INDEPENDENT CRITICAL PEER REVIEW OF NAVAL WORKFORCE PLANNING

INTERIM REPORT

SUBMARINES

Boyd Robinson, AM
Rear Admiral RANR

David Shackleton, AO
Vice Admiral Rtd

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Executive Summary

Our review of the Navy workforce required to operate and support a force of 12 regionally superior sovereign design submarines has highlighted s33(a)(ii), s47C issues reflected in key findings and recommendations:

- s33(a)(ii), s47C [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

[redacted]

At 1 July 2018 the submarine workforce was 780, which has met the target size required to maintain five Collins crews and operate the submarine force in a sustainable manner. While this is a remarkable achievement considering the starting base in July 2013 was just 497 personnel, s33(a)(ii), s47 [redacted]

[redacted]

[redacted]

We believe one of the fundamental changes required is for officers of the submarine arm to be inducted, trained and retained in the submarine arm as a full naval career. The professional demands on these officers are such that they must be regarded differently from members of the wider Navy for their unique skills and experience. s47C [redacted]

For almost 50 years Navy has drawn its requirement for junior submarine officers from the broader Navy officer corps. In that context, having the right numbers of the right officers in the submarine arm was influenced by a variety of interests, not all of which helped grow the submarine arm in a controlled or professional manner. Prior to that, in the early period of the Oberon Class Submarine, officers were recruited 'off-the-street.'

Navy is again directly recruiting for submarine officers to complement direct recruiting that occurs for submarine sailors. Officers already serving in the Navy can continue to volunteer for submarine service. s33(a)(ii) [redacted] Direct recruiting should be seen as a positive change, but not one where Navy must lower standards to meet its targets. Direct recruiting needs to be supported through improved methods of suitability testing as a means of reducing training wastage.

s33(a)(ii), s47C [redacted]

Submarine qualified engineering officers do not presently have a pathway to reach the rank of Commodore, which is a disincentive for officers who might choose submarine service as a rewarding career. s33(a)(ii) [redacted]

s33(a)(ii) .
Navy is addressing this matter, but it requires urgency in its resolution.

As stated earlier, Navy plans to s33(a)(ii) After that the workforce will s33(a)(ii) This number was developed by s33(a)(ii) It is being confirmed by a detailed examination by Navy of positions required ashore to support the future force.

Doubling the size of the submarine force, especially for officers and senior sailors, is a significant challenge that will require far-reaching changes to organisation and management of training, training systems, and a tight control of postings of all submarine qualified personnel – regardless of their specialisation. s47C Navy must establish lead indicators to determine where timely leadership pressure and effort is required to maintain an effective workforce and senior sailors, and Warrant Officers particularly, must be educated and trained to be the mentors of their junior sailors and to guide young officers in their development.

High-fidelity simulators will increase the level of competence of individuals to support faster achievement of initial at-sea qualification. Even with sophisticated simulation, sea experience is required to complete the qualification process. Providing necessary sea experience for the increasing number of trainees entering the growing workforce s33(a)(ii)

Navy life, as is the case with each of the Services, is demanding. But allowing individuals to balance their professional and personal lives is essential to meeting the expectations of modern (and typically young) Australians who have multiple career choices. Members of the submarine arm and, critically from a retention perspective - their families, will not unquestioningly accept that they must unconditionally sacrifice their own aspirations for the duration of their navy service - even in an all-volunteer force. Navy leaders who make this assumption will be completely misunderstanding the values and life goals of not only their people, but also broader expectations of work-life family balance that other careers offer.

Retention measures, as has been proven to be the case in other segments of the Services, must take into account the aspirations of individuals at different stages of their lives and careers. Being treated as an individual is the key to most of these issues. Financial retention measures have made a difference in stabilising and then growing the submarine workforce. But money is not the long-term primary solution. A simple and effective non-financial measure has been enforcing rules associated with respite from sea service.

Other retention initiatives can include advanced training, secondments to other like-type submarine organisations and, as appropriate, fast track promotions – all of which are part of active and personal career management. Nevertheless, continued application of targeted financial retention measures may be required to ensure achievement of the high rate of growth of the workforce going forward.

The transformation to a 12-boat force also demands new thinking in how submarine crews are formed, trained and supported, and how new submarines are crewed during the initial acceptance phase. Navy is developing a crewing approach for new ships referred to as "crew zero". This involves forming a standing acceptance crew, based in Adelaide, to bring each new submarine out of the build phase and through acceptance trials before handing over to the commissioning crew. Crew Zero will then move on to bring the second boat and subsequent boats out of build thus de-risking what is a critical activity for successful acceptance into service. Within the crew zero construct however, Navy must ensure that the actual commissioning crew takes full ownership of their submarine. Clear arrangements will need to be in place for timely transfer of 'ownership', possibly through the Director General of Naval Construction.

s47C [redacted]

In parallel with expansion of Australia's submarine arm there is a growing understanding and requirement for greater expertise in submarine warfare across the entire ADF. The investment in Poseidon P8 aircraft by the RAAF and ADF intelligence capability are indicators as to just how important being expert in the field of submarine warfare is to Australia's strategic security posture. Much of that expertise will reside with and be developed by members of the submarine arm.

s47C [redacted]

Contents

Figures

Tables

Introduction

1.1 Engagement to Review Naval Workforce Plans

1.1.1 This review commenced in March 2018 under the guidance of General Manager Submarines (GM Subs) with concurrence of the Chief of Navy (CN). Our terms of reference, as agreed between GM Subs and CN are at Annex. A. A list of those with whom we consulted in our review is at Annex. D.

1.2 Context

1.2.1 This first part of the workforce review has focussed on submarines so that an interim report could be provided that might assist Defence implement an appropriate workforce plan to support a 12-boat submarine force. Having an understanding the nature and extent of analysis required for submarines will help define an approach to reviewing the planning for the surface workforce of the RAN should the Chief of Navy wish to pursue that task.

1.3 Purpose

1.3.1 The purpose of this report is to evaluate the status of Navy workforce planning and achievement for the current and future submarine force. While APS members in CASG, and elsewhere, are essential to achieving the overall submarine capability, this aspect of the submarine workforce has not been reviewed in any detail.

1.3.2 Matters of supporting detail are contained in the relevant Annex.

1.3.3 Our general methodology is described at Annex. B.

2 Key Findings and Recommendations

2.1 s33(a)(ii), s47C

[redacted]

2.1.2 s47C

[redacted]

2.1.3 s47C

[redacted]

2.2 s33(a)(ii), s47C

[redacted]

[1] The Submarine Workforce Growth Strategy is supported and implemented by Plan Delphinus. It defines where the new positions are created within Defence's organisation.

a. s33(a)(ii), s47C

2.3 s47C

2.4 s33(a)(ii), s47C

a. s33(a)(ii), s47C [redacted]

[redacted]

[redacted]

[redacted]

[redacted]

2.5 s47C [redacted]

[redacted]

[redacted]

[redacted]

2.6 s47C [redacted]

[redacted]

[redacted]

2.7 s47C [redacted]

[redacted]

a. s33(a)(ii), s47C

2.8 s47C

2.9 s47C

3 Transition from Collins to Future Submarine

3.1 Summary

3.1.1 The Future Submarine Program is the largest funded Defence capital program in Australia's history. As a consequence, the importance of Australia's submarine capability to the security of the nation will increase significantly beyond that provided by the Collins Class submarine. Its national significance is underscored by the decision to grow a sovereign capability to modify a new design to meet Australia's needs. Australia has previously not had this capability and it is one confined to relatively few nations. Much international assistance is necessary and being provided by trusted sources to meet this challenge.

3.2 Strategic Context

3.2.1 Government has determined that Australia requires regionally superior submarines. They are to have a high degree of interoperability with the United States to provide an effective deterrent, which includes making a meaningful contribution to anti-submarine operations in our region. The core roles of Australian submarines are: anti-submarine warfare; anti-surface warfare; intelligence, surveillance and reconnaissance and support for Special Forces.

3.2.2 By their nature, submarines are covert and require comprehensive intelligence support to maximise their impact. Their secretive nature also contributes to it being problematic for those without a background in submarines to comprehend the extent of the difficulties and risks that must be overcome in order to achieve mission success. A balance of confidentiality and open assessment must be struck to ensure the resource demand is expressed clearly and used wisely.

3.2.3 Submarines necessarily require a specialised and highly professional work force and need extensive support from multiple Government organisations and appropriate allies, academia and industry. Each element requires development and investment over the long-term to maintain a strategic advantage and build regional superiority. Collectively, such an arrangement can be regarded as the Australian submarine enterprise, and it will be markedly different to that which existed both conceptually and in practice for the Collins class capability. The challenge to create such an enterprise is great, and the cost is commensurate. A whole-of-government arrangement is now being applied to building the national institutional capability necessary to ensure success.

3.2.4 To deliver the capability required, the submarine workforce (ADF and APS) must grow progressively from operating and supporting six Collins Class submarines (CCSM), to building, operating and supporting 12 future submarines (FSM) and the submarine enterprise. Industry and academia must be harnessed, and potential members of the submarine arm given positive encouragement, to build a rewarding career in a modern and professional element of the RAN.

3.3 Transition from Collins to Future Submarine

3.3.1 The current squadron of six CCSM are home ported in HMAS *Stirling* where they are supported by a variety of functional elements and managed through the Submarine Squadron Headquarters. Of the six, three boats are expected to be available consistently for tasking and a

fourth either available or in short-term maintenance. The remaining two submarines will be in longer term maintenance, typically conducted in Adelaide.[2]

3.3.2 The area surrounding *Stirling* is home to most of the members of the submarine force and their families, but the primary area of recruiting takes place in eastern Australia. This provides challenges for how the Arm will manage a significantly expanded workforce that will come through doubling the number of submarines. s47C

3.3.3 The FSM operating concept includes s33(a)(ii) There will therefore be a s33(a)(ii)

3.3.4 Increasing the challenge on the enterprise, the s33(a)(ii)

[2] The CN 10 Product Statement for submarines sets the materiel status required to be delivered by CASG

[3] This refers to the intent to operate submarines s33(a)(ii) – which is not a consideration of this review.

3.3.5 s33(a)(ii)

s33(a)(ii)

Figure 1: Collins Class Transition to Future Submarine 2030-2055[4]

[4] Calendar years.

4 Governance of the Submarine Arm

4.1 Summary

4.1.1 Navy's transformation from a Collins focussed capability to one based on the FSM will require a myriad of important and time critical capability management decisions over many years. s47C [redacted]

4.1.2 s47C [redacted]

4.2 Overview

4.2.1 Submarines are a strategic capability requiring a management arrangement that reflects their purpose and uniqueness. Submarines are arguably the most complex capability maintained in Navy and they need to be managed in a manner commensurate with Government expectations of their availability and professional standards. s33(a)(ii) [redacted]

4.2.2 The scale and pace of change to take place in the operational submarine force and the Defence submarine enterprise over the next 20 years and beyond is as great as any organisation can undergo. The whole-of-government strategy being adopted has brought with it the position of Deputy Secretary National Naval Shipbuilding in the Department of Defence and considerable change is to be expected in other government departments, industry and academic institutions to achieve success.

4.2.3 Navy is a central element in all of this endeavour and the transformation of the submarine arm and its significant growth will be highly challenging in many dimensions. While there are many contributors and collaboration will be essential, strong leadership is needed.

4.3 Governance Considerations

4.3.1 Management of the delivery and risks associated with evolution of the submarine force is necessarily shared across Navy, multiple groups in Defence, as well as in industry – and increasingly - academia. Transformational change of the Navy's submarine arm is taking place, which requires its leadership to both shape and adapt to the needs of a wide range of participants from government, industry and academia – the Australian submarine enterprise.

4.3.2 Strong leadership in CASG is being provided through the clear accountability of GM Submarines to Deputy Secretary CASG and through Deputy Secretary National Naval Shipbuilding to the Secretary and CDF. Navy's accountability framework is less clear in that there is no single point of

responsibility. Instead it is delivered through an arrangement of matrixed responsibilities that ultimately provide advice to CN.[5]

4.3.3 Navy's Director General Submarines (DGSM), a command qualified submariner in the rank of Commodore, is Head of the Submarine Profession. As a member of the RAN's Capability Division and based in Defence HQ (Navy) Canberra, DGSM is responsible for:

a. Advice to others as CN's submarine Capability Manager's Representative (CMR).

b. Advice to HNC (Rear Admiral) for operational capability requirements associated with all Fundamental Inputs to Capability (FIC), including workforce demands.

c. Managing funding lines and monitoring CASG achievement of sustainment outcomes for CCSM via the Materiel Sustainment Agreement CN10.

d. Advice to HNPAR (Rear Admiral) for all submarine workforce personnel policy matters, having consulted with Director General Naval People (DGNP), Commodore Training (COMTRAIN) and others as necessary.

e. Close consultation with the Head Future Submarines (HFSM) in CASG (Rear Admiral) to ensure there is a tight linkage between CN's requirements and those to be delivered through the FSM Project (SEA1000). This liaison also includes ensuring continuity of in-service capability of the CCSM to meet extant requirements.

f. Acting as the advisor to HNC and others across Defence for joint capability matters on anti-submarine warfare.

4.3.4 DGSM has no formal responsibilities to the Fleet Commander (Rear Admiral) who has responsibilities for collective training and operational standards. The conduct of specialised submarine operations rests with Chief of Joint Operations (CJOPS) via a specialist SM staff and DGSM has no direct authority in this chain of command.

4.3.5 Notwithstanding these arrangements, as the RAN's senior submariner who manages Australia's international submarine relations on behalf of CN,[6] DGSM is expected to provide a channel of senior and highly experienced operational advice to CN. s33(a)(ii) [redacted]

[5] See ANP1001 Navy Governance Direction and ANP2800 Seaworthiness Governance for Naval Capabilities

[6] It is beyond the scope of this review to remark on DGSM's role in managing classified agreements and arrangements for which advice is provided to CN and others concerned.

4.3.6 s47C [redacted]

5 Consolidating the Collins Class Workforce

5.1 Summary

5.1.1 Achievement of growth in the submarine workforce against targets, in numerical terms, has broadly been successful and is summarised in Figure 2. DGSM is managing the current workforce intensively and is confident of achieving the required annual workforce growth, albeit with shortfalls in some categories s33(a)(ii), s47C

5.2 Submarine Workforce Growth Strategy 2014-2025

5.2.1 CN promulgated the Submarine Workforce Growth Strategy 2014-2025 (SWGS) in 2014[7] with a clear intent to complete the recovery of the CCSM uniformed workforce to a sustainable level and to provide a solid base from which to grow the FSM workforce. SWGS requires the workforce to grow from 497 in July 2013, to 940 by June 2025.

Figure 2: Submarine Workforce Growth 2015-2025 – Required and Achieved

5.3 Recruiting

5.3.1 Recruiting results for the submarine arm in the period 2013-2018 are shown in Table 1 below and s33(a)(ii) are addressed in more detail in section 6 on page 23.

[7] Chief of Navy Submarine Workforce Strategy 2014-2025 dated 15 October 2014 page 1

s33(a)(ii)

Table 1: Recruiting Target Achievement 2013-2018

5.4 Retention

5.4.1 The crew of Collins was originally designed so that most personnel were in two watches for the entire time at sea.[8] The intention was to minimise manning, but the outcome was that crew members quickly became fatigued and little time was available for the essential additional tasks which must be accomplished to be operationally effective. An unintended further consequence was that the experiential learning possible through being at sea in unpredictable circumstances was constrained through limiting the numbers who were embarked.

5.4.2 A major contributing factor to the workforce fragility has been the demand for sea-time. An already small number of people were frequently confronted with an inability to balance their professional and personal lives with family and necessary training, and to hold non-seagoing jobs either in the submarine community, or elsewhere. The paradox being that one of the current principal drivers for a high operating tempo is to train and develop the increased workforce, with the unintended result being that retention of the current workforce can be adversely impacted.

5.4.3 In 2009 the Collins scheme of complement was increased from 48 to 58 to help alleviate the workforce issues impacting on submarine availability.[9] Along with a shore-based Submarine Support Group, the added flexibility of the increased crew has significantly reduced the number of 'Operational Reliefs' (temporary replacement of a sea going crew member) required from shore positions. This was a good initiative.

5.4.4 Retention of submarine trained officers and sailors has accordingly been the subject of important initiatives, most notably the deliberately differentiated workforce package developed to provide incentives for that purpose. Although the package incorporated a monetary provision of up

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[8] The term means that individuals are either at their operational position 'on watch'; or sleeping, eating or otherwise resting when 'off-watch'. In some circumstances those off-watch are required to support those on-watch, thereby losing their opportunity to be rested. This cycle is highly unsuitable for ensuring that individuals can satisfactorily meet high standards of concentration for extended periods.

[9] Environmental factors such as managing CO2 and total air quality means that each CCSM is limited to embarking a maximum of 60 personnel.

to $50,000 and was dependent upon the length of sea service, its predominant features were non-financial. In overall terms they included:

a. enhanced career management strategies including respite postings,

b. improved career enhancement opportunities,

c. leave remediation measures to reduce leave balances,

d. block leave periods for submariners,

e. increased recruitment to ensure a fully staffed Submarine Support Group, and

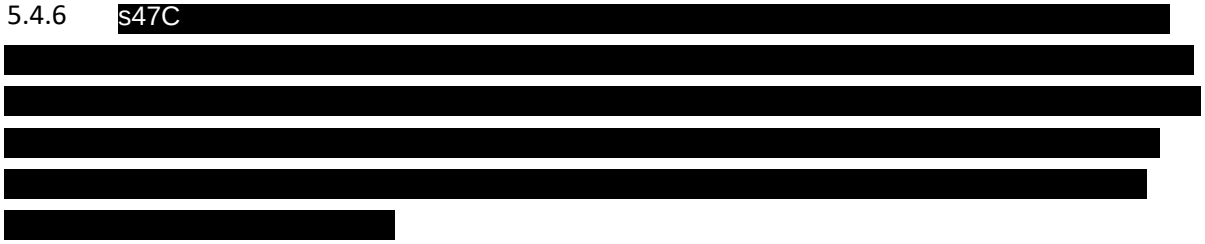
f. a Submarine Capability Payment to stabilise existing workforce and attract new members.

5.4.5 Anecdotal evidence in the submarine arm is that retention measures introduced through the 2014 initiative have been successful and are viewed as providing confidence to members that their service is valued. Table 2 shows separation rates over the period 2013 to 2018 and includes a comparison to the overall separation rates for officers and sailors across the Navy. The figures for 2018 show that officer and sailor separation rates for the submarine arm are lower than those for the Navy as a whole.

s33(a)(ii)

Table 2: Separation Rates 2013 – 2018

5.4.6 s47C



5.5 Assessment of Submarine Suitability

5.5.1 The submarine workforce is characterised by skills and competencies unique to its operating environment. Serving in a submarine is generally more demanding than serving in a

surface ship and for this reason service in the submarine force is on a voluntary basis. Navy has recognised that it will not meet its future workforce targets through traditional methods of internal transfers from other work groups or communities[10] and this will require a much greater reliance on external recruitment and more positive methods of attracting potential submariners. Direct recruiting, especially of officers, is expected to increase the probability that the submarine force can meet its workforce targets and represents a fundamental change to the current approach of lateral transfer adopted for the past 50 years.

5.5.2 For both officers and sailors, submarine *volunteers* are now identified at time of recruitment, although this is a relatively new policy for officers. Actual submarine *suitability* testing however, presently occurs later in the training continuum. For an ADFA officer entry this can occur during their academic studies but is often after considerable investment in training and development has already been incurred.

5.5.3 For submarine sailors in warfare workgroups, suitability testing occurs on completion of recruit training, but for technical, communications and logistics sailors it may not occur until completion of workgroup specific training, which can be up to a year after entry into the RAN. Considerable investment may therefore be lost if a sailor fails the rigorous submarine suitability testing and training because there is not always opportunity for these sailors to complete their specialist training and qualification in the surface fleet.

5.5.4 These weaknesses have been recognised and Navy is making changes to this approach so that submarine suitability testing can occur before basic recruit training commences and before officers join ADFA or RANC. This will greatly assist planning and achieving forecast throughput of trainees. It is also expected to have a positive impact on retention of those who join as submariners.

5.6 Monitoring Workforce Status – Need for Lead Indicators

5.6.1 In 2016 Navy implemented the Submarine Personnel Proficiency Framework Business Rules to assist with implementing SWGS. These rules define different levels of personnel capability and readiness to meet Service needs (levels 1 to 8). The Framework is accompanied by a 'Submarine Workforce Dashboard' which tracks in detail the monthly status of the submarine force measured against Key Performance Indicators (KPI).

5.6.2 Navy's cohort of submarine officers and sailors are tracked by competency and progression through training stages to meet overall workforce targets. This method permits tracking of individuals regardless of their method of entry and ensures targets for known requirements are capable of being followed over time. So far s33(a)(ii) [redacted].

5.6.3 Understanding the minimum number of recruits required each year to provide the annual minimum of qualified submarine officers and sailors needed to sustain the workforce can be a key lead indicator. These annual numbers should be monitored, and shortfalls extrapolated to likely future workforce deficiencies. This could provide a capability impact predictor of sorts and provide a

[10] Navy Strategic Workforce Plan 2018-2023 page 6

stimulus for pre-emptive management intervention. The rank by rank structure of the submarine workforce for CCSM (the workforce pyramid) is explained Annex. C.

5.6.4 Navy workforce planning by its nature is a long-term activity supported by sophisticated modelling tools to forecast demand at various stages of the career continuum. s33(a)(ii), s47C

5.6.5 The dashboard is in the course of re-design to be more useful, but it is underpinned by comprehensive data drawn from Navy resources and PM-Keys via the DPG. Notwithstanding the substantial data being collated by COMSUB and DGSM, its collection is dependent upon a small number of personnel with such expertise, and hence appears to be fragile in terms of being continuously able to support ongoing decision making. Extrapolating the data for this review proved to be time consuming and complex because it is recorded in numerous data locations and formats under control of different people whose assistance was required for its interpretation and analysis.

6 Command Qualified Officers

6.1 Summary

6.1.1 s33(a)(ii), s47C [redacted]

6.1.2 s33(a)(ii) [redacted]

6.2 Background

6.2.1 Sea-going experience is the key factor in ensuring the submarine arm is professional and submarine command qualified officers are its sea-going leaders. Of those most important in the submarine workforce for having a functioning sea-going operational capability, these officers are the most critical. Their preparation for command assessment occurs throughout their formative years (as summarised generally in Table 3) and is intended to equip them adequately for the Submarine Command Course (SMCC).[11] s33(a)(ii) [redacted]

Rank	Posting	Sea	Shore
SBLT	Communications Officer	24	
LEUT	Navigation Training		3
LEUT	Navigating Officer	24	
LEUT	SM Warfare Training		6
LEUT	Shore Posting		12
LEUT	Sonar Officer	12	
LEUT	Operations Officer	12	
LCDR	Post SMWO		24
LCDR	XO	24	
LCDR	Post XO		24
CMDR	Command	24	
	Months	120	69
	Ratio	63.5%	36.5%

Table 3: Idealised SM Warfare Career Progression

6.2.2 SMCC is a highly demanding practical examination at sea in a complex operational context. SMCC has been validated as meeting the needs and high standards of the RAN, but failures by

[11] SMCC is colloquially known as 'Perisher'.

officers from the RAN and the Royal Netherlands Navy (RNLN) are not uncommon.[12] High failure rates can usually be attributed to inadequate formal preparation and experience before undertaking the examination. s33(a)(ii), s47C

6.2.3 s33(a)(ii)

6.3 s33(a)(ii)

6.3.1 As a long run average, s33(a)(ii)

s33(a)(ii)

Figure 3: RAN Submarine Command Course Results 2008-2017

6.3.2 s33(a)(ii)

[12] SMCC is undertaken by RAN officers in conjunction with the Royal Netherlands Navy (RNLN) utilising a conventional submarine in service with that Navy. It is based upon the course originally developed by the Royal Navy (RN) and attended by both the RAN and RNLN until the RN became an all-nuclear submarine force.

6.3.3 s33(a)(ii), s47C [redacted]

6.3.4 The current pipeline of officers who are eligible to complete this pathway is shown in Table 4, s33(a)(ii) [redacted]

s33(a)(ii) [redacted]

Table 4: Submarine Warfare Officer - Pipeline 2018

6.3.5 s33(a)(ii) [redacted]

s33(a)(ii) [redacted]

6.3.6 s33(a)(ii) [redacted]

6.3.7 Achievement of this demand will be s33(a)(ii) [redacted]

s33(a)(ii) [redacted]

Figure 4: SMCC Demand 2019 - 2055

6.4 s33(a)(ii) [redacted] - Project Aegir

6.4.1 DGSM proposed, and DCN agreed in August 2018 to implement Project Aegir[14] to drive improvement in managing the demand and provision of SM Warfare Officers.[15] DGSM is the Project Director. The project includes investigation of new recruiting initiatives and increasing the numbers of officers in the CCSM crew. Overall it is intended to change how submarine officers are selected for

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13 s33(a)(ii) [redacted]

14 DCN Directive 7/18 to DGSM dated 24 August 2018. (In Norse mythology, Aegir is the god of the sea, both worshipped and feared by sailors.)

15 Independent Review into Submarine Command Development dated 02 March 2018 recommended establishment of such a project. DGSM has leadership of this activity.

and prepared for SMCC, thereby increasing the number of submarine command qualified officers to that required in the 2030's and beyond as shown in Figure 4.

6.4.2 The difficulty of s33(a)(ii) [redacted] makes this a particularly difficult challenge to meet.

6.4.3 Those who do not achieve submarine command remain a source of highly qualified and experienced officers who still have an important role in the Service. These officers can have meaningful careers, including in the area of acquisition as addressed at paragraph 9.3 of this report. Retention and requalification of these officers is an important part of developing the overall submarine workforce required to build and introduce into service a new class of submarine and management of the submarine enterprise.

6.4.4 s33(a)(ii), s47C [redacted]

6.5 s33(a)(ii), s47C [redacted]

6.5.2 Submarine command training and qualification is very expensive in terms of the numbers of naval and other assets, such as helicopters, ships, maritime surveillance aircraft and other submarines, that need to be assigned to support the training course. s33(a)(ii), s47C [redacted]

7 Growing the Future Submarine Workforce

7.1 Summary

7.1.1 s33(a)(ii), s47C [redacted]

7.2 Size of the Future Submarine Workforce

7.2.1 s33(a)(ii), s47C [redacted]

7.2.2 [redacted] s33(a)(ii), s47C [redacted]

7.2.3 Navy's managed growth of the submarine workforce has so far given it confidence it can meet its recruiting and training targets to man the CCSM force, but it already recognises that changes have to be made in growing the workforce necessary to transition from six to 12 submarines.

s33(a)(ii) [redacted]

Figure 5: SM Workforce Growth 2025 – 2050

16 The sea to shore ratio concept and how it is applied to the submarine workforce is discussed in more detail at Annex. C.

7.2.4 The growth required in the period 2019 to 2035 and capacity of the submarine training system to meet the demand is shown in Figure 5. The green line represents the smoothed workforce demand. The blue dotted line shows that through utilising existing training methods with a separation rate s33(a)(ii), the estimated nett workforce that can be generated will be s33(a)(ii) personnel.

7.2.5 This problem is recognised, and improved methods are being developed which are estimated to enable a throughput to reach s33(a)(ii) should it be needed. The net supply is sensitive to s33(a)(ii) and Table 5 demonstrates the estimated difference and s33(a)(ii) is incurred.

s33(a)(ii)

Table 5: Net Workforce with Separation Rates

7.2.6 Development of a structure based on actual positions required in the future force is still in its infancy, hence the primary means of determining the size of the future workforce is application of the sea to shore ratio. Nevertheless, Navy planners have shown by thorough analysis of the positions required to man and support the CCSM that using the sea to shore ratio provides a good estimate of the workforce required. CCSM experience has shown that maintaining this ratio is the key to managing recruiting and retention of the workforce.

7.3 Planning Considerations

7.3.1 The increase from six to 12 boats is unlikely to result in a simple linear doubling of numbers of those in job families and ranks. This is because other factors associated with formation of a submarine arm which, relative to that of the CCSM, will have a much greater role in the ADF's strategic and warfighting capability is also involved. This is discussed further at paragraph 7.3.8.

7.3.2 The transition from CCSM to FSM will be protracted but will be managed to ensure that sufficient boats are available to meet operational demands, and the workforce is able to train and conduct necessary preparations to man the FSM. This will be a complex task that will require careful planning to adapt the skills of the workforce because each version of the FSM is likely to incorporate some modifications not installed in its predecessor.

7.3.3 s47C [redacted]

7.3.4 Navy is undertaking an in-depth review of the organisation structure of the submarine arm to inform and refine its workforce demand for the future. Amongst other outcomes, there is expected to be an increase made to the Submarine Support Group to facilitate the provision of short notice operational reliefs.[22] The practice of drawing operational reliefs from any available source of shore posted individuals, including those who had been promised a stable period of respite from the demands of sea service has been a major source of discontent that was directly related to increased separation rates.

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17 s47C [redacted]

19 This assumption is currently being reassessed in that it is regarded as an inefficient way to manage the personnel involved.

20 Current planning is assuming that the s33(a)(ii) ratio adopted for CCSM crewing will be adequate but is subject to further analysis.

21 The overall Navy 2023 target for female participation is 25% (currently around 21%). Current submarine female participation rate is around 10%.

22 Short notice operational reliefs are generally expected to cover a temporary vacancy in a critical position in a submarine's crew that cannot be met by normal posting action. The notice provided for the relief can be from mere hours to several days.

7.3.5 Experience with the submarine force of enforcing a policy of shore respite has demonstrated improvement in retention figures and achieving that outcome points to the importance of ensuring that work-life balance is achieved by RAN personnel. Analysis of historic data on the use and need for operational reliefs will support a more efficient approach to calculating the number of personnel required as operational reliefs. A further benefit of this work will be greater confidence that shore positions utilised by members of the submarine arm will have real value to the submarine enterprise and will add credibility to workforce planning estimates.

7.3.6 The composition of Defence and industry elements of the submarine enterprise are presently evolving but experienced submarine qualified officers and sailors will need to be embedded in this enterprise. Current experience with management of the FSM project also shows that multiple officers of Captain and Commodore rank will need to be part of the intended continuous cycle of designing and constructing submarines for the RAN.

7.3.7 Career planning for submarine engineering officers must improve for this requirement to be met. These officers do not have a sustainable career structure and currently have no pathway designed into their career planning arrangements to reach the rank of Commodore – a significant deterrent for any officer considering a long-term career in the Navy. s47C [redacted]

7.3.8 The following factors will also contribute to the demand for experienced submariners across Defence that should be considered during development of SWDP 2050:

a. The increased technical and professional sophistication of the submarine force to ensure that it is regionally superior will place demands on its further development, and the workforce skills of those associated with supporting the force. Education and suitability standards will need to be verified against that needed to exploit very advanced technologies and concepts.

b. The realisation of a theatre ASW capability by the ADF will bring greater demands for ASW expertise in both Navy and associated ADF elements such as RAAF and the intelligence community.

c. Generating the requirements and management of the differing configurations of the FSM will require a continuing presence of skilled senior sailors and officers for that undertaking.

d. International considerations may serve to increase the degree of interaction between the RAN and other navies to meet mutual interests.

7.4 Guaranteeing Respite from Sea Service

7.4.1 The submarine arm needs a formal framework around providing guaranteed shore respite periods while still being able to meet unforeseen and urgent vacancies in sea going positions. Navy is developing an approach to operational management of the workforce in structural terms of three

components of Ready, Resetting and Readying. This method has been used to apparent good effect by Army for many years.

7.4.2 Adoption of a policy to meet the concept of Ready, Resetting and Readying, has yet to be approved by Chief of Navy, but modelling is occurring. s33(a)(ii), s47C

7.4.3 A first impression of this methodology might be that it will involve additional people and the associated cost of a larger workforce. But the analysis above is based on the workforce already agreed as required for long term sustainment of the Collins Class. The important difference is that this methodology brings a discipline to the application of the sea to shore ratio as it has always been intended – to provide respite from the demands of serving at sea. As discussed elsewhere in this report, predictable and stable time ashore is a crucial aspect of retention of personnel.

7.5 Increasing Training Throughput

7.5.1 Current training arrangements require that an individual, on completion of all prerequisite submarine training, spend a period s33(a)(ii) at sea in a training role before they can be awarded their full submarine qualification. Throughput for this element of training is constrained by the availability of accommodation for trainees on board a submarine and this limits the growth of numbers of qualified personnel. Accommodation varies depending on operational commitments, but there is typically space available for s33(a)(ii).

7.5.2 Evaluation of simulation and associated methods used by the surface force to overcome a long-standing shortage of bridge warfare qualified officers is expected to lead to adoption of a similar system for submariners. In summary, high fidelity simulators can put an individual, officer or sailor, through demanding circumstances to ensure a particular standard has been met before joining a submarine. Such a person should, with less supervision than a trainee requires at present, then be capable of becoming fully competent. In other words, they will receive an endorsement of competency through filling junior billet positions and achieve award of their submarine qualification upon satisfactory performance in that role. Table 5 shows how s33(a)(ii)

7.5.3 The RAN is drawing upon the experience of other navies in regard to this approach, but its application is currently viewed with optimism as a means of reducing the training continuum to a more manageable result without a loss of skills. There is no suggestion however, that simulation is regarded a substitute for sea-going experience. Rather, simulation permits people to be ready to serve at sea and prepares them to achieve higher standards.

7.6 Flexibility through the Total Workforce Model

7.6.1 A new approach to assist with maintaining the required level of uniform personnel in the ADF is the ADF Total Workforce Model (TWM). This model has several Service Categories[23] that provide an ability of Service members to mix and match part-time and full-time service to meet the needs of the Service. It provides for a very flexible approach to workforce management allowing uniformed personnel to gain experience in the private sector and bring that experience back into a naval environment.

7.6.2 CN has expressed a view that such a model provides Navy with a much-needed way to provide worthwhile employment to members of the Navy when they are not engaged on sea-going responsibilities. This particularly applies to giving meaningful employment to the more junior members of the Navy, especially technical sailors whose continuing skills development can benefit from such experience.

7.6.3 This model has much potential in the submarine enterprise to make best use of submarine experienced uniform and civilian personnel to meet the changing profile of construction and sustainment. The CEO of ASC indicated that he supports embedding naval people in his organisation if they can be productive with little or no additional training or experience. We are also aware that Navy has an active programme with s33(a)(ii) to provide productive employment and skills development for submarine communications personnel.

7.7 Submarine Workforce Development Plan (SWDP) 2050

7.7.1 Submarine Workforce Development Plan (SWDP) 2050 is being developed to replace SWGS 2014-2025 and become the workforce roadmap to the year 2050, providing the basis of building the workforce to both operate CCSMs, and fully transition to the FSM.[24] SWDP 2050 will be aligned with the Defence Strategic Workforce Plan (DSWP) and will comply with the Australian Standard for Workforce Planning (AS 5620).

7.7.2 Updates are intended as circumstances evolve, but continuous intensive management will be required to ensure outcomes are reached. SWGS provides the basis for SWDP 2050 with a planned milestone to achieve an actual submarine workforce s33(a)(ii) to enable transition to a two-class structure.

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[23] Service Categories 1 to 7. Categories 3 to 7 have Service Options (SERVOP) ranging from part time to full time service.

[24] Draft Submarine Workforce Development Plan dated May 2018. This Plan has not been approved and is in its formative stages.

7.7.3 A submarine command qualified Captain, added to the staff of DGSM in early 2018, is embedded in the Navy People Branch where he is able to participate in workforce development matters, including the conduct of applicable research to inform decisions. Research on submarine workforce matters is now being conducted in sufficient detail to provide the necessary support.

8 Forming the First FSM Crew

8.1 Summary

8.1.1 Navy is developing an approach referred to as "crew zero" that will form a standing acceptance crew, based in Adelaide, to bring each new submarine out of the build phase and through acceptance trials before handing over to the commissioning crew. The kernel of this crew should be formed s33(a) .

8.1.2 s33(a)(ii), s47C

8.2 Crew Zero Concept

8.2.1 The transformation to a 12-boat force demands new thinking in how submarine crews are formed, trained and supported, and how new submarines are crewed during the initial acceptance phase. s33(a)(ii), s47C

Experience with the Collins building program as changes to the schedule were encountered contributed to serious family disruption and was the source of considerable dissatisfaction of crews and their families. Family dislocation should be avoided wherever possible.

8.2.2 While the first of class commissioning crew may pave the way with developing operating procedures, each subsequent new submarine crew is essentially re-learning the same lessons as the crew of the first vessel. Navy is developing an approach referred to as "crew zero" that will form a standing acceptance crew, based in Adelaide, to bring each new submarine out of the build phase and through acceptance trials before handing over to the commissioning crew.

8.2.3 This "crew zero" will then move on to bring the second boat and subsequent boats out of build thus de-risking what is a critical activity for successful acceptance into service. s47C

8.2.4 Crew zero will create an environment for the rapid development and retention of Navy familiarity and understanding of new capabilities as they are being built. It will provide a consistent approach to testing and acceptance thus reducing risk associated with this critical activity. To implement the crew zero concept, Navy planners envisage a standing workforce establishment at Osborne, SA and Henderson, WA. Key personnel would undertake postings of not less than three years duration to ensure knowledge is retained across more than one delivery cycle.

8.2.5 s47C

s47C [redacted]

8.3 Submarine Squadron Arrangements

8.3.1 The RAN's submarine squadron structure has evolved from an RN model established to support the Oberon Class in the 1960s. Introduction of the Collins Class, and the self-reliance needed by the RAN to support its uniqueness, has logically led to further changes, resulting in the present arrangement. With the introduction of FSM, simultaneous operation of CCSM, and the likely conduct of a difficult LOTE program, current squadron arrangements need to be assessed for their adequacy.

8.3.2 s47C [redacted]

8.3.3 s47C [redacted]

9 Acquisition and Sustainment Workforce

9.1 Summary

9.1.1 The CASG submarine workforce needs to grow progressively over the next 15 years in a manner that matches a steady demand state and supports appropriate skills development. It is an integrated workforce comprising APS, Navy and embedded contractors. s47C [redacted]

9.2 CASG Integrated Submarine Workforce

9.2.1 APS and Navy members of the submarine workforce in CASG (supported by DSTG) provide the long-term knowledge and expertise needed by Defence to manage the acquisition and sustainment of platforms and systems of both the CCSM and FSM. As the submarine enterprise continues to evolve, so too will the requirement for a range of highly qualified and experienced professionals from the ADF, APS and industry – and academia.

9.2.2 People from each group will need to be interchangeable as needs change and experience grows. While initial impetus for FSM acquisition planning is supported heavily by contractors, transition to a higher proportion of APS and Navy people in CASG is required to build Defence's corporate expertise. Within this construct, peak loads for design, construction planning, and construction management of the FSM will be met by short term engagement of contractors.

9.2.3 Navy has embedded uniform personnel in CASG to ensure critical seagoing expertise is provided at all stages of the FSM design and build while continuing to support CCSM sustainment and upgrades. s47C [redacted]

9.2.4 s47C [redacted]

9.3 s47C [redacted]

[redacted]

9.3.2 s47C [redacted]

9.3.3 While Navy does contribute uniformed people to most maritime acquisition and sustainment activities, this does not appear to occur with any forward planning or pre-qualification. Navy has however, used various schemes to qualify officers for employment in specialised shore positions, particularly for post sea-charge/sea command officers.

9.3.4 In 1990 the RAN Officer Career Study Report (ROCS) recommended 'Materiel' as a 'functional' post seagoing career element. Since ROCS was implemented, both Navy and Defence have experienced many reviews with the common theme of civilianising and outsourcing much of its shore-based support activity. This has particularly been the case for acquisition, engineering services and logistics, to the extent where Navy now has few officers qualified or experienced in ship acquisition, and even less in its subset of shipbuilding.

9.3.5 s47C [redacted]

9.3.6 s47C [redacted]

9.3.7 s47C [redacted]

[25] Along with experienced civilian submarine engineers in CASG, supported by highly skilled engineers and scientists in DSTG.

Annex. A Terms of Reference for a Naval Workforce Review

The Naval Workforce Review Team (VADM Shackleton and RADM Robinson) is tasked by CN and GM Subs to review workforce planning in accordance with the following terms of reference:

a. Review and assess Navy, Australian Public Service and industry, workforce plans for ships and submarines, including but not limited to:

   (i) mapping workforce strategies against current project schedules and expected life of type operation and sustainment requirements;
   (ii) recruitment and retention strategies to meet current and future workforce requirements;
   (iii) skill profiles and training strategies to meet current and future workforce requirements; and
   (iv) alignment with Navy Strategic Workforce Plan and Submarine Industrial Workforce plan.

b. Recommend a reporting methodology to track workforce growth, development and performance against workforce strategy and key performance indicators.

c. Review and assess current workforce related policies and procedures, and recommend changes to ensure future workforce outcomes are able to be achieved, including but not limited to;

   (i) Leveraging Navy Workforce Models (Futura tool);
   (ii) Ship Zero Concept; and
   (iii) Viability of introducing Navy 'acquisition stream' concept and policy impacts.

d. Recommend key topics and actions that should be included in a five-year action and implementation plan (2018-2023) detailing key activities required to be undertaken, including key milestones, to deliver future workforce requirements;

e. For the duration of the engagement, and as directed by Defence, attend Navy Workforce Planning, associated Interdepartmental, Naval Shipbuilding Coordination, Band 2 Workforce, and Skilling meetings;

f. Brief committees, boards, and senior leaders on the work and findings of the Naval Workforce Review Team as required; and

g. Provide an interim report of findings on 25 July 2018 and a final report on 30 October 2018.

Annex. B Review Framework

B.1 Broad Methodology

s47(1)(b)

[redacted]

B.2 Derivation of Framework

s47(1)(b)

[redacted]

s47(1)(b)

[redacted]

B.3 Workgroup Plans

s47(1)(b)

[redacted]

s47(1)(b)

[redacted]

Annex. C Submarine Workforce Structure

C.1 Career Progression

1. At each stage of their careers, regardless of their specialisation, submariners are required to complete a minimum period of sea-service of 12 months and serve in rank for a minimum period of typically four years before they are eligible for promotion. In general terms, it takes 16 to 20 years before a sailor or officer reaches the top of their career as summarised and shown in Figure 7 and Figure 8 respectively.[27]

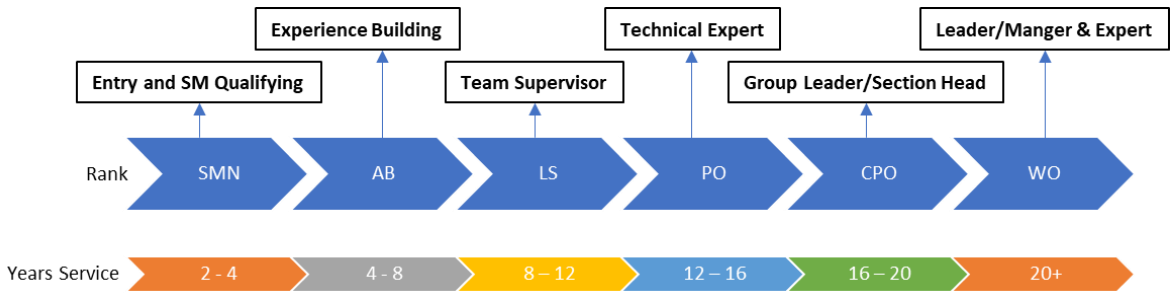

Figure 7: Career Progression and Years of Service - Submarine Sailors

2. Sailor career plans are promulgated in detail in Navy's ANP documents and provide clarity of mandatory and optional training necessary to meet the needs of the Arm. Sea time requirements are expressed as a minimum, but in general our consultation indicated that they are typically being exceeded by members of most workgroups. The detail summarised in these diagrams are amplified later in this Annex.

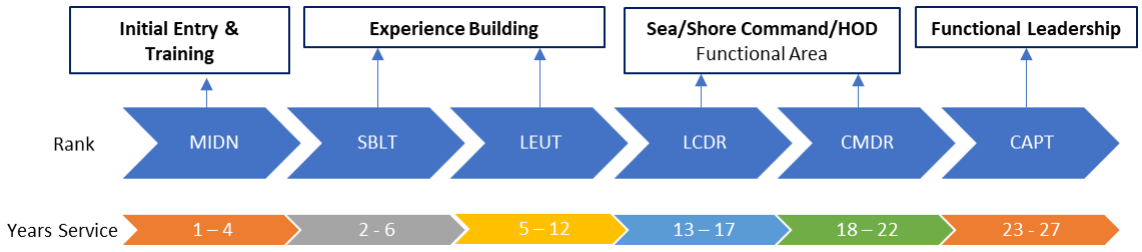

Figure 8: Career Progression and Years of Service - Submarine Officers

C.2 Workforce Sea to Shore Ratios

3. Plan DELPHINUS is the implementation plan to achieve the outcomes required by SWGS 2014-2025, by when the submarine workforce is required to have s33(a)(ii) and will act as the springboard for the workforce necessitated by introduction of the FSM. Details in the following

[27] Career details are drawn from ANP 2110 – RAN Career Management Volume 1 and Volume 2

diagrams and paragraphs are drawn from the underpinning data incorporated in Plan DELPHINUS as well as from SWGS 2024-2025.

4. To provide necessary respite from sea service that was having a negative impact on retention, SWGS directed implementation of an overall sea to shore ratio of s33(a This revised ratio (previously s33( ) has been received positively by the members of the submarine force and enforcement of its application is believed by Navy to have contributed to improved retention rates. Importantly, this is a non-financial incentive and is therefore not subject to the risk of a monetary entitlement becoming permanent in order to ameliorate unsatisfactory conditions of service.

5. The concept of an 'overall sea to shore ratio'[28] is used by Navy as a methodology for calculating how much time at sea and ashore a member should expect to have while serving in the submarine force. The present calculation works thus:

a. Each CCSM requires s33(a)(ii) positions for it to operate safely, but the crew size has been s33(a)(ii) as required.

b. The total workforce required to man s33.[29]

c. This figure is multiplied by a ratio judged necessary to meet shore respite from sea-service. Prior to 2014, this was s33(and judged to be unsatisfactory. The ratio of s33(has been set for 2019.

d. Using the s3 ratio, this total for s33(a)(ii) .

e. Added together, the workforce target submarine strength s33(a) was calculated and approved as .[30]

6. s47C .[31]

7. When he compared RAN, Royal Navy, US Navy and French Navy data in 2014,[32] RADM Moffitt considered the French Navy's most recent review of submarine sea to shore ratio s33(a as the most accurately estimated, sustainable and attractive benchmark for enhancing attraction and retention. The RAN's current method of calculating the sea to shore ratio compares those at sea

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28 Chief of Navy Submarine Workforce Strategy 2014-2025 dated 15 October 2014 page 5

29 CN judged that the implications of submarine mid-cycle docking and full-cycle docking meant that it was appropriate to plan to s33(a)(ii) See Chief of Navy Submarine Workforce Strategy 2014-2025 dated 15 October 2014, page 6

30 Chief of Navy Submarine Workforce Strategy 2014-2025 dated 15 October 2014 page 4. By using the former ratio s33(a) , this figure would have been s33(a)(ii) .

31 Using a s33(a) would have produced a total workforce figure s33(a) .

32 Interview with RADM Moffitt, quoted page 42 P Davidson and SG Dalton (2018), *Independent review into submarine command development*, Department of Defence, Canberra.

with those ashore, which is not the same adopted by the RN, USN or French Navy, which instead compare the sea-going force to the total submarine force.

8. If the RAN were to adopt this method, the intended s33(a)(ii) [redacted]. The advantage of making this minor adjustment is that useful comparisons can be more readily made while workforce policies can still be implemented. Nonetheless, it suggests the present ratio is comparable with other navies with similar characteristics in relevant areas.

Ratios are not the only consideration in regard to managing the sea to shore balance because the responsibilities of individuals change as their rank and experience evolve, and junior personnel need greater sea-going experience earlier in their careers to act as a foundation for growth in expertise. Notwithstanding, it has proven to be an effective management tool to this point.

9. The overall change to the submarine workforce to be grown as aggregated by officers and sailors in their primary areas of specialisation over the period 2014-2025 is shown in Figure 9.

Figure 9: Plan Delphinus - Growth by Specialisation

10. An important balance needs to be maintained through growing the workforce and ensuring that does not dilute its experience. The principles of ensuring that sufficient sea-time is accumulated by officers and sailors at each level in their career must be managed, and generally follow the schema as shown in Figure 10

Figure 10: General Schema of SM Career Progression

11. The approximate sea-shore balance to be achieved by officers and sailors to the rank of Commander (CMDR) and Chief Petty Officer (CPO) are broadly shown in Figure 7 and Figure 8, but in practice are planned by career managers to approximate those as shown in Figure 11 and Figure 12.

Figure 11: Approximate Cumulative Sea-Shore Years - Sailors

Figure 12: Approximate Cumulative Sea-Shore Years - Officers

12. By the time a Chief Petty Officer takes up their posting in a submarine, it can typically be expected that they have accumulated nearly 10 years sea experience of a total career of 20 years, and a Commander will have accumulated about 12 years from a total of 22, respectively being approximately 50% and 54% of their service.

13. The MWOSM structure remains in s33(a)(ii) Remedial steps are being implemented and the intended career pyramid (as Plan Delphinus is fully implemented) for that cohort of officers is shown in Figure 13.

Figure 13: MWOSM Structure - Longer Term Goal

14. While s33(a)(ii) , this is under review by Navy. s47C

s33(a)(ii), s47C

s33(a)(ii)

Figure 14: Marine Engineering Officers - Post Delphinus

15. s33(a)(ii)

s33(a)(ii)

Figure 15: Weapons Electrical Engineering Officers - Post Delphinus

Annex. D Consultation

1. Consultation took place with the following people as shown in this alphabetically arranged list. In this phase there were at least 78 meetings supported by numerous email and phone communications as well as less formal meetings.

2. We thank all for their candid responses to our questions and insights provided into the task we have undertaken.

Last	First	Position
Ablong	Marc	Acting Deputy Secretary Strategic Policy & Intelligence
Arnold	Lisa	AS Workforce Strategy CASG (DPG Liaison)
Bairstow	Warren	Commander Patrol Boat & MHC Group
Barrett	Tim	Chief of Navy
Borsboom	Jacqueline	Director Policy & Engagement
Brown	Tim	DG Submarines
Chandler	John	DG Upgrades & Boats
Chesworth	Peter	FAS Naval Shipbuilding Taskforce
Dalton	Stephen	Research Officer Submarines
Day	Rochelle	MSD Workforce Management Support
Divall	Greg	Group Business Manager
Fox	Natasha	DG Workforce Planning
Francis	Mark	MSD Lead & Ships Capacity Planner
Gould	Stephen	DG Plan Suakin/Total Workforce Management
Greig	Justine	Deputy Secretary People Group
Griggs	Ray	Vice Chief of the Defence Force
Grunsell	Adam	Head Maritime Systems
Hammond	Mark	Deputy Chief of Navy
Harris	John	MSD Capacity Planner
Johnson	Stephen	General Manager Submarines
Johnson	Timothy	Department of Jobs and Small Business - Defence Liaison
Jones	Justin	Commodore Training
Kavanagh	Darron	Director Future Force Lifecycle Engineering
Kearnan	Sheridan	FAS Industry Division
Klenthis	Anthony	Director Navy Workforce Requirements
Lawrence	Colin	Head Navy Engineering
Lewis	Duncan	Director General ASIO
Macdonald	Ben	Director Logistics Support - Navy
McGowan	Tim	Assistant Director General
McIntosh	Mark	Director RAN Trials
Mead	Jonathon	Fleet Commander

Last	First	Position
Miko	Mike	DG Logistics - Navy
Miller	Michelle	Former DG Navy People
Morgan	Cath	MSD Workforce Manager
Navin	John	Assistant Director Littoral Ships
Neil	Scott	Department of Education and Training - Defence Liaison
Noonan	Mike	Chief of Navy
Partridge	Tony	DG Navy People
Quinn	Peter	Head Navy Capability
Robards	Paul	Implementation Officer DSWP
Robb	Nathan	Director Logistics Capability Development
Sammut	Gregory	Head FSM
Smith	Chris	Commodore Surface Forces
Spedding	Philip	DG Navy Program Support & Infrastructure
Stanford	Philip	Director SM Workforce Development
Stuart	Paul	SM Workforce Planner
Wehmeier	Stacey	Director Project Control Services
Whiley	Stuart	Chief Executive Officer Submarines
Wolski	Brett	Head People Capability
Wyeth	Jeff	SEA1000 HR Support
Yorke	Greg	PD Plan Acrux

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Annex. F Abbreviations

Term	Meaning
ADF	Australian Defence Force
ADFA	Australian Defence Force Academy
ADFTWM	ADF Total Workforce Model (Previously Project Suakin)
AFS	Average Funded Strength
AJAAC	Australian Joint Acoustic Analysis Centre
ANP	Australian Navy Publication
APS	Australian Public Service
CASG	Capability Acquisition and Sustainment Group
CCSM	Collins Class Submarine
CDF	Chief of the Defence Force
CJOPS	Chief of Joint Operations
CLC	Capability Life Cycle
CM	Configuration Management
CMR	Capability Manager's Representative
CMRB	Capability Manager's Release Board
CN	Chief of Navy
COMSUB	Commander Submarines
COMTRAIN	Commodore Training
COMWAR	Commodore Warfare
DCN	Deputy Chief of Navy
DGNP	Director General Navy People
DGSM	Director General Submarines
DNWR	Director Navy Workforce Requirements
DSMWD	Director Submarine Workforce Development
DSWP	Defence Strategic Workforce Plan
FC	Fleet Commander
FIC	Fundamental Inputs to Capability
FOC	Final Operational Capability
FPR	First Principles Review
FSM	Future Submarine
FSU	Fleet Support Unit
FTE	Full Time Equivalent
HFSP	Head Future Submarine Program
HMS	Head Maritime Systems
HNC	Head Naval Capability
HNE	Head Naval Engineering
HNPTAR	Head Navy People Training and Resources
IIS	Introduction into Service

Term	Meaning
ILS	Integrated Logistics Support
IOR	Initial Operational Release
JEWOSU	Joint Electronic Warfare Operational Support Unit
LOTE	Life of Type Extension
MAPS	Manpower Analysis and Planning Software
MEC	Medical Employment Classification
MLO	Maritime Logistics Officer
MSD	Maritime Systems Division
MWO	Maritime Warfare Officer
NSAB	Naval Shipbuilding Advisory Board
NSWP	Navy Strategic Workforce Plan
OCD	Operational Concept Document
OSI	Operation and Support Intent
PCM	Personnel Contingency Margin
Perisher	Submarine Command Course
RAN	Royal Australian Navy
RANC	Royal Australian Naval College
RANTEA	RAN Test and Evaluation Authority
RANTEWSS	Royal Australian Navy Tactical Electronic Warfare Systems Section
RNLN	Royal Netherlands Navy
ROCS	Review of Officer Career Study
SMCC	Submarine Command Course
SF	Special Forces
SM	Submarine
SMDDO	Submarine Deliberately Differentiated Offer
SPO	Systems Program Office
SWDP	Submarine Workforce Development Plan
SWFGS	Submarine Workforce Growth Strategy 2014-2025
T & E	Test and Evaluation

Annex. G List of SWDP 2050 Supporting Plans

1. A summary of existing plans, and those to be developed to achieve the SWDP 2050 objectives are shown below.

Navy Submarine Workforce Objectives	Delivery Method	Activity	Start	End
Grow the Submarine Workforce to that required for the 2050 structure and beyond	**Plan *DELPHINUS***	Implement approved growth in AFS to the required target set in Section 2, SWDP	2014	2050
Develop a workforce organisation that can sustainably crew and support the submarine fleet	***Plan TBA*** (Crewing)	Develop and implement the new submarine crewing methodology	2020	TBC
	Plan TBA (Organisation)	Develop workforce organisation options for CN/Govt. approval and Implement a revised Submarine Capability organisational model	2020	TBC
Transition the submarine workforce from the Collins to the FSM	***Plan TBA*** (Transition)	Identify all issues and implement appropriate actions to manage the transition, including appropriate skilling to deliver continuous shipbuilding	2020	TBC
Develop the workforce to support the continuous shipbuilding (submarine) program				
Identify the enabling workforce that represent workforce needs within the broader Navy and Defence organisation which require augmentation to support the expanded submarine force	**Actions**	Identify the broader workforce needs and raise the requirements with the appropriate authority within Defence for delivery	-	-