

Service Inquiry

DEATH OF AN ACTING PETTY OFFICER WHILST ATTENDING THE SENIOR RATES LEADERSHIP COURSE AT HMS COLLINGWOOD, HAMPSHIRE

16 November 2020

Defence Safety Authority

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PART 1.1

Covering Note & Glossary

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PART 1.1 - COVERING NOTE

November 2021

DG DSA

SERVICE INQUIRY INVESTIGATION INTO THE DEATH OF ACTING PETTY OFFICER IAN FLEMING WHILST ATTENDING THE SENIOR RATES LEADERSHIP COURSE AT HMS COLLINGWOOD ON 16 NOV 20

 The Service Inquiry Panel assembled at MOD Boscombe Down, on the 02 Dec 20 by order of the DG DSA for the purpose of investigating the accident involving Acting Petty Officer Ian Fleming on 16 Nov 20 and to make recommendations in order to prevent reoccurrence. The Panel has concluded its inquiries and submits the provisional report for the Convening Authority's consideration.

2. The following inquiry papers are enclosed:

Part 1 R	EPORT	Part 2	RECORD OF PROCEEDINGS
Part 1.1	Covering Note and	Part 2.1	Diary of Events
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		Part 2.9	Schedule of Matters Not Germane to the Inquiry
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PRESIDENT

[Signature]

Royal Air Force President HMS COLLINGWOOD SI

MEMBER 1

[Signature]

Education and Training Services Army Member 1 HMS COLLINGWOOD SI MEMBER 2

[Signature]

Physical Training Instructor Royal Navy Member 2 HMS COLLINGWOOD SI

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GLOSSARY

1RO	First Reporting Officer
2IC	Second in Command
2RO	Second Reporting Officer
2SL	Second Sea Lord
A/POWtr	Acting Petty Officer Writer
A	Air
AAR	Annual Appraisal Reports
ACNS(T)	Assistant Chief of Naval Staff (Training)
AED	Automated Emergency Defibrillator
ALARP	As Low as Reasonably Practicable
ALS	Advanced Life Support
AStrat	Assessment Strategy
ATSB	Australian Transportation Safety Bureau
BRd	Book of Reference Digital
BRNC	Britannia Royal Naval College
CEB	Customer Executive Board
CPD	Common Promotion Date
CPOWtr	Chief Petty Officer Writer
CPR	Cardiopulmonary Resuscitation
CWD	HMS COLLINGWOOD
DAIB	Defence Accident Investigation Branch
DC	Defence Community
DDH	Delivery Duty Holder
DHQ	Defence Health Questionnaire
DIN	Defence Instructional Notice
Dir P&T	
DLX	Director People and Training Dynamic Leadership Exercise
DMICP	Defence Medical Information Capability Programme
DO	Divisional Officer
DPHC	Defence Primary Health Care
DSA	Defence Safety Authority
DSAT	Defence Systems Approach to Training
DSR	Divisional Senior Rate
ECG	Echocardiogram
E	Environment
ETL	Endurance Training Leader
FFA	Formative Fitness Assessment
FTS	Formal Training Statement
	Gram
g GP	General Practitioner
HMS	Her Majesty's Ship
IPCC	Intergovernmental Panel on Climate Change
JIs	Joining Instructions
JMES	Joint Medical Employment Standard
LC1	Limited Capacity One
LCO	Leadership Course Officer
200	

LH	Leading Hand
L	Land
LO CPR	Logistics Officer Cash Pay and Records
LoS	Length of Service
LRLC	Leading Rates Leadership Course
LSpec	Learning Specification
MEB	Medical Employability Boards
MedCat	Medical Category
MedCat	Medical Limitations
MED	
MFD	Medical Employment Standard
MFD	Medically Fully Deployable
MLD	Medieslly Limited Deployable
MLD	Medically Limited Deployable
M	Maritime
MND	Medically Non-Deployable
MOD	Ministry of Defence
MO	Medical Officer
MSFT	Multi-Stage Fitness Test
MTS	Management of Training System
NCHQ	Navy Command Headquarters
NSI	Non-Statutory Inquiry
NSMBOS	Naval Service Medical Board of Survey
NSMEB	Naval Service Medical Employment Board
OC LSS	Officer Commanding Logistics Support Squadron
ODH	Operating Duty Holder
OPG	Overall Performance Grade
OPS	Operational Performance Statement
P-File	Personnel File
PFS	Personal Functional Standards
PMO	Principal Medical Officer
PM	Post-Mortem
POPT	Petty Officer Physical Trainer
PQC	Professional Qualifying Course
PTI	Physical Training Instructor
PT	Physical Training
PVR	Premature Voluntary Release
RAF	Royal Air Force
RAS	
	Royal Arthur Squadron
RNAS	Royal Naval Air Station
RNFT	Royal Navy Fitness Test
RNLA	Royal Naval Leadership Academy
RN	Royal Navy
RNTM	Royal Navy Temporary Memorandum
RNXTM	Royal Navy Executive Temporary Memorandum
ROHC	Regional Occupational Health Consultant
Role PS	Role Performance Statement
RO	Reporting Officer
RPD	Regional Physical Development

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RPW	Rockport Walk
RSC	Reduced Syllabus Course
SARC	Sports and Recreation Centre
SDH	Senior Duty Holder
SEMP	Safety and Environmental Management Plan
SGOs	Ship's General Orders
SOP	Standard Operating Procedures
SRLC	Senior Rates Leadership Course
TDA	Training Delivery Authority
TrAD	Training Authorisation Document
TRA	Training Requirement Authority
TRiM	Trauma Risk Management
UPO	Unit Personnel Office
VF	Ventricular Fibrillation

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PART 1.2

Convening Order & TORs

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DSA/SI/02/20/COLLINGWOOD

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Defence Safety Authority

Service Inquiry Convening Order

2 Dec 20

SI President SI Members Hd DAIB DSA HQ Legad DAIB Mentor DAIB Office Manager

Copy to:

PS/SofS PS/Min(AF) PS/Min(Lords) PS/Min(DPV) PS/Min(DP) PS/PUS DPSO/CDS MA/VCDS Sec/CNS MA/CGS PSO/CAS PSO/COMD UKStratCom MA/CJO NA/Fleet Comd EA/2SL DIR HS&EP DSA DMSR Hd DSA DMR TL Navy Safety Dir DDC Dir DDC Head of News DDC PR News Navy NPS-People Spt RN FDS HOS

DSA DG/SI/02/20 – CONVENING ORDER FOR THE SERVICE INQUIRY INTO THE DEATH OF A ROYAL NAVY SENIOR RATE UNDERTAKING SENIOR RATES LEADERSHIP COURSE AT HMS COLLINGWOOD ON 16 NOV 20

1. In accordance with Section 343 of Armed Forces Act 2006 and JSP 832 – Guide to Service Inquiries (Issue 1.0 Oct 08), the Director General, Defence Safety Authority (DG DSA) has elected to convene a Service Inquiry (SI).

2. The purpose of this SI is to investigate the circumstances surrounding the incident and to make recommendations in order to prevent recurrence.

3. The SI Panel will commence administrative briefing at 1300 on Wednesday 2 December 2020 DAIB, B120 at MoD Boscombe Down, and will be formally convened by the DG at 1500.

4. The SI Panel comprises:

President: Members:

 	_	-	

5. The legal advisor to the SI is and technical and technical investigation/inquiry support is to be provided by the Defence Accident Investigation Branch (DAIB). The nominated mentor for this SI is

6. The SI is to investigate and report on the facts relating to the matters specified in its Terms of Reference (TOR) and otherwise to comply with those TOR (at Annex A). It is to record all evidence and express opinions as directed in the TOR. An Initial Report on the commencement of the investigation is to be submitted on 18 January 2021.

Attendance at the SI by advisors/observers, unless extended by the Convening Authority, is limited to the following:

Head DAIB – Unrestricted Attendance. DAIB investigators in their capacity as advisors to the SI Panel – Unrestricted Attendance.

Hd DMSR and SO1 Healthcare Assurance in their capacity as advisors to the SI Panel – Unrestricted Attendance.

8. The SI Panel will initially undertake induction training at the DAIB facility at MOD Boscombe Down immediately after convening. Thereafter, permanent working accommodation, equipment and assistance suitable for the nature and duration of the SI will be requested at a location decided by the SI President in due course.

Reasonable costs will be borne by DG DSA under UIN D0456A.

Original Signed

S C Gray CB OBE FREng Air Marshal DG DSA – Convening Authority

Annex:

A. Terms of Reference for the Service Inquiry into the death of a Royal Navy Senior Rate undertaking Senior Rates Leadership Course at HMS COLLINGWOOD on 16 Nov 20.

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Record of Changes

Date	Change No.	Detail	Made by
12 Jan 21	1	Addition of Hd DMSR and SO1 HA to Para. 7	DSA SI S01
23 Jun 21	2	Change of assigned LEGAD	DSA SI S01

Annex A To DSA DG/SI/02/20 Convening Order Dated 2 Dec 20

TERMS OF REFERENCE FOR THE SERVICE INQUIRY INTO THE DEATH OF A ROYAL NAVY SENIOR RATE UNDERTAKING SENIOR RATES LEADERSHIP COURSE AT HMS COLLINGWOOD ON 16 NOV 20

1. As the nominated Inquiry Panel for the subject SI, you are to:

a. Investigate and, if possible, determine the cause of the incident, together with any contributory, aggravating, other factors and observations.

b. Ascertain whether personnel involved were acting in the normal course of their duties and were suitably qualified to undertake those duties in terms of qualifications, competencies, currency and levels of supervision.

c. Examine any physical training and medical policies, orders and instructions applicable to the Senior Rates Leadership Course (SRLC) and whether they were complied with. Also consider their applicability, suitability, and relevance.

d. Establish, if possible, the level, progression and supervision of pre SRLC attendance preparation.

e. Assess whether the medical screening process for Limited Capacity 1 participants in SRLC were sufficiently robust.

f. Establish whether there have been any similar accidents and assess whether lessons identified from these accidents have been learned.

g. Establish whether post-incident management procedures were adequate and complied with regarding to medical support and immediate response.

h. Report and make appropriate recommendations to DG DSA.

2. The investigation should not seek to attribute blame and you should use JSP 832 Guide to Service Inquiries and DSA 03.10 as guidance for the conduct of your inquiry. You are to report immediately to the DG DSA should you have cause to believe a criminal or Service Offence has been committed.

3. If at any stage the Panel discovers something that they perceive to be a continuing hazard presenting a risk to the safety of personnel or equipment, the President should alert DG DSA without delay to initiate remedial actions. Consideration should also be given to raising an Urgent Safety Advice note.

4. These Terms of Reference have been designed to focus on the physical training, medical and procedural aspects of the incident.

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PART 1.3

Narrative of Events

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Figure 1.3.2. HMS COLLINGWOOD all-weather pitch.

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PART 1.3 - NARRATIVE OF EVENTS

All times local.

Synopsis

1.3.1. On 16 Nov 20 Acting Petty Officer Writer Ian Fleming (referred to throughout as APO Fleming), aged 53, collapsed during the warm-up phase whilst participating in dogwatch ¹ Physical Training (PT) at HMS COLLINGWOOD (CWD), Hampshire. APO Fleming was a student attending the Senior Rates Leadership Course (SRLC) 20/25; a course required for substantive promotion to Petty Officer. His normal place of employment was the Unit Personnel Office (UPO) at HMS HERON, RNAS Yeovilton. The warm-up phase involved students jogging across the width of the all-weather pitch performing stretching and mobilisation exercises. On the fourth width APO Fleming slowed significantly and collapsed. First Aid was administered by fellow SRLC students; however, APO Fleming was declared life extinct, at the scene, by paramedics from the South Central Ambulance Service.	
Background	
1.3.2. Royal Naval Leadership Academy, HMS CWD. The Royal Naval Leadership Academy (RNLA) was part of the Britannia Royal Naval College	Exhibit 005
(BRNC), Devon. RNLA was divided into two squadrons: Royal Sovereign Squadron and Royal Oak Squadron, based at BRNC and Royal Arthur Squadron (RAS), at HMS CWD. The SRLC was a 4-week course scheduled for 16 Nov to 11 Dec 20 at RAS.	Exhibit 004
1.3.3. Promotion history . APO Fleming joined the RN Logistics Branch as a Writer ² in Nov 86. He was selected for promotion to Leading Hand in Dec 99. APO Fleming was selected for promotion to PO on 24 Jun 19. A common promotion date (CPD) was given as 31 Jul 20, requiring the SRLC and a trade specific PO Writer's Qualifying Course (PQC) to be completed by this date. APO Fleming had previously been selected for promotion on two occasions: first in 2014 and then again in 2016, however, he was reverted in rank as he did not attend the SRLC on either occasion. APO Fleming completed the PQC in 2017. Due to an ongoing medical condition he was awarded up to an additional 12 months to complete the SRLC, commonly known as CPD+12, which would have expired on 31 Jul 21.	Exhibit 006 Exhibit 003 Exhibit 007 Exhibit 008
1.3.4. Previous loading to the SRLC . APO Fleming had been loaded to five previous SRLC courses between 2015 and 2020 but did not attend on any occasion. APO Fleming was loaded to SRLC 20/25 in May 20.	Exhibit 007

¹ The RN watch keeping system divided the day into four-hour watches. Dogwatch refers to the time of day between 16:00 and 20:00 and comprises two watches of two hours.
 ² Writer is the RN term for a personnel administration specialist.

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1.3.5. Medical clearance . APO Fleming was awarded a medical category of permanently Medically Non-Deployable (MND) by a Regional Occupational Health Consultant (ROHC) on 2 Mar 20. Due to his medical condition, he was designated as a Limited Capacity 1 (LC1) student; a term local to RNLA to identify medically downgraded personnel. The LC1 medical clearance was required to be submitted to RAS 21 days prior to the start of the course. However, the LC1 documentation was completed by a Medical Officer from the HMS HERON Medical Centre on 6 Nov 20 and provided to the second in command (2IC) RAS on 13 Nov 20; the Friday before the SRLC was due to start.	Exhibit 009 Exhibit 010 Exhibit 004
Pre-incident Events	
1.3.6. Monday 9 Nov 20. At 10:03 APO Fleming sent an email to his chain of command stating that he wished to formally withdraw from the SRLC. He later met with the HMS HERON UPO Logistics Officer Cash Pay and Records (LO CPR) to discuss his attendance on the SRLC starting on 16 Nov 20 and again expressed his desire to withdraw from the course.	Witness 8 Exhibit 011
1.3.7. Tuesday 10 Nov 20 . OC Logistics Support (OCLS) at HMS HERON met with the UPO Office Manager and APO Fleming to discuss his attendance on the SRLC. APO Fleming was briefed on the implications of withdrawal ³ from the course and that a final decision was required from him on 11 Nov 20. APO Fleming was given the rest of the day off to consider his options.	Exhibit 012
1.3.8. Wednesday 11 Nov 20. APO Fleming confirmed to the UPO Office Manager that he would attend the SRLC on 16 Nov 20.	Exhibit 012
1.3.9. Friday 13 Nov 20. OCLS emailed APO Fleming's LC1 documentation to 2IC RAS. 2IC RAS briefed APO Fleming's attendance to the SRLC 20/25 Leadership Course Officer (LCO) at a weekly meeting for all LCOs held at 11:00.	Exhibit 010 Witness 17
1.3.10. Sunday 15 Nov 20. . He departed by train to Fareham, arriving at 19:30, and was collected by a colleague and transported by car to HMS CWD, arriving at 19:50. By 20:30 APO Fleming had moved into his accommodation and completed his mandatory arrival paperwork. The Senior Rates Leadership Course Monday 16 Nov 20	Witness 2 Witness 7 Witness 14 Exhibit 013
The Senior Rates Leadership Course Monday To Nov 20	
1.3.11. Formative Fitness Assessment. SRLC 20/25 mustered on the parade ground for the Formative Fitness Assessment (FFA) at 07:10. The FFA allowed RAS to assess the levels of fitness of students and was considered a risk management tool by RAS staffs. The FFA consisted of a 2.4km timed run,	Witness 14 Witness 21 Witness 18

³ Including reversion in rank to Leading Hand and loss of pay and privileges associated with the rank of PO.

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however there were no implications for failure. The course leader handed a box file containing all student arrival paperwork to the LCO prior to APO Fleming identifying himself as LC1; APO Fleming did not participate due to his LC1 status. 1.3.12. LC1 paperwork . At approximately 08:00 the LCO identified the lack of a formal hardcopy signature on APO Fleming's LC1 paperwork, although the document included an electronic signature from a medical officer at HMS HERON. APO Fleming was directed to attend the HMS CWD medical centre to have the LC1 paperwork authenticated.	Witness 18
1.3.13. Confirmation of LC1 paperwork . At approximately 12:00 the Deputy Practice Manager at the HMS CWD medical centre confirmed the authenticity of the LC1 paperwork.	Witness 24
1.3.14. The run to the obstacle course. Following a day of classroom lessons, SRLC 20/25 mustered outside of Sector and at 16:00, as shown in Figure 1.3.1. Students were dressed in battle PT kit ⁴ in preparation for the final two serials of the day: the obstacle course brief and dogwatch PT. The students split into two squads of ten personnel and ran from Sector and and ten and ten and ten and and and and and and and and and an	Witness 12 Witness 15

⁴ Personal clothing system combat trousers, T-shirt and boots.

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Figure 1.3.1. Location	of accommodation
	and all-weather pitch

1.3.15. Obstacle course brief. The obstacle course brief was delivered at 16:15,
in preparation for future activity on SRLC, by a Petty Officer Physical Trainer
(POPT) and lasted 20 minutes. On completion of the obstacle course brief
students waited by the all-weather pitch, as shown in Figure 1.3.1, for dogwatch
PT, which was scheduled to commence at 17:00.Witness 12
Witness 12
Witness 12
Witness 12
Witness 13
Witness 25

1.3.16. **Dogwatch PT**. SRLC 20/25 were joined by two other classes for a high intensity bodyweight circuit at 17:00. The warm-up proceeded with students jogging across the 50-metre width of the all-weather pitch, shown at Figure 1.3.2, and performing stretching and mobilisation exercises. Just before 17:05, on the fourth width, APO Fleming slowed significantly and collapsed. The collapse was observed by other students in the immediate vicinity who alerted the POPT delivering the session.

15000 1 1000

<image/> <image/>	
1.3.17. Cardiopulmonary resuscitation . Two SRLC students, who were level two first aid qualified, commenced cardiopulmonary resuscitation (CPR) at approximately 17:05.	Witness 1
1.3.18. Emergency response . A 999 call was made via mobile phone at 17:10 by RNLA staff who were in attendance and observing dogwatch PT. Initially the POPT continued to deliver the PT session but subsequently left the all-weather pitch to call an ambulance from the Sports and Recreation Centre (SARC) main office. Concurrently a member of RAS staff collected an automated external defibrillator from the SARC, and three shocks were delivered to APO Fleming. During this time the HMS CWD duty medic and duty doctor arrived, having been alerted by RAS staff.	Witness 1 Witness 12 Witness 25 Witness 14 Witness 13 Exhibit 014 Exhibit 015
1.3.19. Emergency services . An ambulance from South Central Ambulance Service arrived at 17:25 and the two SRLC students continued CPR until paramedics commenced emergency treatment at 17:30. A second ambulance and two doctors arrived shortly after. Attempts to resuscitate APO Fleming were unsuccessful and life extinct was recorded at 17:55.	Exhibit 014

Post-incident Events

1.3.20. General. At approximately 17:30 the SRLC students were sent back to their accommodation in Sector 11 as shown in figure 1.3.1. The SRLC students remained at HMS CWD until 20 Nov 20 in order to provide evidence to the Initial Ships Investigation and to conduct Trauma Risk Management (TRiM). TRiM was offered to all the SRLC students, RAS and HMS CWD staff involved in the incident. SRLC 20/25 was dispersed on 20 Nov 20.	Witness 25 Witness 14 Witness 12 Witness 13 Exhibit 016
1.3.21. Defence Accident Investigation Branch activity. The Defence Accident Investigation Branch were notified of the fatality at 18:30 on 16 Nov 20. The DAIB deployed an accident investigation team to HMS CWD, which arrived at 08:30 on 17 Nov 20 and conducted a triage investigation.	Exhibit 005
1.3.22. Cause of death . A post-mortem examination was carried out by Portsmouth Pathology Service on 18 Nov 20, which identified that death was due to severe ischaemic heart disease.	Exhibit 017

PART 1.4

Analysis and Findings

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PART 1.4 - ANALYSIS AND FINDINGS

All times local.

Introduction

1.4.1. At 17:00 on 16 Nov 20 Senior Rates Leadership Course (SRLC) 20/25 commenced dogwatch ¹ Physical Training (PT) on the all-weather pitch at HMS COLLINGWOOD (CWD).	Exhibit 001 Exhibit 005
1.4.2. The warm-up phase of dogwatch PT involved students jogging across the 50-metre width of the all-weather pitch combined with mobilisation and stretching exercises. During the fourth width Acting Petty Officer Writer Fleming (referred to as APO Fleming throughout), who was 53 years old, slowed significantly and collapsed near the fence line.	Exhibit 001 Exhibit 005
1.4.3. Immediate first aid was administered by fellow SRLC students who were level two first aid ² qualified. The students commenced cardiopulmonary resuscitation (CPR) and an automated external defibrillator (AED) was retrieved from the sports and recreation centre (SARC). After approximately five minutes of CPR, three shocks were delivered by the AED.	Exhibit 001 Exhibit 005 Witness 1 Exhibit 018
1.4.4. An ambulance from the South Central Ambulance Service arrived on scene at 17:25 and the SRLC students continued to provide CPR until they were relieved by paramedics at 17:30. The initial assessment by the paramedics identified the absence of a shockable cardiac rhythm.	Exhibit 014
1.4.5. South Central Ambulance Service paramedics delivered emergency care for 20 minutes but were unable to revive APO Fleming. Time of death was declared at 17:55. A post-mortem (PM) examination carried out by Portsmouth Pathology Service on 18 Nov 20 identified the cause of death as severe ischaemic heart disease ³ .	Exhibit 014 Exhibit 017
Methodology	
Accident factors	
1.4.6. Once an accident factor had been determined to have been present it was then assigned to one of the following categories:	
a. Causal factor(s). 'Causal factors' are those factors which, in isolation or in combination with other causal factors and contextual details, led directly to the incident or accident. Therefore, if a causal	

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 ¹ The RN watch keeping system divided the day into four-hour watches. Dogwatch refers to the time of day between 16:00 and 20:00 and comprises two watches of two hours.
 ² First Aid at work qualification.
 ³ A condition where the blood vessels supplying the heart become narrowed or blocked, resulting in a reduced blood flow.

factor was removed from the accident sequence, the accident would not have occurred.

b. **Contributory factor(s).** 'Contributory factors' are those factors which made the accident more likely to happen. That is, they did not directly cause the accident. Therefore, if a contributory factor was removed from the accident sequence, the accident may still have occurred.

c. Aggravating factor(s). 'Aggravating factors' are those factors which made the final outcome of the accident worse. However, aggravating factors do not cause or contribute to the accident. That is, in the absence of the aggravating factor, the accident would still have occurred.

d. **Other factor(s).** 'Other factors' are those factors which, whilst shown to have been present played no part in the accident in question, but are noteworthy in that they could contribute to or cause a future accident. Typically, other factors would provide the basis for additional recommendations or observations.

e. **Observations.** Observations are points or issues identified during the investigation that are worthy of note to improve working practices, but which do not relate to the accident being investigated and which could not contribute to or cause future accidents.

Accident factors modelling

1.4.7. The Panel recognised that accidents are usually the result of individual acts or omissions or technical events but that these occur in the context of a complex operational system with established defences against accidents. In investigating the broader factors influencing the accident the Panel has exploited the work of Prof James Reason, known colloquially as the 'Swiss Cheese' model (Reason, 1997), adapted by the Australian Transportation Safety Bureau (ATSB), in its analysis of the accident assessing evidence across the following categories:

a. Individual (unsafe) Acts or Technical Events. Unsafe acts are errors or violations which can be task-related or personal factors but can only be defined in relation to the presence of a particular hazard. Errors comprise slips, lapses and mistakes and are grouped as follows:

(1) Unintentional acts.

(a) **Slips.** Error by commission, where a well-practised skill, requiring little cognition, is carried out incorrectly.

(b) **Lapses.** Error by omission, where a well-practised skill, requiring little cognition, is not carried out.

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Intentional acts. (2)

Mistakes. Deficiencies in judgement and / or failing (a) to formulate the right plan based on flawed knowledge and / or incorrect comprehension of rules.

(b) Violations, Deliberate and conscious departures from established rules / procedures, although often with no intent to cause harm.

Local Conditions. Local conditions are those events or b. circumstances which may lie dormant in any organisation or which may contribute to the accident on a particular day. They influence the efficiency and reliability of performance in a particular working context. Examples may include fatigue, perceived or actual pressure on individuals, poor weather, inappropriate crewing, etc.

Organisational Influences. Organisational influences are C. those factors over which an organisation, at a high level, could reasonably be expected to exercise some measure of control. The 'organisation' in this context is the strategic entity which is responsible for designing, equipping and managing the working environment and for providing defences-in-depth against foreseeable organisational hazards. In the military context, examples of organisational influences may include vehicle design, regulations, orders, hazard identification or safety management systems, etc.

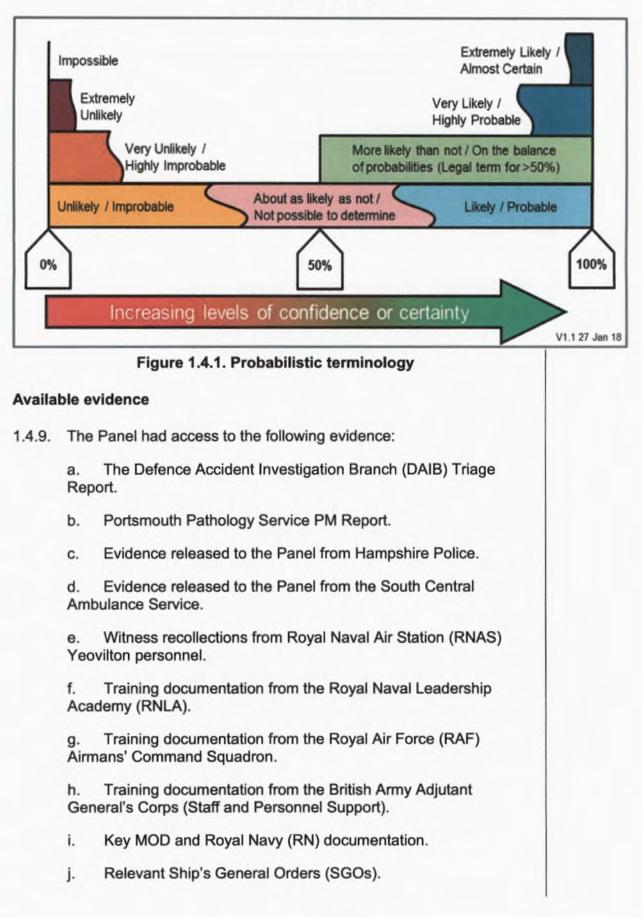
Risk Controls. Risk controls relate to lower level means of d. creating defences, usually as part of the day-to-day operation of the organisation but are affected by organisational influences. For example, training, local rules or procedures (such as flying order books or Military Transport orders), authorisation processes and supervision each generate barriers against an accident happening.

Probabilistic language

The probabilistic terminology detailed below clarifies the terms used 1.4.8. in this report to communicate levels of uncertainty within the report. It is based on terms published by the Intergovernmental Panel on Climate Change (IPCC) in their Guidance Note for Consistent Treatment of Uncertainties⁴ as well as the ATSB in their paper on Analysis, Causality and Proof in Safety Investigations⁵.

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⁴ https://www.ipcc.ch/pdf/supporting-material/uncertainty-guidance-note.pdf. ⁵ https://www.atsb.gov.au/media/27767/ar2007053.pdf.



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k. Two Defence consultant cardiologist expert reports.

A Defence General Practitioner (GP) Medical Officer (MO) ١. review.

m. A Defence consultant forensic psychiatrist review.

A Defence consultant occupational medicine review. n.

APO Fleming's Career Manager Personnel File (P-File). 0.

Relevant RN Personnel Capability documentation. p.

Services

1.4.10. The Panel was assisted by the following personnel and agencies:

a. The DAIB.

b. The Royal Navy.

- The British Army. C.
- d. The Royal Air Force.

Defence Medical Services. e.

- f. The Defence Inquest Unit.
- The Institute of Naval Medicine (part of the RN). g.
- h. MOD Training Education Skills Recruitment and Resettlement.
- i. Defence Statistics Health.
- j. The Defence Medical Services Regulator.

Analysis of Factors

Section 1: Cause of death

1.4.11. APO Fleming collapsed during the warm-up for dogwatch PT at 17:05 on 16 Nov 20, after jogging four 50-metre widths of the all-weather pitch. Immediate treatment was given by fellow SRLC students, who commenced CPR and administered an automated external defibrillator (AED) within five minutes, which delivered three shocks. Two separate 999 calls were made and South Central Ambulance Service recorded the time of call as 17:10.

1.4.12. The paramedics arrived at HMS COLLINGWOOD (CWD) at 17:25 Exhibit 014 and commenced treatment at 17:30, 20 minutes after the initial 999 call.

Exhibit 001 Exhibit 005 Witness 1 Exhibit 018

Exhibit 019

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Initial examination by the paramedics revealed no breathing, no pulse and the electrocardiogram (ECG) showed asystole ⁶ . APO Fleming showed no return of spontaneous circulation after 20 minutes of Advanced Adult Life Support and life was declared extinct at 17:55. The post-mortem (PM) carried out by Portsmouth Pathology Service on 18 Nov 20 identified that death was due to severe ischaemic heart disease.	Exhibit 017
1.4.13. The Resuscitation Council Guidelines stated that AEDs were 'designed to detect abnormal heart rhythms and deliver a shock to restore the rhythm of a person with a condition such as ventricular fibrillation (VF)' ⁷ .	Exhibit 019
1.4.14. The Resuscitation Council Guidelines for Advanced Life Support (ALS) stated that 'unless a reversible cause (eg hypoxia or hypothermia) can be found and treated, resuscitation following cardiac arrest with asystole is unlikely. Furthermore, it is generally accepted that asystole for more than 20 minutes in the absence of a reversible cause and with ongoing ALS constitutes reasonable grounds for stopping further resuscitation attempts'.	Exhibit 019
1.4.15. In order to gain professional insight into the treatment and pathology of APO Fleming, the Panel sought advice from two Defence consultant cardiologists. Their opinions were that APO Fleming initially had a shockable rhythm, which then deteriorated and was asystolic by the time the paramedics arrived. One of the Defence consultant cardiologists also stated that, for every minute in delay in administering an AED to a casualty, the chances of survival reduced by 10%. AED data showed that three shocks were delivered, and witness testimonies stated that the AED was administered approximately five minutes after collapse.	Exhibit 020 Exhibit 018
1.4.16. The panel noted the response to the incident included immediate emergency treatment provided by qualified first aiders, a timely 999 call, an AED within five minutes and a quick response by emergency services. The Panel concluded that had the AED been instantly available, it was still highly improbable that resuscitation would have resulted in a positive outcome. Therefore, the Panel finds that the post-incident response was not a factor .	
1.4.17. The PM findings showed evidence consistent with cardiovascular disease	Exhibit 017
1.4.18. Defence consultant cardiologist analysis of the PM Report concluded that there was	Exhibit 020

⁶ A cardiac arrest rhythm in which there is no discernible electrical activity on the ECG monitor. ⁷ A dangerous type of arrhythmia or irregular heartbeat.

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20. The Defence consultant cardiologist also opined that it was reasonable to suggest that exertion caused an inadequate blood supply to the heart (ischaemia), thereby reducing the blood flow to the heart muscle (myocardium), which then provoked a rhythm disturbance (VF) from which he could not be resuscitated.	
1.4.19. In addition which is discussed at para 1.4.77 et seq.	Exhibit 017
1.4.20. Based on the evidence contained in the PM Report, supported by analysis provided by two Defence consultant cardiologists, the Panel concluded that APO Fleming suffered from severe ischaemic heart disease and finds this to be the causal factor .	Exhibit 017 Exhibit 020 Exhibit 021
1.4.21. Changes to the lungs and respiratory pathway were consistent with tobacco use. Based on the analysis provided by two Defence consultant cardiologists, the Panel finds individual lifestyle factors to be a contributory factor , which is discussed further at para 1.4.75.	Exhibit 017 Exhibit 020 Exhibit 021
Section 2: Promotion to Petty Officer	
1.4.22. Promotion in the Royal Navy was underpinned by annual promotion boards where eligible personnel were assessed based on merit and evidence from annual appraisal reports (AAR). AAR included performance and potential comments, an overall performance grade (OPG), and recommendations for promotion one and two ranks up. Tri-Service policy (JSP 757: Tri-Service Appraisal Reporting Instructions) stated that most personnel performed to the standard expected in all respects which equated to a B grade. OPG grade descriptors are shown at Figure 1.4.2.	Exhibit 022 Exhibit 003
A Performing to the highest standard in all respects.	
A- Performing above the standard expected in all respects.	
B+ Performing above the standard expected in most respects.	
B Performing to the standard expected in all respects.	
 B- Performing to the standard expected in most respects. C Performing to the standard expected in some respects. 	
 C Performing to the standard expected in some respects. D Performing below the standard expected in most or all respects. 	
IK Insufficient Knowledge.	
NA Not Applicable.	
Figure 1.4.2. JSP 757 overall performance grades	
1.4.23. RN promotion policy contained in BRd 3(1) required all ratings to successfully complete the SRLC and the Professional Qualifying Course (PQC) to enable substantive promotion to PO. It was not possible to achieve substantive promotion without having completed both the PQC and the SRLC. Successful completion of the SRLC and the PQC were required by a	Exhibit 003 Exhibit 027

Common Promotion Date (CPD) 13 months after the release of the promotion signal. The CPD for APO Fleming was set as 31 Jul 20.	
1.4.24. Career Managers were assigned authority to extend CPD by a further 12 months (referred to as CPD+12). Training extensions were permitted up to CPD+18 months, with approval of SO1 ⁹ Ratings Promotions, provided a career management plan was agreed which allowed a rating to qualify before the next promotion board; failure to become qualified by CPD+18 resulted in the rating reverting in rank. The Panel were informed by SO1 Ratings Promotions that they were responsible for considering exceptional extensions beyond CPD+12, which could exceed CPD+18, as required in BRd 3(1).	Exhibit 003 Exhibit 028 hExhibit 029
1.4.25. SO1 Ratings Promotions advised the Panel that a Service reason cancellation ¹⁰ would mean the rating was still eligible to be reconsidered for promotion at the next board. However, when a rating refused promotion, which included failure to attend the SRLC or the PQC, they were deselected and not considered by the next annual promotion board.	Exhibit 028 Exhibit 029 Exhibit 003
1.4.26. Data provided by Navy Analysis showed the typical length of service (LoS) expected to reach each rank, both generally for the RN and for the Writer Branch. The expected LoS to reach PO in the Navy was 11.3 years and 13.3 years for the Writer Branch. The expected LoS to reach the highest rank of non-commissioned service, Warrant Officer Class One, was 26.6 years in the Writer Branch.	Exhibit 025
1.4.27. APO Fleming joined the RN in Nov 86 and promoted to Leading Hand (LH) in Dec 99. He was first selected for promotion to PO in Jun 14, after 28 years' service, and his Personnel File (P-File), held by his RN Career Manager showed deselection from promotion at his own request on 21 Apr 15. He was selected for promotion to PO again in Jun 16 and reverted to LH in Mar 19 after failure to complete SRLC. He was selected for promotion to PO for the last time in Jun 19, after a LoS of 33 years. He had been assigned to SRLC on five occasions but on each occasion did not attend due to a which is discussed in detail at para 1.4.31 et seq.	Exhibit 030 Exhibit 008
1.4.28. The Panel were provided the promotion signal from 2014 which provided a CPD of 31 Jul 15. The Panel considered it extremely likely that APO Fleming's request to revert to LH meant that he had refused promotion on the Jun 14 board. In accordance with promotion policy within BRd 3(1), refusing promotion in Apr 15 meant he was ineligible for consideration by the Jun 15 promotion board.	Exhibit 003 Exhibit 104
1.4.29. The Panel concluded that following refusal of promotion to PO in Apr 15, RN Promotions acted in accordance with BRd 3(1) and prevented APO Fleming from being considered by the Jun 15 board. The Panel were unable	Exhibit 003

⁹ Staff Officer 1: an officer of Commander rank.
¹⁰ Including operational deployment, RN workforce requirements and medical conditions precluding attendance.

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to establish if the requirement to complete the SRLC was a factor in APO Fleming's decision to revert to LH. 1.4.30. In Jan 15 and in Jan 16, APO Fleming was awarded an OPG of A-Exhibit 023 and B+ respectively; he was subsequently selected for promotion to PO in Exhibit 008 Jun 16. JSP 757 provided guidance on report writing and emphasised the Exhibit 022 need to report fairly and accurately. The Panel obtained the promotion order Exhibit 024 of merit for Leading Hand (LH) to PO dated Jun 16, which placed APO Fleming first out of 101 eligible personnel. 1.4.31. Following selection for promotion in Jun 16,, with a CPD of 31 Jul 17, Exhibit 008 APO Fleming was loaded to the SRLC in Jan 17. Exhibit 031 Exhibit 009 : this resulted in his removal from the course. Removal from this SRLC was recorded in his P-File as a Service reason cancellation. His Medical Officer (MO) restricted him to light duties and returned him home for seven days. 1.4.32. The SRLC was rebooked for May 17, however his P-File showed he Exhibit 008 was unable to proceed due to over the thought of Exhibit 031 attending. Exhibit 032 Exhibit 002 . However, he was able to undertake the PQC as it contained no arduous physical activity. APO Fleming successfully completed the PQC on 26 Jun 17. 1.4.33. Exhibit 033 Exhibit 009 Exhibit 031 Exhibit 034 Exhibit 003 and, whilst this was done in the near term by withdrawing APO Fleming from the SRLC, it still remained a requirement to complete the SRLC for substantive promotion to PO from 2016 until his death. 1.4.34. Fleming that resulted in

from Apr 17 until his death. Lack of consideration for the longer-term implications of an enduring requirement to undertake the SRLC was	
1.4.35. In May 17, APO Fleming was removed from the SRLC and awarded a Joint Medical Employment Standard (JMES) of Medically Non-Deployable (Temporary) (MND (Temp)), which is discussed further at para 1.4.56 et seq. Royal Navy Temporary Memorandum (RNTM) 07-054/19 ¹¹ stated that personnel holding a temporary JMES were not permitted to attend the SRLC, however those who held a permanently reduced JMES were eligible. As a result of the change to his JMES his Career Manager requested he attended the Reduced Syllabus Course (RSC), which was a specialist SRLC which did not contain any physical elements. However, the RSC was discontinued and is discussed in detail at Para 1.4.200 et seq.	Exhibit 009 Exhibit 035 Exhibit 032 Exhibit 028
1.4.36. It has already been discussed that and that APO Fleming had proven his ability to successfully complete the non-arduous PQC. The Panel opined that he was likely to have successfully completed the RSC which did not contain an arduous element; this is supported by witness statements made to the Panel; however, the RSC was not available. The Panel considered that the lack of an RSC denied APO Fleming the opportunity to undertake leadership training that was compatible with his medical condition.	Exhibit 002 Witness 6 Witness 8 Witness 9
1.4.37. The Panel concluded that the lack of an RSC for personnel deemed unfit to undertake the SRLC did not provide a suitably inclusive system with which to train personnel for PO rank.	Witness 2 Exhibit 003 Exhibit 004
The Panel also concluded that the levels of protection offered to temporarily downgraded personnel in relation to arduous training, who were exempted from attending SRLC, were not extended to their permanently downgraded peers. The Panel further concluded that the reasons for failing to complete the SRLC were outside of APO Fleming's control and as such he was not offered parity of treatment with his peers.	
Therefore, the Panel finds the unavailability of an RSC to be a contributory factor . A recommendation is made at para 1.4.203.	

¹¹ RNTM 07-054/19 are the joining instructions for SRLC and LRLC with effect from Sep 19.

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1.4.38. On return to MFD on 18 Sep 18, APO Fleming was loaded to the SRLC commencing on 4 Mar 19. , and reverted in rank to LH due to exceeding the exceptional training extension.	Exhibit 002 Exhibit 035 Exhibit 008 Exhibit 036
1.4.39. The Panel were not provided evidence of a career management plan to support an exceptional training extension, however the Panel considered it highly likely one existed which would have required completion of the SRLC on 4 Mar 19. The Panel opined that, although a medical withdrawal was classed as a Service reason cancellation, it was appropriate that APO Fleming was reverted to LH in accordance with the requirements for an exceptional training extension.	Exhibit 002
1.4.40. In Jun 19, APO Fleming was selected for promotion to PO for a third time. His P-File showed that, due to an exit date from Service on 23 Nov 23, the last opportunity for promotion was in Nov 20. The award of a permanent JMES of MND in Mar 20, meant that despite his ongoing condition, he was eligible for the SRLC and loaded to SRLC 20/25 commencing on 16 Nov 20. Having a permanent JMES of MND meant that he was considered a Limited Capacity (LC1) student and required to complete a medical risk assessment to allow Royal Arthur Squadron (RAS) to adjust the SRLC to meet his needs. The Panel was shown the LC1 paperwork which acted as a medical risk assessment and noted that it only listed physical limitations and	Exhibit 008 Exhibit 030 Exhibit 035 Exhibit 004 Exhibit 037
1.4.41. Despite being reverted to LH in Mar 19, APO Fleming was not excluded from the Jun 19 promotion board. The Panel noted that non- completion of the SRLC in Mar 19 was due to a medical condition and therefore was considered a Service reason cancellation, in accordance with BRd 3(1). The Panel noted that allocation of the SRLC in Nov 20 meant that, if unsuccessful, he would have been unable to be considered by subsequent promotion boards and would have remained a LH until his expected departure date from the RN in Nov 23. The Panel opined that the LC1 form did not offer MOs the opportunity to comment on the non-physical limitations of students, nor did it offer the opportunity to discuss potential barriers to success and, therefore, it was very unlikely to provide RAS staff with meaningful data to support their analysis and adjustment of training.	Exhibit 036 Exhibit 003 Exhibit 002
1.4.42. The Panel has discussed that APO Fleming was first selected for promotion to PO in Jun 14, after 28 years' service, and for the last time in Jun 19, after a LoS of 33 years. He had been assigned to SRLC on five occasions but on the last of the last of the last last of the last of the last last of the last last of last last last last last last last last	Exhibit 008 Exhibit 022 Exhibit 023 Exhibit 003 Exhibit 026
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Exhibit 023
Exhibit 023
Exhibit 023 Exhibit 003

Section 3: Medical

Medical policy

1.4.46. At the time of the incident, all UK Armed Forces personnel were awarded a JMES in accordance with JSP 950 Medical Policy, which informed C S e S

Service p employa	ersonnel. It pility and sp	areer Managers of the deployability and employability of t described the deployability, functional and geographical becific medical limitations which were placed upon a ES comprised:	
a.	a. Primary elements.		
	(1) Date	e of award.	
	(2) Date	e of review.	
	(3) Perr	manency. Either temporary (Temp) or permanent (Perm).	
	Deployab	ical Deployment Standard. Either Medically Fully le (MFD), Medically Limited Deployable (MLD) or Non-Deployable (MND) ¹² .	
b.	Detailed e	elements.	
	code that (A), Land additiona	ledical Employment Standard (MES). An alphanumeric t reflected an individual's fitness to be employed in the Air I (L) and Maritime (M) environments together with any I specific Environment and Medical Support (E) ations eg A4 L3 M4 E3.	
		ledical Limitations (MedLims) were specific limitations o an individual, accompanied by a code eg 9000 unfit to handling.	
than 18 months of accrued condition Medical I	nonths. Wh ontinuously 18 months o , policy dire Board of Su	not permit personnel to hold a temporary JMES for more en an individual had held a temporary JMES for 12 r for the same condition, or when the individual had of downgrading time over a 36 month period for the same ected that they were to be referred to the Naval Service rvey (NSMBOS) or a Regional Occupational Health for consideration of permanent downgrading.	Exhibit 039 Exhibit 040
referral to individua appropria	to be boar to, at 18 m	The Handbook of Navy Medical Standards, stated that OS should be at the 12 month point to allow the ded at around 15 months to enable discharge, if onths. RN policy also stated that all NSMBOS ere subject to Naval Service Medical Employment Board	Exhibit 039 Exhibit 040 Exhibit 004

12 Eg an award of MND (Temp) would show an individual is temporarily medically non deployable.

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Exhibit 038

(NSMEB) endorsement; the NSMEB usually met three weeks after the NSMBOS. BRd 1991, Instructions for the Royal Naval Medical Service, stated the NSMEB represented the MOD, as the 'employer,' and was the authority on whether an individual who had a permanent medical employment category recommended by NSMBOS should be retained or discharged from the Naval Service. The key objective of the NSMEB was to ensure that the skills which personnel had acquired through long and expensive training were not wasted, provided that continued employment could be found within their medical capacity which would not exacerbate their medical condition or adversely affect the workforce flexibility required by the Service. RNTM 07-054/19 contained joining instructions for the SRLC, which precluded attendance of personnel with a temporary downgrade but did permit attendance of personnel who were permanently downgraded. The NSMEB were responsible for determining if the individual was suitable for continued service and employment at subsequent higher ranks. In cases such as that of APO Fleming this meant they would need to consider the individual's suitability to undertake the SRLC.

1.4.49. APO Fleming was awarded several changes to his JMES for **Example 1**, for which the SRLC was considered one of the triggers. The medical grading dates were as follows:

- a. 11 May 17 MND (Temp).
- b. 18 Sep 18 MFD.
- c. 4 Mar 19 MND (Temp).
- d. 2 Mar 20 MND (Perm).

1.4.50. The Panel analysed APO Fleming's medical grading history and compared it to RN policy, illustrated at figures 1.4.3 to 1.4.6, to show a series of timelines for APO Fleming, with T indicating a temporary JMES and P indicating a permanent JMES. Figure 1.4.3 depicts the medical grading timeline shown in APO Fleming's medical records. Figures 1.4.4 to 1.4.6 illustrate how APO Fleming should have been re-graded as directed in BRd 1750A.

Exhibit 035 Exhibit 033

Exhibit 035 Exhibit 039

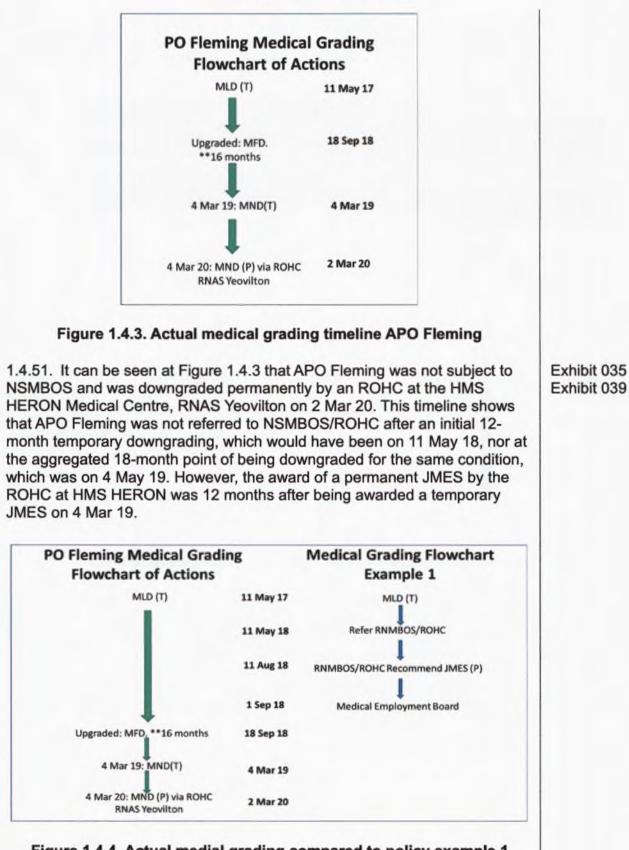
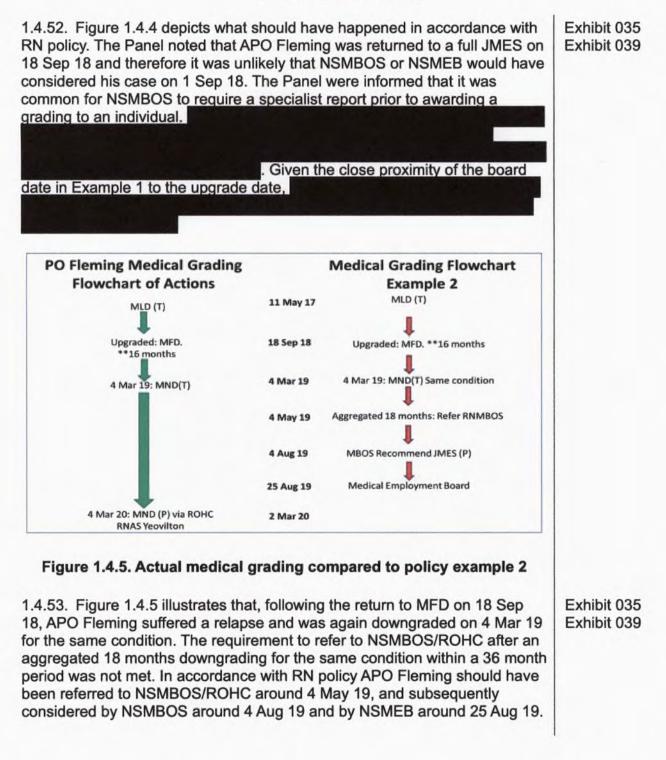
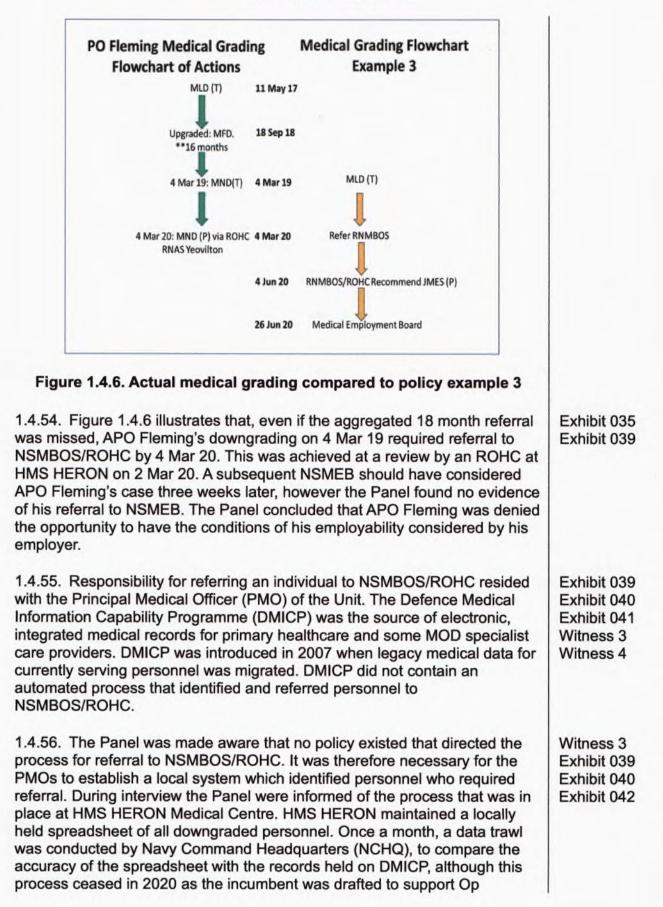


Figure 1.4.4. Actual medial grading compared to policy example 1

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RESCRIPT ¹³ . PMO HMS HERON stated that, due to postings on and off the Unit, the spreadsheet was normally missing approximately ten personnel. The Panel were informed that this whole process took three personnel one working day per calendar month.	
1.4.57. The Panel considered that the internal processes generated by PMO HMS HERON for referral of personnel to NSMBOS/ROHC was an example of good practice. However, the Panel opined that Defence Primary Health Care (DPHC) did not provide suitable policy direction and guidance on the referral process. Furthermore, the Panel concluded that the DMICP system was an inadequate tool for ensuring timely and appropriate referral and did not provide an automated solution to minimise human error. The deployment of the WO1 Medical Assistant to Op RESCRIPT removed a level of assurance over the process. Given the lack of oversight and assurance provided by either NCHQ or DPHC the Panel was unable to identify measures of effectiveness of the HMS HERON system, or those of other units.	Exhibit 004
1.4.58. The Panel concluded that the downgrading of APO Fleming was not in accordance with the timelines set out in RN policy and of the three possible scenarios provided at Figures 1.4.4 to 1.4.6, the Panel opined that Figure 1.4.5 (example 2) was the process which should have most likely been followed. Figure 1.4.5 shows that APO Fleming should have been referred to NSMBOS/ROHC around 4 May 19 and been considered by a NSMEB approximately three weeks thereafter. Neither of his previous two units had followed the policy for referral to NSMBOS in accordance with BRd 1750A. However, the Panel concluded that the Medical Centre at HMS HERON did correctly adhere to policy for referral to NSMBOS/ROHC.	Exhibit 039 Exhibit 040
1.4.59. RNTM 01-085/17 permitted the ROHC to award a permanent JMES providing individuals were graded either MFD or MLD; these changes still required ratification by a NSMEB. The RNTM also permitted a permanent downgrade of MND for up to 12 months for graduated rehabilitation as directed by the clinical lead; this was commonly referred to as GRADMO. GRADMO was awarded where there was every expectation that an individual would return to their original JMES and was the only circumstance under which the ROHC was allowed to award MND (Perm), which was required to be accompanied by the following MedLims:	Exhibit 043
a. 8200: Individual to be made available to follow rehabilitation PT programme and/or:	
b. 8201: Graduated rehabilitation as directed by clinical lead.	
1.4.60. The Panel were informed that GRADMO was designed to accommodate patients suffering from musculoskeletal injuries with a prolonged rehabilitation pathway which was likely to exceed 12 months. BRd	Exhibit 043 Exhibit 039

¹³ The UK Armed Forces response to COVID19.

1750A required all permanent downgrades be reviewed annually. During interviews it was explained to the Panel that awarding of MND (Perm) via GRADMO carried a 12 month limit. The downgrade was the same as another permanent downgrade, with a review at the 12 month point rather than an end date for the grading. If, at the 12 month point, continued downgrading was required the individual would be referred to NSMBOS. Under GRADMO, the ROHC was not required to refer the individual to NSMEB. Exhibit 035 1.4.61. The Panel were informed by the ROHC at HMS HERON that a permanent JMES of MND (Perm), and the MedLim 5501, 'to be made Witness 4 available for regular medical reviews', were awarded to APO Fleming in Mar Exhibit 009 20. This award was 'in the spirit of GRADMO', in so much that the ROHC felt that a further 12 months was required to continue treatment and return to a fully deployable JMES. As per the GRADMO protocol, APO Fleming was not referred to the NSMEB. The Panel noted the ROHC did not apply 8200 or 8201 MedLims as would have been required for GRADMO. The ROHC stated to the Panel that they did not consider GRADMO applicable due to the absence of musculoskeletal injury in APO Fleming's case. Examination of RNTM 01-085/17 by the Panel did not reveal easily identifiable barriers that would suggest the GRADMO protocol could not be applied to nonmusculoskeletal conditions. 1.4.62. During interviews the ROHC stated that RNTM 01-085/17 did not Exhibit 043 permit an ROHC to award MND (Perm) and stated they used a 'pick and mix' Witness 4 of the RNTM to justify the award. The Panel were informed that the policy contained within the RNTM did not account for APO Fleming's specific condition and that it was highly likely that NSMBOS would have been delayed in order to allow the individual to complete his treatment pathway. To seek a second opinion, the Panel commissioned an independent Defence occupational medicine consultant review of APO Fleming's case. The review stated that 'the permanent JMES awarded to APO Fleming by the ROHC was not in accordance with the authorisations in RNTM 01-085/17. However, the directions in the RNTM are complex and the JMES that was awarded combines elements of two of those that are authorised." 1.4.63. The Panel opined that, whilst the downgrading of APO Fleming did Exhibit 040 not disadvantage him medically, the fact that there was no referral to NSMEB Witness 5 meant that the employer did not have the opportunity to consider the Service Exhibit 030 person's suitability for attendance on the SRLC. The Panel also noted that Exhibit 002 the NSMEB was the first opportunity for the medical and personnel files to be Exhibit 031 viewed concurrently. The P-File was not available to the ROHC when considering downgrading and, therefore, they would not have been aware of the personal circumstances that impacted attendance, promotion, and further service. In Mar 20, at the time of downgrading, APO Fleming's P-File would

a. An expected departure date from Service on 23 Nov 23.

b. No more opportunities for consideration by a promotion board.

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have shown:

c. Five previous attempts at the SRLC, comprising two nonattendances and three Service reason cancellations.

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e. The PQC was completed in Jun 17.

1.4.64. For further clarity, the Strategic Workforce Planner (Ratings) was appraised of APO Fleming's case. They stated that, had this case been presented to the NSMEB, it was highly likely that he would have been allowed to remain in acting rank for his remaining time in the RN without the requirement to complete the SRLC.

1.4.65. The Panel noted that APO Fleming's

and not the underlying ischaemic heart disease which proved fatal. However, subsequent referral to the NSMEB was likely to have resulted in exemption from the SRLC. Although the Panel considered this to be a second order effect of referral to the NSMEB, this opportunity was not afforded to APO Fleming. The Panel concluded that had APO Fleming been subject to NSMEB, it was likely that he would not have been part of SRLC 20/25 and not subjected to PT evolutions which triggered a fatal cardiac event. The Panel opined that the ROHC was unaware of the detail contained within APO Fleming's P-File and, therefore, was unable to consider this in their decision to not refer to NSMEB. The remit of the ROHC at the time was to place APO Fleming in the highest appropriate medical category for his condition, within the limitations of the powers contained within RNTM 01-085/17.

1.4.66. The Panel concluded that, after awarding a permanent downgrade, HMS HERON's ROHC did not refer APO Fleming to the NSMEB in accordance with RNTM 01-085/17 for validation, which denied him the protections that may have been put in place by his employer and thus obviate the requirement to attend the SRLC. The Panel also concluded that the lack of a coherent policy and an automated method for referral allowed an unorthodox grading and referral to be carried out. The Panel finds the lack of a robust automated referral system for individuals that required consideration by NSMBOS, ROHC and NSMEB to be a **contributory factor**.

1.4.67. Recommendation. Director General Defence Medical Services should establish an automated system to refer patients to the Medical Boards of Survey (MBOS) and the Medical Employability Boards (MEB) in order to ensure compliance with the timelines stated in accordance with single Service policy. As a minimum the system should include functionality that prevents medical personnel from exceeding their grading powers.

1.4.68. During the investigation the Panel was made aware of Project BRIZO which took a holistic view of the efficiency and effectiveness of the healthcare pathways for medically downgraded Service personnel, including remedial

Exhibit 044

Witness 5

Exhibit 009

Exhibit 035

Exhibit 043

1.4 - 20

interventions when appropriate. Project BRIZO data was gathered between Jun and Nov 20, with publication on 10 Dec 20. Project BRIZO noted that the percentage of RN personnel in a deployable JMES had been in a steady state of decline over the preceding eight years. Key findings pertinent to this inquiry were:	
 Only 70% of DPHC establishments maintained a sick list to monitor downgraded service personnel. 	
 b. There was consistent evidence of delayed referral to NSMBOS. Some 602¹⁴ personnel were found to have exceeded referral times. This accounted for 18% of all downgraded RN personnel. 	
c. Example of patients were often cared for by a number of different healthcare providers. Project BRIZO recommended improved communication between DC Primary Care/Regional Occupational Health Teams to ensure timely occupational medicine input, optimising their journey to NSMBOS.	
 A review of RNTM 01-085/17, in line with the effectiveness of the GRADMO process, was required. 	
1.4.69. The Panel noted that RNAS Yeovilton was one of the units included in the Project BRIZO report which operated a sick list. Given the downgrading history of APO Fleming shown at Figure 1.4.3 and the three missed opportunities for referral to NSMBOS from two other units, as shown in Figures 1.4.4-1.4.6, the Panel considered sick lists operated in other Units were likely less effective than the one operated by PMO HMS HERON.	Exhibit 044
1.4.70. The Panel considered that 602 personnel awaiting NSMBOS was a significant figure and accounted for 18% of all downgrades. In order to further understand the scale of the current problem, the Panel commissioned a report by Defence Statistics Health. The report identified that the number of personnel downgraded and overdue referral to MBOS for the 19/20 financial year was 878 RN and 4,717 for Defence as a whole.	Exhibit 044 Exhibit 041
1.4.71. The Panel opined that the difference between the figure of 602 as reported in Project BRIZO and 878 identified in the Defence Statistics Health report, was likely due to fluctuations in personnel and statistical parameters in sampling which were detailed in the report. The Panel surmised it highly likely that Project BRIZO only considered those who had been temporarily downgraded over 12 months and were due NSMBOS but did not include those who had exceeded an aggregated 18 of 36 months. The Defence Statistics Health report showed the number of personnel who had exceeded the aggregated 18 of 36 months as being 1,086 RN and 6,961 for Defence in 2020.	Exhibit 044 Exhibit 041

14 Of 3,368 downgraded personnel.

1.4.72. The Panel noted the limitations of statistical parameters identified Exhibit 041 within the Defence Statistics Health report and concluded that the number of Exhibit 044 personnel with delayed referral to NSMBOS was likely greater than the number reported in Project BRIZO. Furthermore, the Panel opined that the statistics indicated a Defence-wide problem. The Panel observed that medical staff, although aware of the existence of Project BRIZO, had not been in receipt of the report and as such had not seen the findings in detail or recommendations. The panel concluded that delaying referral to NSMBOS did not carry with it any particular risk for the individuals concerned, indeed had APO Fleming been overlooked in his referral he would have remained MND (Temp) and thus exempt the SRLC. The Panel did note that any delay in review by NSMBOS or ROHC, and subsequently NSMEB, would have impacted on the Service's oversight of the management of downgraded personnel and their long-term employability, potentially further compounding the effects on operational outputs. 1.4.73. Omitting to widely share the findings of Project BRIZO was not considered to be factor in this inquiry. However, the Panel concluded that not providing the widest possible readership lessened the impact of the findings and recommendations both in the Naval Service and the Defence Medical community, in which the problem was likely bigger than perceived. The Panel finds this to be an observation. Individual factors

1.4.74. It was established during interviews that APO Fleming had a significant smoking habit. The Panel was further advised that APO Fleming identified himself as a heavy smoker to colleagues and medical staff. Colleagues reported cigarette breaks every 30-60 minutes during the working day.

1.4.75. Considering the reported regular smoking breaks and the condition of the lungs shown in the PM Report, the Panel concluded that it was highly likely APO Fleming fitted the description of a heavy smoker. The Defence consultant cardiologist confirmed that smoking was a recognised risk factor for cardiovascular disease and the Panel finds this to be a **contributory factor** as stated at para 1.4.21.

1.4.76. It was revealed to the Panel during interview that APO Fleming had large quantities of alcohol in his room in the week leading up to the SRLC. The Panel were advised that he would regularly purchase two 18 packs of beer, which a witness informed the Panel he drank through a weekend.

Witness 2 Witness 6 Exhibit 017

Witness 2 Exhibit 017 Exhibit 020

Witness 6 Witness 2

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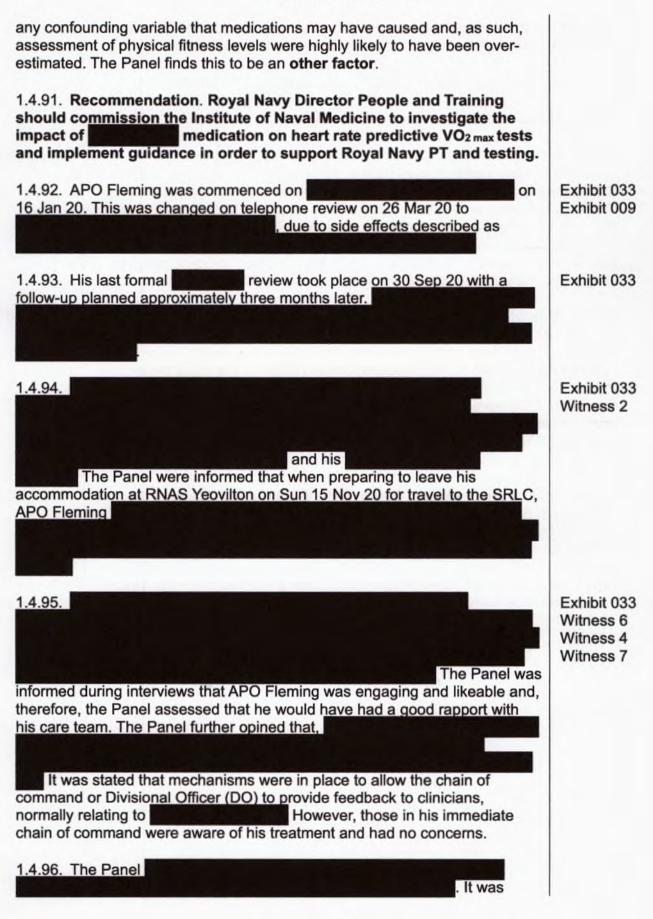
1.4.77. Although the Panel was provided evidence of heavy alcohol consumption, the PM Report did not indicate the degree of liver disease expected to be present in chronic alcohol abuse. At the time of the incident medical research appeared inconclusive regarding the association of alcohol consumption with ischaemic heart disease and concluded that a detrimental association of alcohol consumption was evident only for patients with the highest end of the spectrum of alcohol abuse.	Exhibit 017 Exhibit 045 Exhibit 046
1.4.78. The Panel concluded that whilst it was likely that alcohol consumption exceeded recommended guidelines which contributed to an unhealthy lifestyle, there was insufficient evidence to suggest this was a contributory or causal factor of fatal ischaemic heart disease.	
1.4.79. During the initial medical screening for LC1 paperwork, APO Fleming claimed to undertake three periods of cardiovascular exercise per week. He passed his RN Fitness Test (RNFT) on 8 Oct 19 via the Rockport Walk (RPW) to a Very Good standard which provided a two-year currency (expiry date of 8 Oct 21). The RPW is discussed at para 1.4.136.	Exhibit 009 Exhibit 047
1.4.80. During interviews, the Panel were advised that APO Fleming was never witnessed undertaking physical activity, indeed one witness commented that he was particularly averse to PT. The Panel also noted the Second Sea Lord's (2SL) Personal Functional Standards (PFS) for all RN personnel was to undertake three hours of PT within the working week. The Panel concluded that it was likely APO Fleming exaggerated his own commitment to physical activity and reported that he completed the requirement under the 2SL PFS.	Witness 6 Exhibit 003
1.4.81. The Defence consultant cardiologist's report explained that meant it was likely APO Fleming could have suffered a cardiac arrest at any time. However, the Panel were also advised that adrenaline and strenuous exercise were both possible triggers. The Panel concluded that had APO Fleming indeed undertaken three periods of cardiovascular exercise weekly, it is possible that the fatality could have occurred at RNAS Yeovilton or any other location during routine PT.	Exhibit 020 Exhibit 021
1.4.82. The Defence consultant cardiologist's report showed that the increased risk for personnel over the age of 40 was concerned with exposure to unaccustomed levels of exercise. An individual undertaking regular strenuous exertion/cardiovascular training would have been at lower risk. There was documented incidences of sudden cardiac arrest and death during and following exercise. The Panel were also informed that pre-screening for ischaemic heart disease was problematic and unlikely to identify any potential risk.	Exhibit 020 Exhibit 021
1.4.83. The Panel concluded that lifestyle factors were likely to have contributed to APO Fleming's underlying heart condition as stated at para 1.4.21. However, the Panel acknowledged that pre-screening may not provide a reliable mitigation. Overall, it was clear that the long-term benefits	

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of physical activity exceed the risk of undertaking it, however there was a requirement for exercise prescription to be carefully managed for those who may be unaccustomed especially for those aged over 40. The Panel finds this to be an observation .	
1.4.84. . This condition was first recorded on 16	Exhibit 033 Exhibit 009
Jan 17 in relation to attendance on the SRLC, resulting in cancellation of the course and seven days sick leave.	
1.4.85. and was awarded a JMES of MND (Temp) on 11 May 17 to allow further assessment and treatment. Following treatment, he was upgraded to MFD on 18 Sep 18.	Exhibit 033 Exhibit 009
1.4.86. over the weekend prior to 4 Mar 19, again in relation to imminently starting the SRLC and was downgraded MND (Temp) and prescribed	Exhibit 033
1.4.87. . Whilst not specifically prescribed to target a reduction in blood pressure, this effect would have still been exhibited to a degree. The Defence consultant cardiologist's report showed that was likely to mildly reduce actual VO _{2max} ¹⁵ by up to 10% from an individual's baseline. However, no evidence was found to advise medical or PT staff of this effect.	Exhibit 033 Exhibit 020
1.4.88. APO Fleming was subject to an RNFT in accordance with BRd 51. The RNFT for personnel over the age of 40 was the RPW. The RPW was a sub-maximal predictive test which used a heart rate monitor to predict VO _{2max} . The Defence consultant cardiologist's report showed that calculation of VO _{2max} was likely to be affected by Constitution and could falsely elevate the result from the RPW by up to 10%. Any calculations based on maximal heart rate and heart rate recovery would have been unpredictably skewed in this setting.	Exhibit 048 Exhibit 020
1.4.89. The Panel assessed that it was highly likely that results of any subsequent RNFT post-Jan 19, would have been affected by the prescription of the second lit was likely that the result could have been over-estimated by as much as 10%. RNFT results are discussed at para 1.4.136 et seq.	
1.4.90. The Panel concluded that there was no guidance available to MOs on the use of Sector Conclusion . Nor were PT staff made aware of	Exhibit 048

¹⁵ The maximum or optimum rate at which the heart, lungs, and muscles can effectively use oxygen during exercise, used as a way of measuring a person's individual aerobic capacity.

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concluded that the diagnosis, treatment, and assessment of APO Fleming was appropriate and therefore the Panel finds that this was not a factor .	
Section 4: Pre-Senior Rates Leadership Course supervision	
The Divisional Officer system	
1.4.97. History of the Divisional System . BRd 3(1) stated that the Divisional System can be traced back to 1755, when Vice-Admiral Thomas Smith issued orders to his Captains to organise their ships' companies into divisions, commanded by junior officers, with the aim of improving discipline, the running of the Fleet and well-being of sailors. The Divisional System has remained in place ever since, proving itself to be sufficiently robust to deliver the need for leadership and welfare, whilst also flexible enough to adapt to changes in warship design, the art of warfare and technology.	Exhibit 003
1.4.98. Role of the Divisional Officer (DO) . BRd 3(1) stated that the DO's primary task was to command, lead and manage their people. In doing so, they should supervise and prioritise the work of their Divisional Senior Rate (DSR). The DO acted as first reporting officer (1RO) for the more senior members of their Division and second reporting officer (2RO) for the remainder. DOs were directed to avoid becoming embroiled in process at the lower levels. Although accountable to heads of department in the first instance, DOs were subject to the functional authority of the Executive Officer or Second in Command (2IC) for matters of discipline and welfare.	Exhibit 003
1.4.99. Role of the Divisional Senior Rate (DSR) . BRd 3(1) stated that the DSR played a very important part in the Divisional System, primarily as the vital first 'link' in the chain that allowed contact between the most junior sailor and the Commanding Officer. It was expected that all senior ratings should be involved in Divisional management and day-to-day running of the Division. Figure 1.4.7 shows the chain of command within the RNAS Yeovilton Unit Personnel Office (UPO).	Exhibit 003

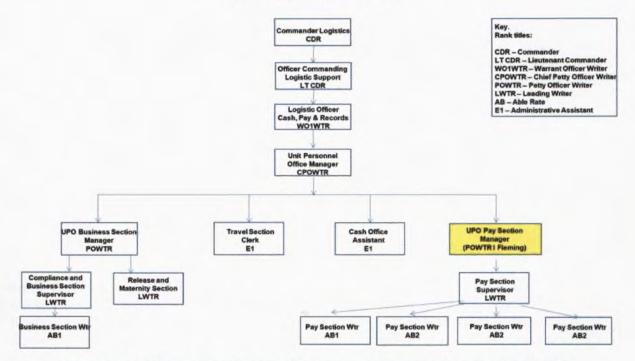


Figure 1.4.7 RNAS Yeovilton Unit Personnel Office command structure

Divisional Officer Supervision

1.4.100. Nov 20 SRLC booking . Following the award of MND (Perm), the Logistics Officer Cash Pay and Records (LO CPR), in their capacity as DO, contacted APO Fleming's Career Manager in May 20 to request loading to the SRLC. The LO CPR and the Career Manager agreed a date later in 2020 to allow maximum preparation. APO Fleming was loaded to SRLC 20/25 commencing 16 Nov 20 and was notified through the Joint Personnel Administration system on 20 May 20: allowing six months preparation time. It has been previously stated in para 1.4.28 that APO Fleming had a CPD of 31 Jul 20, by which time both the SRLC and the PQC were required to be complete. As discussed in para 1.4.24, BRd 3(1) permitted the Career Manager to authorise CPD+12 where Service reasons precluded earlier attendance.	Witness 8 Exhibit 002 Exhibit 003 Exhibit 049
1.4.101. The Panel opined that due to a JMES of MND (Temp) until 4 Mar 20, APO Fleming had been previously ineligible for the SRLC. The Panel also opined that course cancellations due to COVID19 likely limited availability and, therefore, it was appropriate to approve CPD+12.	Exhibit 004

1.4.102. The Panel concluded that LO CPR and the Career Manager acted in the best interests of APO Fleming and in accordance with BRd 3(1) by allocating SRLC 20/25, which maximised the time available for physical and mental preparation.

1.4.103. RNTM 07-054/19 contained joining instructions (JIs) for the SRLC. Exhibit 004 These required ratings attending the SRLC to read the JIs and complete

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Annex D: Three-Part Documentation, within two months of the course start date. RNTM 07-054/19 also stated the DO played a fundamental part in ensuring the rating was adequately prepared for all aspects of leadership training. The Three-Part Documentation comprised: Part 1 - The rating's self-declaration, 'ready in all respects'. a. b. Part 2A - Self-certification of medical eligibility (only completed if a rating was MFD). C. Part 2B - MO certificate (only completed if medical limitations existed). d. Part 3 - DO certificate of readiness. 1.4.104. Op RESCRIPT was the military response to the COVID19 Witness 8 pandemic, which required deployment of UK based personnel to support Exhibit 050 local authorities and the NHS. The Panel were informed that APO Fleming's Exhibit 051 DO was deployed at short notice in support of Op RESCRIPT in Sep 20. The Exhibit 011 Panel were provided with a table detailing how responsibilities were to be Witness 9 shared in their absence. The role of the DO was not included within this list of responsibilities. During interviews with RNAS Yeovilton personnel, statements differed as to who was considered to be the DO in the absence of LO CPR. Officer Commanding Logistics Support (OCLS) stated there was no formal handover but suspected that they were responsible for DO duties. It was the opinion of the Panel that RNTM 07-054/19 placed 1.4.105. Exhibit 004 responsibility for preparing for the SRLC on the individual; however, a Exhibit 003 significant responsibility was also allocated to the DO. The Panel opined that Exhibit 050 the DO was the key figure in supervising preparation and was required to Witness 6 confirm that the rating was ready in all respects to undertake the SRLC. The Witness 7 Panel noted that the LO CPR was deployed on Op RESCRIPT at short Witness 8 notice, despite submitting a substantial mitigation case, and that the Exhibit 103 oversight in formally handing over DO responsibilities created confusion within the UPO. The Panel acknowledged comments from the Commanding Officer of RNAS Yeovilton who opined that the MOD system for augmentation of operations and taskings did not take into account the holistic impact to the Unit or the UPO, which was considered especially fragile at this time. During interviews the Panel became aware that, although there had been no formal handover of DO responsibilities, those in APO Fleming's chain of command were aware of shortcomings in his preparation. 1.4.106. The Panel concluded that oversight in handing over DO Exhibit 103 responsibilities for APO Fleming meant that he was not afforded the level of pastoral support and supervision required by the RN. As a result, APO Fleming was not adequately supervised in preparations for SRLC. The panel further concluded that the MOD system of trawling for augmentees to support short-term taskings risked salami slicing organisations and as a result would continue to expose the losing unit to risk.

1.4.107. Email requesting SRLC postponement . The Panel were made aware that the UPO Office Manager emailed the Career Manager on 6 Nov 20 requesting postponement of APO Fleming's attendance on the SRLC until early 2021. The UPO Office Manager stated that the UPO was required to operate a shift system due to working patterns enforced by COVID19 and required two POs to manage the separate shifts. The Career Manager responded that the UPO had sufficient personnel and that APO Fleming was already past CPD, also highlighting the SRLC was due to commence in ten days time. There was no evidence that this request was elevated within the UPO Office Manager's chain of command for resolution at a higher level. OCLS and Commander Logistics informed the Panel that they were unaware of the request to defer the SRLC. However, the Panel noted BRd 3(1) stated that any request to cancel the SRLC within the eight-week period prior to the course required the approval of a Lieutenant Commander or above.	Exhibit 052 Witness 6 Witness 9 Witness 10 Exhibit 003
1.4.108. The Panel considered it almost certain that postponement of the SRLC would have permitted retention of acting rank and provided even more time for APO Fleming to prepare. It has been stated at para 1.4.100 that APO Fleming was given six months notification of the SRLC, which the Panel considered adequate time in which to prepare. The Panel opined that, had OCLS or Commander Logistics been aware of the plan to delay the SRLC, rejection by the Career Manager would have resulted in their engagement. Although the UPO Office Manager stated to the contrary, the Panel further opined that it was likely that the UPO Office Manager was acting to provide a Service reason for APO Fleming to delay the SRLC.	Witness 6
1.4.109. The Panel concluded the UPO Office Manager was likely acting in the interests of APO Fleming by citing COVID19 working patterns to justify a Service reason cancellation. However, the Panel also concluded that the Career Manager was justified in their decision not to support this request and was acting in accordance with BRd 3(1).	Exhibit 003
1.4.110. The Panel was provided an email sent by APO Fleming at 10:03 on Mon 9 Nov 20 to his hierarchy (as per figure 1.4.7) within RNAS Yeovilton Logistics Department, formally requesting that his attendance on the SRLC was postponed until 2021. He stated he was setting himself up to fail and would benefit from more time to prepare. APO Fleming stated in the email that he prided himself on his achievements, noting a myriad of deployments and operations; he believed he was the longest serving and most decorated Service person within the Unit. He acknowledged that, if the request for postponement was not granted, he would have been required to revert in rank to LH and he was aware of all implications of reversion including pay and pension and accepted them. He also provided a recommendation for a LH replacement to fill his position as an acting PO. APO Fleming concluded the email by stating that he understood the request was short notice, however he wanted to put himself and his family first.	Exhibit 011 Witness 8 Witness 2
1.4.111. APO Fleming's history of non-attendance on the SRLC and subsequent reversion in rank is addressed in para 1.4.22 et seq. When considered alongside 34 years' service in the administrative trade, it was the	Exhibit 008 Exhibit 002

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opinion of the Panel that it was almost certain he was aware of the personal and career implications of reversion. The Panel considered it highly unusual for an acting senior rate to directly email a senior officer of the rank of Commander Logistics. Therefore, the Panel opined this action highlighted the seriousness of his desire to not attend. Para 1.4.84 et seq. addresses APO Fleming's and the Panel opined that this email was an indication that he was not as well as he had reported to his clinician in Sep 20.	
1.4.112. as identified in Para 1.4.84 et seq. The Panel also concluded that APO Fleming and that it had reached such levels that he felt it necessary to take action that was out of character by emailing his entire chain of command to request withdrawal.	Witness 2
1.4.113. Witnesses stated that LO CPR, UPO Office Manager and OCLS held a Skype call to discuss APO Fleming's email at 17:00 on 9 Nov 20. Due to LO CPR being deployed on Op RESCRIPT, it was agreed that the UPO Office Manager and OCLS would discuss the SRLC attendance with APO Fleming on 10 Nov 20.	Witness 8 Witness 6 Witness 9
1.4.114. The Panel were informed that on 9 Nov 20 the LO CPR had returned from Op RESCRIPT to RNAS Yeovilton to undertake a career transition workshop. At 18:00 the LO CPR received a text message from APO Fleming and they arranged to meet in the anteroom of the Senior Rates' Mess to discuss his withdrawal from the SRLC. During this discussion it was stated to the Panel by LO CPR that APO Fleming informed them he planned to withdraw from the SRLC and request premature voluntary release (PVR) from the RN. It was further stated that APO Fleming was completely aware of all consequences of his actions and remained adamant that he would not attend the SRLC. LO CPR informed the Panel that they suggested APO Fleming allow and staff to declare him unfit to attend, but he declined stating '. The Panel were further informed that it was agreed that LO CPR would support his withdrawal from the SRLC and reversion to LH, but that APO Fleming agreed that he would not PVR.	Witness 8 Exhibit 053
1.4.115. The Panel noted that LO CPR was only visiting RNAS Yeovilton, having relinquished DO duties; however, the Panel opined that prior to Op RESCRIPT LO CPR was APO Fleming's DO and, as such, likely had a good working relationship with him. The Panel therefore considered this would have been an open and honest discussion. It was the opinion of the Panel that it was unlikely that APO Fleming would have been as unwavering in his wishes in any discussion with the UPO Office Manager and OCLS, due to the lack of an established DO relationship.	Witness 8 Exhibit 054
1.4.116. The Panel concluded that if the discussion in the Senior Rates Mess between LO CPR and APO Fleming had been a formal meeting with his DO, it was highly probable that the agreed outcome would have been	Witness 8

supported; cancellation of the SRLC with reversion in rank but no PVR. The Panel also concluded that, had LO CPR not been deployed on Op RESCRIPT, it would have been highly likely that APO Fleming would not have attended the SRLC, as they would have agreed his withdrawal.	
1.4.117. The Panel was informed that on 10 Nov 20 APO Fleming met with the UPO Office Manager and OCLS to discuss his attendance on the SRLC. OCLS and UPO Office Manager stated that they informed APO Fleming of the consequences of not attending the course such as reversion in rank, the impact on pay and pension, and moving out of the Senior Rates' Mess. APO Fleming was given the remainder of the day off to consider his decision. The next day, 11 Nov 20, he confirmed he would attend the SRLC. Stated to the Service Inquiry President that, following the meeting, APO Fleming informed her OCLS had ordered him to attend the SRLC or PVR, however, this was unsubstantiated during interviews with RNAS Yeovilton personnel.	Witness 6 Witness 8 Witness 9 Witness 2
1.4.118. It has been previously stated that APO Fleming was intricately aware of the implications of reversion in rank and it was the opinion of the Panel that this meeting would not have revealed any previously unknown information to him. However, the Panel also opined that, as neither OCLS nor the UPO Office Manager had the same established DO relationship with APO Fleming as LO CPR, he was unlikely to be as forthright in his wishes. The Panel considered that it was likely the influence of a senior officer encouraging his attendance would have made him acquiesce, despite his strong desire to not attend the SRLC.	Witness 8 Witness 6 Witness 9
1.4.119. The Panel concluded that it was highly likely that OCLS was an inappropriate DO for APO Fleming, given the rank difference; OCLS was eight ranks senior. The Panel opined that this rank difference meant it was unlikely that APO Fleming would have acted against what he perceived to be OCLS's wishes. The Panel also concluded it was likely APO Fleming's account of this meeting to COUNTING was a recount of his interpretation that he had no choice but to attend.	Witness 2
1.4.120. The Panel concluded that the lack of oversight in providing appropriate DO supervision for APO Fleming meant that he was not adequately supported nor was sufficient scrutiny applied in declaring him 'ready in all respects' for the SRLC. Therefore, the Panel finds this to be a contributory factor. A recommendation is made at 1.4.135.	
Individual preparation	
Limited Capacity 1 medical form.	
1.4.121. Personnel who were MFD completed a self-declaration of fitness to attend. As stated in para 1.4.40, due to holding a JMES of MND (Perm) APO Fleming was designated as an LC1 student. LC1 was an RAS internal medical risk assessment for personnel with a JMES lower than MFD	Exhibit 004 Witness 9 Witness 6 Exhibit 010

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attending leadership courses. RNTM 07-054/19 stated that the LC1 medical form was to be 'completed by an MO and offered a layer of screening to allow an individual the opportunity to discuss their potential capability for each physical activity on the SRLC'. The LC1 medical form was to be submitted 21 days prior to the course start date. In the case of APO Fleming, LC1 paperwork was required to be received by 2IC RAS by 26 Oct 20. The Panel noted that, despite six months notification of the SRLC, APO Fleming's LC1 paperwork was significantly late. The LC1 paperwork was provided to 2IC RAS, 18 days late on 13 Nov 20 on the last working day before the course commencement, and this is discussed in para 1.4.143 et seq.	
1.4.122. The Panel examined JSP 375 ¹⁶ which contained the Defence process for risk assessment and found no reference to medical risk assessments. The LC1 paperwork was a Yes/No form where the MO was able to select activities that they wished to exempt patients from. The Panel opined that this bore little resemblance to the MOD Form 5010 Risk Assessment, which required control measures and a risk rating for the identified hazards. It was the opinion of the Panel that, had MOD Form 5010 been used as a medical risk assessment, it would have been necessary to consider APO Fleming's age, fitness and physical health. In this manner an accurate assessment of the risks for attendance on the SRLC could have been conducted.	Exhibit 055 Exhibit 004 Exhibit 056
1.4.123. Defence Medical Policy in JSP 950 provided four levels of assessment of medical suitability to attend courses, only 22 courses in Defence required screening in person by an MO. The SRLC was not listed as one of these 22 courses and, therefore, the Panel opined that the LC1 process was outwith established Defence medical protocols. The Panel were also unable to establish a format for medical risk assessments within JSP 950 or JSP 375.	Exhibit 057 Exhibit 055
1.4.124. The Panel concluded that the LC1 paperwork did not afford medical staff the opportunity to accurately mitigate the risk of APO Fleming attending the SRLC. The Panel further concluded that the lack of a Defence medical risk assessment format, or adherence to the MOD 5010 format, denied medical professionals the opportunity to accurately communicate risk to a training provider and, as a consequence, RAS were unable to plan accordingly. As discussed at Para 1.4.45, the Panel finds this be an other factor .	Exhibit 056
1.4.125. Recommendation. Director General Defence Medical Services should define the term 'medical risk assessment' and develop an appropriate format that identifies hazards and risk controls which training providers should use in order to enable the understanding of the risks of medically downgraded personnel attending arduous training serials.	

¹⁶ Management of Health and Safety in Defence.

1.4.126. Recommendation. Royal Navy Director People and Training should ensure the process for assessment of medical suitability to attend courses is compliant with JSP 950 in order to appropriately establish fitness for attendance.	
LC1 Doctor's appointment.	
1.4.127. APO Fleming first attended a medical appointment via telephone on 2 Nov 20 with an MO from HMS HERON Medical Centre to discuss his LC1 paperwork. The Panel commissioned an independent GP review of APO Fleming's medical records. The GP review stated that APO Fleming felt in a good place mentally and denied any current physical problems that would pose a challenge from the physical elements of the SRLC.	Exhibit 009 Witness 11
on 4 to 5 Nov 20 and the results were entirely normal, and he again stated that he had no physical problems and was in date for the RNFT. A completed copy of the LC1 paperwork was scanned into DMICP on 6 Nov 20.	
1.4.128. During interview the MO stated that, although APO Fleming's limitations were not physical, he was offered the opportunity to be made exempt from any or all of the activities listed on the LC1 form. The MO stated to the Panel that APO Fleming had informed the MO that he could complete all the PT related activities listed. The MO included APO Fleming's MedLims on the LC1 form: 'unfit safety critical work (1400), unfit weapon handling (9000) and to be made available for regular medical reviews (5501)'.	Witness 11 Exhibit 037
1.4.129. It was the opinion of the Panel that the MO at HMS HERON Medical Centre accurately recorded APO Fleming's medical fitness on the LC1 form. and gave APO Fleming every opportunity to opt out of any or all physical activity during the SRLC.	Exhibit 037 Exhibit 009 Witness 11
1.4.130. The Panel concluded that the MO at HMS HERON Medical Centre went above and beyond the level of diligence that was expected in completing the LC1 paperwork and that APO Fleming was given every opportunity to be made exempt from the arduous elements of the SRLC. Therefore, the Panel finds that the medical screening of APO Fleming's fitness to attend the SRLC was not a factor in the incident.	
Pre-course PT programme	
1.4.131. RNTM 07-054/19 strongly recommended personnel conducted appropriate PT to prepare for the arduous PT syllabus. A six-week fitness package was provided as part of the RNTM, designed to prepare students for the challenging and physical aspects of the SRLC, mainly the Dynamic Leadership Exercise (DLX) in week three. It was recommended that DOs actively encourage ratings to conduct the package prior to arriving at RNLA.	Exhibit 004 Witness 1 Witness 12 Witness 13 Witness 14 Witness 15

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All SRLC 20/25 students interviewed stated that they did not carry out the six-week fitness programme, although most admitted to doing some form of physical preparation.	Witness 16
1.4.132. Expert Panel members reviewed the fitness package and opined that the sessions were inappropriate for the majority of RN personnel. The programme included Tabata ¹⁷ sprints on day one, which required bouts of high-intensity exhaustive exercise. Noting the analysis provided by the Defence consultant cardiologist, the Panel opined that, had APO Fleming undertaken this training session it was highly probable it would have caused a cardiac event prior to attending the SRLC. The Panel finds the pre-course PT programme is an other factor . A recommendation is made at 1.4.203.	Exhibit 004 Exhibit 058 Exhibit 020 Exhibit 021
1.4.133. The Panel found no evidence that APO Fleming had conducted any physical activity in preparation for the SRLC. However, the Three-Part Documentation showed that he was considered ready in all respects. The UPO Office Manager stated that they signed as the DO because OCLS had signed for the Commanding Officer, who was not on the Unit on 13 Nov 20. The UPO Office Manager informed the Panel that they were aware that APO Fleming undertook no physical preparation for the SRLC but was in date RNFT to a very good standard.	Exhibit 037 Witness 6
1.4.134. The Panel concluded that, from both a mental and physical perspective APO Fleming should not have been considered ready in all respects. The Panel further concluded that this lack of insight was due to the absence of an appropriate and designated DO. The Panel finds the reduced quality of divisional supervision, resulting from deployment of personnel on Op RESCRIPT, to be a contributory factor .	
1.4.135. Recommendation. Royal Navy Director People and Training should revise Divisional Officer training to include, as a minimum, lessons detailing duty of care in order to ensure that Divisional Officers are fully aware of the implications of approving attendance on arduous courses, specifically in declaring personnel ready in all respects.	
RNFT	
1.4.136. RNTM 07-054/19 stated that individuals were to be in-date RNFT for the duration of the course. The definition of in-date RNFT, is to have attempted the test and be awarded a pass or a fail. Those personnel that failed the RNFT were under directed remedial training and were allowed to attend SRLC. The RNTM also stated that students were recommended to conduct an RNFT three months prior to course start date. BRd 51 Physical Development Manual contained the protocols for the RNFT, which stated that the Rockport Walk (RPW) was a 'sub-maximal test that predicted stamina levels to produce a result that correlates directly with RNFT maximal tests. It	Exhibit 004 Exhibit 048 Exhibit 047 Exhibit 059

¹⁷ 8 x 20s maximal effort sprints with 10s rest between sets.

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involved a best effort walk of 1610m (1 mile)'. The RPW utilised a heart rate monitor, combined with finish time, age and weight, to predict VO _{2 max} .	
1.4.137. APO Fleming completed the RPW test in Oct 19 and achieved a 'very good' pass. BRd 51 stated that a 'very good' pass resulted in a 24-month currency; therefore, APO Fleming's RNFT currency would have expired in Oct 21. The Panel was provided with historical RNFT data for APO Fleming which showed an increase in VO _{2 max} from mI-kg-min in Jan 19 to mI-kg-min in Oct 19.	Exhibit 048 Exhibit 047
1.4.138. As stated in para 1.4.86 et seq., APO Fleming was prescribed from Jan 19. The Defence consultant cardiologist's report stated that could cause an overestimation of VO _{2 max} in predictive tests based on heart rate, by as much as 10%. BRd 51 stated 'personnel who are taking can take the Rockport Walk'.	Exhibit 020 Exhibit 048
 1.4.139. Witnesses informed the Panel that APO Fleming was not known to undertake any PT, despite his medical records showing he undertook three periods of aerobic exercise per week. The Panel opined that it was highly likely that APO Fleming's colleagues were accurate in their assessment of his lack of PT. Therefore, the Panel also opined that it would have been almost certain that VO_{2 max} would not have increased. The Panel noted the increase in VO_{2 max} between Jan 19, when APO Fleming commenced his treatment on figure y good' pass. The difference in VO_{2 max} between these tests represented an 11% increase. It was the opinion of the Panel that, had figure not been prescribed it was highly likely that RNFT results in Jan 19 and Oct 19 would have been similar. Therefore the 'pass' criteria, rather than the "very good" criteria, would in turn, have required him to retake the RNFT in Oct 20. The Panel concluded that a more recent RNFT, appropriately adjusted to account for the effect of would have been similar of the SRLC. 1.4.140. The Panel opined that the RPW did not provide an accurate assessment of APO Fleming's fitness which medical professionals and the DO could use to assess his fitness to undergo arduous training. The Panel concluded it was highly likely that shortcomings in policy that did not consider the impact of most of APO Fleming's fitness to undergo arduous training. The Panel concluded it was highly likely that shortcomings in policy that did not consider the impact of most of a provided at 1.4.91. 	Witness 7 Exhibit 048
¹⁸ A 1 4 - 35	

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Section 5: The Senior Rates Leadership Course	
Supervision	
1.4.141. A weekly meeting was held every Friday for Leadership Course Officers (LCO) by 2IC RAS to discuss the upcoming week's courses. If an LCO was unavailable another member of staff would be nominated to attend in their place. On Fri 13 Nov 20 the LCO meeting was conducted via Skype due to COVID19 social distancing requirements. During interview the SRLC 20/25 LCO could not recall if they were in attendance or if another instructor was nominated in their absence. The LCO stated that they were only aware of two LC1 students attending SRLC 20/25 and were not aware of APO Fleming's LC1 status.	Witness 17 Witness 18
1.4.142. The Panel were informed that the number and nature of LC1 students assigned to each course was a routine part of the LCO meeting, which ensured a maximum of six LC1s per course; however, no formal minutes were taken. LCOs were also required to visit 2IC RAS in person in the week preceding a new SRLC course to obtain information on respective LC1 students. This information was held on a limited access database due to concerns over protection of 'medical in confidence' information. The Panel were informed that the LCO for SRLC 20/25 had viewed this database prior to the weekly meeting on Fri 13 Nov 20.	Witness 17 Witness 18
1.4.143. The 2IC of RAS informed the Panel that, during the 13 Nov 20 LCO meeting, they stated an additional LC1 would be joining SRLC 20/25. 2IC RAS recalled briefing the LCO meeting that APO Fleming was aged 53, had no physical limitations and could be expected to conduct the Formative Fitness Assessment (FFA) on the morning of Mon 16 Nov 20 along with the rest of the course.	Witness 17
1.4.144. Due to the late submission of LC1 paperwork, it was highly improbable that the LCO would have been able to obtain any information on APO Fleming prior to the LCO meeting at 11:00 on 13 Nov 20. As this meeting was a weekly occurrence with LC1 a normal topic, the Panel considered it highly likely that APO Fleming would have been discussed. The Panel also noted that Skype meetings sometimes experienced loss of signal and that, on occasion, communication could be less clear than in a face-to-face setting. During interviews, the Panel surmised that understanding amongst RAS staff was that the LC1 was only concerned with the existence of a physical limitation and, indeed, the LC1 form only considered the individual's ability to complete physical tasks. The Panel opined that it was possible the LCO, or his representative, did not understand an additional LC1 would be joining the course and, instead, considered that APO Fleming was a fully fit student. In the absence of a record of decisions, the exact detail of the meeting remains uncertain.	Exhibit 010 Witness 18 Witness 19 Exhibit 004

1.4.145. The Panel concluded that it was likely APO Fleming's attendance on SRLC 20/25 had been briefed by 2IC RAS during the LCO meeting of 13 Nov 20. However, the lack of a minuted record prevented identification of attendees or decisions. Given the experience of the LCO, the Panel opined that had they been in attendance and fully understood APO Fleming's LC1 limitations, it was highly likely that APO Fleming would have been expected to complete the FFA on the morning of 16 Nov 20. Given the findings of the PM Report and the opinion of Defence consultant cardiologist, the Panel concluded that it was almost certain that APO Fleming would have suffered a fatal cardiac event during the FFA rather than during dogwatch PT. The Panel also determined that the LC1 documentation did not identify any physical limitations for attendance on the SRLC and, therefore, the Panel considered it highly improbable that earlier receipt of the LC1 paperwork would have prevented the fatality on 16 Nov 20. The Panel finds the late submission of LC1 paperwork for APO Fleming was not a factor .	Witness 18 Exhibit 017 Exhibit 020 Exhibit 021 Exhibit 037
Joining routine	
1.4.146. At approximately 17:00 on Sun 15 Nov 20, the first SRLC 20/25 student arrived at HMS CWD and was designated as the 'First Joiner' and Duty Student for day one. The First Joiner was required to account for all students, allocate rooms and conduct a series of administrative tasks. The Panel were informed that all students elected to arrive late in a deliberate attempt to avoid this duty. APO Fleming spent the weekend of 14 and 15 Nov 20 at RNAS Yeovilton and travelled by train from Structure for the Structure for the set of t	Exhibit 060 Witness 1 Witness 12 Witness 13 Witness 14 Witness 15 Witness 16
1.4.147. On 16 Nov 20 Public Health England guidelines for social distancing were in place. The Panel were made aware that, during a visit by the Commanding Officer of Britannia Royal Naval College on 15 Oct 20, it was identified that leadership students' accommodation facilities were not considered COVID19 secure, given the lack of separate toilets and bathrooms for the individual courses/households. The Panel were provided a COVID19 risk assessment for RAS but could not identify any hazard or control measures that applied to accommodation. Risk assessment is discussed in detail at para 1.4.213 et seq.	Witness 20 Exhibit 061 Exhibit 062 Exhibit 063
1.4.148. The First Joiner was required to ensure all ratings completed arrival paperwork, which was to be collected in a box file and handed to the LCO at the parade ground prior to the FFA on the morning of day one; RAS orders stated that the box file should include a Defence Health Questionnaire (DHQ). The DHQ was a two-sided document which required Yes/No answers to questions relating to personal and family medical history. A requirement for all students to complete a DHQ was introduced in Sep 20 as part of the COVID19 risk mitigations. Prior to Sep 20, a DHQ was only required for personnel over the age of 40. APO Fleming was the only rating over the age of 40 on the SRLC 20/25.	Exhibit 060 Exhibit 064 Exhibit 065 Exhibit 048

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1.4.149. The Panel were informed that historically HMS CWD PT staff used the DHQ for personnel over the age of 40 to self-assess their readiness prior to undertaking the FFA. RN personnel were offered the opportunity to select their choice of RNFT from either a 2.4km run, a Multi-Stage Fitness Test (MSFT) or the RPW. The DHQ stressed the risks of maximal fitness tests for the over 40 age group and that these personnel should not be pressured to undertake these tests. A final section required the PT Instructor (PTI) responsible for the test to sign to say they assessed the individual as 'fit to undertake the RNFT' or refer them for medical advice. The Panel noted the discrepancy between the DHQ which referred to the RNFT and the ratings undertaking an assessment called an FFA. APO Fleming had selected the RPW test but the PTI section on his DHQ was unsigned.	Exhibit 048 Exhibit 060 Witness 21 Witness 22 Witness 11
Formative Fitness Assessment	
1.4.150. SRLC 20/25 paraded for the FFA at around 07:10 on Mon 16 Nov 20. At that time the First Joiner presented the LCO with the box file containing all student documentation. The Panel were informed that the FFA was a best effort 2.4km run, with the option of a RPW for those over 40. Royal Navy Executive Temporary Memorandum (RNXTM) 34/20 Reintroduction of the RNLA FFA, required all personnel attempting the FFA to complete a DHQ, which were contained within the box file.	Witness 14 Exhibit 064
1.4.151. The RNLA Management of Training System ¹⁹ (MTS) 3.05 instructed the LCO to hand the DHQs to the PTI by 08:00 for checking prior to the FFA. BR51 required the PTI check all DHQs prior to an RNFT. During interviews the Panel were informed that the LCO did not hand the DHQs to the PTI. Furthermore, the PTI responsible for delivery of the FFA, stated that it was a requirement to check DHQs, prior to the FFA, which was not done on 16 Nov 20, which is discussed at para 1.4.156.	Exhibit 066 Exhibit 048 Witness 21
1.4.152. Prior to commencement of the FFA the PTI required all LC1 students to identify themselves, they were subsequently excluded from the FFA. APO Fleming did not undertake the FFA due to his LC1 status, this was not questioned at the time by either the LCO or PTI. The LCO stated that they were surprised that APO Fleming paraded as an LC1 student and that this was unexpected, as discussed at para 1.4.145.	Witness 21 Witness 18
1.4.153. The DAIB Triage Report identified that APO Fleming's DHQ showed that he had confirmed the following:	Exhibit 005 Exhibit 067
a. A reduced medical category.	
 Use of medication, drugs, tablets, inhalers, creams, lotions or other preparations. 	

¹⁹ The system through which a training provider manages and governs training.

 A history of high blood pressure, heart problems or chest pains. 	
1.4.154. During interview the Panel were informed that a DHQ indicating a history of high blood pressure, heart problems or chest pains would have resulted in examination by an MO prior to undertaking any physical activity. This was confirmed by the HMS CWD Medical Centre Practice Manager, who stated that they would have ordered a full preliminary assessment prior to examination by an MO.	Witness 21 Witness 22 Witness 18 Witness 19 Witness 23 Witness 24
1.4.155. The FFA on 16 Nov 20 was conducted twice: first, for a Leading Rates' Leadership Course (LRLC), required for personnel promoting to LH; and, immediately after for SRLC 20/25. Both FFAs were delivered by the same PTI who was a fully qualified member of the RN Physical Training branch.	Witness 21
1.4.156. Prior to COVID19 it was a rare occurrence for a PTI to be required to check a DHQ prior to an FFA, due to the small number of students over the age of 40. The Panel were informed there was a total of ten students over the age of 40 in eight RAS leadership courses (maximum capacity of 160 students) between 17 Sep 20 and 16 Nov 20. Given the normal age of recruits and length of service to reach LH, the Panel opined that it would be very unlikely that the LRLC would contain ratings over the age of 40. Therefore, in the opinion of the Panel, the task of checking the DHQ for all students on both courses created a significant administrative burden for a single PTI responsible for delivering both FFAs back-to-back. The Panel was unable to identify any additional resourcing allocated in response to this increase in task demands due to COVID19.	Witness 21 Exhibit 068 Exhibit 069
1.4.157. The Panel considered that the PTI was unable to check the DHQs prior to the FFA as they had not been provided to him by the LCO, as required by RNLA MTS 3.05. However, the Panel determined that there was ambiguity in the instructions. The LCO was not aware that the DHQs were contained in the course box file and stated to the Panel these were normally given to the PTI as they were not an RNLA document. The LCO was unaware of RNLA MTS 3.05. The Panel opined that separating the contents of the course box file outside in limited light and poor weather would have proved challenging for the LCO. It was also noted that MTS 3.05 required DHQs be handed to PT staff prior to 08:00. The Panel considered that the policy was likely out of date as it did not account for the FFA being delivered between 07:15 and 07:30. Therefore, it would be possible to provide the DHQs to the PT staff after the FFA and still be compliant with MTS 3.05. The Panel determined that the MTS 3.05 was an ineffective policy that did not support effective risk management.	Exhibit 066 Witness 18
1.4.158. The Panel concluded that the PTI was afforded insufficient time to conduct thorough and appropriate checks of all DHQs prior to the FFA. Furthermore, receipt of the DHQs on the parade ground, at 07:10 on a November morning, created a scenario where it was unrealistic to expect this task to be carried out effectively. The Panel also concluded that it was	Witness 14 Witness 21 Witness 22 Witness 18 Witness 19

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extremely likely that examination of the DHQ by the LCO and/or PTI would have resulted in referral of APO Fleming for an MO examination prior to undertaking any physical activity which may have resulted in removal from the course. The Panel finds the oversight in checking the DHQ prior to the FFA to be a contributory factor .	Witness 23 Witness 24
1.4.159. Recommendation. Royal Navy Director Personnel and Training should implement a process that allows adequate time for training staff to thoroughly check course documentation and promulgate decisions relating to participation prior to students undertaking any activity, in order to enable effective risk management of training activity.	
1.4.160. Recommendation. The Commanding Officer of HMS COLLINGWOOD should ensure sufficient Physical Training staff are allocated to Physical Training serials in order to allow appropriate monitoring of trainees in accordance with Royal Navy Physical Training policy.	
1.4.161. On return to RAS on the morning of 16 Nov 20, the LCO scrutinised APO Fleming's LC1 paperwork. The LCO identified that the LC1 paperwork contained an electronic signature and directed APO Fleming to HMS CWD Medical Centre to confirm its authenticity. APO Fleming visited the Medical Centre around 12:00 on 16 Nov 20 and a documentation check was conducted against records held on DMICP. The Deputy Practice Manager confirmed the authenticity of the LC1 and then stamped and dated the form. On return to RAS, APO Fleming was informed that his LC1 paperwork stated that he was fit for all physical activities and would be expected to play a full part in the rest of the course. An FFA was to be arranged for the morning of 17 Nov 20.	Witness 18 Witness 19 Witness 24 Witness 17 Exhibit 037
1.4.162. APO Fleming's medical records recorded an elevated during a preliminary examination on 22 Oct 20. Therefore, his GP ordered 24-hour monitoring which returned normal results. The Panel opined it was impossible to determine which of the DHQ conditions: was referred to. It was the opinion of the Defence consultant cardiologists that ischaemic heart disease was exceptionally difficult to diagnose and tests such as an echocardiogram were as likely as not to have returned a normal result.	Exhibit 009 Exhibit 037 Exhibit 020 Exhibit 021
1.4.163. Although present in the course file, RAS staff did not become aware of the DHQ until Tue 17 Nov 20, the day after the incident. The Panel concluded that the DHQ contained information that, if examined, was very likely to have resulted in referral to HMS CWD Medical Centre. It was inconclusive as to whether medical referral would have resulted in detection of ischaemic heart disease. The Panel also considered that the DHQ contained information that may have led to APO Fleming being removed from	Exhibit 037

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the course but would have been dependent of the results of a further medical examination.	
1.4.164. The RNLA Fitness Assessment General Brief ²⁰ stated students between 40 and 55 were strongly encouraged to undertake the RPW instead of the 2.4km run or the MSFT. During interview, the Panel were informed that HMS CWD PT staff withdrew the RPW test, citing limited availability of equipment required for the test. It was stated to the Panel that APO Fleming requested the RPW but was informed that it would not be offered. APO Fleming was subsequently exempted from the FFA, along with all other LC1 students.	Exhibit 065 Witness 21 Witness 22
1.4.165. Although the Panel noted that APO Fleming did not undertake the FFA, no evidence was presented recording the decision to withdraw the RPW on 16 Nov 20. The decision to withdraw the RPW and require all personnel to complete the 2.4km run was not communicated to students or medical staff responsible for completing LC1 paperwork, who were unaware of any risk this may have posed. The Panel opined that due consideration had not been given to withdrawing the RPW and the risk should have been elevated within the chain of command. Furthermore, the risk assessment for the FFA did not indicate any additional control measures for students taking part who were over the age of 40. Risk assessment is discussed para 1.4.213 et seq.	Witness 22 Exhibit 069
1.4.166. The Panel concluded that the decision not to offer a RPW for personnel over the age of 40 was not a factor in the accident. However, the Panel finds that the decision to withdraw the RPW was not appropriately risk assessed or owned within HMS CWD. The Panel finds this to be an observation .	
1.4.167. The Panel were informed that the FFA constituted a risk management tool for personnel on the SRLC. An individual's PT related risk was captured within a spreadsheet called the Inver. The Inver categorised students as either high, medium or low risk based on an age-related criterion in relation to FFA completion time. The maximum age bracket on the Inver was 45 to 49 years. During interview, the LCO stated that APO Fleming (aged 53) would have been risk assessed against the 45 to 49 age standards. However, the RNLA Fitness Assessment General Brief, which was based on the RNFT brief, contained standards for both the 50 to 54 years and 55 to 59 years.	Witness 18 Exhibit 070 Exhibit 065 Exhibit 048
1.4.168. No risk level was recorded for APO Fleming and the Panel was unable to identify any reference to the Inver within RNLA or HMS CWD risk assessments. In addition, the Panel were unable to establish how the risk was owned or shared. Risk management and elevation is discussed at para 1.4.213 et seq.	Exhibit 070 Exhibit 069 Exhibit 071

²⁰ A document read to students prior to the FFA.

1.4.169. The Panel concluded that although APO Fleming was permitted to undertake PT in accordance with his LC1 paperwork, the age-related risk of doing so was not appropriately owned or captured. RAS internal processes were overlooked by not awarding a risk level on the Inver to APO Fleming, resulting in assumed risk which was neither defined nor mitigated. The lack of clarity on risk ownership led to the RNLA transferring undefined, untreated risk to HMS CWD who were responsible for the delivery of PT lessons, without their knowledge.	Witness 18 Witness 17
1.4.170. The Panel were informed that, as the FFA was an assessment and not an RNFT, it was not subject to the same policy. During interview, SO2 Regional Physical Development (RPD) stated the RNFT was underpinned by scientific research from the Institute of Naval Medicine but that it had no relationship to the arduous activity conducted on the SRLC. It was stated that RN PT policy did not endorse the use of the RNFT to de-risk arduous courses.	Witness 21 Witness 22 Witness 18 Witness 19 Witness 17 Witness 23 Exhibit 048
1.4.171. The Panel opined that the FFA was almost an exact copy of the RNFT but did not include the same levels of policy governance, oversight or assurance. The FFA did not give the flexibility to the candidate to select either a 2.4km run, the MSFT, or RPW. The FFA also did not conform to the same instructor ratios; BR51 stated that the RNFT required a ratio of 1:15 for both the 2.4km run and the MSFT, however the FFA did not set a ratio. SO2 RPD stated that they would be wary of exceeding those ratios and, if this were to be done, then a risk assessment would be required. The FFA did not carry any implications for failure, however the RNFT had associated remedial actions and career implications. The Panel noted that the FFA risk assessment did not contain any control measures or mitigations for exceeding the ratios that applied to the RNFT or requiring personnel over the age of 40 to undertake maximal testing contra to policy contained in BRd 51.	Exhibit 065 Exhibit 048 Witness 23 Exhibit 069
1.4.172. The Panel concluded that simply changing the name from RNFT to FFA did not obviate the need for RNLA and HMS CWD to follow clearly established RN protocols contained within BRd 51. The Panel further concluded that, had these policies been followed for the FFA, it was highly likely that additional resource would have been apportioned to the task. However, not adhering to RNFT policy contributed to placing the PTI under conditions, including but not limited to, being unable to adequately check DHQs prior to commencement of the FFA.	Exhibit 048
Obstacle course brief	
1.4.173. At 16:00 on 16 Nov 20, SRLC 20/25 paraded in battle PT dress ²¹ outside of Sector and a , as shown at Figure 1.4.8. The course was divided into two squads of ten and a student assumed responsibility for leading each squad on a 700-metre run to the obstacle course. The Panel found no evidence of a formal warm-up being conducted. SRLC 20/25 students	Witness 14 Witness 15 Witness 12 Witness 13 Witness 16

²¹ Boots, Personal Clothing System combat trousers and T-Shirt.

informed the Panel that it was normal practice during RN formal training that, when dressed in PT kit, personnel were required to run rather than walk. The Panel was unable to ascertain the origin of this practice but was informed that it had been ingrained since phase one training. Defence Instructions and Notices (DIN) 2020-07-61 detailed qualified personnel who are authorised to deliver PT, fitness tests and assessments within all Defence organisations. The DIN stated that a PTI was the minimum qualification to deliver RN Phase 3 PT and that an RN Endurance Training Leader (ETL) could assist, if supervised by a PTI. The Panel were informed that neither of the ratings responsible for leading the run to the obstacle course had completed the ETL qualification and no PTI was present. Witness 1 Witness 18 Exhibit 072



Figure 1.4.8. Location of

, obstacle course and all-weather pitch

1.4.174. After approximately 200 metres into the run to the obstacle course it was noted that APO Fleming had started to walk. The rating responsible for his squad slowed but was waved on by APO Fleming, who later joined the rest of SRLC 20/25 at the obstacle course. The obstacle course brief commenced at 16:15 and lasted 20 minutes. The Panel were informed that the brief was a verbal description of each element in preparation for leadership tasks later that week; no physical activity was involved. From 16:35 until 17:00, the PTI returned to the Sport and Recreation Centre (SARC) office whilst SRLC 20/25 remained outside, awaiting the start of dogwatch PT. The PTI responsible for the brief informed the Panel that he believed the students would return to their accommodation. The students

Exhibit 005 Witness 15 Witness 12 Witness 25 Witness 13 Witness 14 Witness 16 Witness 1 Exhibit 020

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informed the Panel that they remained outside, by the all-weather pitch, and were cold and without shelter from the elements.

1.4.175. The Panel determined that the SRLC students were not qualified in accordance with Defence and RN direction on supervision of PT. However, the Panel opined that it was unlikely that this responsibility was directed to them by the RAS. From interviews, the Panel concluded that the practice of running whilst in PT kit was cultural within the RN and had become an accepted norm over time. Whilst the Defence consultant cardiologist was unable to comment on the effect of the run to the obstacle course on APO Fleming's heart, it was stated to the Panel that an increased heart rate would create stress. The Panel therefore opined that the lack of a formal warm-up prior to commencing a run was likely to have compounded feelings of duress. On completion of the obstacle course brief, students could not recall if APO Fleming was in any discomfort and informed the Panel that their focus was on remaining warm.

1.4.176. Although no evidence existed to suggest the run to the obstacle course was a contributory factor, the normalisation of the practice of unqualified personnel supervising running did not afford APO Fleming the duty of care in undertaking physical activity as required by the RN. The lack of an appropriate warm-up prior to running was likely to have increased the potential for cardiac stress. The Panel concluded that, as they remained outside in cold conditions, the SRLC 20/25 students were less focused on the welfare of other course members, although there was no evidence that APO Fleming was experiencing any discomfort or distress at that time.

Dogwatch PT

1.4.177. SRLC 20/25 was joined for dogwatch PT by another SRLC and an LRLC class, totalling 45 to 50 personnel. Dogwatch PT was supervised by a single PTI, with RAS staff observing. The three classes lined up along the side-line of the all-weather pitch, allowing for appropriate social distancing. Normally, a combat conditioning circuit was delivered but, due to COVID19, the Panel were informed a high intensity bodyweight circuit was planned.

1.4.178. The Panel were advised that the Armed Forces did not stipulate mandated instructor to student training ratios, which was consistent with national teaching and coaching organisations²². As a general guideline the RAF recommended the instructor to student ratio for most of the PT instruction be 1:16. No similar guidance could be found in BR51 which required each activity to be risk assessed. However, the Panel was unable to identify instructor to student ratios within the HMS CWD risk assessment. The Panel concluded that the SRLC was inappropriately risk assessed which is discussed in para 1.4.213.

²² Ofsted, the Institute of Sport & Recreation and the Register of Exercise Professionals.

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OFFICIAL - SENSITIVE

Witness 23

Exhibit 073

Exhibit 048

Exhibit 071

Witness 1

Witness 12

Witness 13

Witness 14

Witness 15

Witness 16

1.4.179. The Panel concluded that, given the spacing due to social distancing and the size of the class, it was unlikely that a single PTI would have been able to effectively monitor the entire cohort. A recommendation is made at 1.4.160.

1.4.180. The warm-up activity required personnel to jog widths of the allweather pitch, interspersed with mobility and stretching exercises. The Panel were informed that, during the fourth width, APO Fleming started to slow significantly and, on reaching the end of the width, collapsed. The Panel was made aware that two SRLC students who were in the immediate vicinity commenced first-aid treatment and subsequently CPR. The Panel were informed by students that, initially, the PT session continued whilst treatment was underway. An initial 999 call was made by an observing member of RAS staff. On realising the severity of the incident, the PTI then went to the SARC office to make a further 999 call. Whilst the PTI was making the 999 call, an AED was retrieved by a member of RAS staff from the SARC, and shocks were administered within five minutes of collapse.

1.4.181. The Panel considered it was likely the incident was incoherently managed and found no evidence of a single individual taking charge. The Panel also found no evidence to support rehearsals of major incidents or the existence of standard operating procedures (SOP) for such eventualities. The Panel were informed by students on SRLC 20/25 that they felt distressed due to continuing PT whilst CPR was being carried out. It has already been stated that the post-incident response was not a factor, despite the lack of coordinated response, as discussed at para 1.4.16. The Panel believed that a more coherent response was unlikely to have expedited emergency care but did consider that it could have resulted in a single 999 call and the removal of onlookers from a potentially traumatising situation.

1.4.182. The Panel found at para 1.4.16 that the post-incident response was not a factor. However, the Panel concluded that the lack of an SOP for major incidents during PT caused a disjointed and confusing response. This potentially exposed onlookers to a traumatic event. The Panel finds the lack of SOPs for major incidents to be an **observation**.

Section 6: Training governance

The Customer Executive Board

1.4.183. JSP 822²³ contained policy for the Defence Systems Approach to Training (DSAT) and stated that all training was to be safe, risk focused and appropriate to the training needs. The mechanism for Defence training governance was the Customer Executive Board (CEB), which brought together key stakeholders who developed training to meet Defence requirements. The Panel were provided copies of the CEB minutes for Jul 19 Witness 25 Witness 1 Witness 12 Witness 13 Witness 14 Witness 15 Witness 16 Witness 26

Witness 18

Witness 1 Witness 12 Witness 13 Witness 14 Witness 15 Witness 16

Exhibit 074 Exhibit 075 Exhibit 076 Exhibit 077

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²³ Defence Direction and Guidance for Education and Training.

and Feb 20. JSP 822 provided a CEB agenda which addressed assumptions, risks and an agreed course of action as follows: Training delivery. a. Near term training requirement and future requirement. b. Near term training requirement and endorsement of Statement C. of Training Requirement. DSAT compliance and assurance activities. d. Injuries in training. e. 1.4.184. The Panel examined the CEB minutes and noted that, while the Exhibit 076 CEB format from JSP 822 was followed in part, detail was absent in relation Exhibit 077 to RNLA leadership training. The Panel found no evidence of discussions Exhibit 074 relating to training risk or training documentation. Notably, the second party Exhibit 075 assurance carried out in Oct 19 was not mentioned in the CEB minutes in Exhibit 078 Feb 20. The second party audit identified competing priorities of the CEB and limited the opportunity to address key issues relating to the SRLC and thus provide the appropriate level of governance and assurance; the Panel opined this finding was both accurate and appropriate. 1.4.185. The Panel noted that the CEB was responsible for governing Exhibit 076 multiple training providers: RN recruit basic training, RN officer training, Exhibit 077 Commando Training Centre Royal Marines and RNLA leadership training. The Panel opined that it was likely that any of these training providers could reasonably be expected to merit a CEB in their own right. The CEB minutes showed the discussion relating to the SRLC focused on increasing the number of personnel loaded to courses and the inclusion of accredited coaching. The Panel further opined this had little bearing on the delivery of safe training matched to a defined requirement. 1.4.186. Although not a factor in the incident, the Panel concluded that it was highly likely that the CEB incorporated too many stakeholders, with priority focused towards higher profile training such as Phase 1 and Commando training. As a result, the Panel opined that the RNLA lacked the appropriate governance and assurance that Defence required a CEB to provide. The Panel concluded that competing priorities at the CEB meant that it was likely that the Chair was unaware of any deviation from the agreed standard contained within the Senior Rates Generic Duties Operational Performance Statement (OPS) or any shortcomings addressed in assurance reports. **Training documentation**

1.4.187. The CEB was responsible for ensuring key stakeholders approve the following documentation before any training could take place:	Exhibit 074 Exhibit 075
a. Training Authorisation Document (TrAD) ²⁴ .	
b. Role Performance Statement (Role PS).	
c. Formal Training Statement (FTS).	
d. Assessment Strategy (AStrat).	
1.4.188. The TrAD provided to the Panel was dated 15 Mar 19 and was therefore deemed current and in date. However, the TrAD had not been approved by the training provider and, therefore, the Panel assessed that there was no agreed commitment by the training provider to deliver the training.	Exhibit 079
1.4.189. JSP 822 required the Training Requirement Authority (TRA) ²⁵ to produce a Role PS, which detailed the conditions, standards, and performance for each task. An OPS was provided to the Panel, which was dated Mar 10. OPS was a legacy term for Role PS and, as directed by DIN07-158 issued in 2016, the OPS was to be renamed to Role PS to avoid confusion over the obvious link to operations.	Exhibit 074 Exhibit 075 Exhibit 080 Exhibit 046
1.4.190. It was the opinion of the Panel that the oversight in updating a legacy OPS to Role PS five years after DIN07-158 was published suggested a lack of diligence in staff work or attention to detail. The Panel further opined that this oversight was not previously addressed due to a lack of scrutiny and oversight of the SRLC by the TRA and Training Delivery Authority (TDA) ²⁶ .	Exhibit 046
1.4.191. The Panel concluded that a lack of oversight by the CEB, TRA and TDA of the SRLC resulted in out of date training documentation in which changes to training had not been duly actioned. The Panel finds this to be an observation .	
1.4.192. The Role PS was required to detail a training category which examined the difficulty, importance, and frequency of all tasks. The OPS provided to the Panel required students on the SRLC to achieve fitness standards expected of a PO and required the trainee to have performed the whole task once. During interviews, the Panel were informed that the level of PT on the SRLC was necessary to prepare for the DLX.	Exhibit 074 Exhibit 075 Exhibit 080
1.4.193. The Panel considered that the requirement for students to attend the SRLC to be in date for the RNFT (pass) met the standard for fitness	Exhibit 080 Exhibit 004

 ²⁴ The TrAD was the authority for formal training to begin and must be endorsed by the CEB and updated at least every 5 years by the TRA, TDA and the training provider.
 ²⁵ A nominated 2* appointment representing the end user.

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²⁶ A nominated appointment with organisational responsibility for training delivery.

contained within the OPS. However, it was possible to be in date for the RNFT (fail) and still attend the SRLC; the Panel opined this did not meet the fitness requirements stated in the OPS. The Panel received anecdotal comments from RN personnel that it was considered necessary for trainees to be 'wet, cold, tired and hungry' during leadership training. However, the Panel established that this was not mirrored in comparable Army or RAF courses. On examining the SRLC course programme, the Panel found nine sessions of PT in the first two weeks of the course, which significantly exceeded the conditions set in the OPS; the RAF and Army equivalent courses did not contain PT serials. Post-course discussions from previous SRLC courses commented on the excessive nature of PT. Para 1.4.208 et seq. discusses the number and nature of injuries as a result of the arduous element of the SRLC. The Panel noted that comments made by SRLC students remained open on the RAS action tracker and appeared not to be addressed. During interviews, students stated that they suffered from soreness and fatigue and felt that the excessive physical nature of the SRLC was detrimental to the learning experience. The Panel opined that it was probable that the SRLC staff ignored negative comments in order to retain the level of PT, due to a culture of arduousness that existed in RAS.	Exhibit 081 Exhibit 082 Exhibit 083 Exhibit 084 Witness 13
 1.4.194. The Panel considered it almost certain that the physical requirements of the SRLC exceeded the requirement contained within the OPS and were unable to identify any justification for a fitness level that exceeded an RNFT pass. The Panel identified that training documentation did not contain any requirement for the DLX. The Panel concluded that the SRLC had become unnecessarily arduous and that a 'groupthink' culture at RNLA had caused organisational drift from the established training requirement which, in turn, had allowed the course to become progressively more difficult over time. In short, the desire for an arduous course had lessened its value and unnecessarily increased risk to trainees. 1.4.195. The Panel concluded that the lack of appropriate oversight led to a culture of creeping excellence²⁷ within the RNLA, which unnecessarily 	Exhibit 080
increased the risk to trainees. The Panel concluded that training had become increasingly arduous over time and bore no resemblance to the operational or workplace requirements of a PO in the RN. The Panel finds this to be an other factor. A recommendation is made at para 1.4.203.	
1.4.196. The FTS detailed the totality of training to meet the requirement laid down in the OPS. The Panel observed that the TrAD referred to an FTS dated Oct 18; however, the FTS provided to the Panel by the TDA was dated Mar 19. The Panel considered this most likely an administrative error. Whilst it was possible to map the FTS to the learning specifications (LSpec) for lessons, the Panel noted many out of date references and it was not possible	Exhibit 074 Exhibit 075 Exhibit 085 Exhibit 079

²⁷ Creeping excellence is a term used in the Service Inquiry into The Deaths of Three Soldiers in the Brecon Beacons, Wales, in July 2013 that refers to training being made increasingly more difficult with every evolution.

to link the FTS to the OPS, nor could the Panel find evidence that the FTS identified any requirement for physical activity on the SRLC.	
1.4.197. The AStrat articulated how all formative and summative assessments were to be delivered, which ensured that training objectives were met; notably there was no mention of assessment of physical attributes. The AStrat was produced in Mar 19 and was endorsed by the CEB, however it was noted that the AStrat provided to the Panel was also a later version than that endorsed on the TrAD.	Exhibit 086 Exhibit 079
1.4.198. The Panel considered it probable that reviews of training documentation did not include comprehensive checks or appropriate oversight. The Panel was informed that the responsibility for reviewing and developing training documentation was outsourced to a contractor. The Panel opined that a paucity of suitably qualified RN Training Managers was likely to have prevented the necessary levels of checks being provided.	
1.4.199. The Panel concluded that contractor developed training documentation required endorsement by suitably qualified and experienced personnel and that the process being used lacked the necessary rigour or attention to detail. The Panel concluded that updating of training paperwork lacked the appropriate level of scrutiny. The Panel finds this to be an observation .	
1.4.200. BRd 3(1) required personnel holding a reduced medical category to undertake leadership training through a Reduced Syllabus Course (RSC). As discussed in para 1.4.35, the Career Manager attempted to book APO Fleming on the RSC in May 17. The Panel were informed by the TDA that they believed the RSC was withdrawn circa 2007 through a Royal Navy Temporary Memorandum, however, no record of this document could be found in the RN archives, or CEB minutes and the requirement remained extant in BRd 3(1). The Panel were informed that the RSC fully met the requirement contained within the OPS, as did the SRLC delivered to LC1 students that were exempt all arduous elements and PT.	Exhibit 003 Exhibit 087 Witness 17 Witness 19 Witness 27
1.4.201. The Panel considered that the removal of the RSC was a major change to training, in accordance with JSP 822. A major change required a Training Needs Analysis be undertaken and required subsequent CEB endorsement, which was to be recorded on a TrAD. The Panel were unable to locate any documentation or decision support materials which evidenced the removal of the RSC.	Exhibit 074 Exhibit 075
1.4.202. In para 1.4.137 et seq, the Panel opined that, had the RSC still been delivered, it was almost certain APO Fleming would have attended and been successful. The Panel concluded that the requirement for an RSC remained within policy, that there was no evidence to support its withdrawal and that it therefore remained extant. The Panel further concluded that errors in training governance led to the withdrawal of a course that was the RN directed method for providing leadership training to a rating who was MND	

and, in so doing, exposed MND students to an inappropriate level of arduous training. The Panel finds this to be a **contributory factor**.

1.4.203. Recommendation. Royal Navy Director Personnel and Training should redesign Royal Navy Leading and Senior Rates Leadership Courses in order to ensure they are safe, requirement driven and aligned to DSAT principles; to include as a minimum:

a. A full Training Needs Analysis.

b. The requirement for a Reduced Syllabus Course.

c. The requirement for a fitness assessment.

d. The requirement for PT serials, to include appropriately designed pre-course physical training.

e. The requirement for the Dynamic Leadership Exercise.

f. Define Suitably Qualified and Experienced personnel for the delivery of each training serial.

g. Provide oversight, governance and assurance of training through:

(1) First and second and party assurance.

(2) A leadership Customer Executive Board compliant with Defence policy.

The Dynamic Leadership Exercise

1.4.204. The DLX was an arduous four-day field-based exercise that tested students during a disaster relief scenario. During interviews, the SRLC instructors were unable to explain the requirement for the DLX. Moreover, a second party audit report in Oct 19 identified a lack of documentation to support the delivery of the DLX. The Panel were provided a DLX assessment specification dated May 20, but this was not a part of the approved SRLC AStrat. During interviews, DLX was described as a varying activity depending on which staff were responsible for delivery. A risk assessment for the DLX that was reviewed in Feb 20 only identified four hazards for a four-day field exercise:

a. General field awareness.

- b. Practical leadership tasks.
- c. Lyme disease.

OFFICIAL - SENSITIVE

Witness 18

Witness 17

Witness 19

Witness 26

Exhibit 078

Exhibit 086

Exhibit 088

Exhibit 089

d. Waterborne disease.	
1.4.205. An internal audit in Mar 20 conducted by the RNLA allowed staff to raise concerns over the delivery of the SRLC. The audit showed that a number of staff felt the DLX was unproductive and non-beneficial. Additionally, staff were unable to identify the need for the DLX and commented that it should be removed. RAS staff expressed concerns in the internal audit over their lack of qualifications and experience to deliver practical training in field conditions.	Exhibit 090
1.4.206. The Panel was unable to establish a documented requirement, appropriate governance, or effective risk assessment for the DLX. The Panel opined that the DLX remained a part of the SRLC despite evidence that it was not considered safe, appropriate, or beneficial. The Panel further opined that lack of action by the RNLA to address safety concerns raised by RAS staff and students provided evidence of the culture of creeping excellence towards arduous training.	Exhibit 089
1.4.207. The Panel concluded that the lack of willingness to address concerns raised by students and staff demonstrated organisational resistance within the RNLA. The Panel also concluded that the lack of governance for the DLX provided further support for a Training Needs Analysis for leadership training as recommended at para 1.4.203. The Panel finds the lack of governance of the DLX to be an other factor .	
Section 7: Similar incidents	
Previous incidents	
1.4.208. The RN Safety Centre provided the Panel historical evidence of safety occurrences at HMS CWD between 1 Jan 18 and 11 Feb 21, as recorded on the Navy Lessons and Information Management System. The Panel noted 20 incidents involving the SRLC or the LRLC with PT and the DLX being the predominant activities in which the incidents occurred.	Exhibit 091
1.4.209. The Panel noted several issues relating to fatigue and over exertion within RAS:	Exhibit 091 Exhibit 092
a. Two heat casualties resulting in hospitalisation.	
b. Student exhaustion on the DLX.	
c. Lack of safety vehicles or equipment for speed marches and log runs within HMS CWD.	
1.4.210. In 2020 the RN issued RNTM 06-014-20 Heat Illness and Cold Injury Reporting Requirements, which stated that the RN were required to notify the DAIB of suspected or confirmed heat injuries and that, for cases requiring hospitalisation, an RN Non-Statutory Inquiry (NSI) would be	Exhibit 093

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convened. Previously, JSP 539 directed the process for reporting heat and cold injuries. The Panel could not identify evidence of HMS CWD reporting heat injuries to DAIB, nor of any NSI being conducted into the two hospitalisations.	
1.4.211. The Panel considered that despite the high profile of heat injuries, those in PT, health and safety and command positions at HMS CWD were unaware of their reporting responsibilities and the threshold for doing so contained in JSP 539 ²⁸ . The Panel found the lack of understanding of responsibilities for reporting heat injuries at HMS CWD to be an other factor .	Exhibit 055 Exhibit 093 Exhibit 101
1.4.212. Recommendation. The Commanding Officer of HMS COLLINGWOOD should ensure personnel in Physical Training, health and safety and command positions are aware of reporting responsibilities for heat injuries in order to ensure compliance with the direction given in JSP 375.	
Risk Management	
1.4.213. Defence Safety Authority (DSA) publication DSA01.2 Chapter 3 provided Defence direction on Duty Holding. DSA01.2 required Duty Holding be applied to military activities which presented a justified, credible, and reasonably foreseeable risk to life and where the duty of care was considered inadequate for managing the risk or where Duty Holding was mandated through regulation. Duty Holding arrangements required three descending levels which allowed the quick and efficient management and elevation of risk to life activity:	Exhibit 094 Exhibit 095
a. Senior Duty Holder (SDH). In the RN this was the Chief of the Naval Staff; the First Sea Lord.	
b. Operating Duty Holder (ODH).	
c. Delivery Duty Holder (DDH).	
1.4.214. BRd 10: The Navy Command Safety and Environmental Management System and the Defence Safety Authority (DSA) directed Duty Holding be applied to military activities which presented a justified, credible, and reasonably foreseeable risk to life. The Panel were informed that Duty Holding did not apply in RN training establishments, apart from diver and Commando training, and that there were no activities in RNLA that should continue if a credible and foreseeable Risk to Life exists that cannot be mitigated to a Tolerable and as Low as Reasonably Practicable (ALARP) level.	Exhibit 095 Exhibit 096
1.4.215. Previously this report has identified instances which, the Panel opined, indicated that the SRLC was inappropriately risk assessed.	Exhibit 062 Exhibit 056

²⁸ Transferred from JSP 539 Heat Illness and Cold Injury in Jun 20 to JSP375.

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Examples include the FFA, PT serials and the DLX. The RAS COVID19 risk assessment identified several risks graded as level 6: high. The MOD Risk Assessment Form 5010 stated a level 6 risk was an occasional occurrence, where the impact was a fatality or major illness/injury. The Form 5010 instructed the user to:	
a. Improve control measures; consider stopping work.	
b. Conducting work at this level of risk was to be reported up the line management / command chain.	
1.4.216. The Panel opined that RNLA and HMS CWD staff complied with the requirement to complete risk assessments as directed in BRd 10, however they lacked sufficient detail to be effective. Key information, such as PTI ratios for the FFA and PT, were often missing. The COVID19 risk assessment records a high risk that would have required oversight of risk ownership at a higher level. The panel were unable to establish how RAS elevated risk and to whom.	Exhibit 098
1.4.217. RAS was part of RNLA, which in turn formed part of Britannia Royal Naval College (BRNC), based in Devon, but was located at HMS CWD in Fareham. The Panel noted that BRNC delivered Initial Officer Training, however HMS CWD was responsible for phase 2 and 3 training and also delivered RAS PT. The Panel opined command of RAS by BRNC added an unnecessary level of complexity that may have contributed to poor risk management. The Panel considered that as RAS also delivered phase 3 training, appropriate command, oversight, and assurance could be better achieved by placing RAS under the Commanding Officer of HMS CWD. The location of RAS away from their immediate chain of command allowed a degree of autonomy that was abnormal for training establishments, this may have contributed to organisational drift and the culture of creeping excellence discussed in para 1.4.195. The Panel further opined that co-location of the Commanding Officer and RAS would contribute significantly to the risk management of RAS delivered courses.	Exhibit 094
1.4.218. The Panel concluded that risk management of the SRLC, whilst in accordance with BRd10, was ineffective. The disaggregated Command arrangements for RAS likely compounded this problem. The Panel finds that lack of oversight in risk management contributed to the culture of creeping excellence experienced at RAS. The Panels finds this to be an observation .	Exhibit 094 Exhibit 095
DSAT	
1.4.219. The Panel examined the review into the loss of a Nimrod aircraft in Afghanistan in 2006 by Sir Charles Haddon-Cave QC, commonly known as the Hadden-Cave Report ²⁹ . The Haddon-Cave Report described 'blub, and, the thud factor' as producing a report that was designed to give the	Exhibit 099

²⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/229037/1025.pdf

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impression of a substantial piece of analysis but was, in fact, endlessly repetitive and consequently difficult to read.

1.4.220. JSP 822 stated that DSAT comprised of the four stages of Exhibit 099 analyse, design, deliver and assurance and was intended to ensure a defined Exhibit 100 requirement existed for all training. However, the panel considered that, overtime DSAT had become unwieldy. The panel compared DSAT documentation with that contained in the National Curriculum for Key Stages one to four. The panel observed that DSAT involved substantial replication and had become immensely paperwork heavy when compared to the National Curriculum. The Panel noted the prevalence of recommendations relating to compliance with DSAT in Service Inquiries for incidents in training³⁰. The Panel was unable to identify a training related Service Inquiry that did not make some reference to DSAT compliance lacking in some area. The Panel considered that compliance was generally perceived to be the existence of the documentation detailed in para 1.4.187, rather than adherence to a system of analyse, design, deliver and assure. The Panel opined that it was highly likely that DSAT had become overly complex and too cumbersome to be effective, lacking the agility to make it a useful tool to support safe delivery of Defence outputs. 1.4.221. The Panel considered that DSAT had become a 'blurb and thud' Exhibit 099 system which attempted to convey importance through volume rather than being a helpful tool with which to define, bound and govern training and, as such, held little value. The Panel finds that DSAT had ceased to exist as a tool to support the governance of training and that it now hampered, rather than assisted, its delivery. The Panel finds this to be an observation. Summary of Findings 1.4.222. Causal factor(s). 'Causal factors' are those factors which, in isolation or in combination with other causal factors and contextual details. led directly to the incident or accident. Therefore, if a causal factor was removed from the accident sequence, the accident would not have occurred. The Panel identified one causal factor which, in isolation or in combination with other factors and contextual details, led directly to the incident. The Panel concluded that APO Fleming suffered from severe 1.4.20 a. ischaemic heart disease and finds this to be the causal factor. 1.4.223. Contributory factors. 'Contributory factors' are those factors which made the accident more likely to happen. That is, they did not directly cause the accident. Therefore, if a contributory factor was removed from the accident sequence, the accident may still have occurred. The Panel identified

³⁰ Service Inquires can be found at https://www.gov.uk/government/collections/service-inquiry-si

six contributory factors that made this specific incident more likely. The Panel considered that some factors were contributory to the cause of death itself,

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while others were contributory in the sense that they could have provided potential barriers to APO Fleming's attendance on the SRLC.	
a. Based on the evidence provided by medical experts, it is the opinion of the Panel that individual lifestyle factors were a contributory factor .	1.4.21
b. The Panel finds that the unavailability of a Reduced Syllabus Course to be a contributory factor .	1.4.37 1.4.202
c. The Panel finds that successive inaccurate overreporting of APO Fleming, combined with policy violations in considering suitability to undertake the SRLC, was a contributory factor .	1.4.45
d. The Panel finds neglecting to follow policy and the lack of a robust automated referral system for individuals that required consideration by the Naval Service Medical Board of Survey, Regional Occupational Health Consultants and the Naval Service Medical Employment Board to be a contributory factor .	1.4.66
e. The Panel finds the reduced quality of divisional supervision, resulting from deployment of personnel on Op RESCRIPT, to be a contributory factor .	1.4.134
f. The Panel finds the oversight in checking the Defence Health Questionnaire prior to the Formative Fitness Assessment to be a contributory factor.	1.4.158
1.4.224. Aggravating factors. 'Aggravating factors' are those factors which made the final outcome of the accident worse. However, aggravating factors do not cause or contribute to the accident. That is, in the absence of the aggravating factor, the accident would still have occurred. The Panel identified that there were no aggravating factors.	
1.4.225. Other factors. 'Other factors' are those factors which, whilst shown to have been present played no part in the accident in question, but are noteworthy in that they could contribute to or cause a future accident. Typically, other factors would provide the basis for additional recommendations. The Panel identified four other factors that, whilst not causal or contributory in the accident, may cause or contribute to a future accident.	
a. The Panel finds the lack of an effective medical risk assessment that addressed all illnesses and injuries, not just physical, meant that Royal Arthur Squadron staff were and therefore were unable to plan accordingly. The Panel finds this to be an other factor .	1.4.124

1.4 - 55

b. The Panel concluded that there was no guidance available to Medical Officers on the use of Sector Constant Constant . Nor were Physical Training staff made aware of any confounding variable that medications may cause and as such assessment of physical fitness levels were highly likely to have been over estimated. The Panel finds this to be an other factor .	1.4.90
c. The Panel concluded it was highly likely that shortcomings in policy that failed to consider the impact of Sector and Sector on predicted VO _{2 max} resulted in the Royal Naval Fitness Test score being over- estimated. The Panel finds this to be an other factor .	1.4.140
d. The Panel found the lack of understanding of responsibilities for reporting heat injuries at HMS CWD to be an other factor .	1.4.211
1.4.226. Observations. Observations are points or issues identified during the investigation that are worthy of note to improve working practices, but which do not relate to the accident being investigated and which could not contribute to or cause future accidents. The Panel made 10 observations.	
a. The Panel concluded that neglecting to provide the widest possible readership lessened the impact of the findings and recommendations of Project BRIZO both in the Naval Service and the Defence Medical community in which the problem was likely bigger than perceived. The Panel finds this to be an observation .	1.4.73
b. Overall, it was clear that the long-term benefits of physical activity exceed this risk, however there was a requirement for exercise prescription to be carefully managed for those that may be unaccustomed especially in the over 40 population. The Panel finds this to be an observation .	1.4.83
c. The Panel finds that the decision to withdraw the Rockport Walk was not appropriately risk assessed or owned within HMS COLLINGWOOD. The Panel finds this to be an observation .	1.4.166
d. The Panel concluded that the lack of an Standard Operating Procedure for major incidents during Physical Training caused a disjointed and confusing response. This potentially exposed onlookers to a traumatic event. The Panel finds the lack of SOPs for major incidents to be an observation .	1.4.182
e. The Panel concluded that a lack of oversight by the Customer Executive Board, Training Requirements Authority, and Training Delivery Authority of the Senior Rates Leadership Course resulted in out of date training documentation in which changes to training had not been duly actioned. The Panel finds this to be an observation .	1.4.191

f. The Panel concluded that training had become increasingly arduous overtime and bore no resemblance to the operational or workplace requirements of a Petty Officer in the Royal Navy. The Panel finds this to be an observation .	1.4.195
g. The Panel concluded that updating of training paperwork lacked the appropriate level of scrutiny. The Panel finds this to be an observation .	1.4.199
h. The Panel concluded that risk management of the Senior Rates Leadership Course, whilst in accordance with BRd10, was ineffective. The disaggregated Command arrangements for RAS likely compounded this problem. The Panel finds that lack of oversight in risk management contributed to the culture of creeping excellence experienced at Royal Arthur Squadron. The Panels finds this to be an observation .	1.4.218
i. The Panel concluded that the Defence Systems Approach to Training had ceased to exist as a tool to support the governance of training and that it now hampered, rather than assisted its delivery. The Panel finds this to be an observation .	1.4.221
j. The Panel concluded that the lack of willingness to address safety concerns raised by students and staff provided indications of organisational resistance within Royal Naval Leadership Academy. The Panel also concluded that the lack of governance for the Dynamic Leadership Exercise provided further support for a Training Needs Analysis for leadership training as already recommended. The Panel finds this to be an observation .	1.4.207
1.4.227. Accident factor summary. The incident is summarised in Figure 1.4.9 and should be read from bottom to top following the investigation path. The following definitions apply, summarised below and in detail at para 1.4.7.	
1.4.228. Occurrence events. What events best describe the occurrence?	
1.4.229. Individual actions. What individual actions increased safety risk?	
1.4.230. Local conditions. What aspects of the environment may have influenced the individual actions?	
1.4.231. Risk controls. What could have been in place to reduce the likelihood/severity of problems?	
1.4.232. Organisational influences. What could have been in place to minimise problems with risk controls?	

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		UPO command and control
		Training governance - DSAT
Safety Issues	Organisational	Reduced Syllabus Course
	influences	Automated referral to MBOS
		Medical risk assessment
		Divisional Officer system
		Training design.
	Risk controls	RNFT (RPW)/FFA
	Risk controis	NSMBOS/NSMEB
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Medical policy – Medical
0,		suitability to attend/LC1
	and the second second second	Risk assessments
		Op RESCRIPT
	Local conditions	COVID19
		'Arduous' culture at RNLA
	and the second second	Impact of
		Medical Downgrading
Individual a	Individual actions	The Individual's own
10	The second second second	responsibility
Safety Indicators		Oversight in checking DHQ
		Divisional Officer supervision
<u>e</u>		Historical over-reporting led to
4		selection for promotion PO
_	- Alter and a second second	Fleming was ill prepared for.
2		Creeping excellence of SRLC
넢		due to lack of governance and
S.	Occurrence events	oversight led to the course being
at a		overly arduous.
<u>o</u>		Medical downgrading outwith
S	and the second	policy allowed attendance.
	10 mm	A lack of Divisional support
		allowed PO Fleming to join the
		course NOT 'ready in all
	BURNIN	respects'
		Fatality caused by ischemic heart
		disease, likely lifestyle related,
	and the second sec	which could not be screened for.

Figure 1.4.9 – Accident factor model

PART 1.5

Recommendations

1.5 - i

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1.5 - ii

PART 1.5 – RECOMMENDATIONS

1.5.1. enhand	Introduction. The following recommendations are made in order to ce Defence Safety:	
1.5.2.	The Director General Defence Medical Services should:	
	a. Establish an automated system to refer patients to the Medical Boards of Survey (MBOS) and the Medical Employability Boards (MEB) in order to ensure compliance with the timelines stated in accordance with single Service policy. As a minimum the system should include functionality that prevents medical personnel from exceeding their grading powers.	1.4.67
	b. Define the term 'medical risk assessment' and develop an appropriate format that identifies hazards and risk controls which training providers should use in order to enable the understanding of the risks of medically downgraded personnel attending arduous training serials.	1.4.125
1.5.3.	The Royal Navy Director Personnel and Training should:	
	a. Redesign Royal Navy Leading and Senior Rates Leadership Courses in order to ensure they are safe, requirement driven and aligned to DSAT principles; to include as a minimum:	1.4.203
	(1) A full Training Needs Analysis.	
	(2) The requirement for a Reduced Syllabus Course.	
	(3) The requirement for a fitness assessment.	
	(4) The requirement for PT serials, to include appropriately designed pre-course physical training.	
	(5) The requirement for the Dynamic Leadership Exercise.	
	(6) Define Suitably Qualified and Experienced personnel for the delivery of each training serial.	
	(7) Provide oversight, governance and assurance of training through:	
	(a) First and second and party assurance.	
	(b) A leadership Customer Executive Board compliant with Defence policy.	

b. Implement a process that allows adequate time for training staff to thoroughly check course documentation and promulgate decisions relating to participation prior to students undertaking any activity, in order to enable effective risk management of training activity.	1.4.159
c. Revise Divisional Officer training to include, as a minimum, lessons detailing duty of care in order to ensure that Divisional Officers are fully aware of the implications of approving attendance on arduous courses, specifically in declaring personnel ready in all respects.	1.4.135
d. Commission the Institute of Naval Medicine to investigate the impact of medication on heart rate predictive VO _{2 max} tests and implement guidance in order to support Royal Navy PT and testing.	1.4.91
e. Ensure the process for assessment of medical suitability to attend courses is compliant with JSP 950 in order to appropriately establish fitness for attendance.	1.4.126
The Commanding Officer HMS COLLINGWOOD should:	
a. Ensure sufficient Physical Training staff are allocated to Physical Training serials in order to allow appropriate monitoring of trainees in accordance with Royal Navy Physical Training policy.	1.4.160
b. Ensure personnel in Physical Training, health and safety and command positions are aware of reporting responsibilities for heat injuries in order to ensure compliance with the direction given in JSP 375.	1.4.212

1.5.4.

PART 1.6

Convening Authority Comments

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1.6 - ii

PART 1.6 - CONVENING AUTHORITY COMMENTS

1.6.1 I convened this Service Inquiry (SI) on 2 Dec 20 to investigate the tragic death of Acting Petty Officer (APO) Ian Fleming on 16 Nov 20. APO Fleming was an experienced and committed member of the Royal Navy who was attending the Senior Rates Leadership Course (SRLC) at HMS COLLINGWOOD (CWD). APO Fleming collapsed during the warm-up phase of a physical training (PT) session and, despite the immediacy of emergency care, was unable to be revived.

1.6.2 The SI Panel have submitted their report following ten months of detailed evidence gathering, interviews and analysis. The Panel utilised the Australian Transport Safety Board model to construct the report, and divided their report into seven sections, so I will follow that template in summary. Having reviewed the report, I offer the following observations.

Cause of death

1.6.3 The Panel have summarised the Post-Mortem report, finding that APO Fleming died as a result of severe ischaemic heart disease. Expert analysis has informed the Panel that this condition was particularly difficult to detect.

Promotion to Petty Officer

1.6.4 All three Services Career Management organisations have stressed the importance of honest and accurate report writing. Reporting Officers require the moral courage and integrity to report truthfully and without fear of repercussion. This process involves an independent promotion board considering the information and recommendations contained in annual appraisal reports and ranking individuals against their peer group.

1.6.5 Whilst APO Fleming was notably behind the typical timeline expected for promotion to each rank in the RN Writer branch, he had been awarded high and exceptional recommendations and, as a result, selected for promotion on three occasions without, it would appear, consideration of the challenges that the SRLC would pose. Consequently, he was continually recommended for a course that he had no desire to attend, the stress of which contributed towards an enduring

1.6.6 He was undoubtedly capable in his job and evidence suggested he was content with his role as a Leading Hand in the RN which he had held since 1999 without complaint. Reporting Officers need to acknowledge personnel who have a deep-rooted specialism but who are perhaps not suitable for further promotion. The typical career path, where all desire promotion, is sometimes not best for either the individual or the Service.

Medical

1.6.7 I note that the Panel have concluded that lifestyle choices were a Contributory Factor in this incident, and I stress to the single Services the importance of lifestyle education, monitoring, and access to targeted interventions where appropriate.

1.6 - 1

1.6.8 The Panel have identified that the medical grading of APO Fleming was not in accordance with Defence medical policy, although it must be stressed that the medical grading itself was not related to the severe ischaemic heart disease which, sadly, proved fatal. Furthermore, any restrictions placed upon an individual for **medical purposes** would not intentionally protect them from arduous or physical training, including any such activity conducted as part of the SRLC.

1.6.9 The Panel has commented very positively on the effectiveness of a sick list run by the HMS HERON Principal Medical Officer. However, the information contained in Project BRIZO showed a significant number of personnel being medically non-deployable, and not being reviewed in accordance with policy timescales. By not addressing medically non-deployable personnel in a timely fashion, the three Services risk reducing the pool of those available for operational commitments, especially during periods of high operational tempo.

Pre-Senior Rates Leadership Course supervision

1.6.10 Command, leadership and management are fundamental to the Armed Forces both in a peace setting and at war. I acknowledge the confusion over the Divisional Officer responsibilities at RNAS Yeovilton, but nevertheless, the chain of command was still in place. I do note the exceptional diligence from the Medical Officer responsible for completing the Limited Capacity 1 paperwork.

1.6.11 Divisional Officers in the RN and those in command positions should be aware of their obligations and responsibilities in assessing fitness to attend courses, especially those of an arduous nature. The success or failure of attending personnel is often reflected on those in command, but more importantly there is a duty of care that must be discharged in declaring personnel fit to attend. I urge caution to all personnel faced with a subordinate who expresses a desire to not attend; if they wish to withdraw, they should be given the opportunity to do so. Additional encouragement is often not what they need and may make those under command feel pressured to reluctantly agree to attend.

Senior Rates Leadership Course supervision

1.6.12 The discussion surrounding the Defence Health Questionnaire, and whether its examination prior to the Formative Fitness Assessment would have prevented APO Fleming taking further part in the SRLC is inconclusive. However, I note the enormity of the task for a single Physical Training Instructor to carry out. Similarly, the ratio of instructors to students for physical training is concerning. The Panel has presented many arguments that point to a lack of effective risk assessment and associated decision making at the Royal Naval Leadership Academy, much of which could be simplified. I urge the RN to simplify the command of Royal Arthur Squadron to improve risk management, command oversight and governance.

Training governance

1.6.13 The matching of a training requirement to the output delivered by the training provider is the basis of the Defence Systems Approach to Training. It is clear in this case that the system has become too unwieldy and lacks the ability to be agile and therefore effective. With the New Employment Model, we will see more variety in the ages of recruits, meaning those on career courses, such as the SRLC, will be increasingly older

1.6 - 2

than the historical norm. Therefore, it is important that the Services ensure that the physical requirements of the course do not arbitrarily exceed the operational or workplace requirement stated in a Role Performance Statement.

1.6.14 Notwithstanding the need to appropriately define the physical requirement for training courses, I am concerned by the reduction in the professional Physical Training cadre of both non-commissioned and commissioned officers. Without suitably qualified and experienced personnel (SQEP) to deliver physical training in the formal environment or those subject matter experts to write policy and provide assurance, Defence will be exposed to greater risk in future. Service Chiefs should carefully consider their approach to delivering safe and effective physical training within their individual environments.

Similar incidences

1.6.15 The Panel found incidences of heat injuries not being reported correctly to the Defence Accident Investigation Branch as directed in Defence policy, which allows such incidents to be appropriately triaged and investigated. This is disappointing given the high profile of such injuries following the deaths of three soliders in the Brecon Beacons in 2013. All in Defence should be aware of their responsibilities, but especially those in positions of command and those responsible for delivering physical training serials.

Conclusion

1.6.16 Having studied the report, I am content that this tragic incident has been investigated, analysed, and reported on thoroughly, accurately, and vigorously. I am assured that the recommendations contained within it have been or will be implemented in order to reduce the likelihood of a reoccurrence.

1.6.17 On behalf of the Defence Safety Authority, I offer my sincere condolences to Ian Fleming's family, friends and loved ones.

Director General Defence Safety Authority