

Everyday understandings of drone incidents and misuse in the Mass Observation Archive

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Everyday understandings of drone incidents and misuse in the Mass Observation Archive

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Abstract

Drones are a growing feature of everyday airspace, with more-than-military drones deployed across diverse civil, commercial, and recreational applications. Yet, from reports of drones flying in proximity to manned aircraft and transporting contraband into prisons to drones used to spy on ex-partners, so too have concerns grown around drone incidents and misuse. Drawing on the testimony of Mass Observation Archive (MOA) correspondents, this article explores everyday understandings of drone incidents and misuse, while bringing drone geographies into novel dialogue with feminist geographical and geopolitical work on the everyday, storytelling, and (digital) technology. An established UK archival project, the MOA seeks the views of 'ordinary' people to inform an understanding of everyday life in Britain through issuing questionnaire-style 'directives' on wide-ranging themes, from current events to articles of interest, to its panel of volunteer correspondents. Drawing on the author's development of a drone-themed directive, this article examines everyday understandings of growing and anticipated drone presence, while reflecting on the geopolitical implications of increasingly diffuse airpower as access to drones widens. In so doing, it responds to calls from drone geographies to diversify the methodologies deployed in the drone's critical accounting, while bringing the MOA dataset into dialogue with feminist work to deepen understandings of 'everyday droning'.

KEY WORDS

airspace, archive, digital, drones, everyday, storytelling

1 | INTRODUCTION

In October 2023, news outlets reported on a neighbour dispute in Queensland, Australia. A woman alleged that her 71-year-old male neighbour had been 'constantly' flying his drone above her property (Attansio, 2023). While she described the act as a 'deep invasion' of privacy, her neighbour viewed it as a new hobby that wasn't 'harming anyone'

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(Attansio, 2023). From neighbours accused of 'hovering' drones by windows (de Vaal, 2019) and deploying drones in response to 'zoning disputes' (Biron, 2024), to those mobilising drones to harass neighbours and their pets (Khaliq, 2024), reports of drone-enacted disputes above neighbourhoods and homes have begun to litter global headlines. Just as more-than-military drones increasingly enter everyday skies and spaces, so too do citizens respond, from a US-based woman witnessing a drone at her window and proceeding to 'yell at it' prompting it to 'take off' and 'crash' where she retrieved it and 'dunked it in water, disabling it' (WSAZ News, 2023), to the Queensland woman in the opening story responding to the 'privacy invasion, noise and harassment' of her neighbour's drone by 'hacking' and taking over the drone's control via an insecure wifi connection and watching her neighbour 'stress out about it' through a hole in the garden fence (Attansio, 2023). Such stories at once underscore the growing availability and presence of consumer drones while highlighting the necessity of further attention to the complex geographies of their (mis)use.

Drawing on testimony of Mass Observation Archive (MOA) correspondents, this article explores everyday understandings of drone incidents and misuse, while bringing drone geographies into novel dialogue with feminist geographical and geopolitical work on the everyday, (digital) technology and storytelling. While comprising successive archival projects, the MOA is collectively concerned with gathering the views of 'ordinary people' and everyday life in Britain through issuing questionnaire-style 'directives' on wide-ranging themes to its panel of volunteer correspondents (Mass Observation Archive, n.d.). Drawing on the author's development of a drone-themed directive, this article examines everyday understandings of growing and anticipated drone presence, while interrogating the geopolitical implications of increasingly diffuse airpower, approaching drone incidents and misuse as aeromobile 'uncertainty and disruption' requiring 'pause' (Adey et al., 2024, p. 729). In so doing, it responds to calls from drone geographies to diversify the methodologies deployed in the drone's critical accounting, bringing the MOA directive's qualitative dataset into dialogue with feminist work on the everyday, (digital) technology and storytelling in order to deepen understandings of 'everyday droning'.

The article proceeds by providing context on drone (mis-)use in the UK, before bringing drone geographies into dialogue with feminist work and outlining its conceptual approach. Following an outline of the article's methodology, the analysis first explores how correspondents understood drone incidents and misuse, as at once inevitable and necessitating further state-led and organisational responses. Second, it digs deeper into the geographies inherent in correspondent responses, highlighting tensions across views of drones as distant and proximate, embodied and irrelevant. Therein, it draws attention to correspondents highlighting diverse experiences of, and differential vulnerabilities to, drones, urging an intersectional reading of drone risk. Conclusions are then offered.

2 | UNDERSTANDING DRONE (MIS-)USE IN THE UK

Aerial drones refer to aircraft without a pilot on board and which can be controlled remotely by a pilot on the ground or fly with 'various levels' of automation or autonomy (POSTnote, 2020, p. 1). Drones comprise an ecosystem of platforms varying in size (from hand-held to large aircraft) and span increasingly diverse military, civil, commercial and recreational applications. Writing in the context of domestic UK airspace, this article focuses on small drones.

Such drones are used to gather aerial imagery and data, and in transport and carrying applications. In a 2022 report, the UK Government praised drones as carrying out 'tasks faster, safer, cheaper and with less impact on the environment than traditional methods', while outlining a vision that 'by 2030 commercial drones will be commonplace' (HM Government, 2022, pp. 6, 10). Yet, while drone use continues apace, so too do concerns remain about incidents and misuse. From drones flown in proximity to manned aircraft and transporting contraband into prisons to those used to harass or in weaponized capacities, both the 'careless and inconsiderate' and 'more deliberate' misuse of drones for 'criminal acts' has prompted safety, security and nuisance concerns (Home Office, 2019, p. 1; Jackman, 2023a, 2024b). This is reflected in a 2022 'mini dialogue' bringing together UK-based members of the public, researchers, stakeholders and policy-makers to explore 'future flight technologies' including drones, which saw members of the public highlight concerns from the 'privacy implications' of drones intruding 'into private and domestic lives', to their potential 'cyber security' implications, including 'hacking' and 'hijacking' (Camilleri et al., 2022, pp. 6, 34, 33). This is also echoed in industry-led surveys, which, while indicating levels of public support for drone use in emergency response and risky jobs, also highlight concerns around 'drone misuse' and criminal activity (BT, 2021).

Together, the combination of the drone's widespread availability, relatively low cost, and 'flight range' has led to their designation as potentially 'attractive' tools for malicious misuse or 'criminal intent' (POSTnote, 2020, p. 3) alongside concerns that they may potentially provide both a 'new way to commit acts that are already criminal' and introduce novel criminal acts (Home Office, 2019, p. 29; Jackman & Hooper, 2023). In other words, as the drone emerges as an 'enabling'

technology for a growing 'number of emergent user groups' including police (Coliandris, 2023, p. 300), so too does its mobilisation extend to 'criminal misuse and recreational negligence' (College of Policing, 2023). Drones have thus been understood as posing 'unique risks and rewards to crime organisers and crime controllers' alike (Coliandris, 2023, p. 300).

To this end, estimates suggest both a notable increase in drone-related reports to UK police in recent years and a growing diversity of drone-related incidents (Mercer, 2019), leading to difficulties in ascertaining the 'true scale of illicit drone activity in the UK' (Protect, 2022). Such incidents have prompted a range of state-led responses, including the passing of the Air Traffic Management and Unmanned Aircraft Act 2021 (introducing powers for police to respond to drone misuse), the Home Office's development of the 2019 Counter-Unmanned Aircraft Strategy (inclusive of counter-drone measures), and the addition of a 'malicious drone incident' entry to the 2023 edition of the Government's National Risk Register.

Building upon emergent attention to everyday responses to emerging future flight technologies (Camilleri et al., 2022; Cotton et al. 2024), this article extends everyday understandings of drones both through deeper attention to drone incidents and misuse, by alternatively approaching drone stories in the MOA, and in analytically unpacking their complex geographies through the lens of feminist geographies and geopolitics.

3 | APPROACHING EVERYDAY DRONE STORIES

This section outlines the article's analytical approach to everyday understandings of drone incidents and misuse by bringing drone geographies into dialogue with feminist geographies and geopolitics of the everyday, (digital) technology and storytelling.

An established literature on the 'dronification' of contemporary warfare has emerged. Geographical investigations have spanned the spatial, ethical and legal dimensions of escalating military drone deployment (see for example Akhter, 2019; Boyle, 2015; Cuomo & Dolci, 2024; Gregory, 2011). Such interventions have foregrounded the bodily impacts of drone-enacted air power. For example, while military drones are recurrently associated with 'actively distancing their aircrew' from the battlefield, Williams (2011, p. 381) draws on aircrew testimony to explore an 'embodied geopolitics' of drone warfare, while interrogating the 'unique spatialities' and geographies therein. Yet, while attention to the body remains an important facet of geographical work on aeromobilities, so too is further attention required to the diversity of bodily experiences in aviation encounters (Adey et al., 2024). In this vein, in underscoring that 'like all warfare, drone warfare is deeply gendered' (Clark, 2022, p. 75), feminist explorations have drawn attention to both the gendered discourses underpinning drone warfare (Clark, 2018), and the diverse 'embodied geopolitics of drone labour' in and beyond the operation of the aircraft (Jackman, 2023b, p. 1).

In recognition that drones increasingly fly beyond battlefields and 'at home' (Kaplan & Miller, 2019, p. 419), drone geographies are also increasingly attentive to more-than-military drones deployed across diverse applications and contexts, including policing (Jackman, 2023c; Klauser, 2022; Wall, 2016), farming (Klauser & Pauschinger, 2021), conservation (Millner, 2020; Millner et al., 2024), commercial applications at/above home (Jackman & Brickell, 2022), and citizen-led drone use (Kaplan, 2020; Zuev & Bratchford, 2020). In responding to calls for a 'specifically domestic drone theory', such work draws attention to the 'complex ways' everyday life is 'lived with, through and against the drone' (Bradley & Cerella, 2019). As Klauser (2022, p. 148) writes of police droning in Switzerland, police participants understood drones as transforming both the 'objects and perspectives of policing', and the ways 'the aerial realm is lived as a context' more widely. Alongside highlighting the drone's impact on bodily experiences of policing, Klauser (2022, p. 159) also urges further interrogation of the 'aerial geopolitics of security' in the drone age.

Responding to Klauser's (2022, p. 159) calls for drone geographies to adopt 'power sensitivity' in their 'aero-spatial curiosity', so too have drone scholars examined the implications of growing civilian and citizen-led drone engagements with airspace and the diffused 'ownership of the droneview' more widely (Zuev & Bratchford, 2020, p. 444). For example, while highlighting police and state-led airspace governance during the Dakota Access Pipeline protests, Kaplan (2020, pp. 50, 55) underscores the role of drone journalists and citizen flyers who were productive of their own (counter-) 'atmospheric politics' and a powerful (re)shaping of airspaces. In other words, rather than 'reducing' citizens to 'passive targets', explorations of domestic drone deployments should also attend to the diverse ways citizens reimagine and redeploy drones for their 'own ends' (Bradley & Cerella, 2019, n.p.).

In reapproaching questions of airspace and power projection, such work has highlighted the growing range of actors deploying drones (Jackman & Brickell, 2022), and urged further attention to how diverse drone stories might be accounted for (Zuev & Bratchford, 2020). This has included the employment of large-scale online surveys with

drone users in the ‘public and private sector’ (Pauschinger & Klauser, 2020, p. 444), talking methods with forest communities deploying drones in ‘community-led resistance to dispossession’ (Millner, 2020), ethnographic observation of police drone use (Klauser, 2022), and first-hand accounts of drones deployed in homicide investigation (Jackman, 2023c). While such approaches enable the telling of different drone stories, this section deepens attention to everyday drone stories specifically through engagement with feminist geographies and geopolitics of both story-telling and (digital) technologies.

Feminist geographies encompass a ‘shifting’ range of theoretical frameworks and practices working to challenge gender(ed) inequalities and inequities (Freeman & Calkin, 2020). Therein, the ‘branch’ of feminist geopolitics interrogates diverse forms of ‘power, oppression, and resistances’ through ‘situated, embodied and politically transformative theories and research methodologies’ (Massaro & Williams, 2013, p. 567). In shifting the scales of geopolitical analyses from the ‘global and grand’ to the ‘everyday’ (Hyndman, 2007, p. 37) as well as attending to their ‘entanglement’ (Sharp, 2021, p. 993), feminist geopolitics exposes the artificiality of divisions between ‘public’ arenas of geopolitics and ‘private’ spaces of home (Blunt & Dowling, 2006) while honing in on how political processes traverse scales (Dyck, 2005). By centring accounts ‘grounded in local experience’ (Dyck, 2005, p. 234), it asserts that ‘seemingly banal’ everyday experiences remain ‘bound’ to and (re-)productive of wider ‘power structures’ (Rose, 1993, p. 17). In other words, it understands everyday life as a site through which geopolitics is ‘grounded’ and ‘reproduced’ (Sharp, 2021, p. 990), and the everyday experiences of traditionally overlooked subjects as harnessing an ‘explanatory power’ revealing of ‘complex micro-politics’ (Tarrant & Hall, 2020, p. 616).

Notably, by understanding stories as a way to ‘make sense of the world and our place in it’ (Vasudevan et al., 2023, p. 1729), feminist geographers have embraced storytelling as both a tool facilitating ‘attention to the role of everyday lives’ (Staeheli & Kofman, 2004, p. 5) and through which to explore the (geo)political, as stories reveal how both the ‘hegemonic and oppositional ... take place in the most mundane ways, and often at the very same time’ (Domosh, 1997, p. 81). While recognising different understandings of ‘what story is’, geographers broadly understand stories as ‘expressions of experiences’ that entangle ‘the personal, mundane and local’ (Cameron, 2012, p. 576) and as a way of ‘conveying knowledge’ through the ‘rendering and retelling ... of events, people or places (real or imagined)’ (De Leeuw & Sloan Morgan, 2020, p. 521). Such work underscores both the potential of stories that can ‘make visible’ (De Leeuw & Sloan Morgan, 2020, p. 520) power struggles, enable ‘theorizing the structural’ from everyday lived experience (Vasudevan et al., 2023, p. 1729) while also ‘intervening’ in the same (Cameron, 2012, p. 581). In its (re)centring of everyday spaces and ‘people as much as states’, first-hand stories thus both ‘destabilize dominant and often disembodied geopolitical discourse’ (Hyndman, 2007, pp. 36, 42), and exert ‘counter-geopolitical force’ (Marshall, 2014, p. 350).

Returning specifically to the pursuit of everyday stories of drone incidents and misuse in the Mass Observation Archive, we can also valuably engage with feminist geographies of digital technology. After all, technology is ‘at the heart of geographic analysis’ (Schurr et al., 2023, p. 215). Understanding (digital) technologies as both ‘systems’ (encompassing data and touching down through material objects), underpinned by distinct ‘logics’ and ‘practices’, and sustained by particular knowledges and discourses (Elwood & Leszczynski, 2018, p. 629), feminist geographies of technology have called for further attention to the diverse ways ‘technologies enter the intimate fabric of everyday life’ (Schurr et al., 2023, p. 216) and their implications upon ‘power relations’ and ‘sociospatial inequalities’ therein (Elwood & Leszczynski, 2018, pp. 630, 633).

In pursuing accounts of ‘ordinary and taken-for-granted digital objects’ (Leszczynski, 2020, p. 1194), such work draws attention to both the growing diversity of actors deploying technologies such as drones, their presence in everyday spaces and relations of home, and the ways in which such ‘spatial media’ variously (re)produces existing inequalities along ‘multiple axes of difference’ (Leszczynski & Elwood, 2015, p. 12). For example, accounts of ‘everyday droning’ highlight the growing ‘range of non-state actors multiply mobilising, experiencing, and subject to the drone’, as well as how this touches down at home (Jackman & Brickell, 2022). In recognition that power permeates the ‘structures of everyday life’ (Dowler & Sharp, 2001, p. 167), such accounts urge further attention to domestic spaces of home (Schurr et al., 2023) as ‘multiscalar’, that is a ‘porous’ space wherein the ‘personal relations it plays host to transect public and political worlds’ (Brickell, 2012, p. 226). Here, geographers have also highlighted how digital technologies, from smartphones to drones, at once ‘regulate, discipline and govern at the scale of the body’ and are enrolled in and beyond the home in practices of technology-enabled coercive control (TECC), namely in the empowering of abusers and enabling of ‘coercive control ... anywhere and at any time’ (Cuomo & Dolci, 2021, p. 224). Such work highlights the ‘novel set of risks and challenges’ accompanying the drone’s domestication, while calling for further attention to the embodied, ‘emotional and physical harms’ drones can engender (Jackman & Brickell, 2022, p. 166; see also Cuomo & Dolci, 2024). In recognition of both geography’s entanglement with the digital (Ash et al., 2018) and feminist understandings of everyday stories as ‘weaving’ the ‘personal and political’ (Domosh, 1997, p. 81), this article turns now to the Mass Observation Archive (MOA) as method to gather everyday understandings of drone incidents and misuse.

4 | METHODS: STORIES IN THE MASS OBSERVATION ARCHIVE (MOA)

4.1 | Introducing the MOA

The MOA was established in 1937 with the aim of gathering the 'thoughts, feelings and behaviours of the ordinary person on diverse topics, large and small' (Pollen, 2013, p. 213). While an evolving archival project inclusive of different forms of 'life writing', this article focuses specifically on directives. The MOA began issuing open-ended questionnaires (directives) to its community of volunteer writers (correspondents) in the 1930s (Hinton, 2021, p. 92). While imagined as a short-term project, directives were later revived in 1981 (Sheridan, 1994). Each directive focused on specific topics and was designed to elicit the 'spilling out' of stories, rather than the sharing of 'short' answers (Ashplant, 2021, p. 20).

The MOA now issues directives three to four times a year, with each including several independent themes and 'writing tasks' (Sheridan, 1993, p. 30). Correspondents can share responses on paper (letter) or electronically (email), and calls for correspondents are periodically issued, with the MOA emphasising that 'no special skills, knowledge or qualifications are required', only a willingness to share stories and 'experiences on paper' (Sheridan, 1993, p. 27). From 1981 to 2024, over 4500 correspondents took part, including 1100 correspondents writing for between two and 10 years, and 250 for up to 20 years (Ashplant, 2021; Hinton, 2021, p. 94). There are presently around 500 active correspondents (Mass Observation Archive, n.d.).

While seeking 'life writing' and the sharing of individual views (Hinton, 2021), directives also aim to 'contextualise the individual' within wider 'social and cultural worlds' (Sheridan, 1996, p. 6). This has included attention to the 'social profile' of correspondent composition (Ashplant, 2021, p. 16). While underscoring what directive accounts can reveal about everyday British life, researchers nonetheless urge further reflection on the 'representativeness' of 'voices' encompassed in the project's gathering of 'public opinion' (Ashplant, 2021, p. 20). While not to overlook recruitment efforts, the predominance of female correspondents and voice, that correspondents are typically aged 40 years and above and identify as 'middle and lower-middle class' (Sheridan, 1994, p. 110) and remain an enduringly White community (Ashplant, 2021), have been highlighted. An evolving project, the MOA's demography thus continues to invite both questions and 'tensions' (Pollen, 2013, p. 218).

4.2 | Developing the drone directive

This article draws on a drone-related directive developed by the researcher in collaboration with the MOA. Directive formation involves 'complex dialogue', negotiating scope while drawing on the MOA team's experience of correspondents' expectations and responses (Ashplant, 2021, p. 17). Discussions began around the provision of context. Given that data on UK drone ownership suggests that roughly 96% of drone flyers identify as male and 31% are aged 55 years and over (Drones Direct, 2017), we opted to open the directive with a paragraph contextualising drones and highlighting the focus on domestic airspace and more-than-military drone use, to enable accessible participation while remaining 'clear on intended purpose' (McGuirk & O'Neill, 2021, p. 246). Alongside the text (Figure 1), we also included an indicative image of a small drone, in recognition that 'much meaning is conveyed by visual images' (Rose, 2001, p. 6).

In reflecting on the design of the directive, we opted to open it with an open-ended question inviting correspondents to share 'what came to mind when they thought of the word "drone", including "words, phrases, or sketches"', after which we followed with three thematic sections.

The first section, 'encountering drones' (Figure 2), invited participants to imagine they were in a particular scenario and/or to draw on any relevant experiences. While offering a list of pre-defined scenarios, we elicited open-ended responses by inviting correspondents to describe any emotions they may feel or actions they may take in response to particular encounters. We at once drew inspiration from geographical work exploring the views of members of the public in relation to if and how 'robots "feel right"' in particular settings (Sumartojo et al., 2021, p. 99), while including a range of everyday spaces and contexts for consideration.

The second part of the directive sought views on 'risky drones' (Figure 3). Here, we provided paraphrased 'snippets' from UK media reports and headlines, signalling the diversity of (potential) drone incidents and misuse while inviting correspondents to reflect on how a selected story made them 'feel about drones and their airspace above them'. While cognisant that the 'language of the directive' (Sheridan, 1993, p. 35) evokes particular notions of (airspace) risk, this scenario-based approach nonetheless enabled correspondents to share insights about both different contexts and spaces of drone risks, as well as 'what-ifs' (Adey & Anderson, 2012, pp. 99, 100).

In Part.2 of the Directive we are interested in Unmanned Aerial Vehicles (UAVs), or drones. Drones are aircraft without a pilot on board, which can be operated remotely or autonomously (an example is shown in the image below).



While traditionally associated with warfare, drones are playing a growing role in domestic UK airspace. They are being used for security, emergency services and the delivery of goods and medical supplies. Drones can also be easily purchased by the public and are an increasingly popular device for recreational flying. We are interested in your understanding of drones, both how they are used now, and their future use in UK airspace.

FIGURE 1 MOA Drones Directive. In Part 2 of the Directive we are interested in Unmanned Aerial Vehicles (UAVs), or drones. Drones are aircraft without a pilot on board, which can be operated remotely or autonomously (an example is shown in the image). While traditionally associated with warfare, drones are playing a growing role in domestic UK airspace. They are being used for security, emergency services and the delivery of goods and medical supplies. Drones can also be easily purchased by the public and are an increasingly popular device for recreational flying. We are interested in your understanding of drones, both how they are used now, and their future use in UK airspace.

Encountering drones

We would like you to imagine being in one, or more, of the below scenarios. Please choose a situation and describe the emotions you might feel, and any actions you might take. If you have already encountered drones in any of these settings, please share your experience.

- You see a drone flying above your local hospital. A hospital worker explains that the drone is being used to transport blood samples between hospital facilities.
- You see on the television that your local Fire Service, when fighting a fire at a nearby block of flats, has used a thermal sensor-equipped drone to identify the hottest part of a blaze.
- A nearby neighbour's children are flying a drone in their garden.
- Your local Police Force visit a nearby home to speak with a burglary suspect. The suspect flees but the police manage to capture them assisted by a drone overhead filming and following the suspect.

FIGURE 2 MOA Drones directive: Encountering drones.

In the directive's third section (Figure 4), we sought speculative views about potential drone futures. Following drone geographies' calls for further attention to imaginations of airspace futures (Jackman, 2022) and the 'anticipatory practices' at work therein (Adey et al., 2024, p. 718), we presented several 'fictional' scenarios that nonetheless remained

Risky drones

While drones can be beneficial, they are also associated with risks, including accidents and deliberate misuse. In the UK, drone use is regulated by the Civil Aviation Authority (CAA). If you have concerns about drone use, the CAA recommends you contact local police.

The following are paraphrased snippets from real UK news stories:

- Unknown drone(s) sighted inside the perimeter of a major UK airport. The disruption lasts over a day, impacting thousands of passengers.
- An on-duty Police officer loses control of their drone. The drone is found a few miles away, crashed in a playground.
- A man is jailed for using a drone to spy on his ex-partner, watching where she lived.
- Gang members using drones to fly over £500,000 worth of drugs into UK prisons are sentenced.

FIGURE 3 MOA Drones directive: Risky drones.

Drones in the future

We would like to hear what you think about how drones could be used in the future, in the UK. We have provided some fictional scenarios below and would like you to share your thoughts on these. Pick one or more scenarios. How does the scenario make you feel? Can you identify any benefits or challenges it might bring?

- Your nearest neighbour begins using a commercial delivery drone service, with small parcels regularly being delivered to their back garden by drones.
- To assist with searches for suspects, your local Police Force flies drones equipped with facial recognition technology above city centre crowds [facial recognition captures visual data from our faces and compares these against a database, to search for particular individuals].
- A neighbour has concerns about home security. They buy an expensive drone home security system. Their drone routinely patrols both inside and outside their property.
- A large local park is concerned about conservation so deploys a swarm (group of drones flying in unison) to monitor wildlife.
- A friend buys a drone designed to help them with household chores. The drone sanitizes kitchen surfaces and waters plants.

FIGURE 4 MOA Drones directive: Drones in the future.

rooted in emerging technological developments, thus inviting correspondents to engage with drones through ‘imagining relations’ in ‘near-future settings’ (Sumartojo et al., 2021, p. 99).

Lastly, to close, we provided an open-ended space inviting correspondents to ‘imagine and describe’ any ways they would like to see drones used in their everyday life in the future. Alongside acting as a space to share final reflections, this approach enabled us to seek views on what drones ‘*might* or *could* do’ (Sumartojo et al., 2021, p. 99), as well as opening the directive to different kinds of (future-orientated) writing (Sheridan, 1993).

With regard to dissemination, the MOA confirmed that the drones entry would feature in the Spring 2022 directive, alongside entries on 'smell', the 'Second World War', and 'the Russian invasion of Ukraine'. Following the directive's dissemination, the Drone Directive received 124 responses (94 electronic, 30 paper). While correspondents are 'guaranteed anonymity' and privacy is respected through the use of 'user code numbers' (Hinton, 2021, p. 98), each response is accompanied by select biodemographic information. Thirty-two (25.81%) of the correspondents identified as male, 84 (67.7%) as female, one (0.81%) as non-binary, while seven (5.65%) correspondents did not provide this information. With regard to age, correspondents identified as follows: 2 (1.61%) aged 21–30, 8 (6.45%) 31–40, 14 (11.29%) 41–50, 19 (15.32%) 51–60, 34 (27.42%) 61–70, 31 (25%) 71–80, 9 (7.26%) 81–90, 2 (1.61%) aged 91–100 years, while 5 (4.03%) did not list their age.

With regard to data analysis, I undertook coding, 'distilling' the data to identify key themes (Cope, 2021, p. 357). I identified descriptive codes, including surface 'themes or patterns' and 'category labels', and 'analytic codes' which were 'thematic' or 'theoretical' and enabled me to 'dig deeper' into the data (Cope, 2021, pp. 357–369). For the 'risky drones' section, examples of coded themes and sub-themes included: danger/risk to/by actor (people, victims and vulnerabilities, wildlife); placing (ir)responsibility (operator, infrastructure, regulators and law, human agency); civil liberties/rights; inevitability; ingenuity; geographies/relationships (distance/intimacy; irrelevant/elsewhere; personal/close); application/goal (toy, protest), a number of which are unpacked in the analysis that follows.

5 | ANALYSIS: EVERYDAY UNDERSTANDINGS OF DRONE INCIDENTS AND MISUSE IN THE MOA

Foregrounding the 'risky drones' section of the directive, I now reflect on two key themes emerging in correspondent responses. First, this section contextualises correspondent understandings, highlighting views of drone incidents and misuse as at once inevitable and necessitating further action and response. Second, I turn to the geographies and relations embedded and enacted in correspondent responses. This includes correspondent understandings of drones as at once distant and proximate, prompting embodied reactions and feelings of irrelevance, and drawing on testimony recognising differential vulnerabilities to urge an intersectional reading of drone risk.

5.1 | Understanding drone misuse: inevitability and responsibilities

Almost everything can be used for ill as well as benefit

(P7468; F64)¹

Sometimes, you just can't believe how stupid people can be. They need arresting and punishing

(L7499abcd; F71)

Correspondent testimony commonly understood drone incidents and misuse as inevitable. Correspondents stated that 'no matter what good purpose ... new technology may be developed [for], criminals and others will always find a way of subverting it for illegal purposes' (W1813; F71), arguing that 'advances in technology will always be exploited by bad actors' (B3227b; M55). Emplacing drones within the wider context of 'technology-enabled crimes' (Coliandris, 2023, p. 300), a correspondent summarised, 'as with everything, there is always a dark side' (L7499abcd; F71).

In discussion of the perceived inevitability of technological misuse, correspondents distinguished between different actors, including competent/professional drone users and reckless and criminal users. For example, correspondents wrote that 'just as the police and other government organisations will use the latest tools at their disposal, so will those seeking to do harm' (F7368b; F48), including 'criminals' who 'will be driven to use whatever new technology is available to help them achieve their ends' (S6976; F46). Here, responses underscored the idea that drones, like 'any other technology ... can be used for bad as well as good reasons' (C5991; F68), and that 'as with all things there will always be bad or stupid people who will misuse them' (H7512; F55).

Correspondents also unpacked understandings of drone incidents and misuse in response to particular scenarios. With regard to a gang using drones to transport drugs into a prison (see Section 4.2), correspondents identified the 'good that a new technology can do' while grappling with how this is 'counter-balanced or even outweighed by the harm' of that 'technology in the wrong hands' (F4813b; F51). This idea of balance is echoed in descriptions of excitement about

'the progress of potentially helpful inventions' while at the same time observing that the technology is 'difficult to stop' and 'may become potentially harmful in the "wrong" hands' (K7595; F74).

While inevitability recurrently emerged across responses, with correspondents stating that drone incidents came as 'no surprise' (L6408b; M72), particularly as drones became 'more affordable, widespread' (F7368b; F48) and 'easy to get hold of' (L6408b; M72), some correspondents also reflected upon initiative and resourcefulness. As correspondent F4813b (F51) stated, while my 'first reaction may be to admire the ingenuity' of (in this case) gang members using drones to transport drugs into prisons, this 'would be quickly quashed by my understanding of the terrible damage caused by drugs to individuals and society' (F4813b; F51).

Alongside inevitability, correspondent understandings also collectively foregrounded the question of responsibility in relation to responding to drone incidents and misuse. Here, correspondents reflected upon both the personal responsibilities of the drone's operator as well as state-led and organisational responses, including regulation and infrastructure. Across several scenarios, correspondents described anger at the (actions of the) drone's operator. Writing of reports of drone sightings at a UK airport, correspondents highlighted the potential risks 'to the lives of air passengers and birds' while also remarking that this was 'so irresponsible of those idiots' (A2b; F80; see also W3163; NL64) and that any individuals involved should 'get a life' (E5551abcd; M47). While some described being 'annoyed with the person controlling the drone' (H1745; F71) and 'their wilful stupidity' (H1776; F71), others also 'wonder[ed] whether it could be a mistake – someone not realising how far their drone could fly', thus distinguishing between 'deliberate acts' (H1745; F71) and reckless drone use.

Here, correspondent responses echo wider narratives within airspace governance that distinguish between 'irresponsible' or 'negligent' and 'malicious' or 'deliberate' drone use (see, e.g., Home Office, 2019; Civil Aviation Authority, n.d.-b), while also raising important legal questions around intention and responsibility. As Jackman and Hooper (2023) highlight, while in order for a criminal offence to exist there needs to be both an 'act' (*actus rea*) and 'intention' (*mens rea*), in the case of some drone incidents, it remains difficult to distinguish between deliberate and reckless events. Such challenges are echoed in the Law Commission's (2024, pp. i, 163) ongoing review of UK aviation regulation in the context of autonomy, which outlines a focus on 'reforms' that enable 'autonomous and remotely piloted flight to take place safely, lawfully, and with appropriate legal mechanisms for attributing criminal and civil liability when things go wrong', while also highlighting 'specific areas which may give rise to issues'.

In addition to foregrounding the drone's operator, correspondents also emphasised non-human agency. While for some, the human was at the centre of their concerns, stating 'bad people will do bad things. We can't blame the technology' (F7368b; F48) and 'it is not the machine that is to blame, but its human handlers' (W6667; F78; see also R860; F74; M6802; F44), for others, it remained important to recognise the affordances of the non-human drone. As correspondent M3190 (M64) stated:

A drone gives its owner/operator a lot more power than most of us might wish him to have: the power to spy on people, businesses and activities within range, possibly without being detected; the power (in theory) to place objects in, or remove them from, places where the owner/operator has no right to be; even the power to cause physical damage.

Such observations resonate with legal analysis of the (gendered) impacts of drone incidents and misuse, while also underscoring emergent questions around non-human agency in the context of advancing automation and autonomy. For example, Thomasen (2016, pp. 323, 319, 307) asserts that while drones 'do not cause harassment or stalking, nor [are] a necessary condition' for this, their 'features', such as operation at a distance and the resultant challenges around 'whom to pursue', nonetheless enable the 'undermining' of regulatory frameworks in underexamined ways. In this vein, geographical and legal work has drawn attention to the distinct 'spatialities' associated with such advancements (Walker & Winders, 2021, p. 164) and the implications of increasingly 'intelligent and autonomous machines' for both the 'regulation' of 'conduct' by lawyers and courts (Hartmann et al., 2023, p. 37) and who, or what, 'might ultimately be found responsible when things go wrong' (Schuppli, 2014, n.p.).

In addition to the attribution of responsibilities to human operators and non-human drones, correspondents also reflected on protection and enforcement, highlighting both state-led and organisational responses, including regulation and infrastructure. While some correspondents demonstrated an understanding of existing regulation, so too did they suggest that rules 'need tightening' (B6659; F65). Many others expressed concerns about a perceived 'lack of controls over drone ownership and usage' (H6109; F44), raising questions about both the extent of 'knowledge or responsibility' required when 'anyone can buy a drone (any idiot)' (C62677; F69) and whether UK law can 'keep up with' technological

'changes' (H7002; F64; see also M7490; F47) introduced when 'commercial technology' is put 'into the hands of the people' (P5366; NL, NL).

Therein, correspondents repeatedly raised the theme of licences. They described the desire for licences for all drones, to 'identify who they belong to and who is controlling them' (D4376; F53). Making comparisons to the licensing of 'motorbikes or cars' (P7032, F51), 'firearms' (W633; F79) and 'fireworks' (E5551abcd; M47), correspondents desired licensing 'the sale and use of [drones]' (E5551abcd; M47). Some expressed concerns that 'drones can be bought so cheaply without a licence' (N6725; F, NL), desiring further 'control and monitoring' at point of sale (W633; F79). Others also described technological responses, from 'transponders on drones just like on other aircraft' to enable 'movements to be tracked' (R6956, M26) to the mandating of 'visible, traceable serial numbers because quite soon the situation is going to spiral out of control' (M4463; M68). Such suggestions resonate both with existing regulatory requirements around operator IDs labelled on some drones (Civil Aviation Authority, *n.d.-a*) as well as ongoing regulatory discussions around the future implementation of 'electronic conspicuity', namely technology enabling 'airspace users to detect and be detected by others' in order to increase awareness 'of what is operating in the surrounding airspace' (CAP1711, 2024, p. 20).

In otherwise urging a 'major rethink' and 'review [of] sentencing rules' in order that drone risk 'will be at least reduced' (N622; M75), others shifted attention from regulation to specific drone users. Correspondents expressed that the 'stories' about risky drones made them 'feel very hesitant about the use of drones by members of the general public' (W7312; F52). Adding that while 'there may be some legitimate personal uses for drones ... there is a really real risk that they could be used for coercive/intrusive purposes' (H6109; F44), others suggested that the 'general public be kept at arm's length from such disruptive and damaging technology' (E5551abcd; M47). Here, several correspondents understood the 'potential threat and disruption' associated with 'personal' drone use as 'at least as great as the benefit' (L6722bcd; M36), suggesting that restrictions should be placed on the 'personal purchase and use of drones' (L6722bcd; M36) and 'drones in private hands' (M4463; M68) 'to ensure safety and wellbeing of others' (J2891; NL, 57). Others desired stronger responses, calling for a 'ban' and stating that 'there's no reasonable need for the public to have these things' (O4251; M48).

Lastly, in reflecting on the placement of responsibilities, correspondents also referred to particular infrastructures, stating both that there are some places where drone presence 'should not happen' (B6659; F65), and outlining expectations regarding drone-countering and protective responses. Here, attention was focused on reports of a drone incursion at a UK airport. While one correspondent expressed that 'there are lots of protocols and contingency plans to deal with' different 'things that could stray into a UK airport and cause disruption', including drones (F7368b; F48), many others expressed worry and 'shock that something could invade that airspace so easily' (H1745; F71), arguing that such an incident 'highlight[s] the ineffectiveness of some security procedures' in the context of dronified airspace (D6386abcd; F71; see also M35055; F47).

Collectively, while correspondent understandings demonstrated different priorities and emphases around drone risk, many lamented the inevitability of technological misuse, as well as desires for further responses to address drone risks and their potential 'translat[ion] ... to the wider world' (D6386abcd; F71).

5.2 | Geographies and relations: distant-proximate drones

We are all at risk from drone misuse

(O7396; F65)

If I was being spied on, I would feel threatened, angry, fearful ... I would also wish I had a strong throwing arm to destroy the drone

(H7052b; F45)

This section turns to the geographies inherent in correspondent responses, highlighting tensions across views of drones as at once distant and proximate, embodied and irrelevant, while also drawing attention to diverse experiences of, and differential vulnerabilities to, drones, to urge an intersectional reading of drone risk.

Following the assertion that 'intrusion is ... a very likely consequence of drone usage' (H7002; F64), correspondents recurrently cited the capacity of drone operation and action 'from a distance' (A2b; F80). Writing in response to a drone-spying scenario (see Section 4.2), a correspondent described the crime as a 'nasty and highly damaging one', with the 'use of [drone] technology to track a victim' enabling 'intrusion into the victim's home but at a greater distance' (F4813b; F51). Another added that this scenario was more 'sinister at a more personal level' given that it may not 'be obvious to the

victim who is controlling the drone from where, so there is a real imbalance' (L6722bcd; M36) of power. Such responses underscore that the drone's operation from a 'distance' affords it 'unexpected vantage points', while raising challenges around operator location and identifiability (Thomasen, 2016, p. 318).

While highlighting that drones may enable a perpetrator to 'stay at a distance', some asserted that the technology is more 'convenient' than a stalker 'previously ... [having] to sit outside someone's home or car or clamber over fences to look through windows' (J7420; F65), while others emplaced the drone within a wider context of digital technologies deployed in the perpetration of abuse (Cuomo & Dolci, 2021), stating that they were 'surprised there haven't been more cases of this type' given how 'common' it was 'for people to look up exes ... online, and anyone with a strong fixation on an ex-partner might relish the thought of seeing in real time what he or she was doing' (M3190; M64).

Yet, while some understood the drone as a 'disembodied' 'tool' (S7592; F64) operating at a distance, others instead understood the drone's presence as proximate and intimate. Here, correspondents foregrounded embodied responses, highlighting the potential for adverse bodily reactions, and the drone's relative invisibility as exacerbating this. Writing of the 'real risk' of drones being 'used for coercive/intrusive purposes', one correspondent argued that 'drones open up new ways for victims to be surveilled' and the potential 'impact on someone who experienced this could be great', adding 'how could you feel safe knowing that anyone could be watching you from afar, unobserved?' (H6109; F44). In drawing attention to drones and the wider 'human sensorium' (Agostinho et al., 2020, p. 251), others described drones flying 'with little noise' so 'you don't notice anything untoward', thus resulting in heightened feelings of discomfort and vulnerability (I1610; F78).

Responses that 'each of the stories makes [them] realise how vulnerable we are to attack from above' (P7500; F54) thus evoke both the drone's occupation of spatial volumes and the embodied responses that can result from this (Jackman, 2023c; Jackman & Squire, 2021; Klauser, 2022). Here, we can return to feminist work urging attention to both the 'finest' geopolitical scale of the body (Hyndman, 2019, p. 4), as well as across spatial scales. In relation to the geographies of embodied responses to techno-risks, Cuomo and Dolci (2024, p. 244) explore TECC through the 'lens of remote warfare', namely the countering of threats from a distance. By bringing technologies including military and consumer drones into conversation, they draw attention to 'remoteness' as a crucial 'spatial dimension' of remote war while highlighting how such spatialities also extend through consumer drones employed in the perpetration of abusers who can engage 'from any location' (Cuomo & Dolci, 2024, pp. 244, 247). While making clear that remote warfare and TECC are not 'equivalent', their work underscores both the 'overlapping logics that undergird both' and the utility of analysis spanning multiple scales, from the international to the embodied (Cuomo & Dolci, 2024, p. 246).

In this vein, some correspondents articulated feelings of 'anger' and 'fear' prompted by the drone-spying scenario (F7091b; F70), while others highlighted alternative bodily responses. One asked 'wouldn't you notice a drone hovering around your home and following your movements?' (H1745; F71), while another stated an 'over the counter drone is going to be clearly visible, even audible, as it manoeuvres ... so really it's not that great a tool for the morbidly jealous or voyeuristic former partner' (M3190; M64; see also F7091b; F70). Yet, while diverging on (sensory) responses to the drone, correspondents nonetheless cautioned that drones could 'play a part in causing distress' (M3190; M64). Further attention is thus needed both to the 'resolution' of the body and diverse experiences of aeromobile technologies (Adey et al., 2024, p. 718), as well as to the methods employed to understand and story the same.

In attending to the drone's geographies, correspondents also reflected on their relationships to/with drone risk, sharing generalised views about airspace risk as well as personal experiences with drones. For example, in describing 'vulnerable ... airspace' (O4128, M38), correspondents stated that 'anyone' (P1009; F82) and 'everyone is at risk from drone misuse' (B6659; F650; see also T1843; F72). Others imagined how they might react if they were to experience drone incidents or misuse. Correspondents described fear of someone flying a drone 'over [their] garden' or home, and 'track[ing] [their] regular movements' (D6386abcd; F71). Imagining a drone used for 'stalking', one correspondent described feeling 'threatened, angry, fearful and helpless', in part because 'the person being spied on must provide a lot of evidence to make the Police take any meaningful action' (H7052b; F45). For others, however, drones didn't provoke 'a strong reaction', with, as one correspondent explained 'none of [the scenarios] apply[ing] to the way I live my life', adding 'perhaps that's solipsistic of me' (B3227b; M55). This was echoed by others, who while expressing anger regarding the drone-spying incident were not 'worry[ied] that someone might use a drone to spy on [them]' (H1745; F71) so weren't 'troubled unnecessarily' (P5940; F50). Such responses thus demonstrated an awareness 'of the possibility ... of drone misuse', while coming to different conclusions around the level of 'risk to an individual' (I6609; F73).

Several correspondents also shared personal experiences with drones. Discussing a drone 'hovering over [their] garden, ... about the height of the house', a correspondent described feeling 'disconcerted' and in 'shock', stating that 'next

time [they] would contact the police' (J2891; 57). Others describe 'sitting in the garden', hearing a drone 'hovering over [their] house' and being 'annoyed' though unsure what they 'could reasonably do' (P5366; NL, NL). So too were drones encountered beyond the home, with correspondents describing feeling 'unnerved' after being 'followed' by a drone while out 'walking' on a beach (S6835; M79). Describing an encounter with a drone in a park, another added that their dog was 'terrified' (D6386abcd; F71). Such accounts highlight the necessity for attention to both stories of 'everyday droning' and droning in everyday space (Jackman & Brickell, 2022), and to the multiple human/non-human relations and agencies enacted therein (Jackman, 2024a).

Lastly, in relating to risk, correspondents did not solely discuss themselves, but also understood that drone risks may disproportionately impact others. Here, correspondents drew attention to concerns about 'vulnerable' communities, including 'women', reflecting on the potential for gender-based harms:

I noticed ... that I'm heavily associating drones with men ... the drones are only a tool here, the problem is the toxic masculinity in our culture, which makes men and boys think that women and girls are less than people, so it's ok to objectify them, and this includes watching them with drones

(M5654; F48)

While investigations of the 'differential impacts' of drone technology have highlighted gendered 'inequities' and urged further attention to technology-in-social-context (Thomasen, 2016, p. 308; see also Jackman & Hooper, 2023; Cuomo & Dolci, 2024), correspondent responses urged that critical analysis also adopt an intersectional lens. Intersectionality is a framework that considers how multiple categories of identity, including 'gender, race/ethnicity, class, ability/disability, and sexuality', come together (Freeman & Calkin, 2020) in oppression, rather than understanding it in relation to a 'single axes of difference' (Hopkins, 2019, p. 937). Following the recognition both that 'social difference' and 'oppression' are (re) produced 'in and through digital life' (Elwood & Leszczynski, 2018, p. 636) and that the digital remains 'imbricated in intersectional processes ... of differentiation', feminist accounts have thus called for 'more robustly intersectional' theorisations of digitality (Elwood, 2021, pp. 211, 210) and the techno-mediation of everyday life.

In this vein, correspondents stated that 'freedom of choice and drone ownership/use could come yet again at the expense of the more vulnerable in society' (S68892; F67), while expressing specific concerns about drone risk in relation to 'women', 'the poor', 'people of colour' (M5654; F48), those experiencing difficulties with their mental health (S6835; M79), and those 'who need to be safely guarded during certain phases of their life' (such as 'children' and 'the elderly') (H7052b; F45; see also H1745; F71). In deepening understandings of drone risk, further attention is thus needed both to 'how different bodies are marked, excluded and highlighted' (Adey et al., 2024, p. 719) and to the implications and experiences of intersecting identities.

6 | CONCLUSION

As drones increasingly feature in domestic airspace, so too does the spectre of drone incidents and misuse. Following calls for closer attention to the ways in which aeromobile technologies are entangled with 'crisis' and 'contradiction' (Adey et al., 2024, p. 729), this article explores everyday stories of drone incidents and misuse in the Mass Observation Archive. Advocating for further inclusion of, and attention to, everyday views on emerging technologies, it approaches the MOA as a tool through which to gather qualitative everyday stories at scale, while bringing drone geographies into dialogue with feminist work on the everyday, storytelling and (digital) technologies to interrogate understandings of drone incidents and misuse therein. Given the focus of feminist geopolitical work on first-hand accounts as everyday geopolitical vistas, this dialogue underscores the growing availability and accessibility of drones to increasingly diverse actors, while highlighting the significance of storytelling in developing understandings of everyday engagements with airspace and diffused geopolitical power therein.

In taking seriously everyday stories, rendered visible are tensions around drones 'doing important work' (M4463; M68) while remaining bound to potentially 'nefarious uses' (T5672; M39), those which underscore the importance of attention to both the promissory capacities of aeromobile technologies as well as their 'troubled or troubling flights' (Adey et al., 2024, pp. 718, 726). Further, stories in the MOA also highlight how correspondents grappled with (the perceived inevitability of) 'new technology' as 'open to abuse and misuse' (M6897; F58), while also revealing diverse views around both responsibilities and responses, and differentially embodied and experienced risks. Here, correspondent reflections on the drone's distant-proximate geographies and embodied affects remind us that 'circulations of power' remain

differently understood, encountered and resisted, and thus necessitate the ‘building’ of more intersectional analyses (Elwood & Leszczynski, 2018, p. 638). Collectively then, the everyday stories of drone incidents and misuse evident in the ‘accounts of ordinary people ... narrating their own lives’ (Sheridan, 1996, p. 8) in the MOA respond to calls to ‘re-orient’ investigations of airspace to include diverse ‘discourses and practices of looking up’ (Williams, 2013, p. 225), while urging the opening of further everyday-aero stories still.

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DATA AVAILABILITY STATEMENT

The data that supports the findings of this study is available in the Mass Observation Archive. Further information can be found at <https://massobs.org.uk/>.

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Endnote

¹The brackets following each correspondent’s quoted response list their unique reference number followed by gender (F—female, M—male, NB—non-binary, NL—not listed) and age (NL indicates age not listed).

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