



FORD SCHOOL OF PUBLIC POLICY  
**SCIENCE, TECHNOLOGY  
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## Regulating Drone Surveillance in Michigan

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### EXECUTIVE SUMMARY

Law enforcement agencies in Michigan are increasingly using drones as a common tool for purposes including surveillance, crime prevention, and search and rescue operations. Privacy concerns loom large as drones capture images and videos of individuals without their consent or knowledge, necessitating clear legislation and regulations to safeguard civil liberties. Police use of surveillance drones in Michigan is governed primarily by federal regulations established by the Federal Aviation Administration (FAA), as few state laws address the use of drones by law enforcement agencies. In the absence of state regulations on their use, local municipalities have increased funding for drone deployment for law enforcement purposes. The proliferation of drones in law enforcement has sparked public concern regarding infringements on Fourth Amendment rights. Local legal advocacy groups have mobilized efforts to oppose drone usage, highlighting concerns over privacy and civil liberties. These groups emphasize the need for robust legal frameworks to govern drone operations, advocating for transparency and accountability in police drone activities. Balancing the imperative for enhanced public safety with the protection of individual rights requires careful consideration and proactive measures.

### BACKGROUND

#### How does drone surveillance work?

Law enforcement agencies use remotely piloted aircraft (RPAs), commonly known as drones, to gather visual or other data types for surveillance purposes. Police deploy drones equipped with cameras or other sensors to areas of interest. Agencies launch drones from a variety of locations, including police stations, vehicles, and designated launch sites. Trained personnel operate drones either on-site or from a centralized command center.<sup>1</sup> The drones capture various types of data, depending on their payloads, including high-resolution images, video footage, thermal imaging, and even

#### Key Findings

**Law enforcement agencies in Michigan are increasingly using drones for surveillance, crime prevention, and search and rescue operations.** Although research on the effectiveness of police drones in crime prevention is limited, there are significant concerns about unregulated drone use leading to indiscriminate mass surveillance.

**The Federal Aviation Administration currently fails to provide sufficient regulations and guidelines for responsible police surveillance drone use.**

**While some states and municipalities have enacted regulations designed to prevent the misuse of drones in law enforcement,** Michigan does not have state-wide laws to regulate the use of police surveillance drones.

**Michigan needs to adopt laws and regulations that provide a robust legal framework to govern drone use by law enforcement to prevent discriminatory practices and improper data collection and retention.**

multispectral imagery. The data collected provides real-time or recorded information about the target.<sup>2</sup> Once the data is collected, law enforcement personnel analyze it to gather relevant information about individuals, vehicles, or activities of interest. Advanced software can enhance images, track movement patterns, or identify objects automatically.<sup>3</sup>

Law enforcement officials use drone surveillance for a variety of purposes, including monitoring public events or gatherings, including protests; assisting in search and rescue operations by providing aerial views of difficult-to-reach areas; investigating crime scenes by capturing detailed images and videos; and conducting reconnaissance in situations where it may be unsafe for

officers to enter, such as during hostage situations or in hazardous environments.<sup>4</sup>

### **Federal and State Drone Surveillance Laws**

At the national level, the Federal Aviation Administration (FAA) provides guidelines and regulations governing the operation of unmanned aircraft systems (UAS).<sup>5</sup> These regulations outline safety requirements and airspace restrictions but do not specifically address the use of drones for law enforcement purposes. The FAA holds sole authority over regulating aviation safety and ensuring efficient airspace utilization by aircraft. Any efforts by state and local governments to regulate within these domains are preempted by the FAA. However, beyond these areas, states typically retain the freedom to regulate, even if their laws target or impact aviation, provided they do not conflict with FAA regulations or pertain to the pricing, routes, or services of commercial air carriers.<sup>6</sup>

The FAA has issued advisory circulars to guide various aspects of drone operations, including those involving law enforcement activities.<sup>7</sup> States and localities cannot regulate the operation or flight of aircraft, including drones, in navigable airspace. They can only regulate the use of drones for certain activities such as hunting or within specific areas such as state parks and recreation areas.<sup>8</sup> While some states have enacted legislation related to the use of drones, such as Michigan's Senate Bill 992, which establishes the Unmanned Aircraft Systems Act, these laws primarily focus on issues such as privacy, property rights, and safety related to the private use of drones, rather than regulating law enforcement's use of drones.<sup>9</sup> There remains a gap in comprehensive state-level regulation governing the use of unpowered surveillance drones by law enforcement agencies.

### **Increased Use of Surveillance Drones by State and Local Law Enforcement**

Law enforcement agencies in Michigan are allocating more funds toward surveillance drones, indicating a rapid adoption of unpowered aircraft systems into their policing strategies. The Detroit Police Department allocated \$500,000 in the 2022 fiscal year budget to acquire advanced drone technology aimed at enhancing aerial surveillance capabilities in high-crime areas.<sup>10</sup> The Grand Rapids Police Department invested \$99,264 to expand its drone fleet in 2023, with a focus on deploying drones for search and rescue missions, traffic management, and monitoring public events.<sup>11</sup> Law enforcement agencies in Michigan are clearly shifting towards using drone technology more broadly.



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### **Federal Use and Compliance**

Federal law enforcement agencies, including the Department of Justice (DOJ) and the Department of Homeland Security (DHS), employ drones for intelligence gathering, operational support, and evidence collection. Their use raises questions regarding privacy and civil liberties. A Congressional Research Service report from 2022 provides a comprehensive overview of UAS policies for federal law enforcement, illustrating how these agencies must comply with constitutional safeguards, federal laws, executive orders, and specific guidelines, such as the Presidential Memorandum on UAS issued in 2015.<sup>12, 13</sup> This memorandum enforces protections for privacy, civil rights, and civil liberties and advocates for transparency and agency accountability in UAS operations. The DOJ operates under a framework that outlines legal compliance, the scope of use, approval requirements, data retention policies, training standards, reporting mandates, and stakeholder engagement. The department has a UAS Working Group to coordinate and discuss UAS-related matters within its agencies. DHS also uses UAS, with individual agencies responsible for best practices to uphold privacy, civil rights, and civil liberties.<sup>14</sup> Notably, within DHS, Immigration and Customs Enforcement (ICE) and Customs and Border Protection (CBP) utilize small and large UAS to facilitate their law enforcement missions, from border surveillance to supporting other federal or local agencies.<sup>15</sup>

### **Michigan's Adoption of Drone Surveillance Laws**

Michigan currently lacks comprehensive laws and regulations specifically addressing the use of drones in law enforcement, leaving a gap between technology adoption and policy implementation. Because Michigan is relatively new to the adoption of police drones, there have been few legal cases within the state specifically addressing the use of drones by law enforcement

agencies. This lack of legal precedent adds complexity to the issue, as courts and policymakers grapple with how to balance the potential benefits of drone technology with constitutional protections. In other states and municipalities where drone technology has been more widely adopted, numerous legal cases have arisen concerning drone laws, Fourth Amendment rights infringements, and privacy concerns. These cases serve as cautionary examples for Michigan as it navigates the complexities of regulating police drone surveillance. Policymakers in Michigan must consider lessons learned from these jurisdictions to develop effective regulations that safeguard individual rights while considering whether there are sufficient benefits to allowing law enforcement to use drone technology.

## **RISK OF MISUSE OF DRONE SURVEILLANCE BY LAW ENFORCEMENT**

Their history of Fourth Amendment rights infringements, warrantless surveillance, and improper retention of drone data demonstrates a clear and urgent need for clearly defined restrictions on surveillance drone use by law enforcement. With little research examining the effectiveness of police drone deployment on crime prevention and the potential for drones, if not properly regulated, to conduct indiscriminate or mass surveillance, there are serious concerns that individuals' privacy rights in both public and private spaces can be violated. In 2017, a police drone was seen flying over a housing project in Jamaica Plain, Boston, without prior announcement from the Boston Police Department (BPD).<sup>16</sup> The department claimed no legal justification for the drone's deployment, no policies governing its use, and no records of the specific incident. Despite official denials that the BPD had used drones, eyewitness accounts and photographs contradict this.<sup>17</sup>

Moreover, there exists a risk of discriminatory practices, as drones can be deployed to target specific communities based on race or socioeconomic status.<sup>18</sup> Data collection and retention practices are also problematic, with uncertainties surrounding how law enforcement agencies store, use, and share the sensitive information gathered by drones. In 2016, the FBI deployed surveillance planes equipped with advanced technology in Baltimore. These flights, conducted mainly at night, occurred during civil disorder following Freddie Gray's death in police custody. FBI Director James Comey confirmed the surveillance flights, stating they were also used during protests in Ferguson, Missouri. The ACLU expressed concerns about privacy and profiling, and the FBI justified the flights as aiding Baltimore authorities in managing potential

violence.<sup>19</sup> Arrests were made based on drone evidence.<sup>20</sup>

Law enforcement agencies have also lacked transparency in their policies and practices governing drone programs, hindering an assessment of their effectiveness in crime prevention and impact on privacy and civil liberties. Limited judicial oversight further compounds the issue, leaving few established standards for reviewing law enforcement drone activities and ensuring the protection of individual rights.<sup>21</sup> Addressing these risks necessitates clear and comprehensive legal frameworks, transparent policies, robust oversight mechanisms, and ongoing public engagement. Balancing law enforcement interests with the protection of individual rights is paramount to harnessing the benefits of drone technology while minimizing the potential for misuse and abuse.



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## **Models for Adoption**

### **City of Syracuse—Municipal Law (2016)—Outright Ban**

The Municipal Law passed in 2016 by the City of Syracuse, New York, addresses the regulation of drone usage by city officials within its jurisdiction. This ordinance imposes a ban on the use of drones by city officials until sufficient federal and state laws are enacted to govern the government's use of drones in a manner that safeguards the rights guaranteed by the First and Fourth Amendments of the United States Constitution.<sup>22</sup>

### **State of Alaska—HB 255 (2014)—Restricted Collection and Retention**

House Bill No. 255 introduces regulations governing the use of unpowered aircraft by law enforcement agencies. The bill prohibits law enforcement agencies from utilizing drones except under specific circumstances outlined in the legislation. It mandates that procedures be established for drone operations, requiring authorization from the Federal Aviation Administration

and trained personnel to operate the drones. It stipulates that drone flights must be approved for public purposes, and records of each flight must be maintained. The bill allows the use of drones in criminal investigations under search warrants or recognized exceptions to the warrant requirement. It restricts the retention of images captured by drones unless required for specific purposes such as investigations, training, or by law. Municipalities are also barred from adopting ordinances permitting the release of drone-captured images inconsistent with the bill’s provisions.<sup>23</sup>

**State of Indiana—HB 1009 (2014)—Warranted Collection**

Indiana House Bill 1009 introduces regulations regarding the use of unpowered aerial vehicles and tracking devices in electronic surveillance by law enforcement agencies and government entities. The bill defines terms such as “unmanned aerial vehicle” and “use of an unmanned aerial vehicle” and establishes guidelines for obtaining search warrants for their use. It outlines exceptions to the warrant requirement, such as in cases of exigent circumstances or with the consent of affected property owners. The bill specifies that evidence obtained in violation of its provisions, including through the unauthorized use of drones or tracking devices, is inadmissible in judicial or administrative proceedings. House Bill 1009 also prohibits the unauthorized placement of surveillance equipment on private property without the owner’s consent, classifying such actions as a misdemeanor offense.<sup>24</sup>

**POLICY RECOMMENDATIONS**

Michigan currently lacks comprehensive drone laws to govern the use of unpowered aerial vehicles for surveillance by law enforcement agencies. While other jurisdictions have implemented various models to regulate drone usage, Michigan has yet to follow suit. Given the increasing prevalence of drone technology and its potential to violate people’s privacy and civil liberties, the state would benefit from either adopting Alaska’s drone law model or a modified version thereof to regulate the use of police drones. Alaska’s drone law addresses the following key civil liberties concerns.

**Privacy Rights:** By imposing limitations on the retention of images captured by UAS, the bill protects individuals’ privacy rights. This restriction ensures that images captured by drones are not stored indiscriminately and are only retained for specific purposes, such as investigations or training, as outlined in Section

18.65.903.

**Regulation of Law Enforcement:** The bill establishes strict guidelines for the use of UAS by law enforcement agencies. It requires agencies to obtain proper authorization, training, and supervision for UAS operators. It mandates the maintenance of detailed records of drone flights, including the time, date, purpose, and authorizing officials, enhancing accountability and transparency in law enforcement activities.



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**Community Involvement:** By mandating community involvement in the development of policies regarding UAS use, the bill ensures that the concerns and perspectives of citizens are taken into account. This provision promotes transparency and democratic participation in decision-making processes related to the deployment of surveillance technology in public spaces.

**Municipal Regulation:** The bill allows municipalities to regulate UAS within their jurisdictions, enabling local governments to address specific privacy concerns and adapt regulations to suit the needs of their communities. This decentralized approach empowers local authorities to implement measures that balance public safety with individual privacy rights effectively.<sup>25</sup>

Models from Alaska and other states with more extensive histories of drone law regulation offer valuable frameworks for balancing law enforcement needs with the protection of citizens’ rights. By incorporating similar regulations into its laws, Michigan can address concerns surrounding police drone surveillance while ensuring accountability, transparency, and respect for constitutional rights.

## ENDNOTES

1. CJ Sith, "How Police Departments are Using Drones," Adorama, June 17, 2022, <https://www.adorama.com/alc/police-drones>.
2. Inspired Flight, "Exploring the World of Police & Law Enforcement Drones: Applications Unveiled," November 1, 2023, <https://www.inspiredflight.com/news/police-law-enforcement-drones.php>.
3. BriefCam, "What is Video Analytics?," Accessed June 6, 2024, <https://www.briefcam.com/technology/video-analytics/>.
4. David Daly, "How Drones Improve Crime Scene Investigation, Accident Reconstruction," Accessed May 30, 2024, <https://consortiq.com/uas-resources/how-drones-improve-crime-scene-investigation>.
5. Detroit Police Department, "Directive Number 303.6," November 1, 2018, <https://detroitmi.gov/sites/detroitmi.localhost/files/2018-11/Directive%20303.6%20Unmanned%20Aerial%20Vehicles%20%28UAVS%29.pdf>.
6. Federal Aviation Administration, "Updated Fact Sheet (2023) on State and Local Regulation of Unmanned Aircraft Systems," Accessed May 5, 2024, <https://www.faa.gov/sites/faa.gov/files/State-Local-Regulation-of-Unmanned-Aircraft-Systems-Fact-Sheet.pdf>.
7. Federal Aviation Administration, "Public Safety and Law Enforcement Toolkit," August 15, 2024, [https://www.faa.gov/uas/public\\_safety\\_gov/public\\_safety\\_toolkit](https://www.faa.gov/uas/public_safety_gov/public_safety_toolkit).
8. FAA, "Updated Fact Sheet (2023) on State and Local Regulation of Unmanned Aircraft Systems."
9. State of Michigan Department of Natural Resources, "Regulation of Certain Managed State Land," April 16, 2019, [https://www.michigan.gov/-/media/Project/Websites/dnr/Documents/Boards/NRC/2019/folder1/02LUOD2019\\_Regulate\\_State\\_Lands.pdf?rev=69a411a42eb74d6f9563e3bb92d1306b](https://www.michigan.gov/-/media/Project/Websites/dnr/Documents/Boards/NRC/2019/folder1/02LUOD2019_Regulate_State_Lands.pdf?rev=69a411a42eb74d6f9563e3bb92d1306b).
10. Detroit Police Department, "Directive Number 303.6."
11. Grand Rapids Police Department, "Grand Rapids Police Department Small Unmanned Aircraft Systems," August 22, 2023, [https://www.grandrapidsmi.gov/files/assets/public/meetings/city-commission/2023-08-22/2023-08-22\\_suas\\_technology\\_procurement\\_cow\\_briefing.pdf](https://www.grandrapidsmi.gov/files/assets/public/meetings/city-commission/2023-08-22/2023-08-22_suas_technology_procurement_cow_briefing.pdf).
12. Congressional Research Service, "Law Enforcement and Technology: Use of Unmanned Aircraft Systems," August 22, 2023, <https://crsreports.congress.gov/product/pdf/R/R47660>.
13. The White House Office of the Press Secretary, "Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights, and Civil Liberties in Domestic Use of Unmanned Aircraft Systems," February 15, 2015, <https://obamawhitehouse.archives.gov/the-press-office/2015/02/15/presidential-memorandum-promoting-economic-competitiveness-while-safegua>.
14. Office of Legal Policy, "Unmanned Aircraft Systems," U.S. Department of Justice, April 2, 2024, <https://www.justice.gov/olp/unmanned-aircraft-systems>.
15. U.S. Customs and Border Protection, "CBP small drones program," November 9, 2020, <https://www.cbp.gov/frontline/cbp-small-drones-program>.
16. Kade Crockford, "Boston Police Bought Three Drones but Didn't Tell Anyone. We Need Accountability for Surveillance Now.," American Civil Liberties Union, September 27, 2017, <https://www.aclu.org/news/privacy-technology/boston-police-bought-three-drones-didnt-tell>.
17. Crockford, "Boston Police Bought Three Drones but Didn't Tell Anyone. We need Accountability for Surveillance Now."
18. Dan Morse and Lynh Bui, "Accurately Charging People arrested in Baltimore proves to be legal challenge," May 4, 2015, [https://www.washingtonpost.com/local/crime/high-number-of-arrests-in-baltimore-leads-to-confusion-in-charging/2015/05/04/d71ad79c-f28e-11e4-bcc4-e8141e5eb0c9\\_story.html](https://www.washingtonpost.com/local/crime/high-number-of-arrests-in-baltimore-leads-to-confusion-in-charging/2015/05/04/d71ad79c-f28e-11e4-bcc4-e8141e5eb0c9_story.html).
19. Nathan Wessler, "FBI Releases Secret Spy Plane Footage From Freddie Gray Protests," August 4, 2018, <https://www.aclu.org/news/privacy-technology/fbi-releases-secret-spy-plane-footage-freddie-gray>.
20. Federal Bureau of Investigation, "Protests in Baltimore, Maryland 2015, Aerial Surveillance Footage," May 3, 2015, <https://static.fbi.gov/vault/1D3001Part1.mp4>, 7:10 Police make arrests with the assistance of drone surveillance.
21. American Civil Liberties Union v. U.S. Customs and Border Protection, No. 18-cv-02138 (ER), 2019 U.S. Dist. LEXIS 10824 (S.D.N.Y. Jan. 24, 2019).
22. City of Syracuse Municipal Ordinance, "RESOLUTION OF THE COMMON COUNCIL URGING OUR FEDERAL AND STATE OFFICIALS TO ADOPT RELATED SAFEGUARDS WHICH ENSURE THAT THE USE OF UNMANNED AIRCRAFT SYSTEMS (UAV'S) OR "DRONES" DO NOT INFRINGE WITH THE CIVIL LIBERTIES AND CIVIL RIGHTS OF ALL PEOPLE IN SYRACUSE, NEW YORK," Accessed May 5, 2024, <https://uavs.insct.org/wp-content/uploads/2016/04/Syracuse-City-Municipal-Ordinance.pdf>.
23. Alaska State Legislature, "An Act relating to unmanned aircraft systems; and relating to images captured by an unmanned aircraft system," Accessed May 6, 2024, <https://www.akleg.gov/basis/Bill/Text/28?Hsid=HB0255A>.

24. Indiana State Legislature, "Indiana House Bill 1009," Legiscan, March 26 2024, <https://legiscan.com/IN/bill/HB1009/2014>.
25. Alaska State Legislature, "An Act relating to unmanned aircraft systems; and relating to images captured by an unmanned aircraft system."