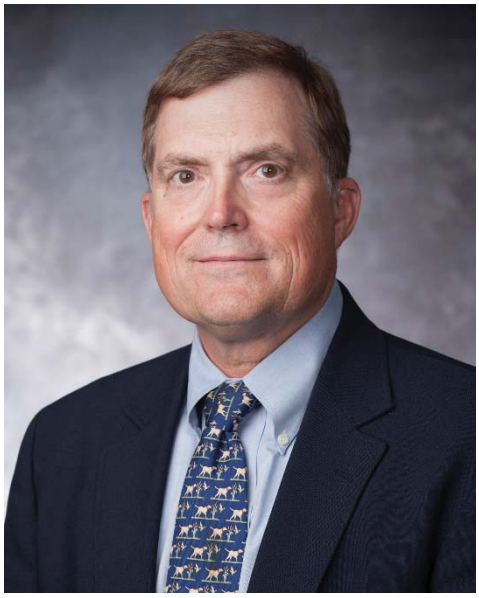


DEPSEC National Naval Shipbuilding & General Manager Submarines

Mr Stephen Johnson

Deputy Secretary National Naval Shipbuilding & General Manager

Stephen E. Johnson has served as Deputy Secretary National Naval Shipbuilding within the Department of Defence since March 2018. He joined Defence in October 2015 as the General Manager for Submarine Programs and continues in that role in addition to his responsibilities as a Deputy Secretary.

The Commonwealth has made considerable progress in establishing its Naval Submarine and Shipbuilding Programs. The Collins Program, formerly a project of concern, now has a sustained record of performing better than international performance benchmarks for reliable operations at sea. Multi-billion dollar programs for upgrading radio and sonar capabilities have been approved, funded and are being installed. Planning for the Life Extension of the Collins Class is in progress.

The Future Submarine Program completed its Competitive Evaluation Process in early 2016, selecting Naval Group France (then DCNS) as the designer and builder of Australia's next class of submarines. Design work began in 2016. A secure facility was designed, built, and staffed in Cherbourg, France in 2017. The majority of the Concept Design work for the Future Submarine completed in late 2018.

The Commonwealth's National Naval Shipbuilding Office was formally established in 2018. The BAE Type 26 was selected as the basis for design of the Hunter Class ASW Frigate in June, 2018. Later in 2018, the Offshore Patrol Vessel began construction at the Osborne Naval Shipyard early to schedule in November 2018. The building of the construction yards for ships (Osborne South) and for submarines (Osborne North) also started in 2018.

Johnson has a long history of service in Shipbuilding Programs and with the US Navy Submarine Force. A retired US Navy Rear Admiral, Johnson's most recent active duty assignment was as the Director, Strategic Systems Program where he was responsible for the US Navy Intercontinental Ballistic Missile Programs as well as Officer in Charge of the Replacement for the Ohio Class SSBN (now the Columbia SSBN Program). RADM Johnson has had a major role in the design or construction the Virginia Class, the Seawolf

Class, the USS Jimmy Carter, and the Columbia Class. Johnson commanded the Nuclear Powered Fast Attack Submarine USS CHICAGO (SSN 721).

Prior to joining the Commonwealth's Department of Defence, he worked as Vice President and General Manager of Power & Control Technologies, a DRS company and major supplier of equipment to the US Navy ship and submarine programs.

Overview

Key points

- The Naval Shipbuilding Program is the largest major capital acquisition program that has ever been undertaken in Australia. The program is very ambitious and carries significant risks – particularly for cost and schedule. s33(a)(i) [redacted]

Background

The four Australian built naval vessel programs comprise the core of the Naval Shipbuilding Program (12 *Attack* class submarines, nine *Hunter* class ASW frigates, 12 *Arafura* class offshore patrol vessels and 21 *Guardian* class patrol boats):

- The *Guardian* class Pacific Patrol Boat is in production by Austal Shipbuilding in WA with two vessels delivered.
- The *Arafura* class Off-Shore Patrol Vessel started production on schedule and is in production by Luerssen at the Osborne South Shipyard in South Australia with the first vessel in construction and the second due to commence in June 2019 ahead of schedule.
- The *Attack* class Submarine is a new design to meet unique Australian requirements. The program has completed Concept Design and moved into Definition Design which is primarily conducted in Cherbourg, France and supported by government staff in Cherbourg and Adelaide. Production design will transition to Australia in 22/23 with hull construction beginning late in 2023. All 12 submarines will be built in South Australia.
- The *Hunter* Class Anti-Submarine Warfare Frigate is early in design. The BAE Type 26, from which the *Hunter* class is derived, is in production in Glasgow. *Hunter* class staff located in Glasgow and Canberra are working with BAE design teams planning the changes which will invoke unique Australian frigate

Overview

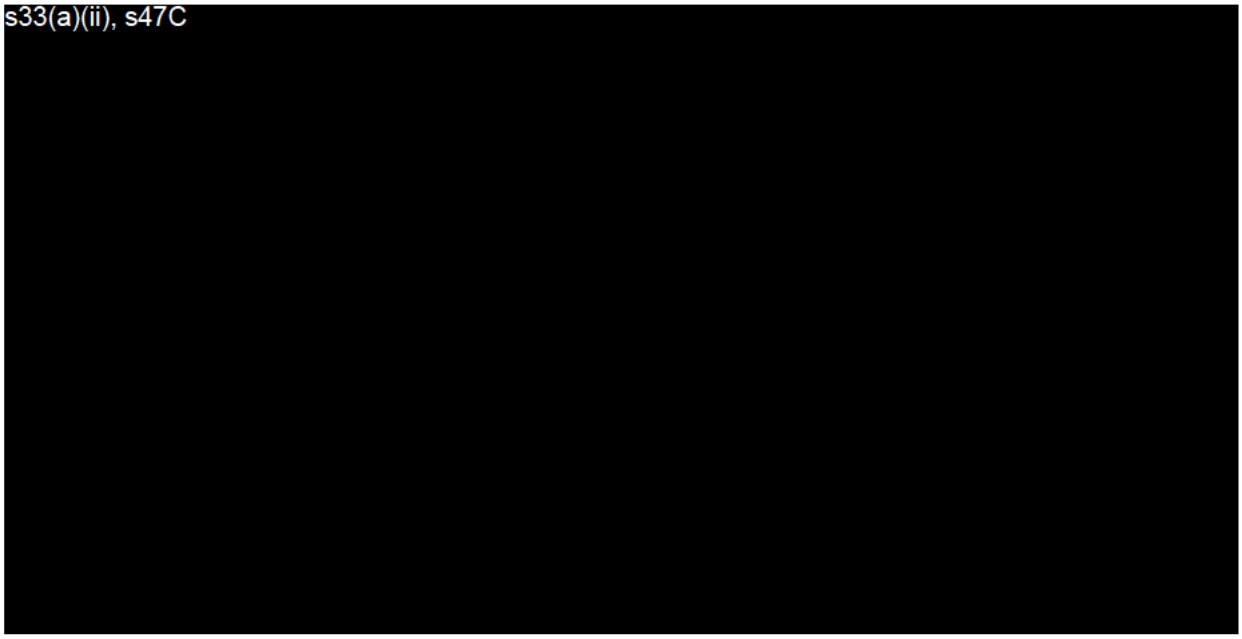
requirements including the CEA Phased Array Radar and Aegis Weapons System. Production design will transition to Australia in 2022. All nine frigates will be built in Osborne, South Australia.

The Navy's new Auxiliary Oil Replenishment Ships are being constructed by Navantia in Spain. The lead ship is in the water and being fitted out with the second ship in construction. This program is within budget and on schedule.

Two shipyards located at the Osborne Naval Precinct near Adelaide have been designed and are under construction. The destroyers and frigates will be built at Osborne South and the *Attack* class submarine at Osborne North.

The *Hunter* class frigates and the *Attack* class submarines are two of the most complex programs world-wide. The near simultaneous start of construction adds risk in workforce and program management.

s33(a)(ii), s47C



The Product Life Management tools used in naval construction (Siemens for ships and Global 3D for submarines) bring the most advanced manufacturing and life cycle management capabilities to Australian heavy industry. Skills learned in shipbuilding – whether CAD/CAM design, cost effective manufacturing schedules or operating the most sophisticated welding and pipe-bending computer controlled machines – will naturally migrate to other manufacturing trades within Australia. These advantages also bring risks:

Overview

- the near simultaneous development of two different digital shipyards (Siemens for Ships and Global 3D for submarines) will require careful coordination across programs and within two different companies. s33(a)(ii), s47C

[redacted]

s33(a)(ii)

[redacted]

s33(a)(ii), s33(a)(iii), s34, s47C

[redacted]

Overview

s33(a)(ii), s33(a)(iii), s34, s47C [redacted]

Points of contact

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Royal Australian Navy

Key points

- Navy's top three priorities are:
  - providing ships and supporting capabilities to sustain Australia's increasing regional engagement, domestic operations, and be prepared for warfighting operations;
  - workforce retention and growth to provide the right people, at the right place, at the right time, with the right training, capable of sustainably operating our future force; and
  - capability assurance of our acquisition and sustainment programs to provide Australia the necessary maritime power in support of its strategic interests.

Background

Regional engagement focus

s33(a)(ii), s47C

Royal Australian Navy

s33(a)(ii)

s33(a)(ii), s47C

Navy workforce retention and growth

In a relatively calm and stable maritime environment, Navy's funded strength reduced by 30 per cent over the two decades from 1982 to 2002. Since that time, Navy's workforce has grown only modestly. s33(a)(ii)

Royal Australian Navy

s33(a)(ii)

Service at sea in a ship or a submarine is fundamentally different to most professions. It requires technically competent, highly trained, fit and motivated people who are ready to go to sea and operate remotely – often without connectivity with loved ones for extended periods. s33(a)(ii)

s33(a)(ii), s47C

Submarine future proofing

Submarines in particular are an essential part of Australia's naval capability, providing a strategic advantage in terms of surveillance and protection of our maritime zones and approaches achieved through their unique properties of stealth, range, endurance and lethality.

Australia's current submarine capability is provided by the Collins class fleet managed through an enterprise approach (together with Navy, Capability, Acquisition and Sustainment Group, and industry) of their upkeep, upgrade and update programs. A Collins Class Life of Type extension program will ensure that no capability gap exists as we transition to the Attack class submarine. The Attack

Royal Australian Navy

class submarine design and delivery schedule is aligned to Australia's strategic requirement for a regionally superior submarine capability, and supports a coherent transition from the existing Collins class capability. s33(a)(ii), s34, s47C

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