



Australian
National
University

THE CENTRE OF GRAVITY SERIES

Strategic & Defence Studies Centre
ANU College of Asia & the Pacific

January 2016



Australia and the challenges of weapons of mass destruction

Peter Varghese AO – Secretary of the Department of Foreign Affairs and Trade

2015 JOHN GEE MEMORIAL LECTURE
23 NOVEMBER 2015, THE AUSTRALIAN NATIONAL UNIVERSITY

The Centre of Gravity series

About the series

The *Centre of Gravity* series is the flagship publication of the Strategic and Defence Studies Centre (SDSC) based at The Australian National University's College of Asia and the Pacific. The series aspires to provide high quality analysis and to generate debate on strategic policy issues of direct relevance to Australia. *Centre of Gravity* papers are 2,000-3,000 words in length and are written for a policy audience. Consistent with this, each *Centre of Gravity* paper includes at least one policy recommendation. Papers are commissioned by SDSC and appearance in the series is by invitation only. SDSC commissions up to 10 papers in any given year.

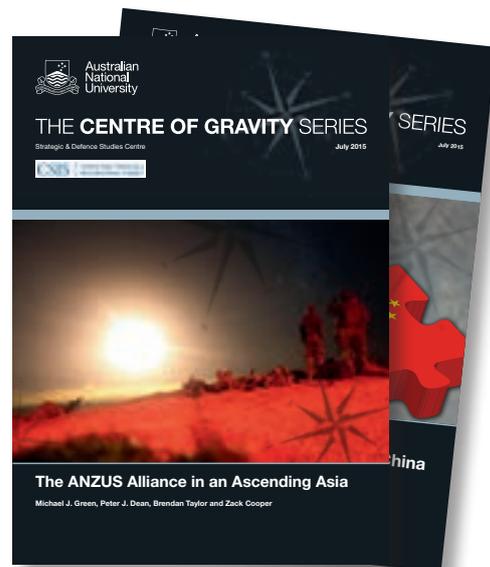
Further information is available from the *Centre of Gravity* series managing editor James Giggacher (james.giggacher@anu.edu.au).



Contact us

Dr Andrew Carr
Editor
Strategic and Defence Studies Centre
ANU Coral Bell School of Asia Pacific Affairs
T 02 6125 0528
E andrew.carr@anu.edu.au
W <http://ips.cap.anu.edu.au/sdsc>

James Giggacher
Managing editor
ANU Coral Bell School of Asia Pacific Affairs
T 02 6125 0528
E james.giggacher@anu.edu.au



Centre of Gravity series paper #24

All photos creative commons.

© 2016 ANU Strategic and Defence Studies Centre. All rights reserved.

The Australian National University does not take institutional positions on public policy issues; the views represented here are the author's own and do not necessarily reflect the views of the University, its staff, or its trustees.

No part of this publication may be reproduced or transmitted in any form or by any means without permission in writing from the ANU Strategic and Defence Studies Centre. Please direct inquiries to andrew.carr@anu.edu.au

This publication can be downloaded for free at <http://ips.cap.anu.edu.au/sdsc/>
CRICOS#00120C



Author bio

Mr Varghese took up his position as Secretary of the Department of Foreign Affairs and Trade on 3 December 2012.

Prior to this appointment, Mr Varghese was Australia's High Commissioner to India from 2009 to 2012. Between 2004 and 2009, he was Director-General of the Office of National Assessments. Before that he was the Senior Adviser (International) to the Prime Minister. Mr Varghese was Australia's High Commissioner to Malaysia from 2000 to 2002. He has also served overseas in Tokyo (1994), Washington (1986-88) and Vienna (1980-83).

Mr Varghese has held a wide range of senior positions in the Department of Foreign Affairs and Trade in Canberra, including as Deputy Secretary (2002-2003), First Assistant Secretary of the International Security Division (1997), Head of the White Paper Secretariat (1996-97) which drafted Australia's first white paper on foreign and trade policy, First Assistant Secretary of the Public Affairs Division (1994-96), and Assistant Secretary of Staffing (1991-92). He was seconded to the Department of the Prime Minister and Cabinet as First Assistant Secretary of the International Division (1998-1999).

Mr Varghese was appointed an Officer in the Order of Australia (AO) in 2010 for distinguished service to public administration, particularly in leading reform in the Australian intelligence community and as an adviser in the areas of foreign policy and international security. He was awarded a Doctor of Letters *honoris causa* by the University of Queensland in July 2013 in recognition of his distinguished service to diplomacy and Australian public service.

ABOUT THE JOHN GEE MEMORIAL LECTURE

Hosted by the Strategic and Defence Studies Centre at the ANU Coral Bell School of Asia Pacific Affairs, the annual John Gee Memorial Lecture pays tribute to distinguished Australian diplomat Dr John Gee AO, who made a major contribution to the field of disarmament, where he had a particular interest in chemical weapons.

After a period as a Commissioner on the United Nations Special Commission on Iraq following the first Gulf War, he became Deputy Director-General of the Organisation for the Prohibition of Chemical Weapons in The Hague, serving there until 2003. In recognition of his achievements, Dr Gee was made a member of the Order of Australia in January 2007. Gee leaves behind a legacy and a memory of a great Australian.

The 2015 lecture was the ninth in the series.

Australia and the challenges of weapons of mass destruction

Peter Varghese AO

Executive Summary

- ✦ For 100 years, humans have had the capacity to attack each other with devastating chemical weapons.
- ✦ Seven decades ago, mankind unlocked the secret of the nuclear bomb. In the 21st century, we also fear biological attack, robotic drones and, increasingly, cyber warfare as potential weapons of mass destruction.
- ✦ Australia, like all nations, has an over-riding national interest in the development and enforcement of robust international regimes that restrict the creation, deployment and export of weapons of mass destruction.
- ✦ For decades, Australia has been a strong, dedicated contributor to the evolution of control regimes like the nuclear Non-Proliferation Treaty, the chemical and biological weapons conventions and the 2014 Arms Trade Treaty. Canberra also has a proud record in the field of disarmament.
- ✦ However strong our record has been in the past, we're going to have to get even better at our diplomacy and our strategy around arms control and disarmament in the future.

Introduction

I am honoured to give the 2015 John Gee Memorial Lecture.

I want to begin by honouring the memory of John Gee. John never sought acclaim but he certainly earned it. He was a modest man of immodest talent.

John was a policymaker who never strayed far from the empirical evidence. He had the conviction to call things as he saw them, even if it put him in a difficult position.

He was a creative policymaker who made an outstanding contribution to the work of disarmament and arms control, especially on chemical weapons.

John was my supervisor in my early green years in the Department. He taught me many things about his chosen field. But much more than that, he showed me the virtue of diligence and persistence, without which nothing big can be achieved.

Most of all he taught me about courage: the policy courage to argue against a prevailing view or to draw attention to an uncomfortable fact.

And towards the end of his life John also taught so many of us about personal courage as he struggled to come to grips with what he knew was a fatal illness.

So it's a pleasure to speak in John's honour.



We pursue global agreements on disarmament and arms control because they make us safer.



Disarmament: building a safer world

Over the past few decades Australia has been an active supporter of strong international regimes for weapon control.

Humanity's unprecedented technological prowess has brought innumerable improvements in our lives. But it also brings with it perpetual risk. Disarmament and arms control diplomacy is sometimes seen as a humanitarian objective or a gesture towards good international citizenship. It of course has elements of both.

But the driver of Australian diplomacy in this area is the security interests of Australia. We pursue global agreements on disarmament and arms control because they make us safer. This is a complicated area and success only ever comes when the strategic underpinnings are clearly understood.

It's an understatement to say that eliminating an entire class of weapons requires careful steps. Countries that possess them have to be convinced that their security will not be diminished if they give them up. And countries that aspire to obtain them need to be convinced that there are better ways to pursue security.

It is an area of diplomacy which requires both a deep understanding of the big picture and an attention to detail about weapons systems and their operation. It requires both imagination and perseverance: something John Gee well understood.

Judgements about how best to advance a nation's security change over time as strategic circumstances shift. Australia, for example, has been at the forefront of efforts to prevent the proliferation of nuclear weapons. But this was not always the case.

Australia's nuclear debate

In 1957, the Cold War was in full swing.

Nuclear weapons were the most powerful destructive devices ever created – the most potent symbols of a nation's military might.

Just two bombs marked the end of the Second World War, and only three powers on Earth – the United States, the Soviet Union and the United Kingdom – had the prestige of having mastered nuclear technology.

People all over the world, including here in Australia, rightly feared the possible consequences of nuclear attack. These were the days of duck and cover.

Then, in October 1957, the Soviets launched Sputnik – perhaps the greatest strategic surprise to the United States and its allies since Pearl Harbor.

In Australia, a US ally since the Pacific War, we had our own strategic anxieties. Our perpetual fear of abandonment in our geographic isolation. Our very real concerns about the instability and poverty of Southeast Asia. Our alarm that communism was spreading south.

Just three months after the October 4 launch of Sputnik, Australian Prime Minister Robert Menzies hosted his United Kingdom counterpart, Harold Macmillan, at Old Parliament House.

While admitting he had "considerable personal doubts", Menzies asked Macmillan a question that seems almost unthinkable, from our modern viewpoint. What did he think about Australia attaining nuclear weapons of its own? Macmillan's response was cautious, hedged.

He said the US would be loath to see nuclear strike capacity spread to a fourth nation. Rather, Macmillan believed Britain – and Australia – could rely, to a large degree, on the United States.

Britain would be given the "key of the cupboard" of US nuclear weapons and information, he told Menzies. And Australia should consider that British "key of the cupboard" when planning against the possibility of an atomic war in our region.

In 2015, with two generations of peace and prosperity behind us, that idea sounds extraordinary. But over the months that followed, through the Australian autumn and winter of 1958, Menzies continued to seriously explore the idea of acquiring an Australian bomb.

On August 13, in conversations with the UK Minister of Supply, Aubrey Jones, Menzies asked whether “any scheme is contemplated whereby Australia might secure vehicles and warheads”.

While noting that amendments to the US McMahon Act of 1946 could prove some impediment, Minister Jones “was of the opinion that the response would be very favorable”.

Menzies said “he had no ambition to see Australia equipped with strategic nuclear weapons.” But “he felt that the possession of some tactical nuclear weapons would be inescapable.”

By way of telegram on August 30, Macmillan referred to the discussions at ministerial level and gave in-principle support:

“If you think that the time has now come to take matters further I should be very glad to see what can be done.”

Within five days, Menzies sought agreement from Macmillan for a ten-day visit by the Australian Chief of Air Staff, Air Marshal FR Scherger – departing on September 9.

“Many thanks for your message about nuclear weapons,” replied Macmillan. “We will gladly arrange discussions between Scherger and our Defence authorities.”

And so it went on.

The prospect of Australia becoming a nuclear weapon state was seriously considered through the even darker days of the 1960s. It would be a full decade before this starkest of strategic policy debates was relegated to history.

Australia: a strong supporter of arms control

In the end, Australia found a different way to build its national security in the nuclear age.

Driven by the desire of the nuclear weapons states – particularly the United States – to prevent the spread of nuclear weapons, the global community developed what would become the Nuclear Non-Proliferation Treaty.

The NPT established a regime that has helped limit – though not completely prevent – the spread of nuclear weapons, whilst allowing for the development of national nuclear power industries.

Through the 1960s, within government, the debate continued about whether Australia’s security interests were best served within such a global regime, or by developing an Australian nuclear deterrent capability.

But by 1968, when the NPT opened for signature, the view that Australia’s interests were best served on the inside of a global treaty, rather than on the outside, on our own, was beginning to win through.

A paper by my own department in 1969 summed up the key arguments for why we should join the NPT.¹

Firstly, that as long as it proved effective, a multilateral regime would limit the global spread of nuclear weapons, boosting international security generally.

Secondly, that the United States – Australia’s most significant ally – regarded the NPT as a major foreign policy objective, and that the Americans dearly wanted to see it win universal approval.

Menzies said “he had no ambition to see Australia equipped with strategic nuclear weapons.”



And thirdly, and perhaps most pointedly for an insecure Australia looking north, that it would help limit the spread of nuclear weapons in our own region.

The paper reads:

“If the countries of the region were to keep their nuclear options [open] and if the big powers were unable adequately to deter China, we could expect that the impulse towards nuclear proliferation would be stimulated in Asia.”

Ultimately, Cabinet agreed – and the Gorton Government signed the NPT in 1970.

Three years later, Gough Whitlam’s government ratified it – signalling the arrival of an unbroken period of bipartisan consensus on nuclear policy that lasts to this day.

We’ve gone from wavering on this question to being one of the strongest, most active supporters of robust international arms control regimes around the world.

Arms control – strongly in Australia’s national interest

The main reason for that is simple: control regimes slow the spread of weapons of mass destruction.

This year marks the centenary of the first use of chemical weapons on a mass scale, with the first use of mustard gas on the Western Front in 1915. Until the Chemical Weapons Convention (CWC) entered into force in 1997, chemical weapons were a feature in the war plans of several countries. But since 1997, the CWC has had a powerful normative influence.



When Bashar al-Assad used chemical weapons against his own people near Damascus in 2013 – most likely the nerve agent Sarin – it provoked universal international outrage and helped spur the United Nations into action.

The story with nuclear weapons is similar, although their important strategic and deterrent effect makes eradicating them much harder. The end of the Cold War – symbolised by the Strategic Arms Reduction Treaty, or START – saw significant arms reductions between the United States and Russia.

From more than 60,000 nuclear warheads between them in the 1980s, their arsenals shrank to less than 4,000 deployed warheads between them today.

The Indo–Pacific undoubtedly contains some of the most challenging strategic environments anywhere on the planet:

- Asia is being transformed by the way in which shifting economic weight finds strategic expression;
- nuclear-armed rivals like India and Pakistan;
- and erratic, isolated players like North Korea.

Without the NPT there is no question we would today have many more nations in possession of nuclear weapons.

The second reason why disarmament and arms control regimes are in Australia’s interest is that working towards collective agreements helps reinforce and build the global norm of international cooperation.

It has helped all nations build the habit of working together on our common global challenges – rather than seeing the solutions at a national defence level.

The Comprehensive Nuclear Test Ban Treaty (CTBT) for example – which opened for signature nearly twenty years ago – has been a very successful instrument of international cooperation, helping establish a global norm against testing.

Only one state has tested nuclear weapons in the twenty first century – North Korea – so it is a norm with considerable traction.

While the CTBT has yet to formally enter into force – it still requires ratification by eight key nuclear armed or nuclear capable states – international cooperation under the treaty has led to the establishment of a global network of monitoring stations that can detect an underground nuclear explosion with a yield of as little as one kiloton.

Third, for Australia, our alliance with the United States remains the bedrock of our security, as much as it was in the 1960s. For obvious reasons, the issue of WMD remains of critical importance in Washington, particularly in an age of terrorism and increasingly powerful non-state actors.

Keeping weapons of mass destruction in as few hands as possible – and making sure international monitoring is available to keep an eye on those fewer hands as well – are first order priorities in Washington, as they are in Canberra.

As well, in the post-Cold War age, when we add the challenge of the global diffusion of power and technology into non-state hands, the security of weapons of mass destruction has become an even more critical – and difficult – policy challenge.

And fourth, and this is particularly important in the Indo-Pacific, a region changing at an extraordinary pace, in quite unpredictable ways, arms control regimes help build a sense of predictability about how states will act.

Along with a much more prosperous, open, productive and competitive regional economy – the result of decades of hard work on trade liberalisation and economic reform – our Indo-Pacific region is a safer place because we have clear rules about how we handle the most dangerous weapons.

This normative value of arms control arrangements matters because one of the biggest challenges we face in the Indo-Pacific is how best to shape a strategic culture anchored in the principles of international law, the peaceful resolution of disputes and the rejection of “might is right”.

If we do not embed these principles now, it will only get harder, because around the region, states are modernising and increasing their war fighting capacity. Militaries are no longer being used primarily for internal security challenges, but are readying to defend challenges to sovereignty.

Technological advances in delivery systems, modernisation and the emergence of tactical nuclear weapons are complicating traditional concepts of arms control. And novel technologies – cyber weapons, space-based weapons systems, threats to space-based civil communications, drones – are potential threats to global security.

So for me, at this point in our history, the case for the control regimes like the Nuclear Non-Proliferation Treaty, the Chemical Weapons Convention and, indeed, the Arms Trade Treaty, remains a very strong one.

Australia's proud record in arms control

That strong and lasting national security interest in arms control is why, if you like, Australia has made such vigorous efforts, over the past four or more decades, in support of control regimes.

We joined the NPT in 1970, and ratified it three years later. The NPT remains, to this day, one of the world's most universal treaties. Despite the fact that it was negotiated at the height of the Cold War, it has 192 members.

Working towards collective agreements helps reinforce and build the global norm of international cooperation.





advocacy to non-members on the importance of export controls, and in providing technical expertise for the group's deliberations.

1985 was a big year for Australia in disarmament. It was also the year in which we finalised and signed the Treaty of Rarotonga, otherwise known as the South Pacific Nuclear Free Zone Treaty – here, too, John Gee played a role.

A decade later Australia introduced the resolution to the UN General Assembly containing the text of the CTBT.

As a medium-sized country, our diplomacy has always relied on building a strong rules-based system.

Future challenges

The period since the Second World War has been enormously productive in terms of disarmament and arms control treaties. But there is still much work that remains to be done.

Ours is a multipolar age, marked by the growing diffusion of state power. We also face the rise of non-state actors – nourished by the expansion of non- or poorly-governed spaces – with an interest, declared or undeclared, in acquiring weapons of mass destruction.

It is 70 years since the atomic bomb was used in war, but if terrorist groups like Al Qaeda or Daesh were to get hold of a nuclear weapon, they would not be constrained by the so-called “nuclear taboo”.

That risk remains mercifully low but the consequences would be high. The NPT regime needs reinforcing, in light of challenges posed by potential break out states.

Over the following decade, we established mechanisms to ensure that Australian uranium would only ever be used for peaceful, non-explosive purposes. Australian diplomats like John Gee made a huge contribution in the subsequent development of the Chemical Weapons Convention.

And in the creation, in 1985, of the Australia Group, an organisation whose mission it was to impose export controls on the spread of potential inputs to chemical and biological weapons.

This record of Australian activism is also reflected in the awarding to Bob Mathews of the inaugural OPCW-The Hague Award in recognition of his role in setting up the Chemical Weapons Convention and the OPCW.

We continue to provide the secretariat for the Australia Group to this day and play a leading policy role, including in

With like-minded countries including Japan, we've developed cross-regional groups such as the Non-Proliferation and Disarmament Initiative. We've been successful in our efforts for a number of reasons.

As a medium-sized country, our diplomacy has always relied on building a strong rules-based system, because Australia can neither bully nor buy its way in the world.

Our unique geographic position, the fact we do not belong to a group like the EU or ASEAN, and our distance from our traditional markets and allies has meant that we have had to be active and successful in working with others, even when they come from very different perspectives.

And – without wanting to make too many generalisations about our national character – I think it's fair to say that Australian diplomacy has always been informed both by our strong national values, but also by our strong sense of pragmatism.

A number of important states remain outside of the NPT, including India, Pakistan, Israel and North Korea. And decades on, we inevitably run the risk of complacency – could the decay of systems that worked well in the past threaten security and the safety of arsenals?

Likewise, chemical weapons, despite the on-going dismantling of one of the world's last major chemical weapons arsenals in Syria, remain a real concern.

Non-state actors have used chemical weapons, and we have to maintain a heightened vigilance against the possibility that they could acquire or be involved in the development of biological agents.

The advent of the Internet, too – with the prospect it brings of cyber-enabled warfare – is a significant challenge. Two elements of cyber are relevant here.

Firstly the capacity of the Internet to serve as a vehicle for proliferation, for it to be used to disseminate design information with respect to novel – or old – weapons of mass destruction.

Instructions on how to build a bomb and 3D printing spring quickly to mind, but so do a thousand Hollywood blockbusters with storylines based on the threat of a global pandemic or disease outbreak.

Chemical and biological weapons can be constructed a long way away, in time and space from the source of expertise, if only a DIY guide can be delivered electronically.

And secondly, the Internet serves as a vehicle if its code – or that of software travelling along it – can be turned against distant national infrastructure.

In many ways, the as yet unrealised potential of cyber-enabled warfare is a radically different field of operation to that of traditional weapons of mass destruction.

Nuclear weapon use is still, in 2015, characterised by such high barriers to entry that only governments, and only some governments at that, have proven capable of acquisition.

Cyber operations, by contrast, have a much low barrier to entry.

The ubiquitous prevalence of internet and telecommunications infrastructure today means almost any non-state actor, if they know how, can engage in malicious cyber activity.

Indeed, much of the infrastructure for cyber is in private hands. And the lines between the actors are much harder to see. A nuclear attack during the Cold War would have been readily traced back to its source.

But these days, the source of a hostile or malicious cyber activity – whether from a state actor or a non-state actor or a non-state proxy for a state – may never be known.

Cyber is not nuclear. Nevertheless, policy-makers are looking to our rich experience in arms control for parallels which might work in the cyber domain.



The NPT regime needs reinforcing, in light of challenges posed by potential break out states.

Existing treaties, conventions and export control regimes must be upheld.

Tackling arms control and disarmament in the 21st century

What we can say, as we look forward to the work of arms control and disarmament in the 21st century, is that we have a lot of work to do.

States remain a prime focus of concern. But we also have to focus on non-state actors, and the intersections between the two.

Existing treaties, conventions and export control regimes must be upheld. They must be updated, and built upon, so that they remain relevant as the landscape shifts.

New technologies such as additive manufacturing and the convergence between chemistry and biology have potential applications in the development of WMD, and existing treaties must take account of these.

Disarmament must be practical, and realistic. We all like to take the high moral ground, but it won't always achieve the best outcomes, particularly as we move to work beyond governments, with businesses and non-state actors.

What would an outright ban on nuclear weapons, for example, achieve in light of North Korea's nuclear program? And how effective would it be against non-parties to any treaty that established it?

International legal instruments must be designed for effective implementation, taking into account modern circumstances. The Biological Weapons Convention, for example, has no verification mechanism – so it must be seen as less effective than its counterpart, the Chemical Weapons Convention.

We must work to strengthen existing export control regimes, and work to bring outlying or non-participating states under their effect. As a committed, active player in non-proliferation, Australia can play a role in building dialogue between the P5 nuclear weapon states and non-nuclear weapons states.



But we also have to help the global community develop methods to deal with new threats in the intangible world of the transfer of critical knowledge.

Conclusion

Australia has a proud record of contributing to the global fight against the spread of weapons of mass destruction.

Our diplomacy in this field has been successful because it has been integrated – anchored in our national security interests, idealistic in its objectives, pragmatic in its execution and global in its ambition.

This is a task whose success is measured in silence – in absence of use – rather than in an overt, public way.

And it is a task far from complete.

Endnotes

- 1 Paper by Department of External Affairs, UN Branch, 26 February 1969, extracted in [Australia and the Nuclear Non-Proliferation Treaty 1945-1974](#), W. Reynolds and D. Lee, pp 281



GRADUATE STUDIES IN STRATEGY & DEFENCE

> A graduate program that is delivered by the Strategic and Defence Studies Centre (SDSC), Australia's original centre for strategic studies research, education and commentary.

SDSC provides an academically rigorous and policy-relevant Masters-level education which:

- > Helps students develop strong analytical frameworks to deal with today's strategic agenda;
- > Takes advantage of the SDSC's internationally recognised expertise in strategic studies, Australian strategic policy, Asia-Pacific security and military studies.

Contributing academics include:

- > Professor Hugh White
- > Dr Brendan Taylor
- > Dr Stephan Frühling
- > Professor Evelyn Goh
- > Dr Daniel Marston
- > Dr Peter Dean
- > Dr Andrew Carr
- > Professor Desmond Ball
- > Admiral Chris Barrie
- > Emeritus Professor Paul Dibb

Contact