

22 September 2022

Dame Meg Hillier MP
Chair, Public Accounts Committee
House of Commons
London
SW1A 0AA

Dear Dame Meg,

I wanted to take this opportunity to update you on the Ajax Programme following the publication of the Committee's report into Ajax earlier this year.

I am pleased to report strong progress on Ajax, with extensive trials that are demonstrating the full capability, along with the testing of enhancements for noise and vibration exposure for the crew.

Below I set out in detail the progress we've made in recent months:

Noise and Vibration Status

- An extensive assessment of the noise and vibration characteristics of Ajax has been completed following a joint investigation. All aspects of these characteristics are fully understood and compliant with the Ajax design and safety requirements.
- Enhancements to further lower the risk of noise exposure to the crews, and to reduce levels of vibration experienced by the crews, have been designed and successfully tested. These are currently progressing to final User Validation Trials with Army crews.
- For noise exposure, the primary change is to issue the crews with alternative headsets that provide improved performance, along with minor changes to the audio system to control radio and intercom volumes.
- For vibration, enhancement measures placed in the transfer path of vibration to the crews have further reduced exposure levels.
- Enhancements will be immediately embodied once User Validation Trials are complete.

We have completed our work on the selection of an alternative headset system that provides significant enhancement to the hearing protection for the crews, above the levels of the existing standard issue headsets. This dual layer system, which uses a combination of two systems that are already in service across the Armed Forces, has demonstrated very good performance in our testing, including benefits to communications intelligibility, and is currently under test with the Army.

Development and Testing of the Design

The overall system design is now complete and an extensive trials and testing programme on Ajax vehicles has continued over the last 6 months, successfully demonstrating compliance to the 1,200 system requirements across the six Ajax variants.

Trials and testing activity has been comprehensive, summarised as follows:

- In excess of 98,000km has been driven across a variety of terrains
- More than 97 battlefield missions have been successfully completed
- Manned live firing has been conducted with all weapons, including firing over 5,000 rounds of 40mm cannon
- Firing on the move at moving targets with the stabilised 40mm cannon has been successfully completed
- Hot and cold climatic trials have been completed
- 13 full vehicle mine blast tests have been successfully completed

Recent testing conducted over the last 6 months includes the following:

AJAX Survivability Testing. A further mine blast test on a complete production vehicle, including turret, was completed in May, with the dummy crew surviving the blast. A final two blast trials are planned for October and November to complete the survivability tests. The various armour packs have been tested for ballistic performance against the specified threats.

AJAX Live Fire. Testing of the fully stabilised 40mm cannon was conducted on MOD ranges at Lulworth in April, firing from a moving vehicle against moving targets at a variety of speeds and ranges. This test successfully demonstrated the full lethality capability of the Ajax turret system and 40mm cannon.

Reliability Trials. Both the AJAX and ARES variants successfully completed the entry qualification test for reliability in July, demonstrating reliability levels above those expected at this stage of the reliability growth programme.

Ajax Climate Testing Complete. Ajax variants have been fully tested at extremes of cold and heat in the QinetiQ environmental chambers, successfully operating at the extreme conditions with live crews in the vehicles (known as “manned habitability” trials).

Final Design Testing. The Ajax family final design (known as Drop 3) is undergoing extensive verification and validation to evidence compliance, with all variants undergoing a range of tests including:

- General requirements: Electromagnetic compatibility, power, carriage of munitions;
- Survivability: response to nuclear electromagnetic pulse, thermal and acoustic signatures.

Production Progress

The Ajax supply chain has been fully mobilised with materials procured for the total quantity of 589 vehicles. Manufacturing of vehicles in UK at the facility at Merthyr Tydfil continues, summarised as follows:

- A total of 143 vehicles have been completed, in all six variants. Of these, 135 have been accepted by the MOD with 26 delivered to the Army.
- A further 43 vehicles at the full Drop 3 design standard have been manufactured for trials and testing.
- 46 of the 103 training systems have been delivered to Army training sites, many of which are in use for Army training.

- 102 of 245 turrets and 324 of 589 hulls have been manufactured

Schedule for completion. GDUK and the MOD have worked together to develop a joint, integrated schedule for the delivery of the rest of the programme, and we are on track to this new schedule. The schedule has been extensively and independently reviewed.

As you can see we and colleagues in the Army and DE&S have had a busy six months and have made considerable progress on the Ajax programme. We are grateful for the Army's ongoing support and commitment at all levels to get these complex and comprehensive tests completed. We have recently hosted senior Army and procurement officials at our Merthyr Tydfil facility.

The Chief of the General Staff, General Sir Patrick Sanders, set out a challenge in his speech a few weeks ago, when he asked industry to 'fire the furnaces' to ensure that our armed forces are well equipped, not only to defend the country, but to deter Russian aggression in the first place. He called this "Operation MOBILISE". Ajax is key to the success of this campaign and will play a pivotal role on the future battlefield. We are particularly grateful to our supply chain of over 250 companies across the UK who are helping us provide this cutting-edge capability to our fighting forces.

We would welcome a visit to our Merthyr Tydfil facility from you and members of the Public Accounts Committee, where we will be keen to discuss the role development of Ajax has played in rebuilding our industrial capacity and skills required as a country to design, test and manufacture armoured vehicles, something that was substantially eroded during a long period of neglect. Rebuilding it is an underappreciated but highly significant benefit of Ajax. We'll look forward to discussing that further when we meet.

In the meantime, I trust that you will not hesitate to contact me if you have any questions about the content of this letter or Ajax in general.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Carew Wilks', with a stylized, flowing script.

Carew Wilks
Vice President & General Manager