



Ministry  
of Defence

Introducing the

# Integrated Operating Concept

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# The Integrated Operating Concept

The Integrated Operating Concept 2025 sets out a new approach to the utility of armed force in an era of persistent competition and a rapidly evolving character of warfare. It represents the most significant change in UK military thought in several generations. It will lead to a fundamental transformation in the military instrument and the way it is used.

**“The nature of war remains constant: it is visceral and violent... and it is always about politics. What is changing is the character of warfare, which is evolving significantly due to the pervasiveness of information and the pace of technological change.”**

General Sir Nick Carter GCB CBE DSO ADC Gen, Chief of the Defence Staff

# The Imperative For Change

The threat has evolved:



Adversaries don't recognise the rule of law

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Pervasive information and new technologies have enabled new tools and techniques to undermine our cohesion

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Adversaries have studied the Western Way of war and modernised their capabilities accordingly

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Adversaries proliferate their capabilities to proxies

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The effects of 'lawfare'

**“We need a new model for deterrence that takes account of the need to compete”**



The **strategic context is increasingly complex, dynamic and competitive.** The UK, our allies and alliances, and the multilateral system that has assured our security and stability for several generations, all face diversifying, intensifying, persistent and proliferating threats, from resurgent and developing powers, and from non-state actors such as violent extremists.

These threats blend old elements — competition for resources, territory and political power — with new approaches. **Our adversaries and rivals engage in a continuous struggle involving all of the instruments of statecraft, ranging**

from what we call peace to nuclear war. Their strategy of 'political warfare' is designed to undermine cohesion, to erode economic, political and social resilience, and to challenge our strategic position in key regions of the world. Their goal is to win without fighting: to achieve their objectives by breaking our willpower, using attacks below the threshold that would prompt a war-fighting response. These attacks on our way of life from authoritarian adversaries and extremist ideologies are remarkably difficult to defeat without undermining the very freedoms we want to protect. **We are exposed through our openness.**



**“The UK faces threats**

**from resurgent and developing**

**powers, states and non-state actors,**

**And a continuing threat from**

**violent extremism”**



The **pervasiveness of information and the pace of technological change are transforming the character of warfare.**

Old distinctions between 'peace' and 'war', between 'public' and 'private', between 'foreign' and 'domestic' and between 'state' and 'nonstate' are increasingly out of date.

Our adversaries employ an expanding, diverse and largely unregulated set of information tools to influence target audiences' attitudes, beliefs and behaviours. These weapons are increasingly employed above and below the threshold of war. They challenge international norms and restrict our response options. They work in the seams of our institutions, exacerbate societal divisions and prejudices, and lead people to cooperate, wittingly or unwittingly, in the **undermining of democracy.**

The **triumph of the narrative** increasingly determines defeat or victory and hence the importance of information operations. They can be used to support conventional military operations and those utilising proxies and deniable paramilitary forces, military coercion, offensive cyber operations, and of course lawfare. Established techniques, such as assassination, deception, economic coercion, espionage, theft of intellectual property and subversion gain potency through the clever use of cyber, digitized information, and social media. Psychological insights into how these channels can be manipulated enhance their effectiveness.

The combined effect is designed to force an adversary to become politically cowed, thus **achieving objectives without the need to escalate above the threshold of war.** Operations

previously considered merely as 'shaping' can now be 'decisive'. Russia's seizure of Crimea in 2014 provides a stark case study in which a fait accompli strategy changed facts on the ground below the threshold at which a war fighting response would be triggered.

The **pace of technological change** and proliferation is rapidly broadening and deepening the threat spectrum. As evidenced in Syria and Iraq, **commercial technologies have disrupted the economics and character of warfare.**

They are — increasingly — cheaper, faster, lighter, smaller and stealthier. They offer a persistent and pervasive presence in the battlespace. They are readily available in large numbers and at low cost.

Such capabilities sit alongside more sophisticated traditional weapons available to well-resourced states, as well as threats from cyber and space. These high-end adversaries continue to develop increasingly sophisticated military capabilities. Many have modernised and expanded their capability, as well as proliferating it to their proxies, to challenge us above and below the threshold of war, **looking to counter the advantages we have enjoyed for the last 30 years** such as air superiority, strategic mobility and unconstrained use of the electromagnetic spectrum. Additionally, the challenge to nuclear stability is growing. Existing nuclear states are modernising their strategic capabilities and limited tactical nuclear weapons are a credible operational consideration for some. Nor do weapons of mass effect reside exclusively in the chemical, biological, radiological and nuclear spheres, but extend to the cyber and electromagnetic Domain.

As we look further ahead, into the next decade, the combination by then of proven technologies such as pervasive availability of data via enhanced cloud connectivity, machine learning and artificial intelligence, and quantum computing will allow not just a new generation of weapons systems but an entirely new way of warfare. **A mix of crewed, uncrewed and autonomous systems look set to make a step change in lethality and utility.** The **pervasive nature of data** — private, commercial, governmental and military combined — gathered from constellations of sensors and crunched at speed by artificial intelligence, will make it extremely **hard to hide today's military signature** anywhere on the globe.

Expensive, crewed platforms that we cannot replace and can ill afford to lose will be increasingly vulnerable to swarms of self-coordinating smart munitions — perhaps arriving at hypersonic speeds or ballistically from space — designed to swamp defences already weakened by pre-emptive cyber-attack. The economics of warfare are changing the balance between platforms and weapons, and between crewed and uncrewed systems. In short, **we face an inflection point between the Industrial Age and the Information Age** - it is one that Defence will need to respond to if it is to retain a competitive edge.

The **old distinction between foreign and domestic defence is increasingly irrelevant.** When 'fake news' appears to originate not abroad but at home it gains credibility and reach, stoking confusion, disagreement, division and doubt in our societies. This has been particularly evident with the significant uptick in disinformation and

misinformation during the coronavirus crisis. 'Home' is no longer a secure sanctuary whence we may choose to launch interventions unhindered. 'Away' is no longer a regional horizon but a global one, involving space and the electromagnetic spectrum. Similarly, the 'front' no longer lies in some distant theatre of operations, but is within the port, airfield, or barracks. It sits across the electromagnetic spectrum; it is in space and inside our networks; it is already loitering in our supply chains. Sub-threshold operations are continuously executed at reach by malign actors who seek to undermine our military readiness, our critical national infrastructure, our economy, our alliances and our way of life. This raises questions about military resilience, particularly in our strategic base, and this has been brought sharply into focus by the coronavirus.

Our adversaries, in short, use an array of capabilities, including their militaries, below the threshold of war and in ways **outside of our legal and political norms.** They have proven themselves willing and increasingly able to confront us at home and away, and to operate with freedom throughout the spectrum, from peace up to the threshold of war. In this highly dynamic and fluid security context we cannot remain reactive in our processes, capability development, or — most importantly — in our approach to using the military instrument. And the threat of unwarranted escalation leading to miscalculation is clear and present. We must acknowledge that **we are in a state of persistent competition**, which can veer to confrontation, and as the threats and opportunities continue to evolve, so too must we. **More of the same will not be enough.**



# How we Respond

Our response starts **by recognising, and continuing to resource, our strengths**. The first of these is **our people**; their quality enables our conceptual edge, and by moving beyond a 'closed-loop, base-fed approach' we will have a better chance of accessing the best talent and skills. Second are our **allies and partners**; NATO remains central to the pursuit of our strategic ends. It is the only alliance that can generate sufficient mass and integrate the conventional and nuclear forces that can credibly deter the most dangerous threats to our security. But the centrality of NATO does not mean 'NATO Only'. We must look beyond NATO to other alliances, giving real meaning to interoperability and burden sharing and constructing our campaigns with allies in mind. The third is **innovation and experimentation**, while we have access to world-class science and technology capabilities, we must recognise that the engine room for innovation often lies outside government. Fourth, our own respect for the rules, conventions and protocols of war are a centre of gravity which must be protected. But the pace of technological change and the blurring of 'peace' and 'war' means that our legal, ethical and moral framework needs updating to deny our adversaries the opportunity to undermine our values.

## What must we build on?



Quality People



Alliances and Partnerships



Innovation and experimentation



Our Values as a centre of gravity

# Integrated For Advantage

The central idea of the Integrated Operating Concept is **to drive the conditions and tempo of strategic activity, rather than responding to the actions of others** from a static, home-based posture of contingent response. A position of advantage aims to offer a breadth of political choice, credible military options that can be threatened or used to break the will of our adversaries, to deliver the military instrument of statecraft, and underpin our national and alliance cohesion. But **maximising advantage will only be realised through being more integrated:** within the military instrument, vertically through the levels of war - Strategic, Operational and Tactical, across government and with our allies, and in depth within our societies. Cohesion, trust, shared values, social habits and behaviour all form vital lines of defence against our adversaries' sub-threshold attacks on our societies and decision-making. On the new sub-threshold battlefield, assuring societal resilience constitutes deterrence by denial.

## Optimised for Effect



Integrated across all Domains



Integrated Nationally



Engaged Internationally



Postured more assertively



Continuously seeking information advantage

**“We have to move beyond ‘Jointery’**

**- integration is now needed**

**at every level.”**

**Government**



**Allies**



**Defence**

**We need to create multiple dilemmas** that unhinge an adversary's understanding, decision-making and execution. This requires **a different way of thinking** that shifts our behaviour, processes and structures to become more **dynamic and pre-emptive**, information-led and selectively ambiguous. In essence, **a mindset and posture of continuous campaigning** in which all activity, including training and exercising, will have an operational end. This suggests our posture will be:

➤ **Integrated across all five Operational Domains** - Space, Cyber, Maritime, Air and Land. This 'multi-Domain integration' will change the way we operate and war fight, and the way we develop capability. We are moving beyond 'Joint'. Integration is now needed at the Tactical level of war – not just at the Operational level where the term 'Joint' applies. Effective integration of maritime, land, air, space and cyber achieves a multi-Domain effect that adds up to far more than simply the sum of the parts – recognising that the overall effect is only as powerful as the strength of the weakest Domain.

➤ **Integrated nationally** as part of cross-Government and broader national integration. When this is comprehensively fused, it force-multiplies all of the instruments of national power. We need a mindset that magnifies the employment of the military instrument as part of a 'total' national enterprise involving industry, academia and civil society.

➤ **Engaged internationally** to enhance our understanding and help pre-empt strategic threats, to detect and attribute hostile state actors and to seize strategic opportunities. This will enhance

our capacity to operate below the threshold of war. This will necessitate Defence actively exporting the UK 'brand' to project global influence and promote (and protect) prosperity. It also requires us to become 'allied by design' to improve interoperability and burden share more effectively, thus amplifying our weight and mass, particularly through NATO.

➤ **More assertive** to profile our Defence and national resilience globally; to demonstrate our political will and lethal and non-lethal capability to confront threats early and present our adversaries with multiple dilemmas to enhance our deterrence posture. It will require greater investment in R&D and exploitation of the UK's science and technology base with the deliberate energy previously reserved for 'wartime'. Key to all this is a renewed focus on the resilience, readiness, reach and responsiveness that enables us to withstand shocks and assures our capacity to operate and war fight.

➤ **Continuously seeking information advantage** because it is central to how we operate and war fight. At the heart of this is the idea of Integrated Action, a doctrine that requires commanders to think beyond the enemy and consider the additional effects that need to be applied to the many other actors (particularly local populations) who are relevant to the achievement of the objective, before orchestrating the appropriate mix of physical, virtual and cognitive actions. Importantly information advantage enables improved understanding, assessment, decision-making and execution.

# The Conceptual Component

We recognise that the nature of the strategic context requires a strategic response that integrates all of the instruments of statecraft - ideology, diplomacy, finance, and trade policy and military power. And our ability to deter war remains central to our military purpose. In an era of persistent competition our deterrent posture needs to be more dynamically managed and modulated. Hence the Integrated Operating Concept introduces a fifth 'c' – that of competition - to the traditional deterrence model of comprehension, credibility, capability and communication. This recognises the need to compete below the threshold of war in order to deter war, and to prevent one's adversaries from achieving their objectives in fait accompli strategies.

## The Integrated Operating Concept



**Protect**



**Engage**



**Constrain**



**War Fight**



Competing involves a campaign posture that includes **continuous operating on our terms and in places of our choosing**. It will also require actions to be **communicated in ways that may test the traditional limits of statecraft**. The **willingness to commit decisively hard capability with the credibility to war fight is an essential part of the ability to operate and therefore of deterrence**. They are not mutually exclusive. Operating includes the complementary functions of protect, engage and constrain:

➤ **Protect** is the enduring foundation to operate, and it is **fundamental to deterrence and denial**. It involves understanding the vulnerabilities to the effective functioning of the UK and the Overseas Territories that modern threats will seek to exploit. It includes hardening Defence's critical infrastructure and contributing to the resilience of critical national infrastructure; sustaining the Continuous at Sea Deterrent; countering air, maritime and cyber incursions; and reinforcing and enabling civil authorities in countering terrorism and in civil emergencies.

➤ **Engage** involves a posture that is **forward deployed to assure influence, to deter and to reassure**. It also describes Defence's vital and enduring role in establishing and maintaining human networks that are the foundation on which posture is established. These networks are demonstrations of international and alliance resolve. They are based on a military footprint around the world including a mix of permanently forward-based forces and stockpiles, training and exercises, and command and control nodes. Through persistent engagement this global network contributes to understanding and insight

and assuring regional access. Building partner capacity through train, advise and assist operations strengthens coalitions, enhances regional security and provides an alternative to the offers of our adversaries, by securing influence and denying it to them. Engage also involves developing appropriate channels of communication with adversaries to avoid miscalculation and to underscore credibility.

➤ **Constrain** offers the **most proactive and assertive** element of the model. It will involve **the use of force**, for example by escalating beyond training, advising and assisting to accompanying partners to enable them to act offensively; restricting an adversary's choice of action by deploying armed forces to demonstrate reach and responsiveness; shaping an adversary's behaviour through covert and overt activity; contesting the cyber Domain to protect our networks; challenging assertions of sovereignty through deployments and freedom of navigation operations that aim to constrain fait accompli strategies; and prevent an adversary from achieving escalation dominance. The potential level of intensity and violence encountered mean that constrain operations may well involve **combat operations and require nuanced judgements about risk**.

These functions of protect, engage and constrain are not discrete, static or linearly related, but are **complementary and symbiotic**. They require a mindset that thinks in several dimensions so that escalation and de-escalation is dynamically managed up and down multiple 'ladders'. One might actively constrain in the cyber Domain to protect physical infrastructure in the space Domain. These effects must be dynamically modulated to identify and apply offset strategies that present adversaries with multiple dilemmas and alter their decision making, recognising that the overall aim is deterrence and de-escalation. The effective employment of the operate model will be one of the principal ways through which the military instrument can more effectively contribute in the context of persistent competition.

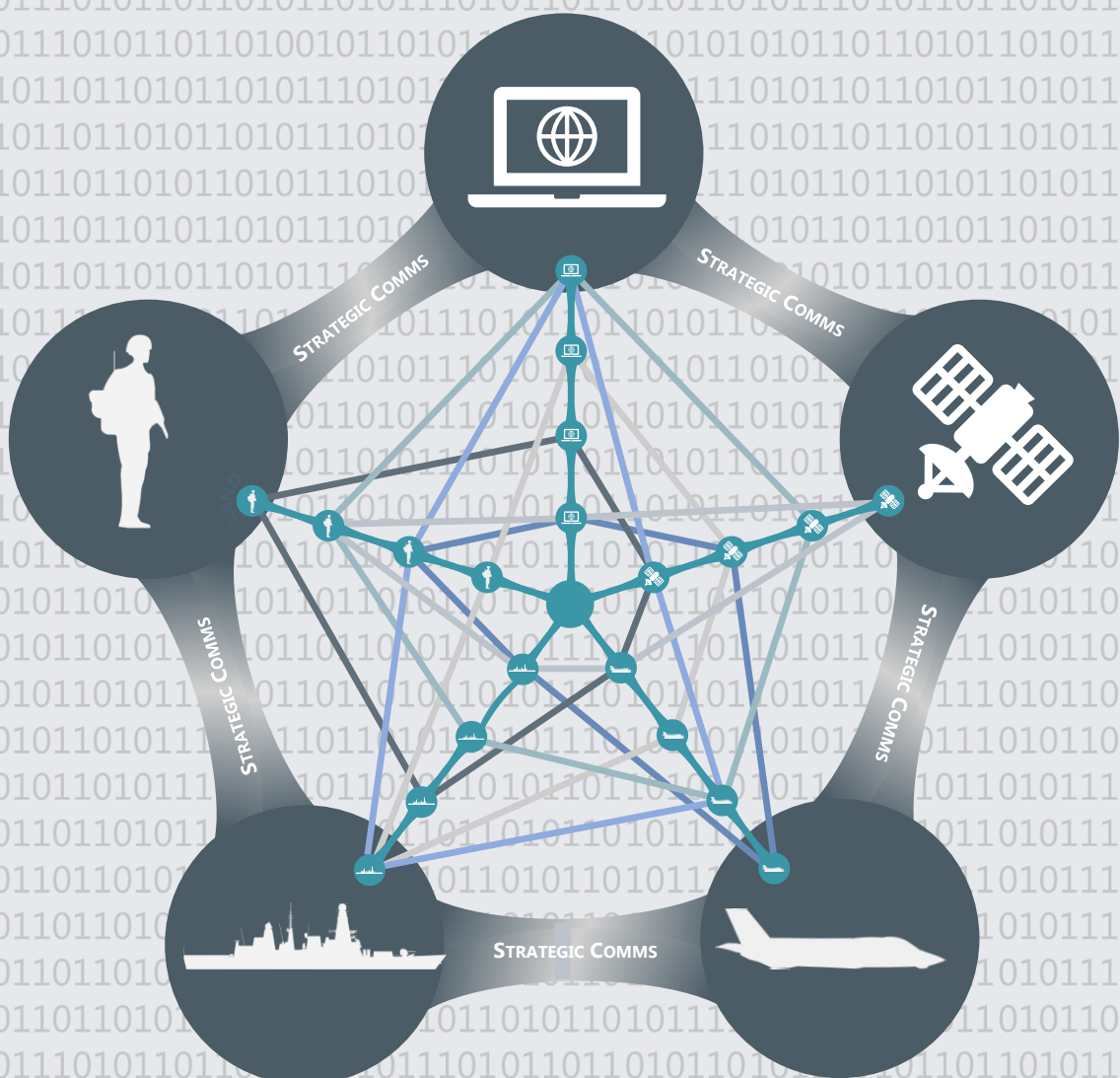
**War fighting is an escalation from operating and is a tool of last resort.** However, for the reasons already described, war fighting in the Information Age will look very different to warfare today, and it requires a compelling 'Theory of Winning', and it is underpinned by the ability to generate a physical component that can credibly deliver it. Above all we must never lose sight of always being prepared to fight the war we might have to fight. History may not repeat itself, but it does have a rhythm. And invariably the enemy ensures that we don't get a choice.

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**“Competing involves a campaign posture that includes continuous *operating* on our terms and in places of our choosing.”**

**“Integrating across the Domains achieves a multi-Domain effect that adds up to far more than the sum of the individual parts - and the overall effect is only as powerful as the strength of the weakest Domain.”**

**General Sir Nick Carter GCB CBE DSO ADC Gen, Chief of the Defence Staff**



# The Physical Component

It is clearly not possible to immediately abandon the current force structure and create a bespoke one from scratch. Important operations continue, legacy programmes and platforms retain utility. There needs to be a North Star to help us develop the modernised force needed beyond 2030. As we develop what will be the Integrated Operating Concept 2030 for this force, trend analysis suggests that it will involve an **intense competition between hiding and finding**, thus it will:

- Have smaller and faster capabilities to avoid detection
- Trade reduced physical protection for increased mobility
- Rely more heavily on low-observable and stealth technologies
- Depend increasingly on electronic warfare and passive deception measures to gain and maintain information advantage
- Include a mix of crewed, uncrewed and autonomous platforms
- Be integrated into ever more sophisticated networks of systems through a combat cloud that makes best use of data
- Have an open systems architecture that enables the rapid incorporation of new capability
- Be markedly less dependent on fossil fuels
- Employ non-line-of-sight fires to exploit the advantages we gain from information advantage
- Emphasise the non-lethal disabling of enemy capabilities, thereby increasing the range of political and strategic options

We might think of these as 'sunrise' capabilities, with the corollary being 'sunset' capabilities that could be used for a while in the emerging operating environment but will increasingly become too vulnerable or redundant in the Information Age. This modernisation will require us to embrace combinations of information-centric technologies to achieve the disruptive effect we need. Predicting these combinations will be challenging. We will have to take risk, accept some failure and place emphasis on experimentation by allocating resources, force structure, training and exercise activity to stimulate innovation in all lines of development, with a responsive commercial function at the leading edge. This will enable **adaptive exploitation as opportunities become clear**.

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**"Above all we must never lose sight**

**of always being prepared to fight the war we**

**might have to fight. As Trotsky observed**

**'you may not be interested in war,**

**but war is interested in you'."**



# The Integrated

# Operating Concept

Integrated Operating Concept calls into question the traditional approach that structured to war fight and adapted for all other missions. We now need to structure forces to operate that can be adapted at graduated readiness to war fight while retaining some forces, including the Reserve, that are optimised to war fight. Distinguishing in this way between operating and war fighting represents a fundamental shift in military philosophy. It requires us to think very differently about the employment of the military instrument as part of modern deterrence; and it establishes the doctrine needed to compete decisively with our adversaries who do not distinguish between peace and war.



**Distinction between 'operate' and 'war-fight'** – recognises that modern deterrence requires a more competitive approach



**Integrated** – with allies, across Government, with society and the Private Sector, and across the operational Domains



**Modernisation** – from an industrial age of platforms to an information age of systems



**War** - Recognise that the nature of war does not change



**People** – are drawn from a much wider base to assure the skills we need



**Constantly adaptable** – and seeking change as an opportunity

