



Headquarters
New Zealand Defence Force
Defence House
Private Bag 39997
Wellington Mail Centre
Lower Hutt 5045
New Zealand

OIA-2024-5206

 February 2025

@aut.ac.nz

Dear 

I refer to your email of 20 November 2024 relating to the response to your previous request, requesting, under the Official Information Act 1982 (OIA), the following information:

*...all formal briefings provided for, and all formal reports arising from, the following meetings listed in the response to my OIA-2024-5185:
A bilateral discussion with Australia held in July 2024
A bilateral discussion with Australia held in September 2024.
A meeting of MOU Principals held in November 2024.*

The meeting held in November was about the Square Dance Memorandum of Understanding (MOU). All details of this MOU meeting are withheld in accordance with section 6(a) of the OIA to avoid prejudice to the security or defence of New Zealand and the international relations of the Government of New Zealand.

Post Activity Reports for the meetings held in Australia are at Enclosures 1 and 2. Where indicated, information is withheld: in accordance with section 6(a) of the OIA for the reasons described above; in accordance with section 6(b)(i) to avoid prejudice to the entrusting of information provided on a basis of confidence; in accordance with section 9(2)(a) to protect privacy; in accordance with 9(2)(g)(i) to avoid prejudicing the provision of free and frank advice by public officials in the course of their duties; and, in accordance with section 9(2)(k) to avoid the malicious or inappropriate use of staff information, such as phishing, scams or unsolicited advertising.

You have the right, under section 28(3) of the OIA, to ask an Ombudsman to review this response to your request. Information about how to make a complaint is available at www.ombudsman.parliament.nz or freephone 0800 802 602.

Please note that responses to official information requests are proactively released where possible. This response to your request will be published shortly on the NZDF website, with your personal information removed.

Yours sincerely

GA Motley
Brigadier
Chief of Staff HQNZDF

Enclosures:

1. DDST Minute 5/8/2024
2. DDST Minute 10/10/2024

HEADQUARTERS NEW ZEALAND DEFENCE FORCE
DEFENCE SCIENCE AND TECHNOLOGY
DDST MINUTE

5/8/2024

s.9(2)(k)

9/8/24

See distribution for copy addressees

POST ACTIVITY REPORT: VISIT TO DST GROUP AND AUSTRALIAN SPACE FORUM AS PART OF MINISTERIAL DELEGATION, 22-25 JULY 2024

Purpose

1. Provide a post activity report on DDST's recent visit to Australia's DST Group (DSTG) and the Australian Space Forum. These visits included the hosting of MINDEF at DSTG to gain briefings on common DST-DSTG work interests and opportunities.

Background

2. The NZ Space Agency attends the annual Australian Space Forum in Adelaide, Australia. As part of planning for Minister Judith Collins to speak at the forum, NZ Space Agency Leads worked with DDST to organise a Space-related Defence S&T visit to DSTG.
3. MINDEF visited DSTG on 23 July to get briefings on the Square Dance MOU, s.6(a)

DDST formed part of the overall Ministerial delegation, co-hosting the DSTG visit and attending other relevant events, including taking a speaking role as a panellist at the Space Forum. The head of the NZ Space Agency, Iain Cossar, took a leading role on the delegation and he was present for the DSTG visit.

Ministerial Visit to DST Group

4. DST worked closely with DSTG partners to organise a tight programme that would interest Minister Collins. DSTG hosted the Minister with a senior level delegation and technical presenters. s.6(a)

5. MINDEF was briefed on two distinct parts of the Square Dance MOU.

6. s.6(a), s.6(b)(i)

7. s.6(a), s.6(b)(i)

s.6(a), s.6(b)(i)

8. MINDEF encouraged greater trans-Tasman collaboration between DST and DSTG. DST will follow up on both Space opportunities to obtain further details to inform any future engagement decision. s.6(a)

9. s.6(a)

Side Visits to DST Group

10. Prior to the Ministerial visit to DST Group, DDST visited with several teams there to continue our DSTG–DST collaborative dialogue. Short notes from some of these discussions follow.
11. The **Australian Strategic Capabilities Accelerator (ASCA)** covers three themes: emerging technologies; rapid prototyping; and the largest most complex is its mission foci. ASCA reps shared on their first year of operations including the change that the new focussed force strategy has caused them. s.6(a), s.6(b)(i)

12. s.6(a), s.6(b)(i)

13. s.6(a), s.6(b)(i)

14. DDST met with the **Division Chief for Land and Integrated Force**. Dr Shane Canney leads a programme delivery division. He is looking for potential areas of collaboration with NZ. s.6(a), s.6(b)(i)

s.6(a), s.6(b)(i) His division leads force design for the ADF and there are likely commonalities with DST's Operations Analysis activities.

15. DDST met with **Dr Carolyn Patteson, Chief for Science Strategic Planning and Engagement Division**, who was representing the AUS Chief Defence Scientist. We took the time to discuss how we might increase our trans-Tasman collaboration. From those discussions we have agreed to meet for a round table between DST and DSTG leaders during the ADSTAR conference in Canberra in September. The aims of that meeting will be to get some early enhanced engagement activities underway and to develop a closer trans-Tasman research relationship for the future.

Visit to Lot 14

16. DDST joined the Ministerial delegation to tour Lot 14 (lotfourteen.com.au), which is an innovation centre within central Adelaide that brings together innovative companies and government agencies including DST Group, the Australian Bureau of Meteorology, and the Australian Space Agency. We toured several venues there, including viewing a Space mission operations centre and the Space Weather Forecasting Centre. There is benefit to having all of these innovation actors together in one venue through a network effect.

Australian Space Forum

17. The Australian Space Forum was a useful event at which to hear from speakers about the approach to the wider Space ecosystem within AUS. Ministers from both Australia and NZ spoke, with Minister Collins announcing funding for a number of projects under the SmartSat CRC. DDST spoke on a national security panel alongside industry representatives and representatives from the US Defense Innovation Unit and DSTG.
18. The forum represented a good chance to hear about the strong Space sector growth that is underway in Australia and to meet up with a number of companies, which include:
 - a. Inovor Technologies (inovor.com.au) s.9(2)(g)(i)
[Redacted]
 - b. RAM 3D (ram3d.co.nz) s.9(2)(g)(i)
[Redacted]
 - c. Multiple Space-based ISR companies were present, all of which offer data services on demand. One of these companies stated that it is already providing a data stream to Starboard Maritime Intelligence.

Recommendations

19. It is recommended that VCDF:
 - a. **NOTE** the particular value of this trip to DST was in exposing MINDEF to the cutting-edge work that Australia is collaborating on with NZ and the opportunities that relationship presents. This visit was highly successful in that regard.

Noted.

Noted.

- b. **NOTE** that the visit offered a chance to renew collaborative links with senior DST Group leaders and to gain a wider perspective of the Space ecosystem from the Space Forum.

Noted.

- c. **NOTE** that Australian innovation efforts at ASCA are based around top-down driven strategic effects that are required to support its focussed force with asymmetric capability advantage.

Noted.

- d. **NOTE** that defence innovation in AUS is linked to the defence S&T system through oversight in common by the AUS Chief Defence Scientist. This was seen as advantageous to avoid double-ups especially in the emerging technologies space.

Noted.

- e. **NOTE** that DST will follow up on opportunities raised by the Minister's visit and that – given the strong Space theme – we will keep the Head of the NZ Space Agency looped in on opportunities in addition to NZDF and MOD parties.

s.9(2)(k)

s.9(2)(k)

9/8/24.

DAVID GALLIGAN

DR

Director DST

s.9(2)(a)

Distribution:

AC CAP
AC SCE
CAF
CDI
MOD Dir Pol
Head of NZ Space Agency
NZDF DA (AUS)
NZDF Space Programme Lead
MOD Space Policy Lead

DGNZ
MIL SEC TO MINDEF
PA INV
DST DC PW
DST DC IW
DST DC SE&P
DST PL Space & NAVWAR
DST PL Sensing & Intelligence

Enclosures:

1. s.6(a)

2.

HEADQUARTERS NEW ZEALAND DEFENCE FORCE
DEFENCE SCIENCE & TECHNOLOGY
DDST MINUTE

10/10/2024

VCDF

POST ACTIVITY REPORT: AUSTRALIAN DEFENCE SCIENCE, TECHNOLOGY AND RESEARCH (ADSTAR) SUMMIT AND TTCP PRINCIPALS' MEETING, AUSTRALIA 17-27 September 2024

Purpose

1. Provide a post activity report including recommendations stemming from attendance at the:
 - a. Australian Defence Science, Technology and Research (ADSTAR) 2024 summit (17-19 Sept 2024).
 - b. The Technical Cooperation Programme (TTCP) Principals meeting (23-27 Sept 2024).

Background

2. The second ADSTAR summit took place in Adelaide, Australia over the period 17-19 Sept 2024. The event was hosted by Australia's Chief Defence Scientist, who invited New Zealand's Chief Defence Scientist (DDST) to attend. NZDF was represented by DDST and by DST's Division Chief for Science Excellence & Partnering (DC SE&P), both of whom presented and held side-meetings with international partners. This second summit established the regular tempo for ADSTAR to be held every 2 years.
3. The overall theme for ADSTAR 2024 was 'Accelerating the delivery of asymmetric Defence capabilities', with the stated aims being.
 - a. Creating ADSTAR as a forum to learn from thought-leaders and experts, and to delve into the latest concepts and emerging technologies that will be used to defend Australia's interest.
 - b. Themes aligned to Australia's Innovation, Science and Technology (IS&T) priorities of the National Defence Strategy (NDS); trusted autonomy, quantum technologies, information warfare, long-range fires, hypersonics, and directed energy.
 - c. To unite and harness the national science and technology enterprise to create new relationships and strengthen existing partnerships across government, industry, and academia.
4. Over 1800 people attended ADSTAR 2024 from across 13 countries, with strong Australian academic and industry attendance. There were a range of visiting dignitaries, up to government Deputy Prime Minister level. Senior Defence science leaders that participated in ADSTAR 2024 included the US Under Secretary of Defence for Research and Engineering, Canada's Assistant Deputy Minister (Defence R&D), and the UK MOD's Acting Chief Science Advisor.

5. Insightful plenary and panel sessions were run throughout the event. DST undertook several side meetings including with Dr Stefanie Tomkins Director of DARPA, Australian Defence Science and Universities Network (ADSUN) leadership and with Dr Tanya Munro Australian Chief Defence Scientist. Key insights from these activities are captured in this post activity report.
6. ADSTAR was followed by the TTCP Principals' meeting, which meets annually to govern the many activities that occur under the TTCP II MOU. TTCP is the NZDF's most important Defence IS&T MOU. The meeting was attended by DDST as NZ Principal, Dr s.9(2)(a) as Executive Chair for the Materials & Processing Group, and Mr s.9(2)(a) as NZ's Deputy Principal. The visit included classified strategic discussions and a tour of various advanced IS&T capabilities at DST Group.

Australia's Defence Innovation Science & Technology (IS&T) Strategy

7. The Australian Defence Innovation, Science and Technology (IS&T)¹ Strategy "Accelerating Asymmetric Advantage – delivering More, Together" was released at the opening of the ADSTAR Summit by the Hon. Richard Marles MP, Deputy Prime Minister of Australia and Minister for Defence. It can be found at <https://www.dst.defence.gov.au/strategy>.
8. The Strategy outlines a 10-year vision for an integrated, secure approach to IS&T capability development and translation through close collaboration between Defence, industry, universities, research organisations, and international partners to deliver asymmetric capabilities to the Australian Defence Force (ADF).
9. Four strategic objectives guiding the approach are:
 - a. **Contribute to the Strategy of Denial** – To ensure the ADF can draw rapidly on the Defence IS&T Ecosystem, including international partners, to generate capability, capacity and enhance interoperability providing collective deterrence.
 - b. **Generate asymmetric advantage** – Military capabilities that can disrupt a potential adversary's decision calculus.
 - c. **Accelerate innovative solutions into capability** – Identify the most pressing problems, apply targeted IS&T solutions and reduce barriers that inhibit the ability to rapidly pull through innovation.
 - d. **Grow our Defence IS&T Ecosystem through strategic partnerships** – Harness domestic and international science and technology to build resilience, longevity and impact.
10. The Strategy responds to short term capability needs while also balancing the need for technologies and capabilities that may be required by in the longer term. The Strategy will be delivered through four lines of effort:

¹ IS&T is defined within the strategy as "Defence Innovation, Science and Technology encapsulates Defence's research and development efforts. It is the creation of new knowledge and the use of existing knowledge in new ways to generate novel concepts, methodologies, inventions and understandings. It encompasses a broad spectrum of science, from maths and physics through to social, behavioural and systems analysis; basic and applied research; and innovation and technology development" (sourced from <https://www.dst.defence.gov.au/strategy> accessed 23 Sept 2024)

- a. **Anticipating the future** – Technology foresight activities, informed by the IS&T landscape, will allow identification of emerging trends that might have significant deterrence and asymmetric warfighting effects.
 - b. **Experimentation** – Enabling innovation and transformation through the application of modelling, simulation and analysis, trials, testing and wargaming.
 - c. **Integrated Ecosystem** – Building on relationships with universities, research organisations and industry to foster greater collaboration, trusted partnerships.
 - d. **Mission Driven** – Short-term, targeted missions that rapidly pull through innovative technologies into new capabilities are addressed through the Advanced Strategic Capabilities Accelerator (ASCA).
11. The Strategy encompasses the entire Defence IS&T Enterprise, comprising all Groups and Services and portfolio bodies within Defence. It emphasises the need for early-stage research and focuses existing efforts on key IS&T priorities described in the NDS and through AUKUS.

General Insights from ADSTAR

12. All nations expressed an urgency to deliver military capability advantage as quickly as possible. Defence IS&T was seen as fundamental to “turbo charging” military capability to move at the speed of strategic relevance.
13. Australia is taking a Defence IS&T Enterprise approach, which encompasses all IS&T elements within the ADF, with service-bounded thinking seen as unlikely to find the requisite solutions. The Defence IS&T Ecosystem is critically important and encompasses industry, universities, research organisations and other government agencies.
14. There is a real interest in harmonising innovation systems across partner nations. Local companies may have technologies or industries that are useful to other nations. An opportunity was seen to grow collective economies and to contribute best-of-breed technologies to the common good. Economic benefits across partner nations was a cornerstone of many presentations, with a panel discussion on defence investment highlighting how this might practically play out.
15. Multiple speakers spoke of the need for a risk tolerant culture, which accepts that new technologies may be found unsuitable and moves on quickly without recrimination.
16. There is an aim for ADF is to be the most fully integrated military in the world. There is a focus on rapidly pulling through emerging and disruptive technologies and accelerating the delivery of minimal viable capability to the warfighter.
17. The Advanced Strategic Capabilities Accelerator (ASCA) is a key method through which the ADF accelerates the development of innovative capabilities. ASCA missions are 3-year partnerships with industry and universities. It is focussed on learning quickly, iterating rapidly, and delivering or failing fast, with a high risk tolerance. The dual-use of existing advanced tech is to be prioritised where possible rather than always going for new technology development or pursuing exquisite solutions.

18. With Australia's limited domestic defence market, dual-use technologies are essential for their companies to survive, unless they have international defence contracts. There is an important role for organisations like DSTG and DST to help local companies test their products in a defence context before they embark overseas.
19. Diversity of people, approaches and thought is important to getting the most innovative outcomes. It was noted the Australian Signals Directorate (ASD) takes on people with non technology or degree backgrounds to sample a wider population. Human attributes can be more important than qualifications and skills.
20. "Talent follows quest and funding." The STEM workforce is very mobile and if Defence desires IS&T success then it must clearly define its requirements and fund the research properly. The wider ecosystem is hungry to understand the Defence context and to get involved. There is a need for more promotion of defence science as a career, with future STEM workforce capacity seen as a particular limitation by all speakers.

AUKUS Pillar II

21. AUKUS PII was discussed publicly throughout ADSTAR and in private conversations to the side of that and at the subsequent TTCP Principals. Meeting. s.6(a), s.6(b)(i)

22. s.6(a), s.6(b)(i)

23. s.6(a), s.6(b)(i)

24. s.6(a), s.6(b)(i)

s.6(a), s.6(b)(i)

25. s.6(a), s.6(b)(i)

26. s.6(a), s.6(b)(i)

27. s.6(a), s.6(b)(i)

28. s.6(a), s.6(b)(i)

29. s.6(a), s.6(b)(i)

30. s.6(a), s.6(b)(i)

31. s.6(a), s.6(b)(i)

TTCP Principals' Meeting

32. The annual TTCP Principals' meeting took place in Adelaide in the week following ADSTAR and most of the Principals also attended ADSTAR. The purpose of this annual meeting is to govern the portfolio of technical programmes that exists under the auspices of The Technical Cooperation Program (TTCP) II Memorandum of Understanding (MOU).
33. Principals noted that this MOU continues to be the premier mechanism for collaborative Defence IS&T within the Five Eyes. We acknowledged the wide range of impactful Innovation, Science & Technology research that takes place under this MOU and that it is the least bureaucratic collaborative method to enable that research.
34. Following last year's agreement on TTCP's need to better communicate the role that science and technology plays in the warfighting outcomes sought by the Defence Chiefs, we are adopting the nomenclature "Five Eyes Science and Technology (FVEY S&T)." Our activities will continue to be underpinned by the TTCP II MOU.

35. s.6(b)(i)



36. DDST briefed on the NZ position, including how we are engaging against the backdrop of the strategic environment, progress with the Defence Capability Plan, the international IS&T engagements review that is currently underway at DST, and the national fiscal situation which is requiring reconsideration of what activities we can support. DDST announced that the NZ Deputy role for TTCP was unable to continue to be supported and that we would transition that out to a senior manager from DST in the interim. He also announced that the NZ XO role for TTCP was under active transition to another NZ military rep.

37. s.6(a), s.6(b)(i)



38. s.6(a)



39. s.6(a)



s.6(a) High quality communications outputs from FVEY S&T is part of a broader external strategic messaging function. All nations are to provide a representative to a new working group on this. DST's Science Engagement Adviser is already working closely with FVEY S&T partners and she will constitute our formal contribution to the working group.

40. s.6(a), s.6(b)(i)

41. s.6(a), s.6(b)(i)

42. s.6(a)

Opportunities & Actions

43. Prof s.9(2)(a) complimented the cognitive conditioning work that is underway between AUS and NZ, with Maj s.9(2)(a) as the NZ lead. He noted that there is an opportunity for a more joined up approach across FVEY through a TTCP activity. **DDST to connect up parties.**

44. s.6(a), s.6(b)(i)

45. DDST met with ATLA MoD Japan officials. ATLA covers physical, information and cognitive capability domains. It works across the TRL levels including bridging funding for R&D across the "valley of death". There could be opportunities to learn from their approach. **DC SE&P to share DST programmes on a page and standard organisational PowerPoint. DDST to meet again with ATLA at the POST conference in March.**

46. DSTG remains keen to explore space IS&T options that are under discussion with DST. s.6(a), s.6(b)(i)

DST TL Space Effects to maintain dialogue with DSTG Space Programme Lead.

47. s.6(a), s.6(b)(i)

s.6(a), s.6(b)(i)

48

49

50. DSTG and DST met to reinvigorate and focus the existing AUST NZ bilat on Defence IS&T. There is strong interest on both sides to capture competed activities, align current work and explore future opportunities. **DC SE&P to share DST register of activities with DSTG Chief Strategic Planning & Engagement (Dr Carolyn Patteson).**

51. DST to follow up on the engagement with DARPA and ensure DST domestic partners are aware and engaging with the DARPAConnect tools and resources. **DC SE&P to follow up with current ecosystem partners.**

52. s.6(a), s.6(b)(i)

53. DST has agreed to support the FVEY S&T partnership's development of a communications and engagement strategy/plan and to contribute to communications activities via a working group. **DC SE&P to ensure that DST's Science Engagement specialist is immediately engaged.**

54. The US FVEY S&T Principal noted that US SMART Scholarships can be awarded to people from FVEY countries. These US DoD-funded under-graduate scholarships support students to study at US Universities, with a requirement to then complete a term of service back in National Labs. **DC SE&P to explore NZ's potential to leverage this scheme,**

Recommendations

55. It is recommended that VCDF:

- a. **NOTE** the high quality of the ADSTAR summit in terms of gaining insights into the science drivers, environment and approaches across partner nations and to build and maintain key relationships in the Indo Pacific. The next summit is in two years time and it is recommended that DST attend.
- b. **NOTE** the opportunities to learn from Australia in terms of how they develop and engage their ecosystem to support defence requirements.

c. s.6(a)

- d. **NOTE** that TTCP has now been rebranded as FVEY S&T. This MOU continues to be the most fruitful IS&T collaboration venue for DST.

e. s.6(a)

f. s.6(a)

s.9(2)(k)

DAVID GALLIGAN
DR
Director DST

s.9(2)(a)

Enclosure

s.6(a), s.6(b)(i)

Distribution

DSTAB Members

CPO

CJDS

COMJFHQ

CIO

AC CAP

AC SCE

MOD Director Policy

MOD Director Development Branch

NZDF DA CANBERRA

NZDF DA USA

NZDF Air Advisor, USA

NZDF DA UK

Director Defence Security, NZDF

Director Defence Industry Engagement, NZDF

Principal Advisor Defence Excellence (Innovation)

DST ELT

DST Programme Leads

DST Senior Operations Researcher – Mark Anderson