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PUBLIC INTEREST COMMENT

CLARIFICATION OF THE APPLICABILITY OF AIRCRAFT REGISTRATION REQUIREMENTS FOR UNMANNED AIRCRAFT SYSTEMS

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Agency: Federal Aviation Administration
Proposed: October 22, 2015
Comment period closes: November 6, 2015
Submitted: November 4, 2015
Docket No.: FAA-2015-4378

The Department of Transportation (DOT) is proposing to implement a national registration system for small Unmanned Aircraft Systems (UASs), the details of which are to be recommended by a task force no later than November 20. The stated aim of the registry is to assist in identifying owners and operators of UASs that violate the law and endanger safety, thereby closing a perceived gap in enforcement. This comment highlights several major procedural concerns, followed by an examination of whether the safety benefits of a registry are likely to outweigh the societal and budgetary costs.

The Technology Policy Program of the Mercatus Center at George Mason University is dedicated to advancing knowledge of the impact of regulation on society. It conducts careful and independent analyses employing contemporary economic scholarship to assess rulemaking proposals from the perspective of the public interest. As such, this comment on the Federal Aviation Administration's (FAA) UAS registration task force does not represent the views of any particular affected party or special interest group but is designed to assist the administration as it carries out Congress's mandate to safely integrate UASs into the National Airspace System.

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PROCEDURAL CONCERNS

We welcome the FAA's reversal on mandatory registration for all UASs. In its February notice of proposed rulemaking, the agency stated that unless explicitly exempted by statute, 49 U.S.C. 44101(a) provides that "a person may not operate a civil aircraft that is not registered," and therefore its hands were tied with respect to registration.[1] As we pointed out in our comment, the FAA has a good deal more flexibility than it previously stated.[2] We are glad to see the agency adopting our view in the current rule. Nevertheless, we have significant concerns about the process through which the FAA is examining the issue of registration.

The FAA's sudden creation of a taskforce that may produce unprecedented rules on recreational and hobbyist UAS operators raises questions about the legality of the action under the FAA Modernization and Reform Act of 2012 (FMRA). Section 336 of the FMRA provides that "notwithstanding any other provision of law relating to the incorporation of unmanned aircraft systems into Federal Aviation Administration plans and policies . . . the Administrator of the Federal Aviation Administration may not promulgate any rule or regulation regarding a model aircraft" as long as certain conditions are met by those aircraft.

The FAA asserts that because registration has been exempted for model aircraft only through the use of its own discretion, prior law unrelated to the incorporation of UASs into FAA plans and policies, specifically 49 U.S.C. 44101(a), gives it the authority to require registration of model aircraft.

We question whether the current proceeding is truly independent of provisions of law "relating to the incorporation of unmanned aircraft systems" into the FAA's plans and policies. The FMRA is cited in the opening line of the present docket's background supplementary information. The stated justification throughout the docket for the expansion of aircraft registration and the creation of the task force is to accommodate an increase in UAS activity. The FAA's point of contact is the director of its UAS Integration Office. We therefore believe that the current proceeding relies quite directly on laws that by statute may not be used as justification for an expansion of the regulatory obligations of model aircraft operators. Unless the FAA reverses course and restarts the process without reference to its UAS integration mandate under the FMRA, there is a possibility that registration of noncommercial drones will be overturned if challenged in court.

The pace at which the DOT intends to implement the registry is also problematic. Secretary Foxx's statement to the press that he aims to have registration requirements in place by mid-December leaves no time for public notice and comment.[3] Under the Administrative Procedure Act, federal agencies may only issue a direct substantive final rule when a notice-and-comment

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1. Operation and Certification of Small Unmanned Aircraft Systems, 80 Fed. Reg. 9544 (proposed February 23, 2015) (to be codified at 14 C.F.R. pt. 91).
2. Eli Dourado, Ryan Hageman, and Adam Thierer, "Operation and Certification of Small Unmanned Aircraft Systems" (Public Interest Comment, Mercatus Center at George Mason University, Arlington, VA, April 24, 2015).
3. Joan Lowy, "Registering Drones: Worries about Close Calls Prompt Federal Action on Unmanned Aircraft," *US News*, October 19, 2015.

period is "impracticable, unnecessary, or contrary to the public interest." In general, agency inaction leading to perceived deadline pressure does not constitute good cause to dispense with public notice and comment.[4] As any requirement to register UASs potentially adversely affects numerous noncommercial operators, a public notice-and-comment period is necessary and in the public interest. The issuance of a final rule without notice and comment opens the registration requirement to reversal if challenged in court.

Finally, we believe that under Executive Order 12866, a rule on noncommercial UAS registration may be economically significant and require a cost-benefit analysis. FAA officials have estimated that 1 million UASs could be sold during this year's holiday season.[5] As the recommendations of the task force may apply not only to those 1 million UASs, but also all existing model aircraft and future sales, the impact of a new rule could well exceed the $100 million annual threshold used by OIRA for economic significance. The DOT's regulatory evaluation should also consider the costs and benefits of all relevant alternatives, as required by Executive Order 12866.[6]

A NATIONAL REGISTRY IS IMPRACTICAL

If these procedural issues are rectified, the DOT task force will then need to determine criteria whereby small UAS registration makes sense given the DOT and FAA's limited internal resources. While the current FAA definition of small unmanned aircraft includes anything below 55 pounds, use of this standard would capture millions of multi-rotor helicopters typically considered to be toys. Yet such toys can still, in principle, violate restricted airspace and cause damage. Indeed, the model of small UAS that famously crashed on the White House lawn, the DJI Phantom, weighs less than 3 pounds.[7] Another bestselling model, the Parrot Bebop Drone, weighs only 400 grams, or 0.88 pounds.[8] This suggests that no matter what criteria are settled on, either the size of the registry will balloon and become unmanageable, or the criteria will be ill suited to the safety concerns the DOT claims the registry is meant to address.

Past experience with national registry systems suggests there will be dramatic implementation and compliance costs that the DOT may be systematically underestimating. Consider the Canadian Firearms Registry, which had cost overruns resulting in an estimated final bill of between $629 million and $2 billion, compared to a 1995 estimate of $119 million. This was the cost to register fewer than 8 million guns held by fewer than 2 million owners, before the bulk of the registry was scrapped.[9]

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4. Air Transport Association of America vs. Department of Transportation, 900 F.2d 369 (D.C. Cir. 1990). "Insofar as the FAA's own failure to act materially contributed to its perceived deadline pressure, the agency cannot now invoke the need for expeditious action as 'good cause' to avoid the obligations of section 553(b)."
5. Justin Peters, "FAA Fears That 1 Million Drones Could Be Sold This Holiday Season," *Slate*, September 30, 2015.
6. Executive Order No. 12866, 3 C.F.R. 638 (1993), reprinted in 5 U.S.C. § 601 (1994).
7. See "Phantom 3," DJI, accessed November 2, 2015, http://www.dji.com/product/phantom-3/spec.
8. See "Bebop Drone," Parrot, accessed November 2, 2015, http://www.parrot.com/products/bebop-drone/.
9. See "The Gun Registry Debate," *CBC*, October 25, 2011; Jeff Davis, "More Guns in Canada Now but Fewer Owners: RCMP," National Post, January 23, 2012.

The well-established issues with registry systems are only likely to be exacerbated in this event that the FAA adopts mandatory registration for a wide swath of UASs, for reasons that include but are not limited to:

- The relative ease of constructing do-it-yourself UASs from basic components.[10]
- The difficulty of enforcing retroactive compliance.
- The high sheer volume and speed at which UASs are being produced.
- The ability of owners to modify every aspect of their UAS, creating a "Ship of Theseus" paradox.
- The fast UAS depreciation and replacement rate.
- The desire of consumers to resell or transfer UAS ownership, bypassing point-of-sale.
- The multiplicity of foreign manufacturers and online sellers.

These enormous implementation difficulties are contrasted with the relative ease with which bad actors will still be able to evade the (at best) minor accountability a registration system provides. All these factors, combined with the historical experience of national registries, point to large costs relative to trivial benefits, and thus militate against instituting a registration system for recreational UASs.

Instead, the DOT and FAA should use this opportunity to define thresholds that liberalize most small UASs, requiring registrations for only the largest and highest-powered UASs, while continuing to focus on integrating all nongovernmental UASs within a framework based on the principles of permissionless innovation.[11]

Instead of an impractical registration scheme, the FAA could adopt Transport Canada's model and require simple online notification for commercial operations within a middle weight class.[12] Doing so would move the United States into greater harmony with a neighboring jurisdiction that is reaping major economic benefits from UASs. Canada's success is supported by its lack of a national registration system for hobbyists and its broad exemptions to permitting processes—both of which it maintains without sacrificing safety.

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10. Menirz, "DIY Drones," *Instructables*, http://www.instructables.com/id/DIY-Drones/.
11. Adam Thierer, *Permissionless Innovation: The Continuing Case for Comprehensive Technological Freedom* (Arlington, VA: Mercatus Center at George Mason University, 2014).
12. Transport Canada, "Flying an Unmanned Aircraft for Work or Research," June 26, 2015.