

DEFENCE FORCE REMUNERATION TRIBUNAL

DEEP AND EXPERIMENTAL DIVING ALLOWANCE SUBMARINE ESCAPE TRAINING FACILITY ALLOWANCE

CLEARANCE DIVING ALLOWANCE

DECISION

1. On 1 July 1999 the Australian Defence Force (ADF) made an application for a review of Deep and Experimental Diving Allowance.
2. As the review included amendments to other allowances; namely: Submarine Escape Training Facility Allowance and Clearance Diving Allowance, the Tribunal listed the three allowances for hearing.
3. Deep and Experimental Diving Allowance is paid presently to Clearance Divers who make dives which are defined as experimental or deep, using either in-service equipment and procedures or non-service equipment and procedures.
4. Clearance Diving Allowance is paid to Clearance Divers in recognition of the adverse environmental factors, concomitant stress and special skills associated with clearance diving work. There are presently about 213 Clearance Diving billets in Navy, the majority of which are in Clearance Diving Teams 1 and 4. The remaining billets are spread across the Navy Diving School, ships and Naval establishments.
5. Submarine Escape Training Facility Allowance is paid to instructors and trainee instructors at the Submarine Escape Training Facility at HMAS Stirling and to members undergoing training. The primary role of the Submarine Escape Training Facility is to train submariners in submarine escape procedures.

BACKGROUND

Deep and Experimental Diving Allowance

6. Deep and Experimental Diving Allowance is currently payable under Determination No. 1993/35, made under Section 58B of the *Defence Act 1903*. The allowance is payable to Navy Clearance Divers who undertake:

- experimental dives;
- deep dives; and
- ocean submarine escapes.

7. The existing determination was developed from a Royal Navy allowance, payment of which was made to Royal Australian Navy personnel whilst serving in the United Kingdom. In 1993 the provisions of the Australian allowance were extended to allow payment of the allowance for dives performed in countries other than Britain, but excluding Australia. This change reflected the emerging likelihood of deep and experimental diving being undertaken with the Canadian Forces, and to a lesser extent with the armed forces of New Zealand and the United States of America. The allowance was subsequently extended to one which is payable, predominantly, for experimental diving within Australia.

8. The rates for Deep and Experimental Diving Allowance were last increased in April 1997 by Defence Determination No. 1997/34, made under section 58B of the *Defence Act 1903*, in line with movements in the British rates. The structure and rates of the current allowance are at [Attachment 1](#).

Submarine Escape Training Facility Allowance

9. Submarine Escape Training Facility Allowance was reviewed by the Tribunal in February 1996 (Matter No. 10 of 1995). A new structure for the allowance was approved by the Tribunal which includes:

- an annual rate for instructors and assistant instructors,
- an annual rate payable to trainee instructors which is two thirds of the instructor rate, and
- a daily rate for submariners undergoing training and requalification courses.

10. The current structure and rates for the allowance are at Attachment 2.

Clearance Diving Allowance

11. Clearance Diving Allowance was reviewed by the Tribunal in February 1998 (Matter No. 2 of 1997). The Tribunal approved a new structure and established rates for the allowance based on the following factors:

- a. The new structure of the Clearance Diving Force.
- b. Additional qualifications held by Clearance Divers.
- c. The qualification of all Clearance Divers in Explosive Ordnance Demolition and Improvised Explosive Device Demolition.
- d. Changes in doctrine, training and readiness.
- e. Increased diver workload.

12. The current structure and rates for the allowance are at Attachment 3.

Inspection

13. The Tribunal inspected the work of Clearance Divers at HMAS PENGUIN on 17 August 1999. The Tribunal was briefed on the history of the Deep and Experimental Diving Allowance and on the ADF proposal for the restructure of the allowance. Briefings were given on the medical dangers involved with experimental dives as well as developments in dive practices and changes to the RAN's future operational requirements.

14. The recompression facility was inspected and the Tribunal also visited the Submarine and Underwater Medicine Unit to view the mobile compression chambers. The Tribunal was shown the vessels used in relevant operations and had the opportunity to speak with a range of Clearance Divers about their work.

SUBMISSIONS AND EVIDENCE

Australian Defence Force

15. The ADF submitted that the basic requirement for deep and experimental diving has fundamentally changed due to developments in mine warfare and diving technology which have, in turn, changed the operational requirements of the Royal Australian Navy.
16. The Defence Force Advocate (DFA) submitted that in the 1997 Clearance Diving Allowance case (Matter No 2 of 1997) the limit of normal operational clearance diving was confirmed at a depth of 54 metres. Diving in excess of 54 metres was stated as being outside the routine operational envelope and was therefore classified as either deep or deep/experimental diving. Now, however, the DFA stated, there is a requirement to train Clearance Divers to operate down to depths of 60 metres, and for divers posted to Minehunter Coastal vessels to operate at depths down to 90 metres.
17. Because of these changes, the ADF considers that the current allowance does not effectively address the present and future operational requirements of the Navy. The ADF proposed, therefore, that the current Section 58B Determination for Deep and Experimental Diving be repealed and replaced by the following:
 - a. An Experimental Diving Allowance which recognises the unique nature of experimental diving.
 - b. A deep diving provision within the existing Clearance Diving Allowance to be paid on occurrence.
 - c. A new allowance known as the Submarine Escape Allowance which would incorporate the current Submarine Escape Training Facility Allowance and the provisions of Deep and Experimental Diving Allowance that now deal with open-water submarine escapes.
 - d. A payment, at the hourly rate for deep diving, for personnel (predominantly medical) who are required to assist a diver in a compression chamber who is suffering from the effects of decompression illness as a consequence of a deep dive or a deep experimental dive.

18. The DFA said that experimental diving would be conducted primarily as a part of capability requirements in support of naval projects and be covered by an appropriate Trial Directive. This would include:

- Diving conducted to allow the development of decompression tables. This diving would normally be conducted in a compression chamber. (It was stated during the hearing that this diving would represent the major source of potential payment for the allowance).
- The development of the Minehunter Coastal Project requiring diving in support of mine countermeasure operations to a depth of 90 metres using the self-contained mixed gas diving set.

19. The structure proposed by the ADF for Experimental Diving Allowance is as follows:

Grade 1 – An experimental dive (including a dive in a compression chamber) not in excess of 54 metres, using in-service equipment and approved Service procedures.

Grade 2 – An experimental dive (including a dive in a compression chamber) in excess of 54 metres (defined as a deep dive) using in-service equipment and approved Service procedures.

Grade 3 – An experimental dive (including a dive in a compression chamber) not in excess of 54 metres, using non in-service equipment and/or procedures which significantly extends the limits of physiological knowledge.

Grade 4 – An experimental dive (including a dive in a compression chamber) in excess of 54 metres (defined as a deep dive) using non in-service equipment and/or procedures which significantly extends the limit of physiological knowledge.

20. The following rates are proposed for each level:

Grade of dive	Rate per dive	Additional rate per hour or part thereof for the duration of the dive
Grade 1	\$120.00	\$12.00
Grade 2	\$200.00	\$22.00
Grade 3	\$325.00	\$35.00
Grade 4	\$650.00	\$110.00

21. The ADF proposed that 'Deep' be defined as involving depths in excess of 54 metres and 'Experimental' defined as a dive conducted in accordance with a written Trial Directive designed to evaluate either life support equipment or diving procedures or to extend the existing limits of physiological knowledge.

22. In relation to the proposed Submarine Escape Allowance, the ADF submitted that no changes were sought to the current rates for Submarine Escape Training Facility Allowance. The ADF proposed the addition of two open-water rates of allowance for members who are involved in open-water escape training from Collins Class submarines. Such training would be infrequent and be conducted from one submarine approximately every two years. The rates proposed are:

- for an actual escape from between 0 and 90 metres depth of sea water - \$100; and
- for an actual escape from below 90 metres depth of sea water - \$200.

23. The ADF also proposed the addition of further rates to Clearance Diving Allowance for routine (non-experimental) deep diving for:

- a dive in excess of 54 metres - \$200 plus \$22.00 per hour for each hour or part thereof to a maximum of 5 hours; and
- a recompression/decompression treatment in a compression chamber arising out of a routine or experimental deep dive - \$22 per hour to a maximum of 5 hours.

24. The ADF called two witnesses, namely Lieutenant Commander Robyn Walker and Warrant Officer Clearance Diver Glenn W Spilsted. Lieutenant Commander R. Walker, the Medical Officer in Charge of the Submarine and Underwater Medicine Unit, gave evidence in relation to the inherent risks associated with experimental and deep diving as undertaken by Clearance Divers. These were said to involve hazards to health from diving or exposure to increased ambient pressure and include barotrauma, decompression illness, nitrogen narcosis and marine animal injury. Other risks relate to the use of gas mixtures and include oxygen toxicity, hypoxia, carbon dioxide toxicity, hypothermia and communications difficulties.

25. Lieutenant Commander Walker submitted that an experimental dive under the proposed grading system would include the following activities:

- a. Testing new equipment.
- b. Testing dive sets which provide basic life support.
- c. Testing equipment essential to the dive such as a new buoyancy vest or drysuit.
- d. Testing compression chambers designed for human occupancy.
- e. Testing new dive procedures.
- f. Development of standard operating procedures for recovery of a diver deeper than 54 metres.
- g. Development of standard operating procedures for explosive ordnance disposal.
- h. Developing new decompression schedules.
- i. Conducting dives to test the safety and risk of decompression illness with new decompression schedules.

26. As an example, Lieutenant Commander Walker cited the series of experimental dives being conducted by the Submarine and Underwater Medicine Unit to extend the Canadian tables for use with the Royal Australian Navy's mixed gas diving set. The Canadian tables have been tested to 81 metres; however, there is a requirement in Australia to perform mine clearance operations to 90 metres.

27. Warrant Officer Clearance Diver G.W. Spilsted, the Course Implementation Officer for the RAN Diving School, gave evidence on the problems with the current allowance and on the changes proposed by the ADF to redress the deficiencies.

28. Warrant Officer Spilsted explained that the nature of diving has changed markedly since the introduction of an allowance for Australian Navy Clearance Divers based on the UK allowance. Dives were conducted with the Canadian Forces to develop depth tables to 81 metres only, as Canada does not have an operational requirement for diving any deeper. The dives to 81 metres are conducted with Canadian dive sets which differ to those in Australian service. Australia's offshore geography necessitates that mine warfare be conducted to a depth of 90 metres and divers posted to the new minehunters will be required to conduct clearance diving to that depth.
29. Warrant Officer Spilsted also explained the relationship between experimental and deep diving. Once appropriate diving tables have been developed at a particular depth and the tables are proven, subsequent dives to those depths can no longer be regarded as experimental. When tables are proven to 90 metres, deep diving in support of minehunting operations should be dealt with under the provisions of Clearance Diving Allowance.
30. A witness statement provided by Chief Petty Officer Clearance Diver James Mason, the Assistant Staff Officer Clearance Diving at the Directorate of Naval Warfare, was also relied upon by the ADF. The evidence of Chief Petty Officer Mason focussed on the fitness levels required by divers and the conditions experienced at depth in a chamber and in the water.

The Commonwealth

31. The Commonwealth submitted that the review could be progressed under the ADF Productivity Based Remuneration Arrangement 1997-99 and under the allowances and work value changes principles established by the Australian Industrial Relations Commission.
32. The Commonwealth submitted that there was a need for a change in the allowance relating to Deep and Experimental Diving. Firstly, continued application of the Royal Navy criteria has become increasingly less relevant to the Royal Australian Navy's contemporary diving operations. Secondly, it is not appropriate that adjustments to the rates of the allowances should continue to be based on a structure applying to a foreign defence force or to fluctuations in exchange rates.

33. It was agreed by the Commonwealth that the changes proposed by the ADF will address these concerns. More importantly, the changes would provide a contemporary structure for the allowances which would directly relate to the conditions of diving and related requirements specific to the Australian Navy.
34. In regard to experimental diving, the Commonwealth accepted that the ADF has an ongoing need to conduct such dives in support of a range of capability and equipment development requirements. The Commonwealth supported the ADF-proposed four-tiered structure for Experimental Diving Allowance and submitted that the rates proposed at each tier represent a judgement by the ADF as fair and reasonable compensation taking into account the nature of the dives.
35. Although the Commonwealth supported the ADF proposal to include payment for deep dives under the provisions of Clearance Diving Allowance, the rates proposed were not supported. The Commonwealth submitted that the proposed Clearance Diving Allowance payment for a deep-dive should be less than that proposed for the Experimental Diving Allowance Grade 2 rate as a deep-dive is considered to have a lower level of risk than an experimental dive at similar depths. It was submitted, therefore, that a rate set between \$170 per dive with an additional payment of \$17 per hour and \$200 per dive/\$22 per hour would establish an appropriate relativity.
36. The Commonwealth supported the proposed Submarine Escape Allowance, including the rates proposed for open-water escapes from submarines. The Commonwealth also supported the hourly rate payable to personnel when providing therapeutic treatment in a compression chamber to a diver with decompression illness.

Armed Forces Federation of Australia

37. The Armed Forces Federation of Australia wrote to the Tribunal on 3 September 1999 advising that discussions had been held with the ADF and the Federation supported the proposal.

CONSIDERATION

38. As noted earlier, the ADF has proposed that the current section 58B Determination in regard to Deep and Experimental Diving Allowance be repealed and replaced by the following:

- An Experimental Diving Allowance which recognises the unique nature of experimental diving.
- A deep diving provision within the existing Clearance Diving Allowance, which would be paid on occurrence.
- A new allowance known as the Submarine Escape Allowance which would incorporate the current Submarine Escape Training Facility Allowance and the provisions of Deep and Experimental Diving Allowance that deal with open-water submarine escapes.
- A payment, at the hourly rate for deep diving, for personnel, predominantly medical, who are required to assist a diver in a recompression chamber who is suffering effects of decompression illness occasioned during a deep dive or a deep experimental dive.

39. The current Deep and Experimental Diving Allowance is based, broadly, on the similar British allowance. The allowance was introduced to provide a similar level of payment to Royal Australian Navy Clearance Divers while undertaking dives in the United Kingdom with their Royal Navy counterparts. The allowance was extended in 1993 to allow payment for dives performed in countries other than Britain and was further extended in 1997 to include deep and experimental dives undertaken in Australia, in preparation for dives to be conducted in support of the Minehunter Coastal Project. The rates of the allowance were last adjusted in April 1997 in line with increases in the British rates.

40. In regard to the proposed Experimental Diving Allowance the four tiered structure and rates proposed by the ADF were supported by the Commonwealth and the Armed Forces Federation of Australia. We note that the proposed structure creates a nexus between deep diving and experimental diving which is consistent with the range of normal diving operations, that is from 0-54 metres, as was determined in the 1997 Clearance Diving Allowance Case.

41. Having considered the submissions and evidence, we are satisfied that it is appropriate to introduce a separate allowance for experimental diving and to adopt the new structure and rates for the allowance as proposed by the ADF. In reaching this decision, the Tribunal considers that the payment of a separate Experimental Diving Allowance is more appropriate for the continuing work required in experimental diving and that the new allowance will better meet the operational requirements of the Navy.
42. We note that experimental dives will only be conducted in accordance with formal Trial Directives. The Tribunal supports this process. We also note that once appropriate diving tables have been developed and proven at a particular depth, subsequent dives to these depths will no longer be regarded as experimental. When tables are proved to 90 metres, deep diving in support of minehunting operations should be dealt with under the provisions of Clearance Diving Allowance.
43. During the inspection at HMAS PENGUIN on 17 August 1999 the Tribunal was informed that the experimental diving programme to validate tables for dives to 90 metres was soon to commence. The Tribunal is concerned that the timing of a decision in this matter should not disadvantage those Clearance Divers who have been engaged in the 90 metre experimental dives in the period since the case was heard. In this regard we consider that special treatment for the experimental diving element is warranted. Accordingly, we approve the rates proposed for Experimental Diving Allowance with application from the first pay period commencing on or after 7 September 1999.
44. We are also satisfied that it is appropriate to adopt the ADF proposal to add further entitlements to Clearance Diving Allowance for routine (non-experimental) deep diving. These would apply to dives in excess of 54 metres and to recompression/decompression treatment in a compression chamber which arises from a routine or experimental deep dive.

45. The Commonwealth supported the need for additional entitlements under Clearance Diving Allowance but submitted that the rate for the dives proposed by the ADF should be reduced. The Commonwealth submitted that the deep diving rate should be less than the proposed Experimental Diving Allowance Grade 2 rate, as a deep dive is considered to have a lower level of risk than an experimental dive at similar depths. The Commonwealth proposed that a rate between \$170 per dive/\$17 per hour and \$200 per dive/\$22 per hour would establish an appropriate relativity.
46. We are persuaded by the Commonwealth's submission in regard to the lower level of risk inherent in deep dives than in those of an experimental nature and have decided that the rates to be added to Clearance Diving Allowance will be:
- a. For a dive in excess of 54 metres - \$185 per dive plus \$19 per hour for each hour or part thereof to a maximum of 5 hours.
 - b. For a recompression/decompression treatment in a compression chamber arising out of a routine or experimental deep dive - \$19 per hour to a maximum of 5 hours.
47. We note from the evidence that there will be a future requirement to train divers to depths greater than 54 metres, and initially to 60 metres. When the operational limit for routine clearance diving has been formally extended, dives to such depths should then be covered by the annual payment of Clearance Diving Allowance.
48. The ADF also proposed that there should be payment at an hourly rate of Clearance Diving Allowance in various specified circumstances in relation to therapeutic treatment of divers in a compression chamber. The payment would apply to divers who are suffering the effects of decompression illness occasioned during a deep or experimental dive and to the medical or other personnel assisting them in the compression chamber.
49. We have carefully considered the evidence and submissions presented regarding the proposed payments in relation to therapeutic treatment and have taken into account the Commonwealth's support for the extension of the payment of the allowance.

50. In the case of a diver undergoing treatment in a compression chamber as a result of decompression illness, we consider that the need to undertake such treatment in emergency situations is a recognised part of the work of Clearance Divers. Although we have reservations about providing additional payments for treatment undertaken as a result of medical necessity, we consider that it would be anomalous to provide payment for divers in the case of regular recompression/decompression treatment in a compression chamber but not in the case of emergency treatment. Accordingly we will extend payment of the allowance to divers undergoing therapeutic decompression because of illness.
51. In the case of persons assisting with such treatment in the compression chamber, we are not satisfied that it is appropriate on the basis of the material presently before the Tribunal to introduce an entitlement to payment of the allowance. On the evidence, the members concerned will usually be medical personnel although in some cases it may be another diver who attends the injured diver. We consider that the circumstances of such personnel may be distinguished from those of the diver undergoing treatment as a result of a deep or experimental dive. Further we are not satisfied that the salary scales for the medical personnel involved do not provide appropriate compensation for all the work undertaken as part of their duties. We are also not aware that payments of the kind proposed are provided in civilian or other defence employment areas and are concerned about the possible implications of the introduction of such payments in the present matter. In these circumstances, we do not consider that a case has been made out for extending the payment of Clearance Diving Allowance to the medical and other personnel involved.
52. In relation to the proposed Submarine Escape Allowance, the Tribunal approves the change in title from Submarine Escape Training Facility Allowance and the addition of two open-water rates of allowance for members involved in open-water escape training from Collins Class submarines. We note that such training will be predominantly for submariners. We also note that the training will be infrequent and will be conducted from one submarine approximately once every two years.
53. We have taken into account the evidence regarding the potential risks involved in open-water escapes and we have determined that the rates for Submarine Escape Allowance should be as follows:

- a. For an actual escape from between 0 and 90 metres depth of sea-water - \$103; and
- b. For an actual escape from below 90 metres depth of sea-water - \$206.

54. Finally, the Tribunal is concerned about the introduction of further on-occurrence payments to members at a time when the ADF is endeavouring to streamline the allowance system. In future reviews of allowances, the ADF should consider whether such on-occurrence payments might be more appropriately addressed in the annual rates of the allowances or subsumed in the salary payments of the members concerned.

Operative Date and Determinations

55. The structure and rates that we have determined for Experimental Diving Allowance shall apply from the beginning of the first pay period commencing on or after 7 September 1999.

56. The structure and rates that we have determined for Submarine Escape Allowance and Clearance Diving Allowance shall apply from the beginning of the first pay period commencing on or after the date of this decision. In view of the date of presentation of the case to the Tribunal, the rates for these allowances should be adjusted in accordance with the recent decision of the Tribunal in relation to the ADF Enterprise Productivity Arrangement: 1999 – 2002 and the consequential adjustments made to ADF salaries and allowances.

57. The parties should prepare draft determinations giving effect to this decision and submit them to the Secretary of the Tribunal within seven days.

Appearances: R Kenzie QC, Defence Force Advocate, with Lieutenant Commander M Duncan, for the Australian Defence Force

A O'Brien with L Cullen for the Commonwealth

Date and Place of Hearing

7 September 1999 Canberra

Inspection

17 August 1999 HMAS PENGUIN, Sydney

DEEP AND EXPERIMENTAL DIVING ALLOWANCE

CURRENT RATES

Column 1	Column 2	Column 3
Grade of dive or escape trial	Rate per dive or escape trial	Additional rate per hour or part thereof for the duration of the dive or escape trail
1.	23.00	-
2.	113.00	11.00
3.	170.00	17.00
4.	226.00	23.00
5.	452.00	90.00

SUBMARINE ESCAPE TRAINING FACILITY ALLOWANCE

A member is entitled to Submarine Escape Training Facility Allowance at the rate of:

- a) \$5665 a year for a qualified instructor;
- b) \$3775 a year for a member who is posted to a submarine escape training facility and is undertaking training to become a qualified instructor; or
- c) \$22.66 a day for a member who is attending a course in submarine escape procedures and is required to make an underwater ascent at a submarine escape training facility.

RATES OF CLEARANCE DIVING ALLOWANCE

PART 1 – Clearance Diving Allowance (Qualification and Skill)

Column 1	Column 2	Column 3
Item	Qualification	Rate (\$ a year)
1.	Completed the Basic Clearance Diving Course	2667
2.	Completed the Intermediate Clearance Diving Course	3199
3.	Completed the Advanced Clearance Diving Course or the Mine Warfare and Clearance Diving Officers' Course	4799

PART 2 – Clearance Diving Allowance (Disability)

Column 1	Column 2	Column 3
Item	Description of Duties	Rate (\$ a year)
1.	Regular clearance diving without a regular commitment involving unpredictable explosives or dangerous substances (other than diving for the sole purpose of maintaining the member's clearance diving qualifications)	4265
2.	Regular clearance diving with a regular commitment to engage in searches for or assist in either the rendering safe or the disposal of unpredictable explosives or dangerous substances	5866
3.	Regular clearance diving with a regular commitment to render safe or dispose of unpredictable explosives or dangerous substances	7464