

The article on the pages below is reprinted by permission from *United Service* (the journal of the Royal United Services Institute of New South Wales), which seeks to inform the defence and security debate in Australia and to bring an Australian perspective to that debate internationally.

The Royal United Services Institute of New South Wales (RUSI NSW) has been promoting informed debate on defence and security issues since 1888. To receive quarterly copies of *United Service* and to obtain other significant benefits of RUSI NSW membership, please see our online Membership page:

www.rusinsw.org.au/Membership



**Jump TO Article** 

# **INSTITUTE PROCEEDINGS**

# Maintenance of ships in the Royal Australian Navy: the Rizzo reform programme – capability management, accountability and responsibility



an address to the Institute on 27 March 2012 by

## Commodore Mark Purcell, RAN

Director-General Technical Seaworthiness & Head Rizzo Reform Programme<sup>1</sup>

'It is the capacity for maintenance that is the best test for the vigour and stamina of a society. Any society can galvanise for a while to build something, but the will and the skill to keep things in good repair, day in day out, are fairly rare.'

Eric Hoffer<sup>2</sup>

The Rizzo reform programme was introduced by the Royal Australian Navy to overcome revealed deficiencies in the maintenance of its amphibious ships. Following a review of the maintenance system by Mr Paul Rizzo, a reform programme was introduced which Commodore Purcell, its manager, explains herein.

Key words: ship maintenance; Australian navy; Rizzo reforms.

#### Introduction

In early 2011, a cyclone struck the coast of north Queensland causing widespread, severe damage. Navy was unable to provide a serviceable amphibious ship to support rescue and recovery efforts.

The government immediately appointed an independent team of experts to develop a plan to reform the amphibious ship repair and maintenance practices that had led to the early decommissioning of HMAS *Manoora*, the extended unavailability of HMAS *Kanimbla* and the temporary unavailability of HMAS *Tobruk*. An independent external management expert, Mr Paul Rizzo³, was appointed to lead the review, supported by two subject matter experts, Air Vice-Marshal Neil Smith (Ret'd) and Rear Admiral Brian Adams (Ret'd). The team focused on a number of causal factors that were identified by the Secretary of Defence and the Chief of the Defence Force and also considered submissions from many interested parties.

The review team reported to the government in July 2011<sup>4</sup>. It found that many of the underlying issues that led to the unavailability of the amphibious ships were present across the remainder of the Navy and the Defence Materiel Organisation, although possibly to a lesser extent.

In particular, the under-resourcing of the system programme offices and capability management groups, shortcomings in the technical information management system, the 'can do, make do' culture, and the loose application of the Navy technical regulatory system, were all factors that applied more broadly. The team made 24 recommendations. A plan to reform management and repair practices was produced, including how the proposed reforms should be applied to other naval vessels and the maintenance concept for the new Air Warfare Destroyers and Landing Helicopter Docks (large amphibious ships) which are scheduled to be introduced into service progressively over the next decade.

The team's report, commonly referred to as the 'Rizzo Report' (Rizzo 2011), is possibly one of the most influential reports in recent times for the Navy. Its straightforward summation of the state of maritime repair and maintenance articulates a situation that requires immediate attention.

Australia has all of the essential ingredients to have a strategic and cost-effective maritime defence sector, moving into the long-term, and particularly at a time when changing global strategic realities demand that we should achieve self-sufficiency in this area. However, it is equally clear that long-term thinking about naval capability has failed to appropriately consider the level of activities and resources required to enable the longevity of the capability. Lots of long-term thinking has occurred, however the right scope has not been applied to assure the repair and maintenance of our ships and submarines. Rizzo notes in his plan:

"The inadequate maintenance and sustainment practices have many causal factors. They include poor whole-of-life asset management, organisational com-

¹mark.purcell@defence.gov.au

<sup>&</sup>lt;sup>2</sup>Eric Hoffer (1969). Working and thinking on the waterfront; a journal, June 1958 – May 1959.

<sup>&</sup>lt;sup>3</sup>Mr Paul J. Rizzo, a non-executive director of the National Australia Bank, is chair of the Defence Audit and Risk Committee. A former dean of the Melbourne Business School, he has had extensive experience as a senior executive in general management, finance and banking.

<sup>&</sup>lt;sup>4</sup>The report can be found on the Defence website at http://www.defence.gov.au/oscdf/rizzo-review/Review.pdf

plexity and blurred accountabilities, inadequate risk management, poor compliance and assurance, a 'hollowed-out' Navy engineering function, resource shortages in the SPOs (System Programme Offices) and the DMO (Defence Materiel Organisation) and a culture that places the short term operational mission above the need for technical integrity. Whilst the overall outcome is a poor reflection on Defence and the DMO, actions by individuals were taken, in the main, to meet operational demands of the day with inadequate resources and tools."

In this paper, I will focus on one aspect of the Rizzo Reform Programme – Implementation, Capability Management, Accountability and Responsibility. This aspect addresses a number of Rizzo's recommendations, namely:

- closer working arrangements between Defence and the Defence Materiel Organisation (DMO) (Recommendation 7);
- increase resources for capability management (Recommendation 8);
- establish effective Navy workforce planning (Recommendation 9);
- refocus Fleet Command (Recommendation 10);
- capture mutual obligations (Recommendation 11); and
- more effective information exchange (Recommendation 12).

## **Capability Management**

The Rizzo review identified systemic breakdown that had evolved over a long period. One of the critical elements is the recognition that this is not just about engineering – it is about capability management. The practice of engineering in Navy is, however, central to the way forward. We have for too long treated engineering as an overhead and not the enabler it is in a high-technology organisation.

Rizzo describes a short-term focus on delivery of capability. We lost sight of the long-term context in order to meet short-term needs. Rizzo found people working in Navy were very committed and working extremely hard but in an unsustainable manner. One of our tasks is to get people to understand the broad framework of capability in a whole-of-life approach. If we can get the big picture right, then they will also be able to meet the short-term needs.

Through work already underway within the Rizzo reform programme, resources have been allocated to address the issue of capability management. This body of work is critically examining the Navy/DMO relationship and how each organisation can become more aware of the needs and responsibilities of the other. Already a series of



Fleet screenings has been established: six monthly between the Fleet Commander, Deputy Chief of Navy and the Head of Maritime Systems Division; quarterly between force commanders and DMO branch heads: and monthly between the Capability Group chief-of-staff and DMO System Programme Office director. It is envisaged that this will result in a vastly improved working relationship which drives collaboration and better strategic outcomes in design, engineering support, policy, maintenance and supply performance. An integral component in improving this working arrangement is to improve the integrity of the Materiel Sustainment Agreement product schedules, with obligations of Navy and DMO clearly defined and supported by performance measures and a reporting framework. This should minimise duplication of effort and 'gaps' in the materiel sustainment process; and should drive improved engineering support and more effective maintenance.

For Navy to meet government capability requirements, an increase in capability management resources will be required so Navy can provide increased scrutiny of the Fleet against materiel sustainment agreements and monitor sustainment activities on ships to better drive System Programme Office performance and operational engineering. In particular, these additional resources will be used to assess the aggregated risk associated with maintenance of ships and oversee all sustainment activities performed on Navy platforms, whether they are undertaken by uniformed personnel or contractors. Rizzo has outlined an estimated increase in resource demand across Navy and DMO in the order of 400 people over the next six years (Rizzo 2011).

Notwithstanding the pressures due to personnel shortages, Navy needs to invest more in the further education of the officer corps to ensure officers possess the necessary skill sets and professional knowledge to support Chief of Navy in his role as capability manager. This development will incorporate uniformed and civilian personnel working within the Navy, the DMO and industry. The education and professional development of these personnel will primarily be aimed at providing them with skills for capability management, whole-of-life asset management, as well as complex sustainment roles.

An integrated workforce (uniform, Australian Public Service and industry) is a key component of a more effective work-force planning system which will allow Navy and the DMO to better align position requirements to skills, thus driving improved performance. Improved workforce planning is a key recommendation arising from both the Rizzo Review and the earlier Strategic Review of Naval Engineering (Hammer 2009).

### **Accountability and Responsibility**

Strong accountability is an essential component of high performing organisations as it denotes ownership of a result or action. Ensuring strong accountability can be a challenge within any organisation, but even more so within one as large and complex as Defence (Rizzo 2011). This has been recognised in the Black Review of the Defence accountability framework (Black 2011), which is being implemented across Defence to build an organisation with robust governance and accountability. Within the Rizzo

programme, each recommendation has a specified responsible officer from either the Navy or DMO senior leadership group.

It is essential that the Chief of Navy, as the capability manager, has clear accountability for Navy through-life capability and has the corresponding resources. The Materiel Sustainment Agreement between Navy and DMO is critical in this regard, but is currently poorly defined and weak. The Rizzo programme will move Navy and DMO to a culture of being clear on what outcomes are expected, who is accountable and providing the resources to support success.

The Chief of Navy has responsibility for the delivery of maritime capability outputs, but in practice has only loose control over several of the fundamental inputs to capability. Organisational complexity is a significant factor impacting on accountability. A complex organisation demands that sophisticated agreements, with clear performance measures, are in place to ensure that personal accountabilities are unambiguous. Reducing organisational complexity reduces the required management sophistication and makes it easier to provide clear accountability. However, the Rizzo programme is also seeing that an element of flexibility needs to be built into these agreements – we cannot assume that our current tasks and priorities will remain extant in the years ahead.

The engineering and command organisational structures within Navy and the DMO are overly complex and distribute scarce personnel thinly across several reporting chains. This has clouded decision making and accountability. Recently, the Chief of Navy initiated a reorganisation of Navy Strategic Command, whereby an adjustment to the distribution of responsibilities established under the 'new generation Navy' organisational restructure was conducted to better balance and align the workload across three divisions of people, capability, and engineering. In short, this arrangement will allow the Deputy Chief of Navy to focus greater attention on the business of managing Navy and its resources, leaving the Head of Navy Capability to focus more deeply on current and future capability requirements. Additionally, it also moves the Navy regulatory, certification and safety functions under the engineering portfolio where they most appropriately sit. These adjustments in roles are complementary to the Mortimer (2008) and Rizzo review outcomes, particularly Rizzo's Recommendation 8 'Increase resources for capability management'.

#### Conclusion

A critical part of the Rizzo reform programme is well underway within Navy and the DMO:

- The responsibility of the Fleet Commander has been refocused to the operational preparedness of Navy ships, submarines, aircraft and their crews.
- Formal working arrangements and responsibilities between Navy and DMO are being defined to ensure Navy is more aware of its materiel needs and DMO is more aware of how materiel requests support Navy's capability.
- The Materiel Sustainment Agreement and the associated product schedules are being redrafted into more formal contractual arrangements.

 An integrated capability management system is being developed to provide the strategic and operational status of Navy's capabilities to ensure they are seaworthy and prepared.

Capability management, accountability and responsibility will provide Navy and the DMO with the tools to assess risk and understand the state of the fleet; and will enable them to base decisions on that information. It will address the Rizzo recommendations relating to: closer working arrangements between Defence and the DMO; increase resources for capability management; establish effective Navy workforce planning; refocus Fleet Command; capture mutual obligations; and more effective information exchange.

The actions within the Rizzo reform programme will have an impact across the current and future fleet by addressing the current unsatisfactory management of the repair and maintenance of maritime materiel. Successful implementation, although challenging, will improve the current unacceptable situation and deliver the Rizzo reform programme vision of: 'a rebuilt and redesigned effective Maritime Capability Management and Technical Integrity Assurance System that drives seaworthiness and preparedness'. As programme manager, I can confirm that the Defence leadership is showing the commitment and tenacity to deliver the required results.

#### References

Black, Associate Professor Rufus (2011). Review of the Defence accountability framework (Department of Defence: Canberra).

Hammer, Air Vice-Marshal Julie (Ret'd) (2009). *Strategic review of naval engineering* (Department of Defence: Canberra).

Mortimer, David (2008). Going to the next level: the report of the Defence procurement and sustainment review (Department of Defence: Canberra).

Rizzo, Paul (2011). Plan to reform support ship repair and management practices (Department of Defence: Canberra).

Author: Mark Purcell joined the Royal Australian Naval College as a Midshipman in 1985 and graduated from the Australian Defence Force Academy with a double degree in electrical engineering and computer science. He undertook weapons electrical engineering training in HMA Ships Canberra, Adelaide, Perth and Melbourne; and saw active service in HMAS Svdnev during the East Timor crisis in 1999-2000. He subsequently served in the Defence Materiel Organisation and later on exchange with the Royal Navy as the command battlespace management programme manager. In 1996, he undertook a Master of Science in Military Electronic Systems Engineering at the Royal Military College of Science, Shrivenham. In 2001, he graduated from the University of Canberra as a Master of Management in Defence Studies and Master of Business Administration. He was promoted to Commodore in March 2009 and in March 2011 was appointed as the Head of Navy Engineering. Since July 2011, he has been the programme lead for the joint Navy/DMO Engineering (Rizzo) Reform Programme. [Photo of Commodore Purcell: Colonel J. M. Hutcheson, MC1