ISS GLOBAL / INSIGHT REPORT

AI in Military Autonomy

Autonomous defence and attack: reported use, demonstrated capability and the human decision

REPORTING / REVIEW WINDOW
Selected evidence, 2023–27 October 2026

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Military AI is moving from interpreting information to controlling parts of an engagement. The decisive question is which function the machine performs, under whose authority, and with what evidence of reliable behaviour.

An evidence-led comparison of Ukrainian combat reporting, US flight testing and UK/AUKUS experimentation. Prepared for ISS Global Ltd.

Evidence cutoff: 27 October 2026, 23:59:59 Europe/London. Research and issue date: 28 October 2026. Historical examples are dated individually; this is not a daily incident bulletin.

Includes authentic photographs from reported trials. Official illustrations are excluded from evidence imagery.

01 / EXECUTIVE SUMMARY

What happened and its threat significance

COUNTRIES / REGION	WHERE	WHEN
Ukraine; United States; United Kingdom; Australia	Ukraine combat reporting; US flight and multinational trials; UK experimentation. Australia participates through AUKUS.	Selected activity: 2023–2026. Reporting reviewed through 27 October 2026. Issue: 28 October 2026.

What happened

Ukraine reports combat use of AI-enabled guidance and autonomous interception after human engagement decisions. The United States has tested AI flight control in fighter aircraft. UK and AUKUS trials have demonstrated collaborative sensing and drone autonomy. [2][3][5][6][7][8]

Threat significance

ISS Global assessment: delegated machine functions can shorten responses, reduce operator workload and sustain parts of a mission under degraded connectivity. The associated burden shifts towards reliable identification, bounded authority and records that explain how an action occurred.

The same broad technologies support protection and attack. Mission purpose alone does not describe the extent of autonomy or the consequences of an error.

> EXECUTIVE JUDGEMENT
>
> Assess autonomy by function, operational setting and retained human decisions. Treat deployment claims, trials and policy commitments as different evidence categories. Require traceable authority and performance evidence before treating autonomy as operationally assured.

02 / ANALYTICAL FRAMEWORK

What does “autonomous” actually mean?

The ICRC distinguishes autonomous selection and application of force from merely flying without a pilot. It also notes that autonomous weapons may use deterministic rules rather than AI. AI in surveillance or navigation does not by itself establish autonomous targeting. [1]

FUNCTION	WHAT THE LABEL MAY MEAN	WHAT IT DOES NOT ESTABLISH
Sensing and classification	Software identifies patterns or proposes object labels.	That the object is a lawful target or that a strike is authorised.
Navigation and control	A platform follows a mission or performs manoeuvres without continuous manual input.	Independent authority to select or attack targets.
Terminal guidance	A system completes movement towards a selected object.	That the machine chose the object or can retarget freely.
Engagement autonomy	The system selects and applies force within an authorised operating envelope.	Unlimited discretion, reliability in every setting, or absence of human responsibility.
Decision support	AI prioritises information for a human decision.	That the final decision was made autonomously.

These are analytical distinctions, not a universal maturity ladder. A system can be highly autonomous in flight and tightly constrained in the use of force. A nominally supervised system can still leave little practical time for intervention.

Scope and method

This report selects six well-documented cases with primary institutional accounts. It is not an exhaustive inventory of global military AI. Russia, China and Israel are not ranked: comparable incident-level evidence was not assembled for this edition. Geography is stated in each case; no attack routes or precise combat coordinates are inferred.

> Read every case through three questions: What task is delegated? What decision remains human? Is the evidence a combat claim, a controlled trial or a future plan?

03 / AUTONOMOUS DEFENCE

Interception: a human decision, machine execution

Reported combat use — Ukraine. On 8 June 2026, the Ukrainian Ministry of Defence said a Brave1-supported interceptor technology had passed combat testing in the Kharkiv region. Its account retains human selection of the aerial target and the order to engage; guidance, recognition, tracking and engagement then proceed autonomously. [2]

The ministry describes 95% of the interception cycle as automated. That is a workflow claim, not an interception success rate, and the release does not supply the underlying measurement method, number of engagements or failure record. The system is not named in that account. [2]

Why this matters

ISS Global assessment: defending against aerial threats creates a strong incentive to delegate fast, repetitive control tasks. But a rapid engagement still depends on the validity of the initial track, the authorised target and the behaviour of the system when its interpretation changes. Human authorisation at the start is a distinct safeguard from continuing control during execution.

AI as an enabling layer

The MoD's January 2026 Brave1 Dataroom announcement describes a controlled environment using visual and thermal data to train and validate military AI, initially focused on aerial threats. It provides evidence of an institutional effort to support autonomy, not an independent validation of the June interceptor's performance. [10]

A second defensive use: finding hazards

In April 2026, the UK MoD described a Dstl trial with 33 Engineer Regiment in Essex. Small uncrewed aircraft collected sensor data over replica mines and ordnance, with AI tools helping Army operators identify hazards. The report concerns detection and retraining; it does not demonstrate autonomous disposal or battlefield clearance. [9]

> Defence includes both applying force to an incoming threat and reducing exposure through better sensing. These should not be merged into a single "autonomous weapon" category.

04 / AUTONOMOUS ATTACK

AI guidance is not a free choice to attack

Reported fielding — Ukraine. In August 2026, the MoD stated that more than 70 AI/computer-vision systems were being used against enemy targets. It described automated navigation, recognition and terminal guidance while retaining the final target-selection and engagement decision with a human operator. [4]

Reported trial — September 2026. The MoD and Brave1 tested solutions from seven companies against moving ground targets. Six were recommended for procurement. The release again says the strike decision remains human. These are institutional reports of field use and testing, not independently audited engagement logs. [3]

The important distinction

ISS Global assessment: completing an authorised engagement automatically differs from independently searching for and choosing a new target. Public descriptions often compress both into the word “autonomous”. The responsible assessment must retain the distinction even when the vehicle looks identical.

What the figures can and cannot tell us

The September release claims a tenfold increase in successful AI-guided strikes since the start of the year. Without the underlying counts, a stable definition of success and comparable exposure, that multiplier does not establish the improvement in hit probability. Similarly, a count of systems is not a count of deployed units or independent capabilities. [3][4]

EVIDENCE REQUIRED	ANALYTICAL PURPOSE
Versioned system and mission record	Identify the actual capability used, rather than a product-family label.
Human decision and intervention record	Separate authorisation, supervision, retargeting and loss of control.
Independent outcome assessment	Distinguish reported success from observed effect and civilian consequences.

The official imagery accompanying these Ukrainian releases consists of illustrative graphics. It is not reproduced as a photograph of a specific attack. No verified combat frame establishing the AI operating mode was obtained for this edition.

05 / US FLIGHT TESTING

Combat manoeuvres under AI control



Plate 1. VENOM-associated F-16 ground operations. US Air Force / Samuel King Jr., 96th Test Wing, via DARPA, published 16 July 2026 with the June testing account. The photograph documents the test platform and human presence; it cannot show which control mode is active. [6][13]

DARPA reported in April 2024 that AI algorithms had flown the X-62A VISTA against a human-piloted F-16 in close-range combat scenarios at Edwards Air Force Base. The demonstrations began in 2023 and continued in 2024. [5]

In July 2026, DARPA reported AI-controlled flight testing of VENOM-modified F-16s at Eglin. It described a pilot-selectable transition between human and AI control. This is a flight-test milestone, not public proof of autonomous weapon release or operational combat deployment. [6]

ISS Global assessment: the evidence demonstrates increasingly demanding delegated aircraft control. It does not establish that the same system can make lawful, reliable engagement decisions across an unrestricted combat environment.

06 / AUKUS TRIAL

Shared sensing, retained human action



Plate 2. Australian DSTG UAV launch associated with the AUKUS Project Convergence trial. US DoD photograph, reproduced by Dstl, published 9 August 2024. The still records a launch, not an autonomous decision to use force. [7][14]

Dstl's August 2024 account describes AI-enabled uncrewed aircraft supporting a human operator in locating and acting against ground targets. The US-hosted Project Convergence exercise included collaboration across Australian, UK and US systems, with models retrained and deployed during the activity. [7]

ISS Global assessment: the distinctive advance is coalition interoperability across data, models and platforms. A shared technical picture does not automatically create shared confidence in classifications or shared authority to act. These remain separate assurance and command questions.

The case is classified as experimentation. The publication does not establish deployment of an independently target-selecting weapon in a real conflict.

07 / COLLECTIVE AUTONOMY

A swarm demonstration is not a combat outcome



Plate 3. Dstl-published imagery accompanying its swarm demonstrator report, 16 September 2026. Coloured overlays are retained as published. They illustrate marked objects, not independently validated identity, confidence or engagement authority. Capture date and exact site were not supplied. [8][15]

Dstl reported eight weeks of Army experimentation with an eight-aircraft Swarm Capability Test Bed. Two industry-led approaches were assessed in realistic military environments, with further trials intended to inform capability and procurement. [8]

ISS Global assessment: collective control can move operator attention from individual vehicles to groups. The evidential question then expands: which agent acted, on what shared information, and how did behaviour change when another agent or sensor was wrong?

This source supports a demonstrated test bed and experimentation programme. It does not prove combat use, autonomous lethal engagement or that all “swarm” systems use the same degree of AI.

08 / COMPARATIVE FINDINGS

Six cases, different levels of evidence

CASE / PURPOSE	EVIDENCE STATUS	DELEGATION AND HUMAN ROLE
Ukraine interception / defence	MoD combat-testing claim, June 2026 [2]	Human selects target and authorises; subsequent interception is described as autonomous.
Ukraine guidance / attack	MoD field-use claim and procurement trial, August–September 2026 [3][4]	Automated guidance; ministry retains human target and strike decisions.
US ACE / VENOM	Official flight tests, 2023–2026 [5][6]	AI aircraft control in test conditions; human control transition described for VENOM.
AUKUS Project Convergence	Official exercise report, 2024 [7]	AI sensing and collaborating platforms support a human operator.
UK swarm test bed	Army experimentation, 2026 [8]	Collective control; no demonstrated independent lethal decision in this record.
UK explosive-hazard detection	Controlled trial with replicas, 2026 [9]	AI aids identification; human EOD personnel retain the task.

What the comparison supports

ISS Global assessment: autonomy is entering different parts of military activity at different speeds. Public evidence is stronger for bounded control and perception tasks than for unrestricted autonomous use of force. The same sensor or platform class can support several very different authority arrangements.

What it does not support

These cases do not provide a common test standard, comparable mission counts or an independent failure dataset. They cannot establish a global adoption rate, rank national performance or support a single percentage for “how autonomous” modern warfare has become.

Sources 2–4 and 10 belong to the same Ukrainian government programme family. Sources 7–9 come from the UK defence research system. Repetition across their releases is continuity of an official account, not independent corroboration.

09 / HUMAN CONTROL AND RISK

Authority must remain understandable

The ICRC says existing international humanitarian law applies and argues for additional binding restrictions on autonomous weapons, including prohibitions on unpredictable systems and those designed to target people. That is the ICRC's policy position, not a claim that a new universal treaty has already entered into force. [1]

In its July 2026 parliamentary answer, the UK government retained appropriate human involvement in decisions on force. An October answer linked adoption to human responsibility and accountability while describing the Uncrewed Systems Centre and Rapid AI Delivery taskforce. [11][12]

ISS Global risk assessment

RISK	WHY THE DISTINCTION MATTERS
Misclassification	Recognising a visual pattern is different from establishing identity, status and context. A confident software output can still be wrong.
Automation bias	A human approval step provides limited protection if the operator cannot inspect the basis for the recommendation or realistically reject it.
Changed conditions	Validation in one setting does not establish reliability under different weather, sensors, terrain, object appearance or communications conditions.
Delegation drift	Small software and operating-policy changes can cumulatively alter what the machine is allowed to decide.
Compressed intervention time	A nominal ability to stop an action is different from having enough information and time to do so.
Accountability gaps	A successful outcome does not by itself explain whether the system remained within authority; a failure cannot be understood without records.

These are governance and evidence considerations, not instructions for employing or defeating a weapon. The report does not assess the legality of any specific engagement.

> Human control is a practical relationship between information, authority, time and system behaviour. A label such as "human in the loop" is insufficient without those details.

10 / INSIGHT AND OUTLOOK

The advantage depends on evidence as well as AI

1. Expect further delegation of bounded functions

ISS Global assessment: the reviewed cases favour tasks that can be constrained and assessed individually: detecting a class of object, controlling a platform, or completing an already authorised action. This is a more defensible near-term expectation than assuming general machine discretion across an entire battle.

2. Data quality is part of military readiness

Brave1 Dataroom explicitly links model development to structured real-world visual and thermal data. [10] **ISS Global assessment:** maintaining provenance, representative test conditions and records of model changes becomes part of understanding capability. A model improvement claim should be tied to a specific version and evaluation, not simply to more data.

3. Organisational adoption is not operational proof

The UK's October 2026 parliamentary answer describes an institutional push for integrated autonomy. [12] **ISS Global assessment:** new organisations and procurement commitments are useful indicators of intent. Evidence of safe, repeatable behaviour in the actual mission remains a separate requirement.

Implications for intelligence and Dfuze-related workflows

Retain the incident, platform, model version, operator authority, sensor record, claimed outcome and independent finding as distinct linked records. Preserve original imagery alongside annotations and identify who created each label. Record a source's assertion separately from an analyst's conclusion.

For ISS Global, this is an information-management requirement, not a claim that a named military uses Dfuze or that an unverified product feature is already available.

Watch indicators

Look for published operational evaluations, documented human-intervention experience, independent outcome assessment, and explicit changes to engagement authority. Track withdrawal or restriction of systems as carefully as launch announcements.

> **Principal judgement:** AI-enabled military autonomy is real but function-specific. The most useful insight is where responsibility shifts between human and machine, and whether the evidence is strong enough to explain that shift.

11 / EVIDENCE AND IMAGERY AUDIT

What this edition can substantiate

Primary institutional sources were prioritised over recycled news stories and promotional claims. Full article text was retrieved for the core cases. Ukrainian-language MoD material was also checked for contextual terminology; the core cited cases use the ministry's English releases. No classified records, source code, original telemetry or independent combat audit was available.

Imagery selection

INCLUDED EXHIBIT	BASIS AND LIMITATIONS
Plate 1: VENOM	Official US Air Force photograph carried by DARPA; 1400 × 1006 pixels. Human presence and platform visible; software state invisible.
Plate 2: AUKUS launch	US DoD credit in the official Dstl article; 960 × 640 pixels. Trial association is documented; no use-of-force decision visible.
Plate 3: UK swarm	Dstl-published aerial image; 960 × 640 pixels. Published boxes retained; no inference of algorithm accuracy from overlays.

Images are reproduced in full, without generative alteration or forensic enhancement. The two 960-pixel exhibits are suitable for broad scene context, not fine component inspection. No person in these photographs is identified as a combatant in a reported attack.

Excluded material

The Ukrainian interceptor and strike-test articles' hero graphics were downloaded and inspected. Their illustrative presentation and overlays do not establish a particular engagement; they were excluded. A UK MoD building photograph was also rejected as unrelated to the actual hazard-detection trial.

Geography, chronology and applicability

This thematic comparison does not reconstruct a single incident scene. A geographic scope description replaces maps because exact combat locations and several trial sites are not established. Publication dates are distinguished from the dates of the activities they describe. No reviewed case establishes an improvised explosive device; the technical analysis addresses AI functions and control instead.

The research is a selected public-source assessment through 27 October 2026, not a complete global inventory. Capability statements remain attributed; the report's comparative conclusions are labelled ISS Global assessment.

SOURCE REGISTER

Sources 01–06

Source families and access limits are recorded below. Repetition of a statement is not independent proof.

01 Frequently asked questions: Autonomous weapon systems

ICRC · 8 October 2026

Family: ICRC legal / humanitarian position · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.icrc.org/en/article/faq-autonomous-weapon-systems

02 Next-generation interceptors: Ukrainian drones already autonomously take down Shahed-type UAVs

Ministry of Defence of Ukraine · 8 June 2026

Family: Ukraine MoD / Brave1 · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://mod.gov.ua/en/news/next-generation-interceptors-ukrainian-drones-already-autonomously-take-down-shahed-type-ua-vs

03 Ministry of Defence and Brave1 conduct large-scale testing of drones with AI guidance

Ministry of Defence of Ukraine · 8 September 2026

Family: Ukraine MoD / Brave1 · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://mod.gov.ua/en/news/ministry-of-defence-and-brave1-conduct-large-scale-testing-of-drones-with-ai-guidance

04 Smart weapons: More than 70 systems using AI and computer vision are already striking enemy targets

Ministry of Defence of Ukraine · 18 August 2026

Family: Ukraine MoD / Brave1 · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://mod.gov.ua/en/news/smart-weapons-more-than-70-systems-using-ai-and-computer-vision-are-already-striking-enemy-targets

05 ACE Program Achieves World First for AI in Aerospace

DARPA · 17 April 2024

Family: DARPA / US Air Force · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.darpa.mil/news/2024/ace-ai-aerospace

06 DARPA, U.S. Air Force fly AI-controlled F-16

DARPA · 16 July 2026

Family: DARPA / US Air Force · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.darpa.mil/news/2026/darpa-us-air-force-fly-ai-controlled-f-16

SOURCE REGISTER

Sources 07–11

Source families and access limits are recorded below. Repetition of a statement is not independent proof.

07 AUKUS takes another step forward with real-time AI trials

Dstl / **GOV.UK** · 9 August 2024

Family: UK Dstl / AUKUS programme · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.gov.uk/government/news/aukus-takes-another-step-forward-with-real-time-ai-trials

08 Dstl drone swarm accelerates Army autonomy ambition

Dstl / **GOV.UK** · 16 September 2026

Family: UK Dstl / British Army · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.gov.uk/government/news/dstl-drone-swarm-accelerates-army-autonomy-ambition

09 AI-powered drones to detect explosive threats and protect military personnel

UK Ministry of Defence · 2 April 2026

Family: UK MoD / Dstl · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.gov.uk/government/news/ai-powered-drones-to-detect-explosive-threats-and-protect-military-personnel

10 Ministry of Defence launches Brave1 Dataroom, a secure environment for training military AI solutions

Ministry of Defence of Ukraine · 21 January 2026

Family: Ukraine MoD / Brave1 · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://mod.gov.ua/en/news/ministry-of-defence-launches-brave1-dataroom-a-secure-environment-for-training-military-ai-solutions

11 Written answer: autonomous weapons and human involvement

UK Parliament / **Ministry of Defence** · 23 July 2026

Family: UK government policy statement · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://questions-statements.parliament.uk/written-questions/detail/2026-07-06/16182

SOURCE REGISTER

Sources 12–15

Source families and access limits are recorded below. Repetition of a statement is not independent proof.

12 Written answer: Autonomous Warfare Command and UK approach

UK Parliament / **Ministry of Defence** · 16 October 2026

Family: UK government policy statement · Accessed 28 October 2026. Full primary-source text retrieved; English. Official accounts establish what the publisher reports, not independent validation of performance.

https://questions-statements.parliament.uk/written-questions/detail/2026-10-05/HL3871

13 VENOM test aircraft on the ground; Samuel King Jr., 96th Test Wing

US Air Force / **DARPA** · Published 16 July 2026; associated with June 2026 testing

Family: Image associated with source 6 · Accessed 28 October 2026. Actual image downloaded and inspected, 1400 x 1006 pixels; official US Air Force photograph credited by DARPA; editorial report use with attribution. Official accounts establish what the publisher reports, not independent validation of performance.

https://www.darpa.mil/sites/default/files/gallery/2026-07/program-air-venom-testing-ground-2026.jpg

14 Australian DSTG UAV launch, Project Convergence

US Department of Defense / **Dstl** · Published 9 August 2024; asset identifier contains 240312

Family: Image associated with source 7 · Accessed 28 October 2026. Actual image downloaded and inspected, 960 x 640 pixels. US DoD credit retained. Asset identifier alone is not treated as verified capture date; editorial use with attribution. Official accounts establish what the publisher reports, not independent validation of performance.

https://assets.publishing.service.gov.uk/media/66b5ca00ce1fd0da7b59355d/s960_240312-A-XM236-1038_AUS_DSTG_UAV_launch_Credit_US_DoD_gov.jpg

15 Swarm demonstrator aerial image with coloured overlays

Dstl / **GOV.UK** · Published 16 September 2026; capture date not supplied

Family: Image associated with source 8 · Accessed 28 October 2026. Actual image downloaded and inspected, 960 x 640 pixels; official page under Open Government Licence v3.0 except where stated; overlays retained, no performance inference. Official accounts establish what the publisher reports, not independent validation of performance.

https://assets.publishing.service.gov.uk/media/6aa94b162f29b388848184d9/s960_Applied-Intuition01_960x640.jpg