

UK Armed Forces Equipment Allocation

Repository: <https://github.com/c-524573/uk-armed-forces-equipment-allocation>

The purpose of this report is to analyse UK Armed Forces equipment and use the dashboard tool to inform decision-making on procurement and resource allocation. The dashboard is available at: <https://uk-armed-forces-equipment-allocation-t2mms08afyop6xpqtwnwno.streamlit.app/>

Executive Summary

- Air capabilities have grown, whereas land and naval stockpiles are static or declining.
- Land-focused budget yields increased equipment, whereas air and naval focus improves strategic capability.
- Further analysis should include future technologies and operational costs.

1 Problem Description

With UK defence spending increasing from 2.3% of GDP to a proposed 2.5% by 2027 [1], approximately £4.7 billion in additional revenue will be available, assuming a flat GDP. Part of this budget will likely be available for additional equipment. This paper and the associated dashboard aims to improve understanding of the equipment available. Several scenarios are proposed focusing resources on the three main battlefield domains: land, air, & sea.

2 Analysis

The UK Armed Forces Equipment and Formations 2024 [2] dataset is used to understand the stockpile of military equipment between 2016 and 2024. The dataset is augmented with the unit cost for each piece of equipment used in this analysis. The equipment cost is sourced from open source data or comparison to similar hardware, so has a risk of being inaccurate or outdated.

The default budget used in this analysis is £4.7 billion, a value that can be modified in the dashboard. Figures 1, 3 & 5 shows the current units by category, along with the additional units if the entire budget is spent on that category. The purpose is to visualise how far the budget stretches while purchasing different types of equipment. In order to understand the potential future additions, Figures 2, 4 & 6 show how the stockpile has changed between 2016 and 2024.

Land Equipment

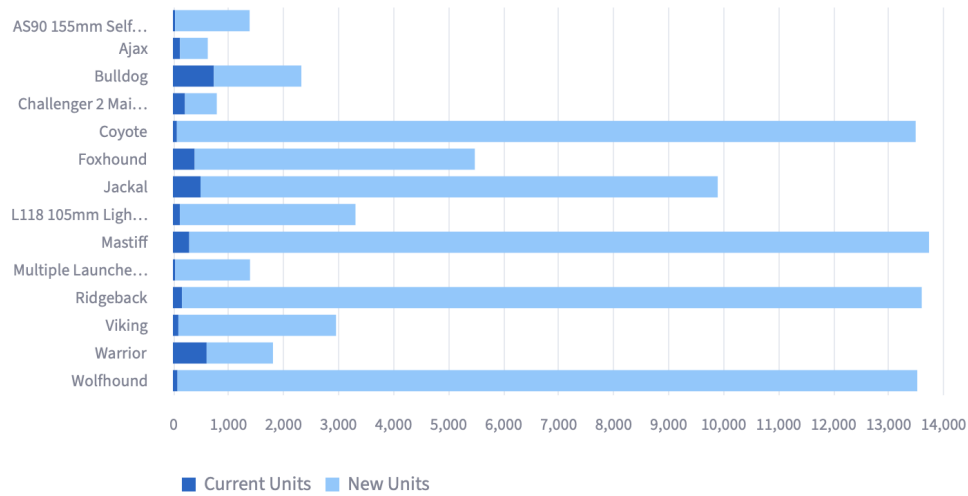


Figure 1: Land equipment current units (dark blue) with potential additional units (light blue)

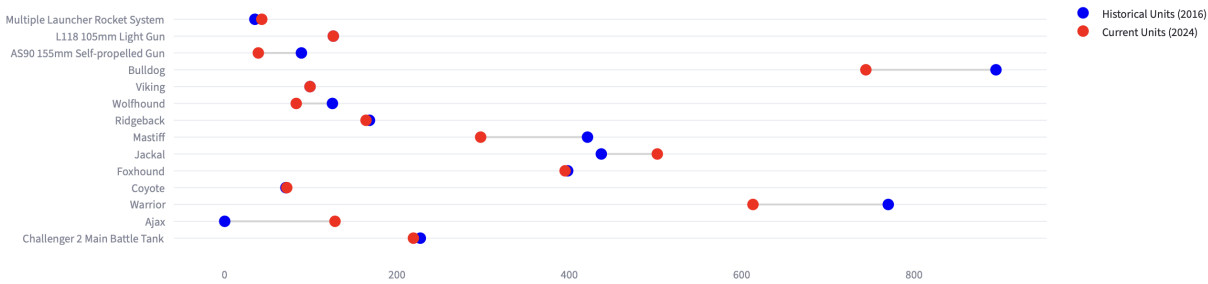


Figure 2: Land equipment current stockpile (2024) vs historic stockpile (2016)

Naval Vessels

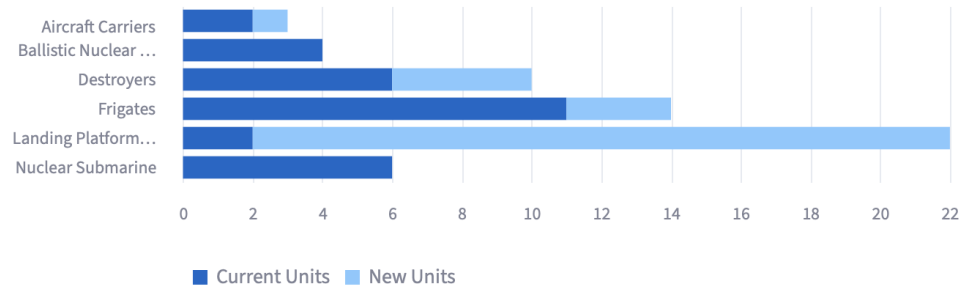


Figure 3: Naval vessels current units (dark blue) with potential additional units (light blue)

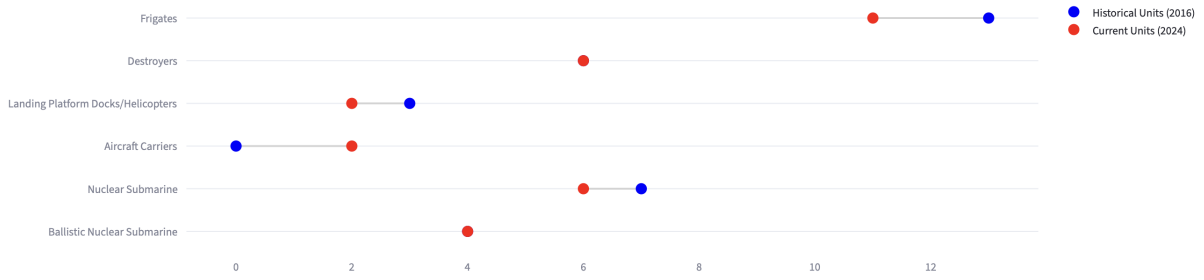


Figure 4: Naval vessels current stockpile (2024) vs historic stockpile (2016)

Aircraft

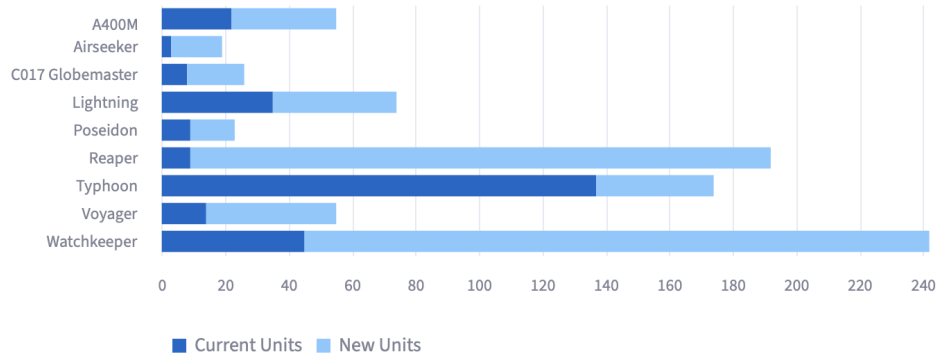


Figure 5: Aircraft current units (dark blue) with potential additional units (light blue)

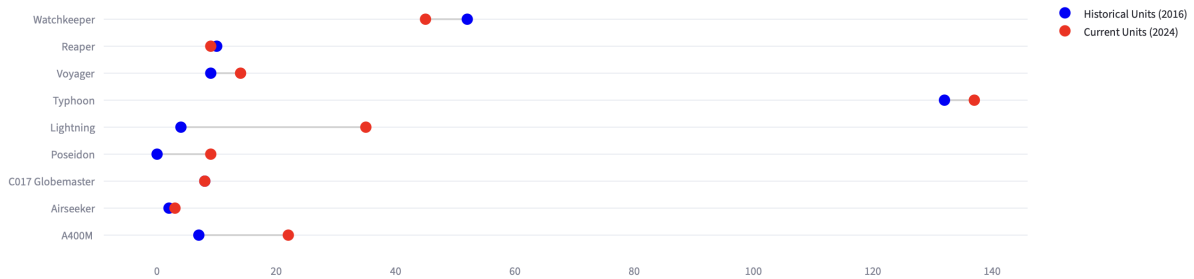


Figure 6: Aircraft current stockpile (2024) vs historic stockpile (2016)

From these visualisations several key trends are visible:

- Figure 4 shows that the number of naval vessels has decreased by 6% over the last 8 years
- Figure 1 shows that land equipment can be significantly augmented by this increase in budget
- Figure 6 shows that over the last 8 years, there has been a significant investment into air, increasing the number of F-35Bs (Lightning) from 4 to 35

3 Scenarios

Three scenarios propose focusing the budget on the each of the main battlefield domains.

3.1 Land Equipment Focus

Increased focus on land equipment, ranging from main battle tanks and armoured personnel carriers, to artillery and rocket launch platforms.

Pros

- Increased NATO ground force contribution
- More equipment for the budget compared to naval or air

Cons

- Reduced naval and air budget impacts the UK's effectiveness at protecting Europe's northern flank

3.2 Naval Focus

Increased focus on naval assets, focusing on surface vessels as the budget is insufficient to purchase submarines.

Pros

- Investing in a strong navy is a proven defence strategy for an island nation
- Offsets the reduction in navy size trend seen over the last 8 years (note that the size of a navy does not directly indicate its effectiveness)

Cons

- Less equipment for the budget compared to air and especially land equipment

3.3 Air Focus

Increased focus on air assets, focusing mainly on aircraft, improving both air and carrier capabilities.

Pros

- Air superiority is essential on the modern battlefield, increasing air capabilities solidify the UK's strong position in Europe
- Aircraft such as the F-35B (Lightning) can be used to bolster both air and carrier strength

Cons

- High maintenance cost for aircraft, F-35Bs cost on average £4.9m per aircraft per year in maintenance costs [3]

4 Conclusion

The decision on where the budget should be spent depends on the needs of the armed forces. An increase in land equipment improves the UK's capability to support and lead NATO land operations, such as military training, border control, and peacekeeping operations. As an island nation, an increase in naval equipment improves the UK's ability to keep threats away from the homeland. An increase in aircraft, strengthens the UK's defence of the homeland and aids NATO in achieving air superiority during operations.

The NATO partner countries must communicate to understand the strengths and weaknesses of each nation. The additional budget generated by the increase in GDP should be spent to reduce the weaknesses of the combined NATO force.

References

- [1] Niamh Foley, Louisa Brooke-Holland, Claire Mills, Georgina Hutton, and Nigel Walker. Uk defence spending. <https://commonslibrary.parliament.uk/research-briefings/cbp-8175/>. Accessed: 10/09/2025.
- [2] Ministry of Defence. Uk armed forces equipment and formations 2024. <https://www.gov.uk/government/statistics/uk-armed-forces-equipment-and-formations-2024>. Accessed: 10/09/2025.

- [3] F-35 sustainment: Costs continue to rise while planned use and availability have decreased. <https://www.gao.gov/products/gao-24-106703>. Accessed: 10/09/2025.