epic.org

Electronic Privacy Information Center
1718 Connecticut Avenue NW, Suite 200
Washington, DC 20009, USA

+1 202 483 1140
+1 202 483 1248
@EPICPrivacy
https://epic.org

November 29, 2017

The Honorable Frank A. LoBiondo, Chairman
The Honorable Rick Larsen, Ranking Member
U.S. House Committee on Transportation & Infrastructure
Subcommittee on Aviation
2251 Rayburn House Office Building
Washington, DC 20515

Dear Chairman LoBiondo and Ranking Member Larsen:

We write to you regarding the upcoming hearing on "Unmanned Aircraft Systems: Emerging Uses in a Changing National Airspace."[1] As the deployment of drones in the United States continues to increase, meaningful privacy safeguards should be established.

EPIC is a public-interest research center established in 1994 to focus public attention on emerging privacy and civil liberties issues. EPIC has documented the unique privacy problems of Unmanned Aerial Vehicles (UAVs or "drones"), and has sued the FAA for its failure to establish privacy safeguards to protect Americans.[2] EPIC is now proceeding in the D.C. Circuit Court of Appeals to establish drone privacy safeguards.[3] In comments to the FAA, EPIC has also recommended mandatory identification requirements so that individuals could easily determine the location, course, purpose, payload and ownership of drones. [4]

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[1] *Unmanned Aircraft Systems: Emerging Uses in a Changing National Airspace*, 115th Cong. (2017), H. Comm. on Trans. & Infrastructure Subcomm. on Aviation (Nov. 29, 2017)., https://transportation.house.gov/calendar/eventsingle.aspx?EventID=402013.

[2] *EPIC v. FAA*, No. 15-1075 (D.C. Cir. Filed Mar. 31, 2015); *See also Domestic Unmanned Aerial Vehicles (UAVs) and Drones*, EPIC, https://epic.org/privacy/drones/; *See also* EPIC, *EPIC v. FAA, Challenging the FAA's Failure to Establish Drone Privacy Rules,* https://epic.org/privacy/litigation/apa/faa/drones/

[3] JD Supra, *EPIC Continues its Fight Against FAA for Drone Privacy Regulations* (Mar. 6, 2017) ("The Electronic Privacy Information Center (EPIC) filed its 65-page brief in its case against the Federal Aviation Administration (FAA) this week"), www.jdsupra.com/legalnews/epic-continues-its-fight-against-faa-71113/; *EPIC v. FAA*, No. 16-1297 (D.C. Cir. Filed Mar. 2, 2017, https://epic.org/privacy/litigation/apa/faa/drones/1664208-EPIC-Amended-Brief.pdf; *EPIC v. FAA: Challenging the FAA's Failure to Establish Drone Privacy Rules*, EPIC, https://epic.org/privacy/litigation/apa/faa/drones/.

[4] EPIC Comments, *Aircraft Registration System of Records Notice*, Docket No. DOT-OST-2015-235 (Jan. 14, 2016), https://epic.org/apa/comments/EPIC-Drone-Registration-SORN-Comments.pdf; *See also Billy Steel, FAA considers remote identification system for drones in the US: To be effective, the registration requirement would likely need to be reinstated*, Endgaget, July 1, 2017, https://www.engadget.com/2017/07/01/faa-remote-identification-system-for-drones/.

EPIC has also pursued several open government matters regarding the FAA's decision making process, which appears intended to purposefully avoid the development of meaningful privacy safeguards.[5] As we learn more about drones, we also recognize growing risks to public safety and aviation security.[6]

EPIC believes that strong drone privacy rules and identification requirements are vital for the safe integration of commercial drones in the National Air Space. The present course is simply not sustainable.

Aerial Drones: A Unique Privacy Threat

Drones pose a unique threat to privacy. The technical and economic limitations to aerial surveillance change dramatically with the advancement of drone technology. Small, unmanned drones are already inexpensive; the surveillance capabilities of drones are rapidly advancing; and cheap storage is readily available to maintain repositories of surveillance data. A Pew Research Center and Smithsonian Magazine survey found that 63% of Americans objected to the idea of giving personal and commercial drones permission to fly through most U.S. airspace.[7] However, in recent years individual drone use has soared, and the FAA predicts that 7 million drones will be sold by 2020.[8] As drone use increases so do the risks to privacy and safety.

Drones are now regularly equipped with high definition cameras that increase the ability of a user to conduct domestic surveillance.[9] The DJI Inspire 2 is a high-end, commercially available hobbyist drone about the size of a small desktop printer and weighs less than eight pounds, yet it can transmit high definition video to an operator over four miles away and can live-stream that video.[10] Even lower-end hobbyist drones costing less than $100 can stream live video. The Hubsan X4 H502E DESIRE, a drone that can fit in the palm of your hand, utilizes a front facing high definition camera with 720P resolution that can stream live video up to 200

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[5] *EPIC FOIA: Drone Industry Cozied Up to Public Officials* (Dec. 21, 2016), EPIC, https://epic.org/2016/12/epic-foia-drone-industry-cozie.html. EPIC v. DOT, No. 16-634 (D.C. Cir. Filed Apr. 4, 2016), https://epic.org/foia/dot/drones/taskforce/1-Complaint.pdf; *EPIC v. Department of Transportation - Drone Registration Task Force*, EPIC, http://epic.org/foia/dot/drones/taskforce/.

[6] Sherisse Pham, *Drone hits passenger plane in Canada*, CNN (Oct. 16, 2017), http://money.cnn.com/2017/10/16/technology/drone-passenger-plane-canada/index.html.

[7] Aaron Smith, *U.S. Views of Technology and the Future,* Pew Research Center, Apr. 17, 2014, http://www.pewinternet.org/2014/04/17/us-views-of-technology-and-the-future/.

[8] Sally French, *Drone Sales in the U.S. More Than Doubled In The Past Year,* Market Watch, May 28, 2016, http://www.marketwatch.com/story/drone-sales-in-the-us-more-than-doubled-in-the-past-year-2016-05-27; *FAA Aerospace Forecast: Fiscal Years 2016-2036*, FAA, 2016, https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/FY2016-36_FAA_Aerospace_Forecast.pdf.

[9] Petition for Rulemaking Submitted by EPIC, Mar. 8, 2012, https://epic.org/apa/lawsuit/EPIC-FAA-Drone-Petition-March-8-2012.pdf; Univ. of Wash. Tech. and Pub. Policy Clinic, *Domestic Drones: Technical and Policy Issues* 12 (2013), https://www.law.washington.edu/clinics/technology/reports/droneslawan policy.pdf.

[10] DJI, *Inspire 2*, http://www.dji.com/inspire-2/info#specs.

meters away.[11] Drones can be used to view individuals inside their homes and can facilitate the harassment and stalking of unsuspecting victims.[12] Drones can also be modified with tools that can enable them to gather personal information using infrared cameras, heat sensors, GPS, automated license plate readers, and facial recognition devices.[13]

Drones also pose risks to security and cybersecurity. Close calls between drones and traditional aircraft have risen significantly as their use becomes more widespread.[14] Furthermore, the very features that make drones easy to operate also make them susceptible to cyberattacks.[15] Hackers have the ability to exploit weaknesses in drone software to take over operation of a drone and access the camera and microphones.[16]

The privacy risks of drones, as well as the safety and security vulnerabilities, underscore the need for the FAA to develop drone privacy regulations. *We urge the Committee to question why the FAA has not yet taken steps to issue regulations on drone privacy despite prior Congressional directives to do so.*

The FAA Has Failed to Implement the Requirements of the FAA Modernization Act

The FAA has failed to take the action mandated by Congress. The FAA Modernization Act required the FAA to create a Comprehensive Plan to integrate drones into the National Airspace and subsequently conduct a notice and comment rulemaking. In the Plan, the FAA identified privacy as an important issue to address, acknowledging that "as demand for [drones] increases, concerns regarding how [drones] will impact existing aviation grow stronger, especially in terms of safety, privacy, frequency crowding, and airspace congestion."[17]

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[11] Hubsan, *X4 H502E DESIRE*, https://www.hubsanus.com/shop/h502e.html.
[12] Petition for Rulemaking Submitted by EPIC, *supra* note 6.
[13] *Id.*; Ciara Bracken-Roche et al., Surveillance Studies Centre, *Surveillance Drones: Privacy Implications of the Spread of Unmanned Aerial Vehicles (UAVs) in Canada* 46, Apr. 30, 2014, http://www.sscqueens.org/sites/default/files/Surveillance_Drones_Report.pdf; Mary Papenfuss, *Utah Couple Arrested Over 'Peeping Tom' Drone,* Huffington Post, Feb. 17, 2017, http://www.huffingtonpost.com/entry/peeping-tom-drone_us_58a6847fe4b045cd34c03e56.
[14] Alan Levin, *Drone-Plane Near misses, Other Incidents Surge 46% in U.S.,* Bloomberg, Feb. 23, 2017, https://www.bloomberg.com/news/articles/2017-02-23/drone-plane-near-misses-other-incidents-surged-46-in-u-s; Steve Miletich, *Pilot of Drone That Struck Woman at Pride Parade Gets 30 Days in Jail,* The Seattle Times, Feb. 24, 2017, http://www.seattletimes.com/seattle-news/crime/pilot-of-drone-that-struck-woman-at-pride-parade-sentenced-to-30-days-in-jail/.
[15] Kacey Deamer, *How Can Drones Be Hacked? Let Us Count the Ways,* Live Science, Jun. 10, 2016, http://www.livescience.com/55046-how-can-drones-be-hacked.html.
[16] Wang Wei, *You Can Hijack Nearly Any Drone Mid-Flight Using This Tiny Gadget,* The Hacker News, Oct. 27, 2016, http://thehackernews.com/2016/10/how-to-hack-drone.html.
[17] Joint Planning and Dev. Office, Fed. Aviation Admin., *Unmanned Aircraft Systems (UAS) Comprehensive Plan: A Report on the Nation's UAS Path Forward* 4 (2013), https://www.faa.gov/about/office_org/headquarters_offices/agi/reports/media/UAS_Comprehensive_Plan.pdf.

Under the FAA Modernization Act, Congress required the FAA to implement the recommendations of the Comprehensive Plan via a public rulemaking within 46 months of the enactment of the Act. The FAA identified privacy as an important issue directly related to domestic drones, yet the agency has failed to address privacy in the agency's only public rulemaking on drones in the National Airspace.[18] Indeed it has been over 65 months and the FAA has failed to implement the rulemaking that addresses the issues identified in the Comprehensive Plan, including privacy, as required by Congress.[19]

The FAA Has Failed to Conduct the Required Drone Privacy Report

Soon after the FAA's Comprehensive Plan identified privacy as an important drone integration issue, the agency was ordered by Congress to conduct a drone privacy report, which the agency failed to do. In the 2014 Consolidated Appropriations Act, Congress required the FAA to conduct a drone privacy study, stating:

> Without adequate safeguards, expanded use of UAS and their integration into the national airspace raise a host of concerns with respect to the privacy of individuals. For this reason, the FAA is directed to conduct a study on the implications of UAS integration into national airspace on individual privacy.[20]

The report specifically required the FAA to study "how the FAA can address the impact of widespread use of UAS on individual privacy as it prepares to facilitate the integration of UAS into the national airspace."[21] The report was to be submitted to Congress within 18 months of enactment of that appropriations bill and completed "well in advance of the FAA's schedule for developing final regulations on the integration of UAS into the national airspace."[22] Nearly 47 months since the bill was enacted, the FAA has failed to produce the report. Furthermore, EPIC obtained documents through a Freedom of Information Act request that suggested that the FAA has no intention of complying with Congress' directive to produce a report.[23]

EPIC's Lawsuit, EPIC v. FAA

Immediately after the passage of the FAA Modernization Act, EPIC and more than one hundred legal experts and organization petitioned the FAA to undertake a rulemaking to establish privacy regulations prior to the deployment of commercial drones in the National Airspace.[24] More than two years later, the FAA responded to the petition by refusing to conduct a separate drone privacy rulemaking but said privacy would be considered in an upcoming

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[18] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063 (June 28, 2016) (codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, 119, 133, and 183).
[19] FAA Modernization and Reform Act of 2012, Pub. L. 112-95 § 332, 126 Stat. 73-75.
[20] 160 Cong. Rec. 1186 (2014), https://www.congress.gov/crec/2014/01/15/CREC-2014-01-15-bk2.pdf.
[21] *Id.*
[22] *Id.*
[23] https://epic.org/privacy/litigation/apa/faa/drones/EPIC-16-07-20-FAA-FOIA-20160921-Production.pdf.
[24] Petition for Rulemaking Submitted by EPIC, *supra* note 6.

rulemaking on small drones.[25] However, the FAA later stated that privacy issues were "beyond the scope of the rulemaking"[26] and did not consider privacy in its final rule,[27] prompting EPIC to file suit.[28] EPIC is challenging the FAA's refusal to consider privacy and to conduct a comprehensive drone rulemaking as required by Congress. The FAA has failed to explain why the agency did not evaluate privacy in their final rule despite the requirements of the FAA Modernization Act, EPIC's petition calling for the agency to address privacy, the FAA's own statements establishing privacy as an important issue to address, and the hundreds of comments that raised privacy issues in the small drone rulemaking.

EPIC urges this Committee to ask the FAA why the agency has failed to take steps to protect the public from the privacy risks posed by drones. Any privacy and security risks are no longer hypothetical and the longer the FAA waits to issue comprehensive privacy rules, the longer the public is at risk.

Conclusion

We ask that this letter be entered in the hearing record. EPIC looks forward to working with the Committee on these issues of vital importance to the American public.

Sincerely,

/s/ *Marc Rotenberg*
Marc Rotenberg
EPIC President

/s/ *Jeramie Scott*
Jeramie Scott
EPIC National Security Counsel

/s/ *Caitriona Fitzgerald*
Caitriona Fitzgerald
EPIC Policy Director

[25] Letter from Fed. Aviation Admin. to EPIC (Nov. 26, 2014), https://epic.org/privacy/drones/FAA-Privacy-Rulemaking-Letter.pdf.
[26] Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9,544 (proposed Feb. 23, 2015).
[27] Operation and Certification of Small Unmanned Aircraft Systems, 81 Fed. Reg. 42,063 (June 28, 2016) (codified at 14 C.F.R. pts. 21, 43, 61, 91, 101, 107, 119, 133, and 183).
[28] EPIC v. FAA, No. 16-1297 (D.C. Cir.); https://epic.org/privacy/litigation/apa/faa/drones/.