



Australian Government

Defence

**Senate Legislation Committee on
Foreign Affairs, Defence and Trade
Inquiry into the
Defence Capability Assurance and Oversight Bill 2023**

Department of Defence

Submission

September 2023

Defence thanks the Committee for the opportunity to comment on the Defence Capability Assurance and Oversight Bill 2023 (the Bill). Defence is committed to ensuring that capability acquisition and sustainment decisions are suitably informed, including through the identification of capability deficiencies and risks via Test and Evaluation (T&E), and acknowledges that it has sometimes failed to live up to that commitment. Defence notes that the Bill proposes the establishment of a Defence Capability Assurance Agency (DCAA), an Inspector General – Defence Capability Assurance (IGDCA), and a Parliamentary Joint Committee on Defence (PJCD).

Test and Evaluation in Defence

T&E is a structured process to obtain objective, reliable information on whether a piece of equipment / capability can perform its intended role and is safe to operate. In the Defence context, a technical deficiency in the design or manufacture of a piece of equipment that creates doubt as to whether it can effectively and safely perform the intended mission is considered to be a form of capability risk. The results of T&E therefore provide impartial evidence to inform decision makers on the existence, and degree of, capability risks associated with the equipment under consideration.

The sound application of T&E during development is intended to identify and remediate deficiencies prior to acceptance of a product from the vendor. This ideal outcome is often impacted by imperfect definition of requirements at the outset of the design process, unanticipated technical challenges during development or a change in operational requirements after the acquisition decision. Off-the-shelf products can also be subject to capability risks where they are used in a manner or environment that differs from that which they were originally designed. For example, an off-the-shelf electric car may meet its original design specification perfectly but is likely to have a “capability risk” if the intended use is to drive non-stop over longer distances than it was designed to achieve from a single charge.

Historically, military T&E has focussed on assessing aircraft, ships, other vehicles or weapons as self-contained entities, broadly referred to as platforms. Platforms do not provide capability in isolation, they need support and sustainment systems to be effective (eg. mission planning and maintenance devices unique to the platform). The term capability system is used to describe the platform and its unique support and sustainment elements collectively. Four traditional forms of T&E are used to assess capability systems as they progress through the acquisition lifecycle – i.e. from specification, through design, development and acceptance by the end user. The four traditional forms of T&E, and their purposes, are:

1. Preview T&E (PT&E) – to objectively compare different capability systems competing for selection or to fill knowledge gaps regarding a candidate platform’s suitability for the intended role or environment.
2. Developmental T&E (DT&E) – to gather data for the purpose of refining the design of a capability system prior to it being offered for customer acceptance, typically done by the designer or developer.
3. Acceptance T&E (AT&E) – to confirm that the capability system meets contracted requirements.
4. Operational T&E (OT&E) – to confirm that the capability system meets operational requirements when employed in the intended operating environment, by the intended operators using the intended procedures. Capitalising on modern information technology, capability systems have become increasingly interconnected at the technical level. Strategically essential, joint capabilities like Integrated Air and Missile Defence (IAMMD) and Multi-Domain Strike (MDS) are reliant on the sharing of command, sensor and targeting data in real time. Such integrated capabilities are necessary to counter potential adversaries and are made up of multiple capability systems working together in what is often referred to as a system-of-systems. The

growing need to validate the capability of these joint force systems-of-systems adds an additional form to the traditional T&E continuum.

5. Force-Level OT&E (FLOT&E) – to confirm that a combination of capability systems operating in an integrated way meet operational requirements when employed in the intended operating environment, by the intended operators using the intended doctrine.

At present in Defence, Capability Managers are responsible for conducting PT&E and OT&E while Delivery Groups are responsible for monitoring DT&E and the conduct of AT&E. PT&E, DT&E and AT&E are inherently part of the acquisition process. As the Joint Force Authority, VCDF is responsible for the conduct of FLOT&E, noting that this is an emerging facet of ADF T&E.

Defence notes that the Bill is limited to assuring the effective and timely T&E of individual capability systems during the acquisition process, but does not address OT&E or FLOT&E. Thus Defence understands that, should the Bill be passed, the DCAA would be responsible for the conduct of PT&E and AT&E and for monitoring DT&E conducted under Delivery Group acquisition contracts. Defence understands that it would remain responsible for OT&E and FLOT&E.

Defence capability assurance in the contemporary environment must consider the full spectrum of T&E.

The Defence T&E Governance Model

Since late 2021, Defence has been executing a T&E Strategy that has made steady progress in improving T&E competency and transparency, has initiated modest partnership with Industry, and has established a deep understanding of the Defence T&E enterprise as a foundation for further improvements. Key among these improvements is the development of a strengthened T&E Governance model that addresses common underlying principles essentially similar to those identified in the Explanatory Memorandum. Building on the introduction of the T&E Directorate in 2021, progressive implementation of this model will enhance T&E Governance within Defence, providing centre-led governance and joint force assurance.

T&E governance within VCDF Group has two primary missions:

- Assuring the quality of acquisition-related T&E, akin to the role of the proposed DCAA, and
- Managing FLOT&E from concept through to employment of integrated joint capabilities¹.

The T&E Governance model includes the following roles, similar to the four core principles outlined in the Bill - independence, competence, transparency and accountability:

1. Policy setting and compliance auditing – Setting T&E policy and auditing compliance against it using a dedicated auditing team.
2. Assessments – Assessing the technical nature of proposed capability solutions at the outset of a project to identify potential capability risks and prioritise T&E activity.
3. Advice – Monitoring T&E reports throughout the lifecycle of a capability system and ensuring that T&E outcomes are independently reported to the Investment Committee through a 2-Star representative - Head Force Integration (HFI).
4. Training and Events – maintaining the T&E competency framework and coordinating a Defence and Industry continuum of T&E training courses to assure competency
5. T&E Coordination – maintaining an enterprise level awareness of T&E capabilities and service providers, forecasting future demand and coordinating T&E demand with supply – including the

¹OT&E of individual capability systems remains the responsibility of Capability Managers but inform FLOT&E.

management of Strategic Industry Partners, tasking of Defence T&E capabilities and coordination with the Advanced Strategic Capabilities Accelerator (ASCA).

6. Joint Force Integration Assurance (JFIA) – Planning, prioritising and coordinating FLOT&E aligned with Defences Strategic modernisation priorities.

In addition to their specific roles, internal coordination between the cells conducting each role will establish a continuous thread of assurance from project inception to the use of new systems within integrated, joint-force capability packages. The identification and T&E demands and potential capability risks through the Assessment and Advice roles will inform the Coordination role to assist prioritisation and forecasting of T&E resources. The nature of capability risks identified through Assessment, and the manner of their subsequent remediation, will also inform JFIA planning thus minimising unwanted surprises during FLOT&E.

The VCDFG T&E Governance entity is grouped within the Joint Warfare Development Branch, which includes Doctrine, Concepts and Mission Design functions, thereby ensuring that the application of Defence T&E is prioritised according to strategic capability goals and to projects with elevated potential to create capability risk at the joint force level. This grouping enables the end-to-end connection from joint capability needs to their verification and validation.

Since the Defence T&E Strategy was initiated in late 2021, progress has been made in each of the six roles described above.

Defence Position

Defence *agrees* with the intent of the Bill to ensure that capability acquisition and sustainment decisions are suitably informed by T&E. Defence also *agrees* that the four core principles described in the Explanatory Memorandum; independence, competence, transparency and accountability are essential to that intent being met.

Defence *agrees* that an entity is required to coordinate with industry, define competency standards, provide appropriate test services, training and independent assessment. The Defence T&E Governance model addresses common underlying principles essentially similar to those identified in the Explanatory Memorandum. Defence implementation of its T&E Governance model will create such an entity within VCDF Group.

Should the Bill not be passed, Defence *could support* the realisation of its intent through the ongoing execution of the Defence T&E Strategy, including the full implementation of the Defence T&E Governance Model across all six roles as described above. Full implementation of the Defence T&E Governance model remains subject to additional staffing as well as funding to enable establishment of industry partnerships. DSR directed increases to Commonwealth of Australia personnel may assist in resourcing its implementation in parallel with other DSR workforce demands.

Defence *supports* the provision of increased T&E services, training and infrastructure by industry as highlighted in the Explanatory Memorandum. Workforce and Infrastructure studies completed under the T&E Strategy highlighted widening gaps in capacity to meet forecast demand in these areas.

On 8 August 2023 the Deputy Prime Minister announced that the Government had agreed with the Joint Standing Committee on Foreign Affairs Defence and Trade's recommendation to establish a Joint Statutory Committee on Defence, and that further work would be undertaken to determine the precise scope and role of the new Committee. This new Committee has potential to meet some of the independent oversight roles covered in the Bill, particularly in relation to the proposed Parliamentary Joint Committee on Defence.

Defence Concerns

Defence *does not support* the establishment of a DCAA. Implementation of the Bill may undermine accountable officers' ability to assure that acquired systems and capabilities meet the integrated, multi-domain requirements and integrated force missions in accordance with the intent of DSR and Australia's strategic circumstances.

The DCAA proposed under the Bill applies only to acquisition-related T&E and would not directly contribute to the conduct of OT&E and FLOT&E within Defence. The resulting split in responsibilities between the DCAA and Defence would disrupt the continuous thread of assurance designed into the Defence T&E Governance Model, eroding the focus on realising strategic capability objectives created through the structure of the Joint Warfare Development Branch. There is a risk that the DCAA would negatively impact prioritisation of T&E resources, the transfer of knowledge between acquisition and FLOT&E activities and efficient coordination with industry, thus delaying the realisation of integrated joint force capability, as directed by the DSR, at a time when we are trying to accelerate delivery of minimum viable capability.

The DCAA will likely have to draw staff from the existing national T&E workforce to meet its envisaged level of expertise, as will its industry partner as a T&E regulator and service provider. Defence will also need to retain T&E expertise to interact with the DCAA and to conduct operational T&E activities. The Workforce study completed under the T&E Strategy concluded that the supply of qualified T&E Practitioners² does not meet current demand and that this shortage is projected to substantially worsen in the decade, primarily as a result of increasing demand. The current shortfall of qualified T&E practitioners, across both Defence and defence industry, was estimated under the study to be 450, growing to 1000 by 2030³. The creation of the DCAA and IGDCA will impose additional demands on the already constrained T&E workforce that will need to be carefully managed during implementation.

The Bill obligates the DCAA to engage an industry partner to act as an assurance Regulator. This role is defined to include the setting of the qualification and experience standards for T&E practitioners, both within Defence and industry. The Industry Partner would also maintain a T&E centre of excellence to provide T&E services – making it both the regulator and a service provider. Defence is deeply concerned that allowing a commercial entity to set competency standards for the entire enterprise, deliver training and supply below-the-line T&E services would create a significant conflict of interest that would be detrimental to the overall enterprise.

The Explanatory Memorandum to the Bill also encourages the engagement of a single strategic industry partner (SIP) based on the United Kingdom's experience with their Long Term Partnering Arrangement (LTPA). This approach was not supported by research completed under Defence's T&E Strategy. The context surrounding the UK LTPA differs considerably from that of the Australian T&E Enterprise in that the LTPA involved commercialising a pre-existing uniformed T&E agency (UK Defence Evaluation & Research Agency). In contrast, the Australian T&E enterprise consists of a diverse mixture of government, industry and academic organisations, often competing for a small community of experienced T&E practitioners and managers. The outcomes of a Request for Information (RFI) reported in June 2022 concluded that 92% of industry respondents opposed the option of a single SIP. Respondent concerns focused on the ability of one organisation to have experience across all of the T&E capability elements as well as potential negative

² A qualified T&E practitioner is a person who has recognised T&E credentials in their technical domain, gained either through training internal to Defence, tertiary education or equivalent industry experience.

³ The shortfall does not imply that the Defence workforce needs to be increased by these figures, the shortfall can be remediated by a combination of training existing Defence and Industry personnel as well as recruiting in both sectors.

consequences of a single organisation being able to exercise monopolistic behaviours and exert influence over industry development, innovation and adoption of new technologies

Defence therefore *does not support* the Bill's proposal for the DCAA to engage an Industry Partner as the T&E Regulator, while also being a T&E training and service provider, as this presents a significant conflict of interest and risks monopolisation of industry T&E services. Having a competitor control T&E training standards while also delivering that training would likely result in disincentives for small-to-medium enterprises (SME) who would likely have to pay a higher premium to train their staff than the industry partner. SMEs represent a significant portion (64%) of the 36 companies that responded to the RFI, discouraging them from investing in T&E workforce capacity would worsen the existing shortfall. Many T&E SMEs take up subcontracts from larger competitors despite the increased overheads this levies on them. The proposed regulatory model under the bill risks exacerbating the current situation where large companies dominate consultancy services.

An Industry regulator would also undermine the accountabilities of the Department of Defence, which would lose the ability to balance regulatory compliance against capability outcomes in circumstances of heightened strategic tension as described in the Defence Strategic Review. The Commonwealth must be able to manage the risks by retaining accountabilities and the levers to fulfil them.

Defence *does not support* the establishment of a IGDCA. The key requirement to provide confidence to government that Defence acquisition of capabilities is being appropriately verified and validated could be conducted through existing Parliamentary oversight mechanisms. The recently agreed Joint Statutory Committee on Defence has potential to meet the independent oversight role covered in the Bill without establishing an IGDCA. However, if a separate, independent oversight organisation is sought, Defence could implement the IGDCA.

Defence *does not support* resourcing the DCAA and IGDCA within the current Integrated Investment Program (IIP) or existing Defence workforce provision. Both the IIP and Defence force are under pressure to resource the implementation of the DSR. The resources required to implement this proposal are not clear, but will be significant. Additional offsets in the IIP (and workforce) would have to be found, or supplementation would be needed. Skilled T&E workforce is scarce, although growing, and therefore any reallocation of that workforce would need to be carefully managed.

Conclusions

Defence is committed to ensuring that capability acquisition and sustainment decisions are suitably informed and acknowledges that it has sometimes failed to live up to that commitment. Defence agrees with the underlying intent of the Bill and the need for an entity to oversee Defence T&E, but has concerns with its proposed implementation.

Defence does not support the establishment of a DCAA or IGDCA, the Bill's proposal for the DCAA to engage an Industry Partner as the T&E Regulator nor resourcing the DCAA and IGDCA within the current IIP or Defence workforce provision without supplementation. The recently agreed Joint Statutory Committee on Defence has potential to meet the independent oversight roles of the IGDCA and PJCD proposed in the Bill.

Under its T&E Strategy, Defence has already made organisational and process changes to improve T&E oversight that will be further enhanced through the progressive implementation of a T&E Governance and Assurance model. Defence could support the intent of the Bill, if not passed, through the ongoing execution of its T&E Strategy.

Defence would welcome a collaborative approach to meeting the intent of the Bill that optimises the transparency, independence, accountabilities, balanced with workforce and resource allocation. Defence will continue to progress its T&E strategy to meet the desired ends expressed in the Bill.