



**Royal United Services
Institute
of
South Australia Inc**

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RUSI-SA

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NEWSLETTER

Promoting National Security and Defence

RUSI-SA CYBERLINKS

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PRESIDENT'S MESSAGE

The first of our early evening events, which we have called *Current Issues Briefings*, was held on Thursday 12 May 2005. I am pleased to report that the event was a success, with the Public Schools Club proving to be a pleasant and comfortable venue. About 80 people attended, representing a wide range of interests, backgrounds and associations. Duncan Lewis gave a very interesting presentation on counter-terrorism policy and

operations in Australia, leaving us with much to think about. Unfortunately, due to some sensitivity regarding the content, the transcript of his presentation cannot be published in the newsletter.

We are now planning the next *Current Issues Briefing*, probably to be held in August or September this year. The intention is to continue the national security theme, focusing on terrorism and counter-terrorism activities. Details of the speaker and venue arrangements will be advised in the next newsletter.

At the last Council Meeting, it was determined that we cannot continue to support the current range of activities and amenities without an increase in membership fees. Based on a forecast deficit, and the fact that the fees have not been increased since FY2000/2001, the Council agreed that they should be raised by 10 percent to \$33.00 per annum. Given the higher costs of everything involved in the administration and working of an organisation like RUSI of SA, it does represent a modest increase, but should allow us to continue operations from next year with a balanced budget.

Continuing with the bad news, I must also advise that we have had to postpone the Dining in Night planned for 24 June. A clash of functions at the Keswick Barracks Officers' Mess, and the unavailability of our Patron, has made it necessary to postpone the dinner until later in the year. Full details of the rescheduled event will be advised in future newsletters.

The following, having been nominated for membership, have been duly elected in accordance with the constitution:

Mr Howard Geoffrey Williams (CAPT R McColl)
Mr Paul Peter Dabrowski (CAPT McColl)
WO (Ret) Peter Lloyd Frost, OAM (LCDR Stryker)
Mr Norman Edward Garth (LCDR Stryker)
Mr Duncan John Gordon (LCDR Stryker)

MONTHLY LUNCHEONS

Luncheon Speakers

Monday 1 August 2005

Monday 5 September 2005
Professor Richard Blandy, Adjunct
Professor of Economics, School of
International Business, Division of
Business and Enterprise, UniSA

Topic: The Importance of the Defence
Industry to South Australia

CAR PARKING – MONTHLY LUNCHEON

Members are advised that the parking of cars is now NO longer permitted on the Parade Ground. Please use existing designated parking areas.

All members are invited to attend our luncheons. Indeed you are encouraged to invite partners, friends and colleagues to join us and, if they like what they see, to nominate them for membership. Please book in advance. If you are unsure whether or not your name is on the booking list, please check!

Cancellations must be into the RUSI Office by midday of the Friday before the lunch. Subsequent cancellations will attract a fee of \$18.00.

The dress code for the luncheon is neat casual, taking into consideration weather conditions.

We assemble in Building 34A, Keswick Barracks, Keswick, at approximately 11.30am for drinks and good fellowship. Members are asked to be seated by 12 noon when our President welcomes members and guests, and lunch is served.

The cost of the buffet is \$18.00. We also conduct a raffle to help cover expenses. Our Caterer has agreed to provide vegetarian meals and sweets for diabetics, but these must be ordered before midday on the Thursday before the lunch.

For those who do not have time to enjoy lunch, but wish to hear the lecture, chairs are provided around the perimeter of the hall. Please be seated before 12.55pm, as the guest speaker will be introduced at 1.00pm. The address is of about 30 to 35 minutes duration with 15 minutes for questions, after which coffee or tea is available.

We aim to complete the program by 2.00pm.

SOCIAL CALENDAR 2005

Sunday 21 August – Carvery Lunch

Due to unforeseen circumstances, the Dining-in-Night must be postponed until later this year. The date will be advised as soon as possible. We regret any inconvenience.

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LUNCHEON ADDRESS

Monday 6 June 2005
Dr Andrew O'Neil
A transcript of Dr O'Neil's Address will appear
in the next Newsletter

THE SHAPE OF THINGS TO COME

Dr John Bruni ©
Lecturer in Strategic Studies
Centre for Asian Studies
University of Adelaide

In a world where the rules of engagement between a nation's armed forces and police units are increasingly blurred, enter the newest class of weapons technology – Non-Lethal Weapons. Non-Lethal Weapons (NLWs) are designed to enable governments and their external and internal security agencies to deploy force to quell threats to national security without killing their opponents. To all intents and purposes this sounds like the ideal way of 'doing in' one's enemies. It avoids the accusation of using excessive force while clamping down on dissent and other perceived threats to national security. Crowds that turn violent can be controlled efficiently and effectively since a number of well-placed NLWs can act as a police force's ultimate crowd disperser. Fewer police are expected to be required to attend the scene of a potentially violent crowd thereby saving time, money and the cost of severe injury to both police and rioters. Importantly, this technology can save lives if it is true that the injuries sustained from NLWs are non-permanent. This technology also has some interesting applications for military forces in occupation of another country or employed on what is euphemistically called 'operations other than war', where force has to be applied against unfriendly inhabitants, especially in tricky urban environments. With the military in charge of NLW technology, it can undertake policing work without incurring the loss of life inherent with using conventional military technology for the same role.

So what types of NLWs are available today? There are certainly a host of devices ranging from foams designed to make people and machinery loose traction, acoustic hailers that send out deafening noise, microwave beams that singe the skin without leaving permanent burns, lasers that can blind people and arguably the NLW of greatest strategic effect – the electromagnetic pulse that can render all electronic technology useless within a given area.

But there are pitfalls with NLWs in spite of the promise of bloodless campaigns being waged against 'enemies of the state'. Firstly, not all NLWs can deliver a completely spotless record on incurring death and severe injury. People whom these

weapons catch and who have pre-existing heart or other medical conditions (unbeknown to themselves) can still suffer fatal reactions to NLW technology. While there has been some testing on animal subjects to ensure the safety and viability of this new class of weapons, the physiology of animals can be very different from human subjects – leading to inconclusive results regarding the potential safe usage of NLWs. However, in today's Brave New World where issues such as privacy and civil rights seem to be of diminishing social importance, cynical observers may claim, "were it but not for the individual with a pre-existing medical condition protesting, he/she would be alive today". Such claims would put responsibility for the accidental death or injury of a protester squarely on the protester's own shoulders. The state would not have to pay compensation for death or injury caused, safe in the knowledge that the deployment and use of NLWs was never intended to 'hurt' anyone. But there is a deeper underlying problem. It can be safely assumed that there would not have to be many deaths from NLWs to send a signal to the wider community on the risk inherent with public protest. Courting inadvertent death or injury, just might overrule the public's desire to engage in protests no matter the rightness of the cause.

Let us ponder this for a moment. If there is a cause demanding social or political change that may seem to threaten the peace without actually doing so, deploying and/or using NLWs in a pre-emptive fashion could mean smaller, fewer protests or no anti-government public protests/rallies at all. This would be a 'good' for the government in power, but would this be a greater social 'good' as well? Democracy is built upon the foundation that it is the public's right to protest against a government that is seen to be out of touch with the norms and expectations of a national constituency. Public protests and rallies often carry with them the promise of violence, even those that are reputedly 'non-violent' in nature. Sometimes, rogue elements in a crowd will deliberately provoke police or occupying military forces with the idea of sowing the seed of long-term political instability. This of course is where good police/military intelligence and good discipline from among the ranks of police and military forces is of paramount importance. The public good in a democracy is served by allowing people to vent their grievances in whatever number and about whatever issue without having police and military forces crack down on civilian protestors unless proven to be directly provoked. This is a difficult exercise to put into practice. But keeping the creative tension between the leaders and the led, forces a government to be accountable for its actions and public protest serves to focus the minds of

political leaders who become too complacent to change course. By developing new means of crowd control which can allow a government to ignore the thinking masses because they can be physically cowed into submission without overstressing the police and military resources, is not something that should be taken lightly. Any national government employing NLWs as a matter of course might be tempted to stifle mass protests against the government by predeploying such devices to head off protests, whether they are deemed legitimate or not. Imagine what would have happened if the governments of Shevardnadze (Georgia), Kuchma (Ukraine) and Lahoud (Lebanon), had access to NLW technology. What would have happened to the Rose, Orange, and Cedar Revolutions had the Georgian, Ukrainian and Lebanese internal security forces been able to liberally use NLWs as part of a concerted crackdown on public dissent? It is doubtful that these revolutions would have survived, let alone achieve the stunning political changes they each brought about.

Perhaps these concerns are too abstract for political, policing and military minds. After all, in a perfect society those who wear the uniform unquestioningly serve the existing political/social order of the day – democratic or autocratic. But weapons that can physically disable people en masse and thereby reduce a crowd's ability to protest a government's course of action is yet another blow to the very objective we are meant to be striving to encourage, that is freedom of speech, freedom of association, in a word – democracy. Furthermore, while the social conscious among us will point to the obvious dangers of NLWs being given to autocratic regimes, it is to be noted that the countries which have invested most in this technology are two leading democracies – the United States and Israel. The American and Israeli firms leading the rush to 'operationalise' these weapons will also be the same ones who stand to financially benefit the most from initial international sales. And no doubt they will not be too discerning with regard to where these weapons end up. It is perhaps no surprise that the country to first use new generation NLWs was Israel. Recently (June 4 2005), in a stunning example of what can be done to stifle 'potentially' violent protestors, Palestinian, Israeli and foreign 'anti-occupation' marchers (approximately 400 strong) were blasted with sound waves, causing them to cover their heads and ears in discomfort. A triumph for technology? Perhaps. But ironic when one thinks that the first country to use an acoustic NLW was a democracy! It used NLWs against a group known not to have violent tendencies, people who were protesting in favour of what many in the

international community believe to be a *just cause* – the destruction of the Israeli 'separation barrier'.

**Mr Ross Milton Deputy Chief Executive ASC
Pty Ltd
Luncheon Address Monday 4 July 2005**

With apologies to Lewis Carroll, Ross Milton, titled his talk, ".....of ships and shoes and sealing wax and submarines".

Mr Milton opened his address by outlining the projected Air Warfare Destroyer Programme and its inherent benefits.

In Air warfare Destroyer Programme

Its main points are:

- A Phase 2 contract covering planning, budgeting, design and getting "the designer" into contract will be negotiated with the Commonwealth of Australia (CoA).
- An alliance will be formed for the project and will include the Australian Submarine Corporation (ASC), CoA, Raytheon and the selected ship designer.
- It is expected that the ship designer will be announced by CoA in August.
- A "road show" for Australian industry, explaining the opportunities available will visit all States during October
- Ship production at Outer Harbour is expected to commence in the first quarter of 2009 with delivery in 2013, 2015, and 2017.
- Work will be undertaken around the country on the basis of competitive bidding for subcontract packages of work.
- Approximately 20 from a total of 30 modules in each vessel will be subcontracted under this approach. It is expected that this new long-term contract will approximately double the company's current workforce of 1,000 employees
- The CoA has stated that both the Air Warfare Destroyer (AWD) and Amphibious Ship prime contracts would not be awarded to any one company.

Defence Contracting Structures

The setting for Defence contracting is:

- Leading edge technology gives Australian armed forces the advantage they need to win.
- Projects can take many years from start to finish, during which time technological advances can be enormous.

- Defence procurement can therefore be very challenging

It was pointed out that the contracting approach taken for major Australian Defence projects has changed significantly over the past 20 years. Immediately prior to 1985 projects were built using foreign designs purchased by the CoA; construction was essentially cost reimbursable and significant cost over runs were experienced.

Submarine Project contract structure covers:

- Performance Specification
- Lump sum contract subject to escalation
- Funded project definition study to allow short-listed competitors to develop proposal
- Competition right up to contract announcement.
- Non-traditional (for Defence) construction industry contractors.

(Similar contract structure adopted for the ANZAC ship project)

In consequence:

Contractors will seek to maximize their financial outcomes and so can be seen as hard-nosed when negotiating contract changes. This approach, which in the modern era first arose with the submarine project, is incompatible with military culture and attitude and was difficult for Defence to handle. Defence had put itself in the position of managing one of the most complex projects on the planet – a task for which their people were generally not prepared or trained. Nevertheless the project was completed close to budget. And with the prime contractor making a profit, which, by commercial standards was commensurate with the effort and risk. There were several years of schedule delay, however.

And there was a lot of criticism. Some of it fair criticism, but some arising from the politicization of the project which followed the change of government in 1996.

While it is now acknowledged that the Collins Class submarines are excellent assets for Australia the contracting structure used for their project has now been discarded.

The Submarine Combat System was a big technical risk that was not understood at the outset by most of those involved. It came from the nature of the specification, the lengthy project schedule and the advances in commuter technology during the final 15 years (between 1985 and 2000). The project value was too great for industry to take on the substantial financial risk, so CoA actually carried most of the risk. This generally remains the case with Defence contracts.

New Approach

It is now recognised in Canberra that if outcomes sought are obtained, much more cooperative relationships must be established between Defence and Industry for future naval programmes. The contract for Submarine Through-Life support that is now just 12 months old is a new form of contract. And is seen as a possible model for future contracts. It could be characterized as a “relationships contract” - it is long-term: effectively for the 25 years remaining for the life of the class. This longevity provides some big opportunities:

- long-term strategic arrangement to support the RAN submarine fleet
- the contract provides certainty to both parties
- provides a framework with which the Defence Materiel Organisation (DMO) and ASC can do business
- ensures capability is retained in Australia
- provides a one-stop-shop for the customer
- facilitates long term planning and continuous improvement
- provides transparency between ASC and DMO

Both parties to the contract (DMO and ASC) have agreed on a number of strategic Objectives:

- To optimize the balance of submarine availability and capability with the logistic cost of ownership
- To sustain the capability in Australian industry to support and enhance the class through life.
- To ensure the CoA receives value for money, and for ASC to earn a reasonable commercial return.
- To ensure personnel and materiel safety.

After the first 12 months there is satisfaction with the manner in which this submarine Through-Life support contract is operating.

Air Warfare Destroyer Contract

There is now a completely new contracting approach by the DMO for a major asset acquisition, viz., Selection of the Combat System first; then the ship builder, and finally the ship designer.

Proven Aegis combat system from Lockheed Martin will address the significant technical and commercial risk of a completely new combat system.

The ship designer – in this case ASC- can assist the CoA with practical advice in the selection of the ship design, including issues associated with being Australian built and the support by Australian

industry. Thus there is an alliance style contract model with four main participants:

- Customer –DMO
- Combat System System Engineer – Raytheon
- Shipbuilder –ASC
- Platform System Designer – to be selected

The key attributes of alliance style contracts are:

Parties work together to deliver the capability – a common goal and incentive

All parties sign up to a common contract document that provides:

- General T&Cs of contract
- Basis upon which Alliance will operate
- Approach to cost recovery
- Approach to Pain/Gain sharing – incentives
- Defines various roles and responsibilities of parties.

Parties develop a Target Cost Estimate (TCE) before commencing, which is the agreed target cost for delivering the capability.

Parties have their direct project costs fully reimbursed – while corporate overhead recovery and profit margin are placed at risk. If the capability is delivered below the TCE, the saving is shared between the parties at an agreed proportion. If the capacity is delivered over the original TCE then corporate overhead recovery and project profit are reduced in accordance with a pre-agreed formula. The intention of this approach is to foster behaviours that will focus on reducing project costs.



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Conclusion

Just how this approach to contracting will work out over the long-term AWD programme remains to be seen. Ross Milton is optimistic; he considers “the basic building blocks are in place”, that the level of commitment from all parties is strong, and, by using the proven Aegis Combat System, risk is reduced.

Also, at the same time, the DMO is broadening and deepening its skill base. The Head of the DMO has recognised that its core business is project management. Experienced project managers from the private sector are being recruited and training undertaken - including business acumen training for those who need it. This, he contends also augurs well for the future.

The President and the Council gratefully acknowledge the recent financial donations made by the following members in support of the Library:

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LIBRARY NON FICTION

AIR POWER DOCTRINE: EDUCATION
A Social Critical Perspective
By Stephen Pickard

Air power education is a crucial component of the

core military training that all RAAF members receive. However, it is a contentious topic and, consequently, has been the subject of numerous reviews and redevelopments.
Published by the Air Power Development Centre, Canberra.

THE CONTINENTAL SCHOOL OF STRATEGY By Michael Evans

The argument advanced in this study is: “What is the role of land power in armed conflict in this new millennium?”
Published by the Land Warfare Studies Centre, Duntroon.

HORSES FOR COURSES By Peter McLennan

The global strategic environment is extremely dynamic and accurately predicting future threats to national security remains a demanding task. This paper looks at this complexity and suggests a framework for evaluating defence capability options.
Published by the Air Power Development Centre, Canberra (2005 papers)

ECHOES OF ANZAC Edited by Graham Seal

For some 25 years Professor Graham Seal has been interviewing and corresponding with old soldiers and their families, recording songs and verses that survive only in their memories or on treasured scraps of paper. This is, thus, a unique collection of songs, verses and yarns that have been sung and spoken by Australian troops from the Boer War to Vietnam.

HOW DID THIS HAPPEN? Edited by James F Hodge and Gideon Rose

In the aftermath of the terrorist attacks on the 11th September 2001, one question loomed large: “How did this happen?” This book seeks to answer this question in all its critical aspects.

A DOCTOR’S WAR By Rowley Richards

After the end of the Second World War, Australia’s Directorate of War Graves Services uncovered an extraordinary document hidden in a bottle buried in a grave in Singapore. It was the summary of a secret diary kept by Dr Rowley Richards, a POW and

medical officer on the notorious Burma-Siam (Thailand) Railway.....

And was returned to him on the 15th February 1947. And now, aged 89, he has, as Dr Peter Stanley, the Principal Historian at the AWM, says in his Introduction to “*A Doctor’s War*” “taken the trouble to write a powerful and moving record of his war time experience”. And as Andrew Denton writes in his Foreword, “Rowley has written a memoir of such deep emotional strength your breath will literally be taken away.”

Donated by Malcolm Orchard

LIBRARY FICTION

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LORD JOHN AND THE PRIVATE MATTER – Diana Gabaldon
PLAY TO THE END – Robert Goddard
The Covenant – Jeff Gulvin
The Linnet Bird – Linda Holeman
FAITH – Peter James
THE MURDER BOOK – Jonathan Kellerman
BABY DID A BAD THING – Gabrielle Lord
SPIKING THE GIRL – Gabrielle Lord
THE SUMMER THAT NEVER WAS – Peter Robinson

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