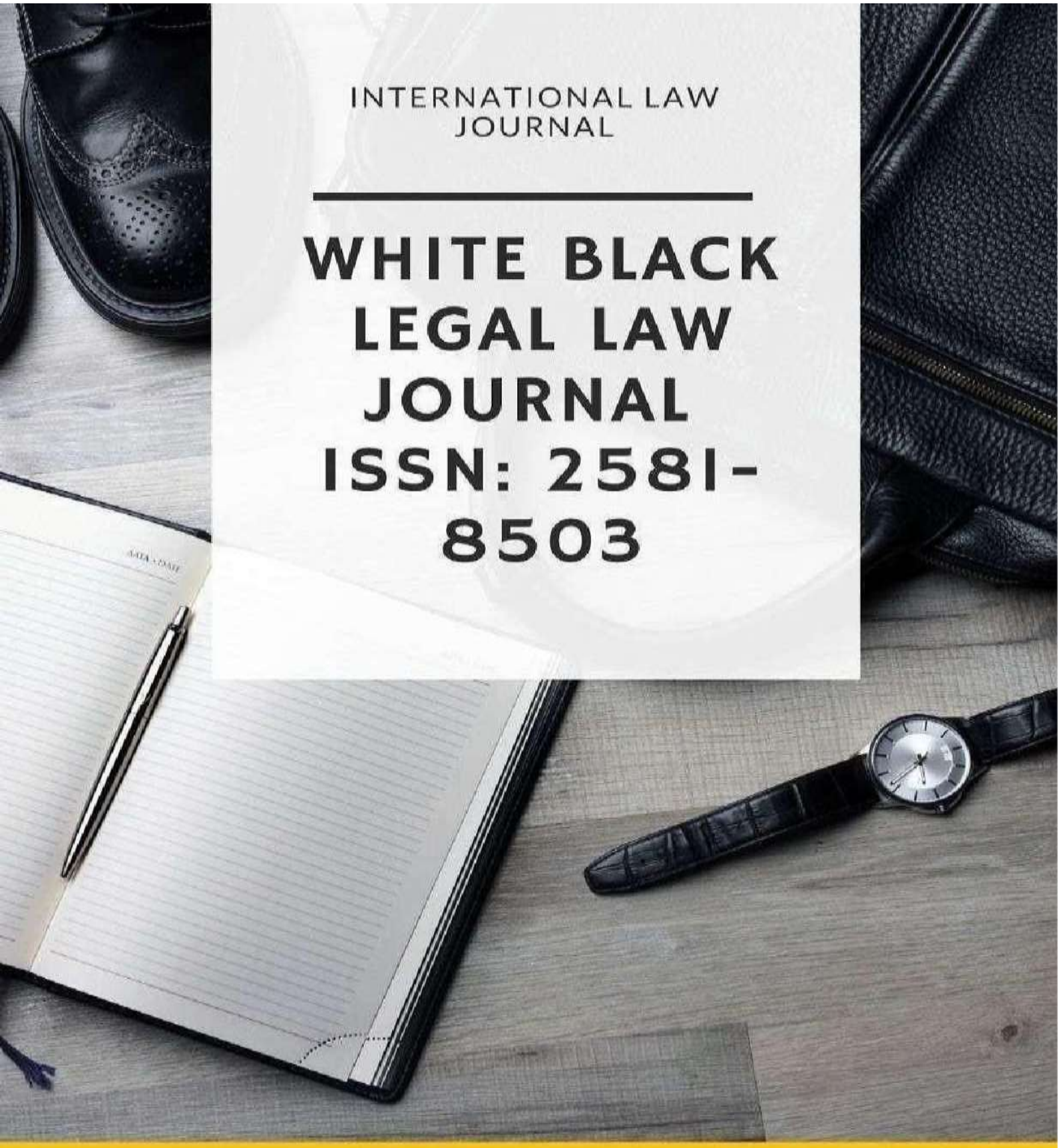

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A COMPARATIVE ANALYSIS OF DRONE LAWS IN INDIA, THE UNITED STATES, AND THE UNITED KINGDOM

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Abstract

The number of civil drone operations has grown at an incredible rate within the past ten years, including innovations in the technology of unmanned aircraft systems (UAS) and the various ways that they can be utilized in diverse sectors, such as logistics, agriculture, infrastructure inspection, media, and public services.sup1sup This has forced the states to develop regulatory frameworks that strike a balance between innovation, safety, security, and privacy.sup2sup This paper will engage in a comparative analysis of the drone regulation in India, the United States (US), and the United Kingdom (UK).[1] Analyzing these three jurisdictions share core elements of each framework, namely regulatory authorities, drone classification, registration and pilot certification, operational restrictions, airspace management and no-fly zones, remote identification, insurance, privacy and data protection, enforcement, and new class marks and weight thresholds in response to post-Brexit realities.[2] This research concludes that India could take lessons in the institutionalized waiver and certification culture of the US and the more subtle category-based model of the UK, and the US and UK could learn about the Indian industrial policy instruments, including the Production-Linked Incentive (PLI) scheme of drones.[3] It suggests that it would be wise to be more aligned with the emerging International Civil Aviation Organization (ICAO) model frameworks, make privacy norms more central to drone regulation, and develop BVLOS and urban air mobility lanes together.

Keywords: Civil Drone Operations; Unmanned Aircraft Systems (UAS); Drone Regulation; Comparative Aviation Law; Airspace Management; Remote Identification; Privacy and Data Protection; International Civil Aviation Organization (ICAO).

[1] Indian Drone Market 2025: Size, Growth & Global Positioning, INSIDE FPV (Sept. 14, 2025), https://insidefpv.com/blogs/blogs/indian-drone-market-size.
[2] Drone Laws in India with Laws in the UK and USA, IPLEADERS (July 26, 2020), https://blog.ipleaders.in/comparative-analysis-drone-laws-india-laws-uk-usa/.
[3] The Production-Linked Incentive (PLI) Scheme for Drones and Drone Components, PRESS INFO. BUREAU, GOV'T OF INDIA (Dec. 8, 2021), https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1779782.

1. INTRODUCTION

Unmanned Aerial Vehicles (UAVs) or Unmanned Aircraft Systems (UAS) also known as drones have moved beyond their military roots to mass-market consumer applications and sophisticated commercial applications, as has the India drone market alone which is projected to grow rapidly by 2030 due to policy encouragement and local manufacturing subsidies.[4] The fast development of drones has placed the regulatory issues on the frontline. The use of drones involves the aviation safety, citizen security, privacy and data protection, and a well-managed introduction of unmanned aircraft into already overcrowded airspace.[5] India, the US and the UK provide the three most contrasting models of regulations that render them particularly useful when comparing them. India has traditionally had a highly restrictive, security-focused regime but is currently redefining itself as a global drone hub by relaxing its regulations and introducing incentive-based experimentation schemes, keeping the same basic Open Specific Certified categories but creating country-specific class marks and registration limits.[6] The US, in its turn, has a long-established aviation safety culture, within which the FAA has been adopting drones gradually by introducing dedicated regulations, operator certification requirements, and experimentation-based waiver incentives.[7] This research addresses four major objectives. To begin with, it will focus on mapping and describing the key feature of the drone regulation within all three jurisdictions. Second, it is also comparing these structures within the context of a couple of shared parameters, including classification, registration, licensing, operational boundaries, remote identification, insurance, and privacy. Third, it evaluates the effects of these structures on the innovation, safety and civil liberties. Finally, it sets the cross-jurisdictional lessons and provides policy recommendations which might guide reform in the future.

2. METHODOLOGY

A desk-based doctrinal and comparative law methodology is used in this research. It applies primary legal texts and official guidance as the background to the analysis and relies on

[4] ICAO Model UAS Regulations, INT'L CIVIL AVIATION ORG., https://www.icao.int/UA/icao-model-uas-regulations (last visited Jan. 13, 2026).
[5] The Civil Drone (Promotion & Regulation) Bill, 2025, SIGMA CHAMBERS (Jan. 2, 2026), https://www.sigmachambers.in/post/the-civil-drone-promotion-regulation-bill-2025-policy-reset-or-continuity-with-teeth-1.
[6] New UK Drone Regulations from 01.01.2026, DJI VIEWPOINTS (Dec. 31, 2025), https://viewpoints.dji.com/blog/new-uk-drone-regulations.
[7] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,064 (June 28, 2016) (codified at 14 C.F.R. pt. 107); Remote Identification of Unmanned Aircraft, 86 Fed. Reg. 4,390 (Jan. 15, 2021) (codified at 14 C.F.R. pt. 89).

secondary academic and policy literature to interpret and contextualize such material. In the case of India, the central resources are the provisions of the Air Navigation Order regarding unmanned aircraft, the official guidelines of the CAA on the operation of the UAS, the Drone and Model Aircraft Code, and the CAA updates and consultation on the subject of the ongoing reform, which are on the Digital Sky portal.[89] Secondary literature incorporates journal articles, working papers and practitioner commentaries on drone law and policy, especially published after 2020 and discussing a comparative perspective, privacy issues, enforcement issues and cyber-security issues, but otherwise are not considered as authoritative legal sources.[10] To accomplish the comparative aspect, this research systematizes its argument on the basis of a structure of shared parameters which are present in most of the national drone regulatory regimes. Examples of such parameters are the regulatory agency and legal framework, drone classification system, registration and marking system, pilot certificate, fundamental operational constraints (including altitude limits, VLOS, nocturnal operation, and flying over people), no fly zone and airspace integration, remote identification and tracking, insurance expectation, privacy and data protection, recreational and commercial flights, and implementing tools and punishment. This comparative critique is mainly qualitative with reference being given to the actual specifics of the rules at the time in question.

3. COMPARATIVE REGULATORY FRAMEWORKS GOVERNING CIVIL DRONE OPERATIONS

3.1 India

In India, supporters of unmanned aircraft include a regulatory framework primarily based on the Directorate General of Civil Aviation (DGCA) which is an important overhaul of the Aircraft Act, 1934, to represent a shift from more restrictive guidelines and Civil Aviation Requirements which had imposed significant licensing and approval requirements on the operation of unmanned aircraft.[11] The Drone Rules, 2021, represent a decisive pivot in a framework of more restrictive guidelines and other Civil Aviation Requirements which

[8] Recreational Flyers & Community-Based Organizations, FED. AVIATION ADMIN., https://www.faa.gov/uas/recreational_flyers (last updated Dec. 16, 2025).
[9] The Air Navigation Order 2016, SI 2016/765 (UK); CIVIL AVIATION AUTH., THE DRONE AND MODEL AIRCRAFT CODE (Jan. 2026), https://www.caa.co.uk/media/q1il5nqs/the-drone-code-january-2026.pdf ; CIVIL AVIATION AUTH., CAP 722: UNMANNED AIRCRAFT SYSTEM OPERATIONS IN UK AIRSPACE (2024).
[10] Is Drone Insurance Mandatory in India Under the 2025 Civil Drone Bill?, DRONSURANCE (Nov. 22, 2025), https://dronsurance.com/is-drone-insurance-mandatory-in-india/.
[11] Why Your Drone's Weight Decides What Rules You Follow, JETAYU GADGETS (July 7, 2025), https://jetayugadgets.com/blog/drone-weight-license-rules-india/..

previously imposed heavy licensing and approval. A very important aspect of the Indian structure is the weight-based classification scheme. The Drone Rules, 2021 categorize unmanned aircraft systems based on the maximum all-up-weight, including payload, i.e. Nano drones to 250 grams; Micro drones to 250 grams above the 2 kilograms; Small drones to 2 with 25 kilograms or above; Medium drones to 250 with 150 kilograms or above; and large drones to 150 or above. In the case of Nano Drone, they have fewer heavy responsibilities, but on the other hand, small, medium, and large drones have more requirements like registration, licensing of remote pilots and operational approvals.

Registration and digital governance Registering and digital governance Registered drones receive a Unique Identification Number (UIN), which must be affixed to the aircraft, though prior to that, drones were required to have operationalized a so-called No Permission, No Takeoff (NPNT) system, where they would not be able to arm and fly without digital authorization sent by the platform.[12] Most drones above the Nano category are mandated to be registered and assigned a Unique Identification Number (UIN) to which they must be affixed, whereas Digital Sky was otherwise. The concept of the remote pilot license deals with pilot competence. With several exemptions on the lowest risk categories, remote pilots flying most types of drones have to receive training through a training organization approved by law and are licensed at the end of theoretical-level evaluations and practical evaluations. Dark flight Limit Operational duties are typically restricted to an altitude of approximately 120 meters directly above the surface, or 400 feet, which is close to the worldwide recognized 400-foot limit designed to ensure that drones avoid most manned aviation.[13] Most flight missions must be within the visual airspace and flights near airports, international borders, military bases and other sensitive locations are highly controlled according to geo-fencing and digital airspace maps on Digital Sky.[14]

The Drone Rules, 2021 contain reference to the third-party insurance and contemplate the mechanism of the adequate insurance of the operators to handle the liability of the damage caused by the drone operations, though the detailed structure of insurance requirements is not

[12] Drone Registration in India | Drone Rule 2021, ALEPH INDIA (Oct. 31, 2024), https://alephindia.in/drone-registration-in-india.php.
[13] The Drone Rules, 2021, supra note 5
[14] New Drone Rules 2022, TROPOGO (Jan. 23, 2025), https://tropogo.com/india-guides/drone-laws/generic-rules.

discussed in the Drone Rules.[15] Privacy and data protection in the Drone Rules are not discussed in detail. The Drone Rules, 2025 is aimed at clarifying the insurance requirement and enforcement mechanism, as the further structurings of insurance requirements have been left to subsequent policy articulation and market practice. Rather, the privacy concerns of drone technology mingle with the Indian constitutional jurisprudence of privacy and a new form of data protection laws and to prevent abusive surveillance and data misuse, scholars advocate clearer drone-specific norms. The drones regulation in India is not a concept to be viewed outside of the context of the industrial and innovation policy. As the Production-Linked Incentive (PLI) Drone system is offered by the government, financial incentives are provided to local manufacturers and are intended to make India a drone production and services hub and its gaps in privacy protection are still relevant.[16]

3.2 United States

The operation of drones in UAS is regulated under the United States by the Federal Aviation Authority (FAA), which promulgates the rule 14 C.F.R. Part 107, termed Small Unmanned Aircraft Systems, incorporating provisions on night operations as well as operations over people and moving vehicles, under certain specified conditions, and mitigating its safety impacts.[17] The classifications at FAA are not as detailed as the ones of India when it comes to formal aircraft categories. It is based, to a large extent, upon a threshold distinction of small drones in UAS, which is less than 55 pounds falling under Part 107, and larger unmanned aircraft that must be operated through operational regulation and provision of waivers, instead of being represented by a widening of statutory sub-categories of weight or mission purpose. Most drones with a weight or greater than 0.55 pounds (250 grams) should be registered under the FAA, with the registration number displayed on the drone, and the proof of registration should be carried by the operators. Commercial or non-recreational operations in Part 107 require operations of the operator to be with a Remote Pilot Certificate. In order to receive this certificate, the applicants should be at least 16 yrs old, pass an aeronautical knowledge exam in an FAA approved testing facility and pass a TSA security screening. Part 107 subjected a number of fundamental operation bans. The small drones in UAS are often limited to altitudes

[15] Is Drone Insurance Mandatory in India Under the 2025 Civil Drone Bill?, DRONSURANCE (Nov. 22, 2025), https://dronsurance.com/is-drone-insurance-mandatory-in-india/.

[16] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,064 (June 28, 2016) (codified at 14 C.F.R. pt. 107); Remote Identification of Unmanned Aircraft, 86 Fed. Reg. 4,390 (Jan. 15, 2021) (codified at 14 C.F.R. pt. 89).

[17] Part 107 Waivers, FED. AVIATION ADMIN., https://www.faa.gov/uas/commercial_operators/part_107_waivers (last updated Aug. 26, 2024).

not exceeding 400 feet above the surface or over a structure operating within the line of sight of the remote pilot or a visual observer (subject to specified exceptions), which effectively places a buffer of operations below most manned aircraft operations.

One of the most notable aspects concerning the US regime is the formalization of Remote Identification. The Remote ID Rule by FAA mandates the majority of drones to transmit identification, location and performance data either via in-built Remote ID functions, or an external add-on device, allowing other airspace users and police agencies to identify drones in the sky. Liability insurance of drones is not a requirement under the federal law, and the FAA regulations do not imply compensation to the victims of accidents, but aim at enhancing the safety of such activities.[18] The FAA regulations are enforced using civil penalties, certificate suspension or revocation, and in severe cases, criminal prosecution may be referred to, particularly when the drone operations pose a threat to aircraft or the safety of the population. The US model has particularly played an important role in the area of innovation. Waivers and pilot programs have permitted the FAA to permit experimental BVLOS services, complex operations over people, and numerous types of drone-delivery services, and gather data that will inform long-term rulemaking, but commentators point out that thus far the US approach has left privacy largely to the interaction of sectoral federal regulation and state legislation, with no much explicit attention paid to privacy considerations in the FAA drone regulation itself.[19]

3.3 United Kingdom

The UK drone regulatory framework is regulated by the Civil Aviation Authority (CAA), and its legal framework by the Air Navigation Order (ANO) and expanded in policy through documents such as: CAP 722 ("Unmanned Aircraft System Operations in UK Airspace") CAP 722.[20] The UK regime is highly operation-focused and structured around three main categories, the Open category, which deals with low-risk operations that are limited to strict requirements in terms of drone weight, altitude, VLOS, and distance between the drone and uninvolved

[18] Part 107 Drone Insurance – Essential Coverage for FAA Certified UAV Pilots, BWIFLY (Sept. 11, 2025), https://bwifly.com/blog/part-107-drone-insurance-essential-coverage-for-faa-certified-uav-pilots/.Drone Insurance: What You Need and Where to Get It, FLYING MAG. (June 3, 2025), https://www.flyingmag.com/drone-insurance/.

[19] Drones Privacy and Data Protection, LEXISNEXIS LEGAL GUIDANCE, https://www.lexisnexis.co.uk/legal/guidance/drones-privacy-data-protection (last visited Jan. 13, 2026).

[20] Understanding EASA Drone Flying Regulations in Europe vs UK, CARD PROJECT UK (Dec. 31, 2025), https://thecardproject.uk/understanding-easa-drone-flying-regulations-in-europe-vs-uk.

persons. Under the Open category, there are sub-categories of A1, A2, and A3, which depend on the proximity to people and the nature of the drone due to the mark of the class.[21] The Specific category applies to operations with greater risks than those under the Open category and involves an operation authorization by the CAA based on a risk assessment that is detailed or on a predefined risk assessment (PDRA). The Certified category is the riskiest of all operations, and the regulatory scrutiny is comparable to that of manned aviation, and the operator, the aircraft, and the operation must all be fully certified.

The UK is also introducing its own system of class marks, under which the UK-specific classes (UK0-UK6) will be introduced which will come into force in 2026 and will be used to specify what kind of operations a drone can perform under the Open category.[22] These class marks will indicate the requirements of the design, functionality, and safety characteristics of the drones. The main pillars of the UK framework are registration and pilot competence. More complex operations in the Specific category, including those near people, require a remote pilot to have an A2 Certificate of Competence (A2 CofC), which is granted after training and examination by CAA-approved training providers.[23] Some operations involve more complex missions, and may require organizational approvals along with higher levels of training and ability to assess risks.

In UK, operational constraints are generally similar to those of India and the US. The maximum altitude of drones is usually restricted to 120 meters (400 feet) above the ground level, and no-fly zones are commonly set around airports, prisons, nuclear facilities, and other sensitive locations; operations over crowds directly are typically prohibited, which is a conservative interpretation of the risk of crowds. The CAA also publishes maps and geo-awareness applications to help operators be aware of these limitations. [24] There is a gradual adoption of electronic conspicuity and Remote ID-type solutions in the UK. Although it remains unclear what exactly a thorough Remote ID system will look like, CAP 722 and the documents that support it point to a definitive policy direction of making drones more electronic to other airspace users and authorities. Insurance requirements are relatively straightforward. Based on

[21] Class Marks, UK CIVIL AVIATION AUTH., https://www.caa.co.uk/drones/getting-started-with-drones-and-model-aircraft/class-marks/ (last updated Dec. 28, 2025).
[22] Id
[23] How High Can a Drone Fly? Maximum Heights & Limits Uncovered, COPTRZ (Oct. 21, 2024), https://coptrz.com/blog/how-high-can-a-drone-fly-maximum-heights-limits-uncovered/.
[24] News and Updates, UK CIVIL AVIATION AUTH., https://www.caa.co.uk/drones/drones-news-and-updates/news-and-updates/ (last updated Dec. 28, 2025).

the retained effect of Regulation (EC) No 7852004 and with the accepted practice in the aviation insurance sector, the UK typically expects commercial operators of drones to possess sufficient third-party liability insurance, and guidance indicates that insurance is a significant aspect of responsible operation.[25] The CAA and the law-enforcement agencies in the UK have enforcement powers that allow them to impose fines, seize equipment, and prosecute offences where the drone activities pose a risk to aircraft and people on the ground.[26] Post-Brexit reforms, such as the introduction of UK-specific class marks and changed registration thresholds, have created some compliance complexity but have also provided the UK with a chance to localise drone regulation to its national priorities, such as, developing urban air movement corridors and massive delivery operations.

4. CROSS-JURISDICTIONAL COMPARISON OF DRONE REGULATION

A systematic comparison between the three countries India, the US and the UK shows convergence and major differences in the regulation of drones. The table below presents the main parameters in an overview before a more discursive comparative discussion.

Parameter	India	United States	United Kingdom
Regulatory authority	Directorate General of Civil Aviation (DGCA) under Aircraft Act, Drone Rules, 2021.	Federal Aviation Administration (FAA) under 14 C.F.R. Part 107 and related statutes	Civil Aviation Authority (CAA) under Air Navigation Order, CAP 722, Drone Code.
Drone classification	Weight-based: Nano, Micro, Small, Medium, Large.	Small UAS (<55 lbs) vs larger UAS; risk managed via operating rules and waivers	Category-based: Open, Specific, Certified; sub-categories A1–A3; UK class marks from 2026
Registration requirements	Digital Sky registration; UIN mandatory for	FAA registration for drones ≥0.55 lbs;	Operator registration for most drones above a

[25] UK Drone Insurance Requirements: Commercial and Hobby Guide, HIRE DRONE PILOT UK (Sept. 9, 2025), https://hiredronepilot.uk/blog/drone-insurance-requirements-uk.
[26] Drone Regulation & Compliance: Complete Guide, ZENATECH (Oct. 13, 2025), https://www.zenatech.com/drones-and-donts-laws-regulations-for-drone-use/.

	most drones above Nano; online procedures	online registration and marking.	low threshold (moving to ~100 g from 2026); pilot competency tests
Pilot certification/licensing	Remote pilot license for specified categories; DGCA-approved training organizations; exemptions for Nano and limited Micro	Remote Pilot Certificate under Part 107 for commercial operations; knowledge test, age and TSA vetting	A2 CofC and other qualifications through CAA-approved providers for certain Open/Specific operations
Operational restrictions (altitude, VLOS, night, over people)	Altitude generally 120 m; VLOS requirement; restrictions near people and sensitive areas; night operations permissible with conditions	Altitude 400 ft; VLOS required; rules for operations over people and at night, with additional conditions and waivers	Altitude 120 m; VLOS required; strict distance rules from people depending on category; night operations allowed with conditions
No-fly zones and airspace rules	No-fly and restricted zones mapped via Digital Sky; restrictions around airports, borders, military sites	Controlled airspace restrictions around airports; authorization via LAANC; temporary flight restrictions	Published drone no-fly zones around airports, prisons, critical sites; geo-awareness tools and guidance
Remote ID requirement	Movement towards digital tracking via Digital Sky; NPNT origins; Remote ID evolving, with emphasis on platform-based tracking	Formal Remote ID Rule requiring broadcast or network identification for most drones	Moving towards electronic conspicuity and Remote ID-type solutions under CAP 722 and related reforms
Insurance requirements	Encouraged; proposed 2025 Bill envisages clearer insurance	Not federally mandatory; widely adopted commercially and	Commercial operators generally must carry third-party liability insurance; derived from

	mandates for higher-risk operations.	sometimes required by local rules/clients.	aviation insurance mandates.
Privacy and data protection	Privacy governed by general constitutional and data-protection norms; drone rules largely silent on data	Patchwork of federal and state privacy laws; FAA focuses on safety, leaving privacy largely to other laws.	Stronger integration with data-protection framework (UK GDPR and Data Protection Act); guidance on drone surveillance
Commercial vs recreational	Distinctions exist but are less formalized; focus on risk and category rather than purpose	Clear distinction: Part 107 for commercial; separate rules for recreational flyers	Purpose relevant but framework primarily risk-based; both hobbyists and professionals subject to category rules and registration
Penalties and enforcement	Administrative penalties, suspension of UIN and licenses, criminal sanctions under Aircraft Act and other laws	Civil penalties, certificate actions, and criminal referrals for severe violations	Fines, prosecution, and confiscation of equipment for endangering aircraft or people
Recent/future developments	Draft Civil Drone Bill 2025; PLI scheme; BVLOS corridors; liberalization of import and operations	Ongoing BVLOS rulemaking; evolution of drone-delivery framework; refinement of Remote ID implementation	Post-Brexit reforms; 2026 class marks and registration thresholds; integration of UAM

There are some general similarities that come out beyond the table. Each jurisdiction has shifted towards risk-based, proportional regulation, which reflects ICAO and EASA principles and recommendations indicating that drones must be operated below the majority of manned aircraft, and that operations beyond visual line-of-sight should be treated as an exception and must be authorized or waivered under the Specific and Certified categories in the United

Kingdom or operated under waivers under the US Part 107. No fly zones around strategic locations, especially airports, military installations and sensitive facilities are everywhere. India implements the Digital Sky platform to map and geo-fence controlled and prohibited zones and the US to airspace classification, temporary flight restrictions and authorization systems such as LAANC and in the UK to publish geo-awareness tools and maps using the CAA. The three systems are also starting to implement some form of remote identification or electronic conspicuity of drones, although the US is currently leading in the implementation of a fully developed Remote ID regulation. There are however important differences to such regimes. The US and, more so, the UK enjoy the benefits of institutions and regulatory infrastructures that are well established and institutional that have assimilated drones into established regimes with relatively high administrative capacity and also facilitate the growth of the industry.[27] This institutional maturity difference impacts not just the formal rule design, but also its practical implementation and administrative experience on the part of operator. The second area of disagreement is in method of classification. In India and the US, the distinction has been lost in a weight-based approach, although the UK uses an operation-based model with class marks that indicate the technical nature of the operation, whilst the five-tier weight classification used by India is based on a variety of obligations. Another component of comparison can be done with remote ID implementation. In the US Remote ID has been operationalized comprehensively with most drones having to be identified broadcast themselves or over a network, whereas in the UK it is expanding electronic conspicuity and remote identification through a step-by-step approach in which CAP 722 and incremental reforms have inspired the continued focus on platform-based regulation, with the technological specifics under development. There are additional differences as pointed out by insurance and privacy. The UK is, by far, the most explicit and formal presentation of drones within an aviation-style liability insurance regime, and the tightest formal connection between drone activities and general data-protection law, including the UK GDPR and the Data Protection Act.[28] The US is less forceful on insurance and on privacy more of a product of federal and state law and market practice, where the FAA is concerned more with safety and commentators are finding gaps and interstate differences. India is, by far, the most rigorous to introduce drone activities within an aviation

[27] Landscape of Drone Technology, J. EMERGING TECH. & NOVEL RES. (Oct. 2024), https://rjpn.org/jetnr/papers/JETNR2410008.pdf.
[28] Do I Need Drone Insurance in the UK?, COPTRZ (June 5, 2025), https://shop.coptrz.com/blogs/news/do-i-need-drone-insurance-in-the-uk.

5. DISCUSSION AND IMPLICATIONS

The above regulatory decisions are damaging to the industrial development, its safety rates, ethical privacy considerations, and harmonization across the borders. In India, the stability of Digital Sky as a solution for drones under the Drone Rules, 2021, alongside the PLI scheme and the rhetoric of the government about the establishment of a global drone hub, has resulted in spectacular rise predictions, especially in the logistics industry, precision agriculture, and infrastructure services. But the challenges of stabilizing the Digital Sky and the lack of understanding of the enforcement authority's role alongside the interactions between the drone regulation and the emergent data-protection law might become a source of uncertainty to potential investors and operators, especially those considering capital. The Part 107 framework and Remote ID rule has brought comparatively predictable conditions to the commercial operators within the US, and the waiver mechanism has made it relatively simple to conduct extensive experimentation on sophisticated operations, such as long-range delivery and complex inspection missions.[29] The scattered nature of privacy protections between federal and state lines, and lack of direct FAA involvement with the concept of privacy, have generated a patchwork quilt where the same drone activity may raise disparate legal issues, depending on the location in which it takes place.

The category-driven UK paradigm and a high degree of compliance with data-protection standards have generally been considered to be advanced and rights-conscious, with guidelines highlighting the drone-integration into the broader airspace modernisation initiative.sup133sup Despite this, the UK model of providing has been seen as a test-case of BVLOS projects and urban air mobility corridors, especially in the context of integrating drones into the wider airspace-modernisation programme. The issues of enforcement are cross-cutting in all the three jurisdictions. Populated urban areas where many small drones can fly at low altitudes are especially challenging to be detected, identified and intercepted, unless remote identification and electronic conspicuity become ubiquitous, posing significant challenges to the effectiveness of the enforcement mechanism. The new components is the pressure exerted on the current structures by emerging trends like the BVLOS operations, urban air mobility and high-volume drone delivery. Although the US already tests routine BVLOS use at specified routes and is considering changes to its regulatory framework to go beyond case-by-case

[29] Steve Banker, New Regulations Will Unshackle the Drone Delivery Market, FORBES (Aug. 7, 2025), https://www.forbes.com/sites/stevebanker/2025/08/07/new-regulations-will-unshackle-the-drone-delivery-market/.

waivers, the UK, though unlike India, is longer-distance BVLOS projects on its cargo routes and passenger mobility corridors. sup139sup.

6. POLICY RECOMMENDATIONS AND CONCLUSION

This juxtaposition shows that, in as much as India, the United States and the United Kingdom have a shared interest in the risk-based, proportionate regulation of drones, their systems differ in significant ways, due to the institutional abilities, legal culture and legal priorities of each. The Drone Rules 2021 and other such programs in India are an important liberalization project towards industrial growth, but pose an explicit open question on privacy, insurance and enforcement capacity.[30] The category-based system in the UK with Open, Specific, and Certified categories and an effective regime of data-protection represents a rights-sensitive approach, although it increases complexity in the arrangements during the post-Brexit transition period.

A number of cross-jurisdictional clues succeed. India may also seek to enhance the enforcement capability of Digital Sky and DGCA, with its influence on such tools as LAANC and CAP 722 as models of removing most kinds of drone operation to a higher-level standard in their interface with general data-protection laws, and refining its set of class marks and thresholds so that they are not aggressive to many operations but may still be considered high standards of safety and privacy. As far as the policy is concerned, there are three broad recommendations. First, all three jurisdictions ought to proceed to codify more explicitly defined, drone-specific privacy standards, whether in dedicated chapters of aviation regulations, or by developing a joint policy between aviation and data-protection regulators, to enable the provision of airspace awareness, enforcement, and cross-border activities. 2nd in India and UK ought to endeavor to codify more clearly defined, drone-specific privacy norms, whether in separate chapters to their aviation rules or by jointly advising on aviation and data-protection regulation. Research in the future may widen the comparative focus to cover EASA member states, China, or Australia, and therefore validate how legal constructs are realistic in reality, beyond ideological theory. Finally, more focused sectoral studies on particular applications--such as medical drone delivery, agricultural spraying, or law-enforcement surveillance--could illuminate how general regulatory architectures translate into specific operational realities in India, the US, and the UK.

[30] The Drone Rules, 2021, supra note 5;