

Defence Capability Assurance and Oversight Bill 2023

Submission by Mr Mark Schweikert

After 22 years in Defence, Mr Schweikert started his own consultancy business specialising in Test & Evaluation (T&E) and Major Capability Acquisition Project advice and products. He has since been the T&E adviser to Army's Robotics and Autonomous Implementation and Coordination Office (RICO), specifically LAND 135, producing the project's Test & Evaluation Master Plan (TEMP) and establishing RICO as an independent certified T&E unit. He is currently contracted as the Capability Manager and Joint Force Integrator for the Australia Defence Forces (ADF's) counter-small drone efforts.

T&E in Defence - background

I first entered the T&E planning and capability space in 2006 as Deputy Director in the Directorate of Trials (D-TRIALS), Capability Development Group (CDG).

D-TRIALS was originally the Defence Science & Technology Organisation's (DSTO's) only field-testing unit for its research activities, but was moved to CDG as a result of the Kinnaird Review of 2003 to inspire a T&E culture in capability development.

The Kinnaird Review was itself inspired by the Macintosh/Prescott review into the Collins class submarine introduction to service issues in the late 1990s. It identified the lack of T&E planning and execution as one potential cause of the many issues the project and capability experienced.

As Deputy Director, my role was to review and advise senior committees on the efficacy of T&E plans for every 1st and 2nd Pass capability project. At that stage, no one really knew what a T&E plan for a pre-acquisition project should look like. So early Test Concept Documents (TCDs) merely regurgitated Defence policy to show that the project had drunk the 'Kool-Aid'.

Not happy with this I issued a new TCD guide to act as a means to not only educate projects on the value of T&E but also as a template. It was designed to simplify the document's development and keep it in-house, as many projects would happily spend \$20,000 (2007) to have an external consultant write 60 pages of 'tick in the box'.

Through TCD reform, the idea was developed that D-TRIALS should be made the lead for T&E in Defence with regard to plans, policy, governance and ADF/Joint Trials. D-TRIALS was renamed the Australian Defence Test & Evaluation Office (ADTEO) and we published a *T&E in Defence Roadmap* to indicate where we would like to be in 10 years.

Four years later, my T&E plans reviewing position was deemed important enough to be expanded into a full Directorate in its own right with staff writing T&E plans for nearly all projects, setting policy and governance and establishing robust and professional guidance. I

applied and was successful in becoming its first Director, a position I held for nearly nine years.

During my time as Director T&E Plans, Policy & Governance I was also made the Deputy Chair of the Defence T&E Principals forum and was responsible for the T&E sections of the Defence Capability Development Manual and, post First Principles Review, The Capability Life Cycle (CLC) Manual Version 1.

I also designed and presented a desk officer skilling program to educate people on T&E, its benefits, its limitations and uses, and presented practical examples of where it worked and did not.¹ Feedback surveys conducted by CDG consistently demonstrated a 93% satisfaction rating.

From 2006 to 2019 I assisted every project's T&E plans, from JSF to Land Rover replacements, and everything in between.

I was also responsible for setting the competency standards in Defence for different T&E positions and responsibilities in an attempt to professionalise T&E and have it recognised as a career stream.

However, Defence's interpretation and subsequent implementation of the First Principles Review's (FPR) saw ADTEO disbanded, along with most of its functions. Its trials capability was subsumed by Army, its T&E planning responsibilities given to the service chiefs and its training and education function decommissioned. It was replaced with a review and coordination function in the Vice-Chief of Defence Force (VCDF) Group.

While the preceding explanation of my background is long, I hoped it would provide a record of how far Defence has come since 2006 in developing its T&E capability. It also shows what I believe to be the high watermark of T&E in Defence.

The Bill

During the implementation planning stage of the FPR, I designed a new T&E organisation for Defence with the intent of it being the sole source of truth and 'one stop shop' for all T&E advice, planning and trials.

This model absorbed the Groups and Services' T&E organisations and gripped them into one entity (i.e. a One Defence model as espoused by FPR) with a 1-star ADF Chief of Staff and an SES Band 2 'Head of T&E' that reported directly to the Secretary and Chief of Defence Force (CDF) and answerable to the Senate.

The aim of the new organisation was to not only capitalise on the advances in Defence's approach to T&E, but go even further by providing independence from the Groups and Services, much like the US Director of Operational T&E (DOT&E) in the Pentagon (who is a

¹ The requirement for this was established by a recommendation of an ANAO Report into CDG desk officer competency standards. Defence originally contracted an external firm to present the T&E component however, after many 'mixed' reviews of this arrangement I suggested we could do this in-house. Which we did for approx. 12 years.

Presidential appointee). The service chiefs however, rejected the idea, which ironically has many similarities to the proposed DACC Bill.

The effect of not implementing this One Defence T&E organisation model meant the service chiefs essentially became responsible for approving their own T&E plans, trials and competency compliance, good or bad. Some described this situation as ‘marking your own homework’.

To potentially counter this, an annual T&E Enterprise Governance Report was raised that reported to the Investment Committee (IC) on Groups’ and Services’ compliance with TEMP standards and personnel competencies in their T&E organisations. I was responsible for the first three reports to IC. The initial weakness of this reporting system was that for the most part groups and services self-reported.

So while the intent of this Bill is supported, the explanatory note outlines many tasks that The DACC will perform that are already being conducted by Defence. This potentially risks duplication, which in turn could add time and complexity where leadership, clarity, speed and flexibility are needed most.

As indicated in Paragraph 14 on the *Notes to Clauses of The Bill*, The DACC will not only have to review and advise on at least 50 projects per annum in the Gate 0-2 phases, but also monitor capabilities throughout their life and up to and including disposal T&E plans. ADTEO was charged with this but was never able to be staffed appropriately.

Clause 18 of the *Notes to Clauses of The Bill* states that ‘the DACC will be responsible for the conduct of T&E through delegating the most appropriate personnel and means across Defence’. As it stands, this takes a considerable amount of authority off each Capability Manager (CM) and disenfranchises the group or service T&E Principal.

It would be more efficient to set The DACC up as the ‘one stop shop’ for all T&E in Defence through ownership of all T&E assets and trials staff. Groups and services could still conduct minor T&E/Trials under the endorsement and assistance (if required) of the DACC, as Army currently does with its ‘Land User Evaluation’ construct.

“An Industry Partner” and its role as mentioned in *The Bill* could potentially create a monopoly on T&E advice and personnel, and could be unintentionally detrimental to developing a T&E expertise in the wider Defence and private sector community. At the moment there is one major T&E firm and many smaller firms who would be at risk if a monopoly situation were to develop.

T&E skills need to be resident not only in Defence but also across industry². This part of *The Bill* may need to be re-worked or explained differently for diversity of skills, backgrounds etc will produce a better result.

The position title of Director should be changed to Director General DACC in order to demonstrate the importance of the position and its responsibilities.

² An argument could be made that this could also apply to whole of government entities such as AFP, ABF, Customs etc.

Annual Report to The Senate

The DACC should, as indicated in *The Bill's* explanatory note, produce a US DOT&E (Director of Operational T&E) style of annual report³ to Parliament much like the current CASG projects report but T&E focused. Like the DOT&E Report to Congress, it should include trials conducted (including preview T&E), results, issues and outline progress on capability introduction to service of all projects. It should also include those projects that have chosen not to engage in pre-Gate 2 de risking T&E and why.

It should report on TEMP development of each project (after actually sighting the document) by reviewing all TEMPs for:

- accuracy
- applicability
- achievability, and
- ensure project's actually conduct a biennial update of their TEMP.

However, experience has shown that the best way to ensure quality TEMP development and production would be to have The DACC develop and produce the TEMP on behalf of each project.

To fulfil the functions in *The Bill*, The DACC will need a considerable staff footprint. For example, The DACC has similar functions to the Directorate I led, which had four staff covering Air & Space, Maritime, Land and Joint, a director and two support staff covering the Gate 0 – 2 spaces only. Taking on governance, reporting, policy formulation, standards and through life and disposal phase monitoring and advice would require many more staff. Particularly if trials are added to its responsibilities.

If an all or nothing/One Defence approach cannot be taken to Defence T&E resources, then The DACC needs to be focused where there is a gap. Currently, it is in the Centre with policy, plans and governance leadership. The 'centre' has been reduced to a coordination and reporting function. It needs independence and teeth.

The greatest contribution to acquisition assurance and risk reduction in Defence is inculcating a culture of try before you buy. This should be the first step in any capability project. Too many times Defence has engaged in a strategy of 'Design, Acquire, Test'. This places too much reliance on CASG to get the table top analysis right, and too many times this has proven to be wrong, which then passes all the risk to the Commonwealth.⁴ A strategy and culture of 'Design, Test, Acquire' should be the norm as a way to identify and treat/accept risk before acquisition.

T&E Infrastructure

Defence has little in the way of dedicated T&E Infrastructure, and even less when it comes to actual instrumented T&E ranges to capture data, events and results. Existing Defence ranges/properties etc. can be used for T&E but are there primarily for other activities which tend to take priority.

³ [DOT&E Annual Reports \(osd.mil\)](https://www.osd.mil/dot&e/annual-reports/)

⁴ See LAND 121 Phase 3, JP2070 MU90 torpedo and Landing Watercraft 2000 for examples.

In the US, a separate T&E Ranges Command exists which not only controls the estate function, but also the measurement, instrumentation and telemetry means to ensure accurate and secure collection of T&E results.

One system the US uses as an interim T&E range enabler is an aircraft fitted with high data line of sight telemetry equipment, passive sensors in the visual and electromagnetic bands, and with sensitive high-fidelity radars to essentially turn any piece of earth into an instrumented/monitored T&E range. The aircraft adopts a circuit around the location at a safe distance and its on-board systems capture and record the T&E event.

The DACC would be an appropriate entity to take on this missing capability, governance and leadership function as merely monitoring and reporting will be ineffective. Part of its remit could be to subsume/replace the current Woomera Advisory Board into its area of responsibilities.

However, becoming the T&E Ranges Command will mean a budgetary allocation/increase in order for the DACC to maintain and improve T&E ranges as required.

There are capabilities that the ADF owns that are unable to be tested in Australia due to a lack of infrastructure. Newer 5th generation systems also require targets of a much higher fidelity in order for the capability system to engage the target and not ignore/recognise it as a decoy.

The rise of autonomous weapons and systems coupled with Artificial Intelligence (AI) will make the issue of dedicated T&E ranges even more vital to ascertaining the weapon or system's performance, as well as its compliance to human rights laws and conventions.

Education

The DACC could take on the role of Defence and industry T&E education, much like the desk officer skilling program mentioned earlier. This would help promote a T&E culture in all aspects of Defence capability development activities. It would also help projects to tailor their T&E plans to their specific capability problem and avoid a training monopoly situation.

Inspector General Role

While the Inspector General Role in *The Bill* potentially duplicates the role and function of the Australian National Audit Office (ANAO), it may actually be a better source of oversight information for the Senate and public.

The IG and their office should be staffed with people who have knowledge of military capability, acquisitions and T&E in order for it to be seen as a more reliable source of information on projects and capability acquisitions than the ANAO.

It can also take on the function of correctly interpreting ANAO reports, or its own reports, to the Australian people and Senate with a greater level of clarity and potentially avoid and/or discourage deliberate misinterpretation of reports on the progress of Defence capability projects, as we have seen recently with the ANAO report on the Hunter Class frigates.

If this Bill cannot be passed in its entirety, then the Inspector General component should be considered on its own merits and presented separately. This part of *The Bill* could go a long way to achieving *The Bill's* intent.

Conclusion

The defence of Australia has never been more important than now. Modern military equipment is complex and expensive and needs to not only integrate with our legacy force structure but also our military culture and operating environment. Off the shelf is not always the best way to avoid delays and cost overruns, as you are buying a solution to someone else's problem. An oversight institution such as the DACC should be able to assist Defence get value for money and improve delivery times while ensuring we get the right system.

The Bill, while thoroughly supported in its aim, is a 'tad' too descriptive given it duplicates too many current Defence T&E functions and structures. There is a role and need for a statutory body with aims and objectives such as this, but if it is to be effective then a One Defence Model will need to be applied with the DACC the new 'centre' for all T&E in Defence.

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