

MORPHEUS: THE BRITISH ARMY'S NEXT PROCUREMENT FAILURE?

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By Robert Clark and Samuel Armstrong

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FOREWORD

By Rt Hon. Mark Francois MP, former Minister for the Armed Forces

The recent developments in Ukraine, with Russia having illegally invaded a sovereign neighbouring country on a massive scale, is an event on a par with 9/11 in security terms and a massive wake-up call for the United Kingdom and its NATO allies. In particular, it is a dire warning for the Ministry of Defence's procurement bureaucracy of the potential consequences of repeated failure to deliver equipment for the Defence of the Realm, on time and on cost.

This timely and penetrating analysis of the Morpheus programme by The Henry Jackson Society, following on as it does from its recent detailed critique of the dysfunctional Ajax reconnaissance vehicle programme, reveals yet another major British Army procurement programme in serious trouble.

This is even more worrying in the context of the UK Government's so-called "Integrated Operating Concept" (IOpC), of which Morpheus is intended to be a fundamental part. Put simply, without Morpheus being successfully developed and installed into current and future British armoured fighting vehicles, much of the inter-connectivity on which the IOpC critically depends is quite clearly unachievable.

The recent events in Ukraine make it even more important that the equipment with which the UK's Armed Forces seek to deter war – or would have to fight war, should deterrence fail – has to work and work well. The era when we can tolerate years of endless delay in critical defence programmes is rapidly coming to a brutal end.

This report should be read by politicians (including Ministry of Defence and Treasury ministers), media commentators and indeed Armed Forces personnel of all ranks, as an example of how not to run a defence programme and the risks which follow from highly bureaucratised and thus extremely inefficient equipment procurement.

With Russian armoured units already encircling Ukrainian cities as this report was being finalised, we simply have to do better than this – much better in fact – and do it quickly.

Mark Francois MP
March 2022

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INTRODUCTION

The ongoing Ajax armoured vehicle debacle has shifted focus onto the outdated and dysfunctional procurement system of the Ministry of Defence (MoD). The enduring and costly problems associated with this platform have been detailed in a previous report by this society, but by no means represent the only procurement issue currently facing the MoD.¹

The topic of this report is Morpheus, the replacement for the in-service Bowman tactical communication system. This comprises the majority sub-programme for the Land Environment Tactical Communication and Information System (LE TacCIS), and includes the transition to a new open systems architecture, Evolve to Open (EvO), which is intended to enable overall MoD control of the future of the system and prevent contractor lock-in.

In April 2017, General Dynamics Mission Systems (GDMS) was awarded a single-source 'Transition Partner' contract to open up the closed architecture.² This programme now appears to be significantly delayed and well behind the agreed schedule. The MoD had spent an estimated £1.5 billion on the LE TacCIS project by November 2021,³ with nothing of any real substance to show for that outlay. Of that spend, approximately £572 million had been spent on Morpheus,⁴ with £330 million allocated to the GDMS EvO contract. In March 2021, the House of Commons Defence Select Committee anticipated costly delays to the LE TacCIS and Morpheus programmes.⁵ The Select Committee also stated that the MoD and the Army must issue a statement on whether the programmes would be delivered on time and provide the capability described, and how obsolescence would be avoided.⁶

No statement or concrete assurance was provided. Furthermore, the EvO Transition Partner contract (signed by GDMS in 2017) was due to be completed shortly after the Defence Committee's remarks (by April 2021).⁷ This did not happen due to delivery shortfalls.⁸ The contract was subsequently extended by six months until September 2021; still nothing has materialised a further six months later. A new report from the National Audit Office (NAO) highlights that Morpheus "has had significant cost increases and is running at least three years late".⁹

This Henry Jackson Society report is the culmination of various meetings, interviews and discussions held towards the end of 2021 with members of the Armed Forces working on the Morpheus sub-programme, members of Army HQ and the MoD, and various civil

¹ Robert Clark, 'The British Army's Ajax: For or Purpose?' Henry Jackson Society, August 2021, <https://henryjacksonsociety.org/publications/ajax-fit-for-purpose/>.

² Land - EvO,' General Dynamics United Kingdom Limited, <https://generaldynamics.uk.com/card/land-evo/>.

³ 'Improving the performance of major equipment contracts,' 24 June 2021, National Audit Office, <https://www.nao.org.uk/wp-content/uploads/2021/06/Improving-the-performance-of-major-equipment-contracts.pdf>.

⁴ 'LE TacCIS Programme: Expenditure: Question for Ministry of Defence - Mark Francois,' UK Parliament: Written questions, answers and statements, 2 December 2021, <https://questions-statements.parliament.uk/written-questions/detail/2021-12-02/86053/>.

⁵ Obsolescent and outgunned: the British Army's armoured vehicle capability,' Defence Committee - House of Commons, 14 March 2021, <https://publications.parliament.uk/pa/cm5801/cmselect/cmdfence/659/65907.htm>.

⁶ Ibid.

⁷ 'LE TacCIS Programme: Question for Ministry of Defence - Kevan Jones,' UK Parliament: Written questions, answers and statements, 23 June 2021, <https://questions-statements.parliament.uk/written-questions/detail/2021-06-23/21158/>.

⁸ Jeremy Quin MP, letter, 25 August 2021, Ministry of Defence, <https://committees.parliament.uk/publications/7169/documents/75674/default/>.

⁹ 'The Ajax programme,' Ministry of Defence, 11 March 2022, <https://www.nao.org.uk/wp-content/uploads/2022/03/The-Ajax-programme.pdf>.

service members and stakeholders involved in the LE TacCIS programme. What has been uncovered is, at best, a further example of a potentially bungled defence procurement programme; at worst, a delayed and costly programme which will have a significantly detrimental impact upon the operational effectiveness of the UK's Armed Forces.

The report goes on to place Morpheus and the overall LE TacCIS programme within both a strategic and an operational context, outlining *why* it matters. More than merely a radio replacement, Morpheus allows for a whole system of sensors across many digitalised platforms, thus allowing LE TacCIS the ability to connect any sensor to any effector. This will shape the British Army's Integrated Operating Concept (IOpC), fulfilling the Army's vision for having a fully integrated and digitalised war-fighting division by 2030.¹⁰

Having outlined LE TacCIS in more detail, the report goes on to identify three fundamental concerns with the programme at this stage: the on-going delays and complexities surrounding the EvO contract, and how these will have knock-on effects to the British Army's combat effectiveness; the issues surrounding Elbit Systems' provision of the Battlefield Management Application (BMA) sub-programme; and finally how LE TacCIS further demonstrates (so soon after the recent Ajax issues came to light) how the MoD's procurement process requires changes to avoid similar mistakes in future programmes.

¹⁰ 'Future Soldier Guide,' British Army, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1037759/ADR010310-FutureSoldierGuide_30Nov.pdf, p.14.

1. STRATEGIC CONTEXT

The overall LE TacCIS programme has an agreed budget of £3.2 billion, with an estimated total lifetime cost originally set at £11.1 billion,¹¹ which is likely to have now risen to at least £14.4 billion.¹² The goal is to provide the British Armed Forces with a 'software-defined' system that offers significantly enhanced technical performance and user functionality, compared to the legacy Bowman technology, now 30 years old. Crucially, it encompasses the ongoing digitalisation of the Army and upcoming next-generation armoured platforms, including Ajax, Boxer and Challenger 3. It is clear therefore that LE TacCIS and Morpheus are far more than simply a programme to acquire new radios.

All of this comes at a sensitive time for the British Army, coming as it does alongside a significant shift in policy. Announced by the then-Chief of the Defence Staff (CDS) General Sir Nicholas Carter in September 2020, the publication of the IOpC¹³ presented a strategic blueprint for how the Army would fight in future conflicts. In order to support this fundamental step-change in how the British Army is to be deployed, the Chancellor announced a substantial financial uplift of approximately £16 billion shortly after, in the autumn spending review.¹⁴ The majority of this uplift was ringfenced for balancing the MoD's books; however, sums were set aside for developing capabilities through research and development.¹⁵

Alongside these announcements, the Government's Integrated Review (IR) and Defence Command Paper (DCP) outlined further changes to the structure of the Armed Forces. While the IR reiterated the IOpC's strategic vision for British geopolitics – a return to great power competition – the DCP set out harsh cuts to Army personnel over the next four years, and a sizeable reduction in conventional armour capability.¹⁶

Whilst the IOpC and IR laid the strategic ambition, the DCP indicated that the Army would need to move towards capability-driven programmes in order to offset reduced numbers. The C4I (Command, Control, Communications, Computers and Intelligence) space is critical to this new operating model, and the LE TacCIS programme is central to this approach. As a force multiplier capability, Morpheus is at the heart of LE TacCIS. Without it, the new armoured programmes intended to become operational over the next four years simply will not be successful.

The gamble that the MoD has made is that a significant reduction in Army headcount (from 82,000 to 72,500 over a four-year period) is being used to fund new capabilities. However, as both the IOpC and the IR outlined, the great threats to British national security over the coming decade are from great power rivalry. As Russia has demonstrated in Ukraine, quantity has a quality of its own. If the gamble is to pay off, then procurement must be successful in generating the required capability improvements.

¹¹ 'MoD Government Major Projects Portfolio data, 2019,' Ministry of Defence, 18 July 2019, <https://www.gov.uk/government/publications/mod-government-major-projects-portfolio-data-2019>.

¹² 'Improving the performance of major equipment contracts,' National Audit Office.

¹³ 'Integrated Operating Concept,' Ministry of Defence, 30 September 2020, <https://www.gov.uk/government/publications/the-integrated-operating-concept-2025>.

¹⁴ 'Spending Review 2020,' HM Treasury, 15 December, <https://www.gov.uk/government/publications/spending-review-2020-documents/spending-review-2020>.

¹⁵ 'What the extra defence spending means and where it will go,' UK Defence Journal, 20 November 2020, <https://ukdefencejournal.org.uk/what-the-extra-defence-spending-means-and-where-it-will-go/>.

¹⁶ 'The Defence Command Paper sets out the future for our armed forces,' Strategic Command, 23 March 2021, <https://www.gov.uk/government/news/the-defence-command-paper-sets-out-the-future-for-our-armed-forces>.

1.2 The LE TacCIS Programme

The LE TacCIS programme is being delivered by the Battlefield Tactical Communications and Information Systems (BATCIS) Delivery Team, in conjunction with both Army Headquarters and Strategic Command (STRATCOM). Comprising two separate sub-programmes, one of Networks, the other Morpheus, LE TacCIS consists of the following capabilities:

Networks: This sub-programme includes Trinity and Niobe among its platforms. Trinity is a deployable wide area network (WAN) allowing for global communications without being tied to a single geographic area,¹⁷ and includes sustaining the current network (Falcon). The contract for Trinity has yet to be awarded, but the MoD remains confident that the aspired initial operating capability can be delivered by Quarter two 2025.¹⁸ Niobe is a series of interlinked C4I technologies that will support Trinity, facilitating more effective communications over a greater range for the Armed Forces.

Morpheus: The Morpheus sub-programme is the replacement for Bowman. Whilst part of the Morpheus programme includes ongoing Bowman sustainment (including obsolescence management and maintenance of the current Bowman ComBAT Infrastructure and Platform (BCIP) 5.6 system), Morpheus also incorporates the eventual transition to a new open systems architecture (EvO), and new hardware including combat radios. The Morpheus sub-programme also includes both the new Dismounted Situational Awareness (DSA) programme, delivering (via tablet) the BMA, in addition to the Joint Common Remote Viewing Terminal (JCRVT).

Morpheus is the largest and most significant of the capabilities above, providing the open architecture (EvO) backbone for the digitalisation of the Army. The opening up of this currently closed architecture will allow for a revised infrastructure capable of meeting MoD's long-term aspirations for the British Army. Due to the multitude and complexities of the overlapping technologies and software development, this 'system of systems' which LE TacCIS provides is in fact one of the toughest procurement programmes MoD has been involved with since the original Bowman programme 30 years ago.

¹⁷ 'Guidance: LE TacCIS Programme,' Ministry of Defence, 1 October 2020, <https://www.gov.uk/guidance/le-taccis-programme#trinity-sub-programme>.

¹⁸ 'Written Question: LE TacCIS Programme,' Parallel Parliament, 3 March 2022, https://www.parallelparliament.co.uk/writtenanswers/search?search_term=LE+TacCIS+Programme&order_field=datenew&document_type=writtenanswers&page=2.

2. PROBLEMS: THE EVO CONTRACT

A central component of the Morpheus sub-programme is the requirement placed on GDMS by the MoD to open the systems architecture – the Evolve to Open contract. EvO allows the MoD to retain Intellectual Property Rights (IPR) ownership, avoiding vendor lock-in when looking for updates, maintenance and next-generation upgrades. The original Bowman contract was a closed system, which relied on GDMS to integrate third-party systems.

While standard practice at the time, closed architecture systems give vendors leverage in negotiations over enhancements and updates. It was decided that GDMS was the best option to open its own architecture.

GDMS had aimed to deliver EvO by the end of 2020, but missed key project milestones on a regular basis. Delivery was delayed until April 2021, then further delayed to September 2021.¹⁹ As of March 2022, there is still no official word on when EvO will be delivered. This is now a minimum 15-month delay from the initial set deadline and will likely be longer. Some private estimates voiced to the author claim delivery is more likely to happen towards the end of 2022. This would put Morpheus back a minimum of two years.

At the close of 2021, the Minister for Defence Procurement, Jeremy Quin MP, in a written answer to Mark Francois MP, stated that Morpheus project deliverables that had been received by 2 December 2021 included a “Joint Programme Office, a Test and Reference Centre, Target Architecture and an Installation Design and Certification project.” Quin went on to explain how progress on the EvO contract had “fallen considerably short of what was anticipated”²⁰ and that the MoD was “reviewing next steps on how best to achieve our objectives on Morpheus.”²¹

There are several likely reasons for the now-mounting delays by GDMS in delivering EvO. Some stakeholders involved with LE TacCIS have voiced concerns that the transformation from a closed to an open architecture is simply too ambitious, and that the MoD would have been better with an off-the-shelf capability already in production. This option was previously dismissed by the department as unaffordable and resource intensive.

Making the architecture ‘open’ is also a slightly ambiguous term; different stakeholders interpret this in different ways with no consensus understanding of the implicit contractual obligations, types of hardware available for later operation and even the nature of the IPR rights.

There is also potential concern from GDMS that the MoD may hold back some of the promised funding; ongoing delays by GD Land Systems to the now much-delayed Ajax programme will hardly smooth matters further.

Some industry experts working on the system even disputed to the author whether the current BCIP 5.6 architecture could be opened, or whether any system can ever truly be classed as ‘open’.²² These are all concerning issues at this stage of the process, and in all fairness should not have been allowed to continue this far without serious recourse.

¹⁹ ‘Written Question: LE TacCIS Programme,’ Parallel Parliament, 3 March 2022, https://www.parallelparliament.co.uk/writtenanswers/search?search_term=LE+TacCIS+Programme&order_field=datenew&document_type=writtenanswers&page=1.

²⁰ Ibid.

²¹ Ibid.

²² Interviews with the author.

The now highly likely two-year delay in delivering EvO (at a best-case scenario for the end of 2022) will put the Morpheus Initial Operating Capability (IOC) back to the end of 2027, and the Full Operating Capacity (FOC) back from 2029 to 2031. Therefore, LE TacCIS could still be a minimum nine years away.

In a response to questions from the Henry Jackson Society, GDMS UK said:

The MORPHEUS Evolve to Open (EvO) contract was signed in 2017 in order to transition from the closed architecture of the in-service Bowman system to an open-architecture system baseline on which the future MORPHEUS Evolutionary Capability Delivery (ECD) phase would build, resulting in the MORPHEUS system as an eventual replacement for Bowman. Coupled with the open architecture, the MoD will own the system architecture and design, meaning that dependence on a single vendor has been removed. As part of the MORPHEUS programme, the MoD will be able to tender for a Systems Integrator and for an ecosystem of vendors to supply new applications, radios and other system components through the ECD phase, as briefed to industry at successive industry days.

By using the Agile Development Framework to develop the EvO system – adopted at MoD's request – the customer and user were able to remain central to the evolving design of the system. To date, over 600 users have been involved which, for example, has resulted in a new generation of EvO hardware which has greatly benefited from that involvement, resulting in highly usable products. An intended outcome of the Agile process is to allow the joint programme team to direct effort into higher priority areas, potentially at the expense of lower priority areas, during a series of three-monthly Programme Increments. GD met all key milestones until 2020 (10 Programme Increments) when it became clear that there were misalignments in expectations between the parties. In 2021, the MoD and GD achieved alignment on the programme outcomes, agreed how to reconcile the impacts of the changes Agile introduced, as well as how to incorporate emergent requirements. This resulted in an in-principle agreement for an extension to the EvO programme and the successful completion of a significant system review in September.

GD remains committed to the successful completion of the EvO project, in line with the MoD's original aims of delivering open architecture and system, removing dependence on a single vendor, and providing a foundation on which the MoD can tender for and execute the subsequent MORPHEUS programme. In parallel, GD will continue to support the Bowman system, ensuring it continues to meet the needs of the British Armed Forces. It should be noted that GD's EvO and Bowman support contracts are under the conditions laid down by the Single Source Regulations Office (SSRO), which means that there is full transparency of GD's costs, of which SSRO and MoD have full visibility, and which means GD's profit is set at the Government-stipulated levels. Should any actual increases arise to those profit levels, these would be dealt with via the regulations set out under the Defence Reform Act.²³

²³ Email from GDMS UK to the Henry Jackson Society, received 9 March 2022.

Regardless of the causes of these delays, their existence raises two major problems for the Armed Forces. The first is that the in-service capability BCIP 5.6 is set to leave service by 2025–26.²⁴ This would mean a minimum period of 12–24 months when Bowman is outdated and out of service but the IOC for Morpheus has not been achieved. This will naturally mean increased costs for the Morpheus sub-programme which includes Bowman sustainment and maintenance, but will also mean operating with technology already 30 years old which will be out of date compared to peer rivals. As the NAO has pointed out, this will limit the capabilities of the Ajax system, forcing the Army “to adapt how it will operate the vehicles until full digital capabilities are available.”²⁵

The second problem is that the Army’s intent to provide a fully digitalised war-fighting armoured division, ready for 2030, will be delayed by a minimum of one year. This minimum is a best-case scenario which assumes no further programme delays from January 2022, with EvO delivered by the end of this year. With no further announcements from the MoD, even this would be a relatively good outcome.

2.2 Elbit Systems and the BMA

Elbit Systems UK, a subsidiary of Israeli defence firm Elbit Systems, was selected in October 2018 to deliver the BMA component of the Morpheus sub-programme.²⁶ According to a press release, issued by Elbit, it was “awarded an initial contract of circa £10 million (approximately US\$13 million) and a potential maximum value of £40 million, from the UK Ministry of Defence to provide the MORPHEUS Battlefield Management Application”.²⁷ Under the contract, Elbit was required to deliver an “operationally proven battlefield management application for both headquarters and tactical units”²⁸ that will replace the in-service ComBAT command and control capability. Elbit’s BMA programme TORCH-X, an advanced C4ISTAR (Command, Control, Communications, Computers, Intelligence, Surveillance, Targeting Acquisition and Reconnaissance) system, has already been developed and trialled with British forces (13 Signals Regiment) in NATO’s Coalition Warrior Interoperability Exercise in Poland in 2021.²⁹

The BMA capability is possibly the most important and impactful one to be added onto Morpheus’s open architecture. The application will act as a blue force tracker, allowing both tactical and HQ commanders to visualise and coordinate their troops. It is based around the existing Elbit Systems TORC2 H command and control system, already used by other militaries globally.³⁰

Multiple MoD and industry sources have told the Henry Jackson Society that the Elbit BMA programme is delayed and causing internal concern at the MoD. The Henry Jackson Society raised these concerns with Elbit Systems UK in the preparation of this report, receiving a

²⁴ ‘BOWMAN Combat Radio System: Question for Ministry of Defence – Kevan Jones,’ UK Parliament: Written questions, answers and statements, 18 August 2021, <https://questions-statements.parliament.uk/written-questions/detail/2021-08-18/40637>.

²⁵ ‘The Ajax programme,’ MoD.

²⁶ ‘Elbit Systems UK Subsidiary Awarded a Contract by the UK MoD to Provide Battle Management Application,’ Elbit Systems, 2 October 2018, <https://elbitsystems.com/pr-new/elbit-systems-uk-subsidiary-awarded-a-contract-by-the-uk-mod-to-provide-battle-management-application/>.

²⁷ Ibid.

²⁸ Ibid.

²⁹ ‘Elbit deploys TORCH-X BMA system in Nato exercise CWIX 2021,’ Army Technology.com, 29 July 2021, <https://www.army-technology.com/news/elbit-torch-x-bma-nato-exercise-cwix-2021/>.

³⁰ Julian Nettlefold, ‘UK multi-domain warfare takes a step forward,’ Battlespace, 1 November 2021, <https://battle-updates.com/uk-multi-domain-warfare-takes-a-step-forward-by-julian-nettlefold/>.

written response on 3 February 2022 in which a spokesperson refuted allegations that the project was delayed or had not been delivered to satisfaction as “factually incorrect”.³¹ They added: “all 20 BMA software drops have been delivered on time and to the UK MOD’s satisfaction.”³²

Subsequent to this response being provided by Elbit Systems UK, Mark Francois MP, the Member of Parliament for Rayleigh and Wickford and a member of Defence Select Committee, submitted written questions connected to the procurement to the Secretary of State for Defence.

The questions and answers were:

Mark Francois: To ask the Secretary of State for Defence, what the original delivery date was for the Morpheus Battlefield Management Application.

*Jeremy Quin, Minister for Defence Procurement: The MORPHEUS Battlefield Management Application had a planned delivery date of May 2020.*³³

Mark Francois: To ask the Secretary of State for Defence, whether the Battlefield Management Application for the Morpheus programme has been successfully delivered to his Department.

*Jeremy Quin: No it has not. The current timelines for Battlefield Management Application delivery are currently under review as they are interdependent with the delivery of the Evolve to Open (EvO) programme.*³⁴

The Minister’s answers appear, therefore, to indicate a significant delay in the delivery of the BMA. The system’s original delivery date was May 2020. In February 2022, almost two years after this date, the Minister for Defence Procurement was not content that the project had been delivered. Indeed, the Minister indicated that the timelines were currently subject to a review.

In a further exchange, Elbit Systems UK was asked to comment on the seeming discrepancy between its response and the Minister’s statement that the BMA, originally due to be completed in May 2020 and which Elbit had claimed to be responsible for, had not been delivered. In a response on 14 March 2022, Elbit Systems UK stated that it stood by its original response that the project was not delayed, and all software drops had been completed on time and to the MoD’s satisfaction. Elbit elected not to provide the Henry Jackson Society with any further elaboration or response to the multiple points put to them.

It is important to emphasise that what look to this author to be delays in the delivery of this capability – in spite of Elbit’s statements to the contrary – could have consequences. The immediate impact could be that British forces are forced to rely on the BCIP 5.6 for longer than forecast, operating with increasingly outdated technology at a time when the emphasis of procurement is making up for reduced quantity through quality of capability.

³¹ Email from Elbit Systems UK to the Henry Jackson Society, received 3 February 2022.

³² Ibid.

³³ LE TacCIS Programme: Question for Ministry of Defence – Mark Francois, UK Parliament: Written questions, answers and statements, 21 February 2022, <https://questions-statements.parliament.uk/written-questions/detail/2022-02-21/126557>

³⁴ LE TacCIS Programme: Question for Ministry of Defence – Mark Francois, UK Parliament: Written questions, answers and statements, 21 February 2022, <https://questions-statements.parliament.uk/written-questions/detail/2022-02-21/126558>

These issues are compounded by wider concerns regarding Elbit Systems' 'battlefield management application' or 'system'. Elbit's contract to provide a new 'battlefield management system' (BMS) for the Australian Armed Forces has been beset by public controversy.

In April 2021, the Australian Broadcasting Corporation (ABC) reported that Australian "Army Headquarters... issued a directive ordering Defence to 'cease use' of the Elbit BMS Command and Control (BMS-C2) in preparation for a replacement system."³⁵ The ABC reported, "The employment of the BMS-C2 system version 7.1 within Army's preparedness environment is to cease no later than May 15 2021".³⁶ According to the ABC, Military sources told them that Defence "believes the Elbit technology may compromise sensitive data".³⁷

Elbit Systems Australia strongly denied the existence of any security problems with its product. The ABC reported that, in a statement, Elbit Australia managing director, retired Major General Paul McLachlan, said:

Elbit Systems of Australia strongly refutes the security rumours raised in recent media articles.

Elbit Systems of Australia utilises secure software development processes in collaboration with the Department of Defence, including the provision of all source code.

*Elbit Systems of Australia will continue to work closely with the Australian Defence Force to deliver its network capability requirements.*³⁸

On 1 June 2021, the ABC reported that British officials had, in late 2020, "approached the Australian Defence Force to learn more about possible risks associated with a Battle Management System developed by Elbit Systems."³⁹ The ABC further reported that a "UK-based defence figure claimed a task force had now been established within the Morpheus program to examine any possible security risks associated with Elbit technology, although the MOD would not confirm this."⁴⁰ The Henry Jackson Society understands that the talks were "informal" and took place at a "junior level".⁴¹ An Australian source with knowledge of the approach has confirmed to the Henry Jackson Society that the talks took place.⁴²

At the time, an MoD spokesman told the ABC that "The MOD requires all suppliers to work with the Defence Cyber Protection Partnership, which ensures cyber and security controls are proportionate to the nature of the contract". The spokesman added that "The MOD routinely engages with international allies and partners on procurement".⁴³

³⁵ Andrew Greene, 'Israeli company denies "security rumours" as Defence removes multi-billion-dollar technology and quarantines Army IT systems,' ABC News, 6 May 2021, <https://www.abc.net.au/news/2021-05-07/israeli-company-elbit-systems-of-australia-removed-army/100121238>.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Andrew Greene, 'British military seeks briefings from Australia over security concerns about Israeli battle management technology,' ABC News, 1 June 2021, <https://www.abc.net.au/news/2021-06-02/british-military-briefings-australia-security-elbit-technology/100181550>.

⁴⁰ Ibid.

⁴¹ Interview conducted by the author.

⁴² Ibid.

⁴³ Greene, 'British military seeks briefings from Australia.'

On 2 June 2021, the Australian Army's Chief of Army, Lt Gen. Burr, and Head Land Capability, Maj. Gen. Simon Stuart, alongside the Australian Department of Defence's (DoD) Chief Information Officer, Stephen Pearson, gave evidence before the Australian Senate Estimates Committee regarding the Elbit Systems BMS.⁴⁴ Burr and Stuart acknowledged that the use of the system had been "paused" and suggested that the BMS iterations 7.1 and 9.1 had never received "full security accreditation"; that technical advice on accreditation is provided by the Australian Signals Directorate; that version 9.1 of the system had "not been delivered, because it doesn't meet the requirements of the contract"; that several milestones have been missed; and that the accreditation failures were with respect to "ICT security accreditation".⁴⁵

In response to an allegation of "back doors", Pearson said, "Certainly it is not information and language that I have used as far as the accreditation processes we go through are concerned. Where that reference came from I am not sure".⁴⁶ However, when pressed by Senator Wong's statement that, "You've not refuted 'back door'; you just said that's language you haven't used", Pearson replied "Correct".⁴⁷ Pearson also answered in the affirmative to a question from Senator Wong that "...there are concerns about who can access, which is germane to the decision not to the re-accredit, correct?"⁴⁸ In September 2021, the ABC reported that, "At the time of the senate hearing, Elbit's managing director, retired major general Paul McLachlan, also declared there was no 'security back door' in the Israeli software."⁴⁹

The ABC further stated that a confidential report had criticised the Australian DoD's handling of the BMS procurement.⁵⁰ In February 2022, the Henry Jackson Society contacted Elbit Systems UK and put to them the allegation that the Australian procurement of the BMS had been cancelled following delays.

In a response, Elbit Systems UK said it was inaccurate to suggest that the project had been cancelled. A spokesman added, "The Elbit Systems of Australia contract with the Australian Armed Forces has not been cancelled and this has been publicly confirmed by representatives of the Australian Department of Defence."⁵¹ With the use of the software paused, the Australian Defence Force has turned to an interim software solution provided by the Danish provider Systematic which could be used for "up to three years", and has no advice that suggests the latest version of the Elbit system will be accredited for use.⁵²

Subsequent to that exchange, a senior Australian DoD source with the authority to speak on behalf of the Department told the Henry Jackson Society that the "security concerns were legit[imate]", were shared by Ministers, and that Ministers had asked to be updated on them as recently as this year.⁵³

⁴⁴ 'Foreign Affairs, Defence and Trade Legislation Committee,' Parliament of Australia, 2 June 2021, <https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22committees%2Festimate%2Fb68406cf-57a0-49de-9123-75f11bc271c6%2F0002%22;src1=sm1>.

⁴⁵ Ibid.

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Andrew Greene, 'Secret report criticises defence over scrapping of multi-billion-dollar Israeli technology by Australian army,' ABC News, 3 September 2021, <https://www.abc.net.au/news/2021-09-04/defence-criticised-confidential-report-elbit-military-project/100422476>.

⁵⁰ Ibid.

⁵¹ Email from Elbit Systems UK to the Henry Jackson Society, received 3 February 2020.

⁵² 'Foreign Affairs, Defence and Trade Legislation Committee.'

⁵³ Interview conducted by the author.

In March 2022, the Henry Jackson Society contacted Elbit again, putting to them the specific allegations – that the project had been paused (as opposed to cancelled); that iterations of the BMS had not met security accreditation; that the project had not been delivered successfully or to time; and that a senior Australian DoD source had told the Henry Jackson Society that there were legitimate security concerns with the project.⁵⁴

In a response, Elbit Systems UK opted not to provide any further comment other than to say that it stood by its original response.⁵⁵

This combination of British concerns over timeliness and Australian concerns over the technical security of systems delivered by Elbit raises potential concerns that delivery to the MoD's satisfaction may take longer than anticipated, with knock-on effects for the capabilities of the Armed Forces in the interim.

2.3 The MoD's Broken Procurement Policy

The troubled Ajax programme and the issues set out above with regards to Morpheus demonstrate the urgent need for an external review of the Army's acquisition model, and the allocation of responsibilities within it.

One area to begin a deeper review into would be how the offices responsible for MoD procurement function with each other, and indeed the structure itself. For instance, the Joint Projects Office (JPO) often suffers from inefficiency and bureaucracy, due to a civil service framework which in turn has a limiting effect on resource allocation and expertise, and highly limiting fixed two-year contracts. As the JPO sits between both Army HQ and BATCIS, this leads to disjointed project timelines, causes inefficacy, and ultimately leads to increases in the cost of external contracts.

The rapid turnover of senior Army personnel at MoD, Abbey Wood, and at other key procurement, testing and administrative sites, also leads to a lack of continuity of effort during the development phase of programmes (i.e. from conception, through testing and trials, through to IOC). The standard two-year appointments are often a poor fit for programmes which span at least double if not triple that time before reaching IOC. An officer will begin to become familiar with a programme only to hand over to someone new starting from scratch. This is a highly disjointed process which leads to delay, inefficiency, confusion and a lack of technical proficiency of sufficient length to hold authoritative accountability among key project stakeholders.

A third reoccurring problem identified in the Department's procurement process is the 'Agile' contract delivery process which the MoD often uses. Agile is a methodology widely used for delivery of digital services, where the speed of technological change would overtake traditional procurement approaches. However, these programmes still have a defined outcome, requirements and solutions are developed iteratively. The balance of cost, time and capability is subject to constant change throughout the processes.⁵⁶

⁵⁴ Email from the Henry Jackson Society to Elbit Systems UK, sent on 9 March 2022.

⁵⁵ Email from Elbit Systems UK to the Henry Jackson Society, received on 14 March 2022.

⁵⁶ Ibid.

These concerns, amongst others, have been highlighted in the Defence Select Committee's Armoured Vehicles inquiry and subsequent report:

Procurement practices and skills were frequently found wanting; in 2011 the NAO concluded that the failure to introduce any new vehicles since 1997 indicated that, "the Department's standard acquisition processes for armoured vehicles was not working". Subsequently the Committee of Public Accounts concluded that "there [was] poor accountability for long-term equipment projects". This process is, self-evidently, still not working a decade later. (Paragraph 24).⁵⁷

⁵⁷ 'Obsolescent and outgunned,' Defence Committee – House of Commons.

CONCLUSION

With the ongoing and troubled Ajax programme coming under increasing parliamentary and public scrutiny, the MoD is now facing the very real prospect of a second troubled procurement programme. The Agile delivery methodology is fundamental to delivering complex technical procurement programmes. However, the LE TacCIS programme and its many deliverables are starting to experience significant delays, alongside potential concerns about the technology provided by Elbit.

These delays, it must be stressed, carry much greater resonance than merely prolonging the use of aging communications systems for the British military. As recent successive documents have now laid out, the British Army's future deployability hinges upon the successful integration of the full digitalisation of incoming vehicle platforms combined with the crucial C4I space. This will, it is hoped, enable the British Army to mitigate the continuing depletion of its traditional centre of gravity - the infantry and its heavy armour support.

These delays are already estimated by this report to have pushed back by at least one to two years the Defence Secretary's objective of having a fully digitalised, credible and capable war-fighting division by 2030. Until this vision is realised, at the current rate and pace of innovation amongst the UK's adversaries, the British military would not be able to compete in a full-spectrum conflict with a peer-rival. This fully conflicts with the recent IR which states the return to great power competition as the biggest threat to the UK's national security, highlighted by Russia's war in Ukraine.

In order for the MoD to avoid the sorts of issues currently experienced by the Ajax programme, an investigation must commence to determine the exact nature of the delays, their root cause, and how they can be evolved.

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PROCUREMENT FAILURE?"

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