation with version 4, was version 4 considered to be causal or contributory to that incident or did it just happen with that configuration?

BRIG FENWICK: Not that I'm aware. It just seemed to happen with that configuration.

AVM HARLAND: So you're not inferring that version 4 was causal or contributory?

BRIG FENWICK: No. Just that it's possible with 4.0 as, I guess, it was possible with any version of the symbology to have that occur. So it wasn't exclusive to 5.10.

AVM HARLAND: And secondary to that, were the deficiencies that you've talked about in version 4.0 then needed to be chased up as a result of that 2018 testing? Were they capability deficiencies or were they safety deficiencies?

BRIG FENWICK: I'm not sure of the distinction. But if I can help - - -

AVM HARLAND: Well, I can explain - - -

BRIG FENWICK: So the things like distance to go is not just a capability issue. So it's a safety issue. It's about conducting a form of capability approach in a safe manner.

AVM HARLAND: But that's not what the OPEVAL said where the majority of pilots said that it could be achieved safely, otherwise in accordance with the STANMAN.

5 BRIG FENWICK: So if the December '18 report still said that there were certain things we need to do, so the cross-communication that would need to occur in the cockpit to be able to achieve that, that's true. There were two aspects of that that struck me. One is, they were still keen to do that
10 cross-communication to overcome the absence of the distance to go, which is a difficult and cumbersome thing to do but it could be done because they were doing it already. And the other aspect was the ability to have more eyes outside during critical phases of the Special Operations approach. And I must admit that that held significant weight for me in my decision-making process.

15 And what we haven't been able to talk about at this classification level is some of the environments in which the Special Operations approach is conducted that make that particularly relevant.

20 AVM HARLAND: So out of the 2018 that were in the safety risk assessment there with version 4.0, there were issues that would need to be resolved using controls which would be an update to the TopOwl symbology.

25 BRIG FENWICK: Yes.

AVM HARLAND: Right. Thank you.

30 BRIG FENWICK: Yes.

MS McMURDO: And I should say, if you feel that we do need to go into a Private Hearing so that you can properly explain these things to the Inquiry, we should do it.

35 BRIG FENWICK: Ma'am, thank you. I'm not sure a Private Hearing will solve it because it's really about capabilities discussions at a classification that I'm not sure whether a Private Hearing can even deal with it.

40 MS McMURDO: Well, I guess your Counsel can talk to Counsel Assisting about that overnight. Perhaps we might consider adjourning now. We're obviously going to go into tomorrow. How much longer will you be?

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LCDR GRACIE: I just had a look then, probably half an hour, maybe even a little bit less. There's a few things to cover, ma'am.

5 MS McMURDO: Okay. Well, I think all we can do is resume at 1 o'clock tomorrow afternoon and, hopefully, we will finish you tomorrow.

BRIG FENWICK: We can't start tomorrow morning, ma'am?

10 MS McMURDO: No, because we've been asked by Army, because the families are being given the DFSB report tomorrow morning, not to sit until 1 o'clock. So, unfortunately, we can't, I'm sorry. But I understood that as long as you're out of here by Thursday evening, that's all right.

15 BRIG FENWICK: I had flights booked for midday based on some personal things tomorrow night, but I can - - -

20 MS McMURDO: I'm sorry. Well, I'm sure we'll try and finish you as quickly as we can after 1 o'clock. So if Counsel Assisting could speak to LT Healey about that matter as to whether things can be heard in a Private Hearing that would ensure that the Brigadier has his opportunity to say everything he feels will be of assistance to the Inquiry, that would be excellent. So we'll resume tomorrow at 1 o'clock.

25 LCDR GRACIE: Thank you, ma'am.

<WITNESS WITHDREW

30 **PUBLIC INQUIRY ADJOURNED UNTIL
THURSDAY, 3 APRIL 2025 AT 1300**