

OFFICIAL

DAVID WILLIAMS, CB



Ministry
of Defence

PERMANENT SECRETARY

MINISTRY OF DEFENCE
FLOOR 5, ZONE D, MAIN BUILDING, WHITEHALL
LONDON SW1A 2HB

Telephone: 020 7218 7975
Fax: 020 7218 3048
E-mail: PUS-PrivateOffice@mod.gov.uk

D/PUS/11/7/ 1 (03)

23 January 2023

Dame Meg Hillier MP
Chair of the PAC
Sent electronically

Dear Chair,

EVIDENCE SESSION ON THE DEFENCE EQUIPMENT PLAN 2022

I am writing to follow up the oral evidence session on 15 December 2022 on the Defence Equipment Plan 2022-32 at which I gave evidence with my colleagues Andy Start, Lieutenant General Robert Magowan and Charlie Pate. We committed to provide further information to several questions raised during the hearing.

Replacement of equipment sent to Ukraine

The details of all weapon stockpiles are classified for operational reasons and I am not therefore able to give the specifics about when the stockpile of Next Generation Light Anti-Tank Weapons (NLAWs) will be replenished. However, I am able to confirm that under the contract with Saab and Thales announced by the Secretary of State on 7 December 2022, several thousand units will be delivered to the UK between 2024-2026. This is in addition to around 500 units that are due to be delivered in 2023 through a separate procurement.

The Department is fully engaged with industry, allies, and partners to ensure both the continuation of supply to Ukraine, and that equipment and munitions granted in kind from UK stocks are replaced as expeditiously as possible. In addition to NLAW, other contracts have already been placed to replenish UK stockpiles of equipment and munitions granted to Ukraine. These include the replenishment of the Starstreak High Velocity Missile and Lightweight Multirole Missile.

Ajax: Number of vehicles received by MOD from General Dynamics

As at 1 January, General Dynamics has built 180 Ajax vehicles. Of these, 135 have been receipted by the MOD, having been through a quality assurance process termed General Acceptance Testing. Of those 135, 26 vehicles were delivered to the Army intended only for training and familiarisation purposes, with the remainder (109) held by General Dynamics. The 26 vehicles will now be retrofitted with noise and vibration modifications and supplemented with further deliveries commencing in January from vehicles held by General Dynamics. Following a standard safety review, this will allow the Army to resume

OFFICIAL

training and familiarisation activity. The remaining 45 of the 180 vehicles have not been through General Acceptance Testing, 37 are reserved and being used for trial and testing purposes and the other eight are held by General Dynamics.

General Acceptance Testing	No's of Vehicles Built (All Variants)	Delivered to Field Army	GD Held
Yes	135	26	109
No	45	Nil	45 (inc 37 for trial purposes)
Total	180	26	154

Ajax: Progress implementing health and safety review recommendations

The Department continues to make good progress implementing the recommendations related to armoured vehicle safety and procurement from the Ajax Health and Safety Review. An outline of the work against the 20 recommendations is set out in the attached Annex including:

- incremental build, validation and roll-out of a system to regulate the development of new land equipment (Recommendation 1);
- increasing the understanding within the Army of specialist health advice and the Army standing up its noise and vibration working groups (Recommendations 2.1 and 2.2);
- ensuring the measurement of noise and vibration was established for the October 2022 Ajax User Validation Trials and a system is in place for the forthcoming Reliability Growth Trials. These will inform methods for future armoured vehicle trials (Recommendations 3 and 11);
- establishment of a dedicated cell and enhanced acquisition safety policy to support safety risk governance for Senior Responsible Owners with complex projects (Recommendations 5 and 13.2);
- incremental roll-out of an incident reporting tool (known as DURALS), including its support to trials (Recommendations 8.1 and 8.2) and progress to reinstate the Army internal investigation capability (Recommendation 8.3);
- much improved collaborative working relationships between MOD and General Dynamics at all levels of the Ajax Programme. (Recommendation 10);
- ministerial submissions and business cases are to include a mandatory safety section (Recommendation 12.1 and 12.2); and,
- safety is established as part of the investment approvals process, with Director Health and Safety a member of the approval committee (Recommendation 12.3).

The report of the Ajax Lessons Learned Review is currently in its final stages of drafting. Ministers have confirmed the intention for the report to be published once the recommendations have been considered and it has been through any fact-checking and Maxwellisation process. In the Defence Select Committee's Land Equipment Acquisition

OFFICIAL

hearing on 11 January, the Minister for Defence Procurement advised that he expects this will be around six weeks after receiving the report.

R&D Costs

The Department recognises the importance of technology, both in maintaining defence's cutting-edge and to ensure that we have the flexibility to address emerging capability requirements. We will continue to invest substantially in R&D over the next 10 years to support our future capabilities. We are focusing our investment in areas which will address critical and enduring military capability challenges, ranging from sub-threshold threats to the accelerated adoption of Artificial Intelligence and next-generation Directed Energy Weapons. Some specific examples below:

- **Gamechanger programmes** to build the evidence base to decide whether to exploit emergent, potentially disruptive technologies into a capability. These are currently focused on Directed Energy Weapons, Integrated Space, and Multi-Domain Integrated Swarms.
- **Spearheads programmes** to accelerate the pull through of technology into the Equipment Programme within areas such as Anti-Submarine Warfare, Enhanced Command and Control, and Intelligence, Surveillance and Reconnaissance.
- Developing the **Global Combat Air Programme (GCAP)** capability.
- R&D in support of the **Defence Nuclear Enterprise**.
Continued investment in the **Defence Innovation Fund (DIF)**. To date, the DIF has invested in over 200 projects. One of the larger projects supported is Project Vermeer, a collaborative effort between the Royal Air Force (RAF) and the U.S. Naval Research Department to test the use of synthetic kerosene as a fuel source for all platforms – from remotely piloted air systems to fighter jets.
- Delivering the **Core Science and Technology (S&T) Programme**, primarily through Dstl. This sustains critical national security capabilities (e.g. ChemBio response) and focuses research on developing the generation-after-next capabilities that will help to secure our military edge into the future (e.g. AI, Quantum and Engineering Biology).
- **Other R&D projects** – a diverse portfolio from cyber defence and resilience to naval radar replacement.
- **Access to Mentoring and Finance** for small and medium sized suppliers. £5M of private equity has been raised against the MOD spend of £1.8M, outside of the Greater South East region from the Regional Partnership Fund.

We are strengthening the end-to-end management of R&D and, since Spending Review 2020, we have established R&D pipelines to better bridge development to military capability exploitation. In the course of developing world beating capabilities, we must acknowledge that even the best R&D systems will invest in technologies and research projects that are not successful. We do not view this as failure. As long as these projects are stopped at the right moment and the right lessons learned this is a key component of successful innovation.

OFFICIAL

Acquisition Reform

I would also like to provide an update on our acquisition reform, which we didn't fully explore during the session. We continue to pursue a wide range of initiatives to drive pace into acquisition and improve programme delivery across the department. Our acquisition reform agenda has five themes:

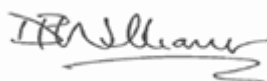
- (1) Improving cost estimating and cost control;
- (2) Improving relationships with industry;
- (3) Delivering strategic intent and Defence priorities through our requirements;
- (4) Empowering and enabling programme leadership;
- (5) Streamlining acquisition and approvals processes and addressing project resourcing challenges.

As part of this work we are running three externally led studies drawing on expertise from industry, academia and wider government, to identify opportunities for improvement in cost estimating and cost control, in our commercial approaches and in the management of subcontractors in the supply chain.

Successes during 2022 included the introduction of a new Risk and Complexity Assessment to enable tailored approaches to assurance and approvals based on an understanding of programme risk and complexity and support delegation of decision-making. We have run a successful central recruitment campaign for Senior Responsible Owners and continue work to increase our project delivery and commercial capability and capacity. We published a report into Psychological Safety in Defence projects, and are building on the learning from the study to support our programme teams.

As well as the wider work being undertaken in Defence on acquisition reform, DE&S is implementing a refresh of its strategy under its new Chief Executive. This work recognises the rapidly changing international environment, especially as result of Russia's invasion of Ukraine, but also that DE&S must be better at adopting global best practice and accelerating change. It will ensure that DE&S can deliver capability faster, with greater agility, and works more proactively with partners across Defence to support a credible, capable Armed Forces.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'D Williams', with a stylized flourish at the end.

DAVID WILLIAMS

OFFICIAL

Annex: AJAX HEALTH & SAFETY REPORT; RECOMMENDATIONS – DECEMBER 2022

No.	Recommendation	Progress
1	The DSA through the Defence Land Safety Regulator (DLSR) should establish how best to regulate the development of new land equipment either through certification or through the introduction of a specific regulation.	Progressing very well with the incremental build, validation and roll-out of a system to regulate the development of new land equipment underway.
2.1	Army should improve understanding of the internal specialist health advice and support available to capability staff	New operating instructions established to increase understanding within the Army of specialist health advice.
2.2	Army should re-establish its noise and vibration working groups in order to support the management and understanding of noise and vibration risks	The Army's noise and vibration working groups have been stood-up.
3 (and 11)	Future trials of all armoured vehicles should have appropriate, real-time instrumentation of platforms and individuals for measurement and recording of noise and vibration exposure will be essential to ensure that any activity is stopped before potentially harmful levels are reached	Effective measurement of noise and vibration was established for the October 2022 Ajax User Validation Trials and a system is in place for the planned Reliability Growth Trials. These will inform methods for future armoured vehicle trials.
4	At the outset of the programme and throughout its duration, all programmes should define who has responsibility for the integration and performance of GFE within the platform.	Implementation ongoing with a change to the commercial policy statement for Government Furnished Assets and further work to assure its effect across Defence.
5	Safety risk governance, for this and future complex projects, should be revised to ensure that the status of all safety risks is considered by a single appropriate forum chaired by the SRO	Implementation ongoing with the establishment of dedicated central acquisition advisory team and the development of policy. Work continues to build support for safety risk governance across Defence organisations for Senior Responsible Owners with complex projects.
6	The Ajax project and future land programmes should ensure that it has sufficient suitably qualified and experienced senior health and safety professionals to support the programme and that these health and safety professionals are included in all key programme meetings	Good progress made in resourcing and establishing the expertise to meet this recommendation. Work continues to ensure permanent established staff are in place.

OFFICIAL

No.	Recommendation	Progress
7	DE&S should strengthen the way it assesses and responds to expert advice. In doing so, it should consider the cumulative impact of this advice, and record how it was considered, by whom and what action was taken	Implementation continues with improved operating policy in place, supported by further work to assure its application in practice.
8.1	Army health and safety reporting, analysis and escalation processes need to be reviewed and made more robust to ensure that all health and safety incidents and near misses are reported, analysed and where necessary escalated in a timely manner to allow effective action to be taken where appropriate	Very good progress made on the incremental roll-out of an incident reporting tool (known as DURALS) continues, including its support to trials. Work continues to improve proactive incident reporting and near misses.
8.2	The Army should implement a process for trials that provides the means to report confirmed injuries and near misses (symptoms or exposure) in real time, and that enables escalation of emerging issues to the appropriate risk holder. This process could include early adoption of the Defence Unified Reporting and Lessons System (DURALS) system which has been in development by the Army on behalf of Defence since 2019	
8.3	The Army should accelerate its plans to reinstate an internal investigation capability to enable formal safety investigations independent of the chain of command to be undertaken	Implementation continues on establishing the Army's internal investigation capability with recruitment underway.
9	Concurrent demonstration and manufacture should be avoided for projects unless the key user requirements can genuinely be met by MOTS equipment at a high Systems Readiness Level. The inherent safety risks associated with concurrent demonstration and manufacture should be carefully considered before this approach is adopted	Work continues to implement policy and practices to support handling concurrent demonstration and manufacture for programmes where the approach is appropriate.
10	DE&S and GDUK should maintain the collaborative 'One Team' ethos, including the Joint Programme Office (JPO) construct. Collaborative working with industry and finding win-win solutions is important for all projects, not just for Ajax. Project Teams should engage with senior leadership, especially in the contractor (at CEO level) at an earlier stage when safety issues emerge	Much improved collaborative working relationships between MOD and General Dynamics at all levels of the Ajax Programme, and work continues to adopt this at senior leadership level for other programmes, particularly for emerging safety issues.

OFFICIAL

No.	Recommendation	Progress
11	Same as 3	Same as 3
12.1	All ministerial submissions should have a mandatory safety section forcing a consideration of the safety impact of any departmental strategic decision	Policy issued for ministerial submissions to include a mandatory safety section
12.2	There should be a mandatory safety section within the management section of Business Cases, with reference to the development of the safety case and key safety risks	Policy issued and guidance being developed for business cases to include a mandatory safety section.
12.3	Director HS&EP should become a member or adviser of the Head Office Investment Approvals Committee (IAC) and DMPP Sponsor Group. Resources should be provided to establish an acquisition scrutiny cell within HS&EP Directorate to support this role	Director of Safety is now a member of appropriate approval committees and a dedicated central acquisition advisory team established.
13.1	Ensure that SROs and senior project leaders have the appropriate capacity and resource to successfully deliver a programme. HM Treasury and Cabinet Office guidance is that SROs are committed to spending no less than 50 percent of their time per major programme	Implementation ongoing with the Ajax Senior Responsible Owner making significant improvements across the programme and work continues to implement the intent across Defence organisations.
13.2	The HS&EP Function should be represented at the senior, professionally qualified level in each programme to support the SRO to ensure suitable safety decisions are being made within the programme management system	Implementation ongoing with the establishment of a dedicated central acquisition advisory team and the development of policy. Work continues to build support for safety risk governance across Defence organisations for Senior Responsible Owners with complex projects.
14	Army and DE&S should review key post tenure and succession planning to minimise the impact of churn on major programme safety case management, with view to retaining senior project leaders in post for either the duration of the project, or a 5-year minimum tenure	Implementation ongoing with a change to recruitment policies and practices to support tenures, and further work underway setting out standards to aid Defence organisations.
15	The DSA Defence Land Safety Regulator should be resourced to provide Third Line of Defence safety assurance/certification of land environment capability, modelled on the high-quality standard set by the Military Aviation Authority (MAA)	Implementation continues alongside the incremental build, validation and roll-out of a system to regulate the development of new land equipment (Recommendation 1).