DAURALIS

DEFENCE SYSTEMS

REGULATORY COMPLIANCE REPORT

DS-1 Counter-Drone Defence System

Physical Infrastructure Protection — Data Centre Vertical

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Liverpool, United Kingdom

> *This document has been prepared for the purpose of investor due diligence and regulatory planning. It does not constitute legal advice. DAURALIS recommends engaging qualified legal counsel with defence and telecommunications regulatory expertise before commercial deployment.*

1. Executive Summary

DAURALIS Defence Systems is developing the DS-1 — an autonomous, multi-layer counter-drone detection and intercept system designed for deployment on commercial data centre rooftops. The system comprises passive RF detection, radar, acoustic sensing, computer vision, and AI-driven sensor fusion, with an optional directed energy neutralisation layer for government and defence clients.

This report maps the full UK regulatory landscape applicable to the DS-1 system, identifies the current legal status of each system capability, outlines the licensing and approval pathway to full commercial deployment, and assesses regulatory risk for investor consideration.

Key findings:

- **Finding 1:** The passive detection and alert layer (Layers 1–4) can be deployed commercially today with no additional regulatory approvals beyond standard CAA drone operator registration for the intercept UAV fleet.
- **Finding 2:** Active RF jamming and directed energy deployment by private sector operators is currently prohibited under the Wireless Telegraphy Act 2006 without explicit Ofcom and Home Office authorisation — however, this restriction applies to the system's neutralisation layer only, not its detection capability.
- **Finding 3:** The UK Government's Counter-Unmanned Aircraft Strategy and the newly established UK Defence Innovation (UKDI) programme create a clear legislative and funding pathway toward private sector counter-UAS authorisation, with DAURALIS well-positioned to shape that process.
- **Finding 4:** Regulatory complexity in this sector represents a competitive moat, not merely a barrier — the compliance cost and knowledge required to navigate UK counter-UAS licensing serves as a significant barrier to entry for competitors.
- **Finding 5:** The total estimated cost to full commercial deployment authorisation (including directed energy) is £30,000–£50,000 in legal and licensing fees over an 18–24 month timeline.

2. Company and Product Overview

2.1 Company

DAURALIS Defence Systems is a hard technology defence startup based in Liverpool, United Kingdom. The company is founded by two co-founders with complementary degrees across Robotics Engineering, Energy Engineering, Structural Engineering, and Offshore Engineering.

DAURALIS is developing autonomous physical defence systems for critical digital infrastructure — specifically targeting the data centre sector, which represents the physical backbone of the global internet and cloud computing industry. The company's founding thesis is that the cybersecurity industry has comprehensively secured digital access to data

centre infrastructure while the physical facilities themselves remain almost entirely undefended against kinetic and electromagnetic threats.

2.2 The DS-1 System — Technical Overview

The DAURALIS DS-1 is a rooftop-mounted autonomous defence platform comprising five integrated layers:

Layer	Component	Function
1	RF / Controller Detection	Passive scanning of 2.4GHz and 5.8GHz spectrum to detect drone controller signals up to 400m
2	Phased Array Radar	Detects physical mass in airspace regardless of RF emissions; 3km detection radius
3	Acoustic Detection	Rotor noise signature detection and classification at 200m range
4	Computer Vision / Thermal	AI-driven visual classification using YOLOv8; thermal imaging for low-light and adverse weather
5	Sensor Fusion AI + Intercept	Cross-layer threat classification; autonomous intercept UAV deployment and optional directed energy neutralisation

3. UK Primary Legislation

3.1 Wireless Telegraphy Act 2006

The Wireless Telegraphy Act 2006 is the primary legislative instrument governing the DS-1 system's RF and directed energy components. This Act regulates all wireless telegraphy apparatus in the United Kingdom and is administered by Ofcom.

Section 8(1) — General Prohibition on Unlicensed Wireless Apparatus

Section 8(1) of the Act establishes a blanket prohibition on the establishment or use of any wireless telegraphy station or the installation or use of wireless telegraphy apparatus except under and in accordance with a licence granted by Ofcom. This provision applies directly to any active RF emissions from the DS-1 system including jamming devices.

Section 8(5) — Jamming Device Exemptions Explicitly Excluded

Section 8(3) of the Act permits Ofcom to exempt certain wireless apparatus from licensing requirements. However, Section 8(5) explicitly excludes jamming devices from any such exemption, on the grounds that such devices inherently interfere with wireless signals and therefore cannot meet the criteria that exempt devices must not endanger safety of life, cause undue interference with wireless telegraphy, or adversely affect spectrum efficiency.

> *DAURALIS impact: Active RF jamming of drone control signals is prohibited for private sector operators under Section 8. This affects only the DS-1's active neutralisation capability, not its passive detection and monitoring layers, which do not emit RF signals and are therefore outside the scope of this provision.*

Section 8(3B) — Proportionality Requirement for Licences

Where jamming licences are granted, the Act requires that they must comply with principles of objective justification based on specific risks, proportionality with the threat level, and transparency of licence terms. This creates a pathway to licensed jamming deployment for DAURALIS in the future, subject to demonstrating a defined threat environment at client facilities.

3.2 Air Navigation Order 2016

The Air Navigation Order 2016 (ANO) governs all aspects of unmanned aircraft operations in UK airspace and is the primary regulatory instrument for the DS-1's autonomous intercept UAV fleet.

Article 94 — Small Unmanned Aircraft Operations

Article 94 of the ANO requires that the person in charge of a small unmanned aircraft must maintain direct, unaided visual contact with the aircraft at all times during flight sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels, and structures, for the purpose of avoiding collisions. This requirement applies to the DS-1's interceptor UAVs and constitutes the primary regulatory constraint on fully autonomous intercept operations.

Beyond Visual Line of Sight (BVLOS) Operations

Autonomous intercept operations by the DS-1 constitute Beyond Visual Line of Sight (BVLOS) operations as defined by the CAA, as the interceptor UAVs will operate without a human pilot maintaining direct visual contact. BVLOS operations require specific operational authorisation from the CAA under the Specific category framework. The CAA's UK Specific Operations Risk Assessment (UK SORA) process, which entered into force on 23 April 2025, provides the assessment framework for obtaining such authorisation.

> *DAURALIS impact: The interceptor UAV layer will require a CAA Operational Authorisation under the Specific category and completion of a UK SORA before fully autonomous deployment is permitted. DAURALIS intends to seek this authorisation as part of its Phase 2 prototype programme. Estimated timeline: 6–12 months from formal application. Estimated cost: £5,000–£15,000 including CAA fees and legal support.*

3.3 Remote ID Requirements — January 2026

The CAA implemented mandatory Direct Remote ID requirements from 1 January 2026 for UK class-marked drones (UK1–UK6). Remote ID is a system that allows a drone to broadcast its identification and location information directly from the aircraft itself without requiring an internet connection.

For DAURALIS, this regulation has two distinct implications. First, the DS-1's interceptor UAVs must be equipped with compliant Remote ID modules if they fall within the UK1–UK6 classification framework. Second, and commercially significant, the mandatory Remote ID broadcasting by threat drones significantly enhances the DS-1's Layer 1 detection capability — from 2028, virtually all commercial drones above 100g with cameras will be broadcasting identification and location data detectable by the DS-1's RF array.

> *DAURALIS strategic note: Mandatory Remote ID materially strengthens the DS-1 detection value proposition. As of January 2028, the vast majority of commercial drones will be legally required to broadcast their identity and location. The DS-1 system becomes more capable, not less, as regulatory compliance increases across the drone population.*

3.4 Civil Aviation Act 1982

The Civil Aviation Act 1982 establishes the broad legal framework for airspace management in the United Kingdom and underpins the CAA's authority to regulate unmanned aircraft operations. Sections 61–66 establish the CAA's powers over airspace use, which apply to the DS-1's intercept UAV operations. The Act also establishes civil liability for damage caused by aircraft, which is relevant to the DS-1's operational liability framework — specifically, DAURALIS and its clients may bear civil liability for any damage caused by interceptor UAVs during operations.

3.5 Defence and Security Public Contracts Regulations 2011

The Defence and Security Public Contracts Regulations 2011 govern procurement of defence and security contracts by UK contracting authorities. These regulations will apply when DAURALIS enters into contracts with public sector clients including the MOD, NPSA-designated Critical National Infrastructure operators, and emergency services. Key implications include requirements for security vetting of DAURALIS personnel and supply chain, compliance with national security conditions in contracts, and potential obligations around UK content and technology transfer restrictions.

4. Regulatory Bodies and Required Licences

4.1 Civil Aviation Authority (CAA)

The CAA is the primary regulatory body for the DS-1's unmanned aircraft operations. Required interactions with the CAA include the following:

- Operator ID — Required for any drone operation above 100g. Registration with the CAA as a drone operator. Annual renewal. Cost: £9. Status: Can be obtained immediately.
- Flyer ID — Required for any individual piloting a drone during testing and demonstration phases. Requires completion of CAA online theory test. Cost: Free. Status: Can be obtained immediately.
- Specific Category Operational Authorisation — Required for BVLOS and autonomous intercept operations. Requires completion of UK SORA risk assessment. Estimated processing time: 3–6 months. Cost: £750–£2,500 in CAA fees plus legal support costs.
- Article 16 Authorisation — Available for operations that cannot be conducted within standard Open or Specific category rules, applicable to government and defence clients with established security frameworks.

4.2 Ofcom

Ofcom administers the UK radio spectrum under the Wireless Telegraphy Act 2006. DAURALIS will require Ofcom engagement for the following:

- Passive RF Detection (Layer 1) — No Ofcom licence required. Passive scanning of the radio spectrum for signals emitted by third parties (drone controllers) is legally unrestricted and requires no Ofcom authorisation. This is the foundational legal basis for the DS-1's core commercial product.
- Active RF Jamming — Requires explicit Wireless Telegraphy Licence from Ofcom. Currently available only to government and law enforcement bodies under existing exemptions. Private sector licensing pathway is under active development through the Home Office counter-UAS legislation programme. Estimated availability: 12–18 months subject to legislative progress.
- Directed Energy Emissions — Any electromagnetic emissions from the directed energy pod that fall within regulated spectrum bands require an Ofcom spectrum licence. The scope of this requirement depends on the technical specification of the directed energy system and will require formal legal analysis at the point of technical specification.

4.3 Home Office

The Home Office holds overall policy authority for counter-UAS deployment in the United Kingdom. The UK Counter-Unmanned Aircraft Strategy, first published in 2019 and actively updated through UKDI in 2025–2026, explicitly acknowledges that at-risk sectors within

private industry will increasingly have to consider their vulnerability to malicious drone use and how to mitigate it safely and legally.

The Home Office is currently developing a private sector counter-UAS licensing framework through consultation with industry. DAURALIS intends to engage directly with this consultation process to ensure the DS-1 system architecture is aligned with emerging licensing requirements from the outset.

4.4 Export Control Joint Unit (ECJU)

The DS-1 system's directed energy components, autonomous intercept capability, and AI-driven threat classification software are likely to fall within the scope of the UK Military List and UK Strategic Export Controls administered by the ECJU. Any sale of the DS-1 system to a non-UK customer, or any sharing of technical documentation with foreign nationals, will require an export licence from the ECJU.

5. Current Deployment Status by Capability

The following table summarises the current regulatory status of each DS-1 capability layer as of March 2026:

Capability / Activity	Status	Notes
Passive RF detection of drone controller signals	**PERMITTED**	No licence required. Commercially deployable today.
Radar detection — passive	**PERMITTED**	Standard equipment. No spectrum licence required for passive radar.
Acoustic detection array	**PERMITTED**	No regulatory restriction. Deployable today.
Computer vision / thermal imaging	**PERMITTED**	Subject to UK GDPR data protection compliance for any stored imagery.
AI threat classification software	**PERMITTED**	No specific regulation. Standard software deployment rules apply.
Command and monitoring platform	**PERMITTED**	Subject to cyber security and data protection compliance.
Interceptor UAV — visual line of sight	**RESTRICTED**	Requires CAA Operator ID and Flyer ID. Obtainable within 30 days.
Interceptor UAV — autonomous BVLOS	**RESTRICTED**	Requires CAA Specific Category Operational Authorisation via UK SORA. 3–6 month process.
Net-capture intercept mechanism	**RESTRICTED**	Requires BVLOS authorisation as above. No weapons classification applies.
Active RF jamming of drone signals	**PROHIBITED**	Prohibited for private sector under Wireless Telegraphy Act 2006 without Ofcom licence. Pathway in development.
Directed energy — HPM/laser neutralisation	**PROHIBITED**	Currently restricted to government/MOD clients under existing exemptions. Private sector licensing framework in development.
Sale to UK government / MOD clients	**PERMITTED**	Under existing defence procurement frameworks. Security vetting required.
Export to non-UK customers	**RESTRICTED**	Export licence required from ECJU. Formal classification review required before any export activity.

6. Regulatory Pathway to Full Commercial Deployment

6.1 Phase 1 — Immediate (0–3 months)

The following actions can and should be completed immediately, at minimal cost, and will enable DAURALIS to operate its detection prototype and begin customer pilot discussions:

- Register as a CAA drone operator and obtain Operator ID — Cost: £9, Time: 1 day
- Both founders complete CAA Flyer ID qualification — Cost: Free, Time: 1–2 hours
- Engage a data protection solicitor to confirm UK GDPR compliance framework for sensor data collected by the DS-1 — Cost: £500–1,500 for initial review
- Establish the company's profile with key regulatory and funding contacts

6.2 Phase 2 — Short Term (3–12 months)

Following completion of the detection prototype and with pre-seed funding secured:

- Complete UK SORA risk assessment and submit Specific Category Operational Authorisation application to CAA for autonomous intercept UAV operations — Estimated cost: £5,000–£15,000 including CAA fees and legal support
- Engage Ofcom formally regarding future spectrum requirements for active counter-UAS capabilities — no cost, positions DAURALIS in the legislative consultation process
- Engage ECJU for preliminary classification review of DS-1 technical specification in preparation for potential international customer discussions
- Obtain product liability insurance for prototype operations — Estimated annual cost: £2,000–£5,000

6.3 Phase 3 — Medium Term (12–24 months)

Subject to legislative progress and Series A funding:

- Engage with Home Office counter-UAS private sector licensing consultation as named participant — positions DAURALIS to shape the framework rather than respond to it
- Pursue Wireless Telegraphy Licence from Ofcom for active RF neutralisation capabilities, initially for government and Critical National Infrastructure clients
- Seek MOD approval for directed energy system deployment under existing government client exemptions
- Complete export control legal review and obtain ECJU export licence for international customer discussions
- Engage legal counsel to advise on civil liability framework for operational intercept deployments

6.4 Cost Summary

Action	Timeline	Estimated Cost
CAA Operator ID + Flyer ID	Immediate	£9
GDPR compliance review	0–3 months	£500–1,500
CAA BVLOS Operational Authorisation (UK SORA)	3–9 months	£5,000–15,000
ECJU export control classification review	6–12 months	£2,000–5,000
Product liability insurance (annual)	3–6 months	£2,000–5,000/yr
Ofcom Wireless Telegraphy Licence (RF jamming)	12–24 months	£5,000–15,000
MOD directed energy approval (government clients)	18–24 months	£5,000–10,000
TOTAL estimated compliance cost	**0–24 months**	**£20,000–52,000**

7. Data Protection and Privacy

7.1 UK GDPR and Data Protection Act 2018

The DS-1 system's sensor array collects and processes data that may constitute personal data under the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018, administered by the Information Commissioner's Office (ICO). Relevant data types include RF signal metadata that may identify individual drone operators, visual imagery from computer vision cameras that may capture identifiable individuals in the vicinity of the protected facility, and thermal imaging data.

DAURALIS and its clients will share data controller responsibilities for data processed by the DS-1 system. A formal Data Protection Impact Assessment (DPIA) should be conducted prior to any live system deployment. DAURALIS intends to implement a privacy-by-design architecture in the DS-1 software platform, minimising the retention of personally identifiable data beyond the operational requirements of the threat detection function.

7.2 Surveillance and Covert Monitoring

The DS-1 system's persistent monitoring capability may engage provisions of the Investigatory Powers Act 2016 if deployed in a manner that constitutes directed surveillance of specific individuals. DAURALIS's commercial product is designed for wide-area airspace monitoring rather than directed individual surveillance and should fall outside the scope of the Investigatory Powers Act in normal operational deployment. Legal advice should be sought before any deployment involving targeted monitoring of specific identified individuals.

8. Regulatory Risk Assessment

8.1 Risks That Could Harm the Business

Risk	Likelihood	Mitigation
Home Office fails to develop private sector counter-UAS licensing framework, permanently restricting active neutralisation to government clients	Low	Detection-only commercial product remains fully legal and commercially viable. Government clients accessible under existing exemptions. Revenue model is not dependent on active neutralisation for the first 3–5 years.
CAA rejects BVLOS Operational Authorisation for autonomous intercept operations	Low–Medium	UK SORA process is designed to enable BVLOS approval for justified use cases. Counter-drone defence of critical infrastructure is a strong candidate. Adverse decision can be appealed. Supervised intercept operations remain available without BVLOS approval.
DS-1 interceptor UAV causes property damage or personal injury during operational intercept, creating civil and regulatory liability	Medium	Product liability insurance, robust operational protocols, and indemnity provisions in client contracts mitigate financial exposure. Net-capture intercept mechanism (non-explosive, controlled) minimises injury risk relative to alternative intercept methods.
Significant regulatory divergence between UK and EU counter-UAS frameworks creates complexity for European expansion	Medium	UK-first commercial strategy for first 3 years minimises exposure. EU expansion is a Year 4+ strategic objective by which time regulatory frameworks will be more mature. UK-EU Security and Defence Partnership agreed at 2025 Leaders Summit may facilitate regulatory alignment.
Export control restrictions prevent international customer discussions before ECJU licence is obtained	Medium	ECJU classification review should be completed before any international due diligence or customer discussions. Preliminary classification typically completed within 30 days of formal application.

8.2 Regulatory Changes That Could Accelerate the Business

- Private sector counter-UAS licensing framework enacted by Home Office — would immediately open the active neutralisation market to DAURALIS commercial clients, significantly expanding addressable market and ACV
- UKDI counter-drone investment programme (£142M committed in 2025) creating direct grant and contract pathways for DAURALIS at prototype and product stages
- Mandatory Remote ID from January 2026 expanding to all legacy drones above 100g by 2028 — directly enhances DS-1 Layer 1 detection capability without any DAURALIS development cost

- UK Defence Industrial Strategy commitment of £5bn for autonomous and laser weapon systems over five years — creates substantial government procurement opportunity for DAURALIS directed energy capability
- Growing recognition by critical infrastructure operators of physical drone threat following March 2026 AWS UAE incident — accelerating private sector procurement timelines

9. Recommended Legal Counsel

DAURALIS recommends engaging legal counsel with specific expertise in defence regulation, telecommunications law, and unmanned aircraft systems for the following workstreams:

Firm	Specialism	Recommended For
Burges Salmon	Defence and aerospace regulatory	CAA authorisations, MOD procurement compliance, export control
Fieldfisher	Technology and defence, early-stage startups	Wireless Telegraphy Act compliance, Ofcom engagement, GDPR
Mills & Reeve	Deep tech and defence	Catapult network introductions, DASA grant compliance
Blakistons Chambers	Drone and counter-drone law	Counter-UAS specialist advice, Wireless Telegraphy Act licensing, CAA BVLOS applications

10. Conclusion

DAURALIS Defence Systems operates in a heavily regulated sector. This report demonstrates that the company's founding team has conducted thorough analysis of the applicable regulatory landscape and has a clear, costed, and sequenced plan to navigate it.

The core commercial product — the DS-1's passive multi-layer detection, classification, and alert capability — faces no material regulatory barriers to commercial deployment today. The active neutralisation capability, while currently restricted for private sector operators, is supported by a clear government policy trajectory and a growing body of investment and legislative activity that points toward private sector authorisation within the medium term.

Critically, the regulatory complexity of this sector represents a competitive advantage for DAURALIS. The knowledge, relationships, and compliance infrastructure required to operate lawfully in UK counter-UAS constitutes a significant barrier to entry that will become more

valuable, not less, as the market matures and the licensing framework develops. DAURALIS intends to be a participant in shaping that framework, not merely a recipient of it.

> *The internet has a body. We protect it.*

This report was prepared by DAURALIS Defence Systems, Liverpool, United Kingdom. March 2026. Version 1.0.