

# GAO Highlights

Highlights of [GAO-18-110](#), a report to congressional committees

## Why GAO Did This Study

Small UAS—unmanned aircraft weighing less than 55 pounds, typically flown by remote control within sight of a ground “pilot”—are increasingly being used for commercial and recreational purposes. Congress and others have raised questions about the extent of unsafe small UAS use and FAA’s and other agencies’ efforts to address safety risks they pose.

This report examines (1) what information is available to FAA about the extent of unsafe small UAS use in the national airspace, and (2) the extent to which FAA’s management of safety risks posed by small UAS has followed key principles of risk management, among other objectives. GAO reviewed FAA and other federal data on small UAS use from 2014 to 2018, and FAA and industry documents. From FAA’s policies that apply to its safety oversight, including small UAS, GAO identified five key safety risk management principles and 15 supporting requirements, and compared them to FAA’s regulatory efforts related to small UAS. GAO also interviewed FAA officials, as well as 46 aviation stakeholders, including experts and industry groups, selected based on their knowledge of small UAS safety issues.

## What GAO Recommends

GAO recommends that FAA establish a mechanism to ensure that FAA’s management of small UAS safety risks follows all applicable principles and requirements in the agency’s policies. FAA agreed with GAO’s recommendation.

View [GAO-18-110](#). For more information, contact Heather Krause at (202) 512-2834 or [KrauseH@gao.gov](mailto:KrauseH@gao.gov).

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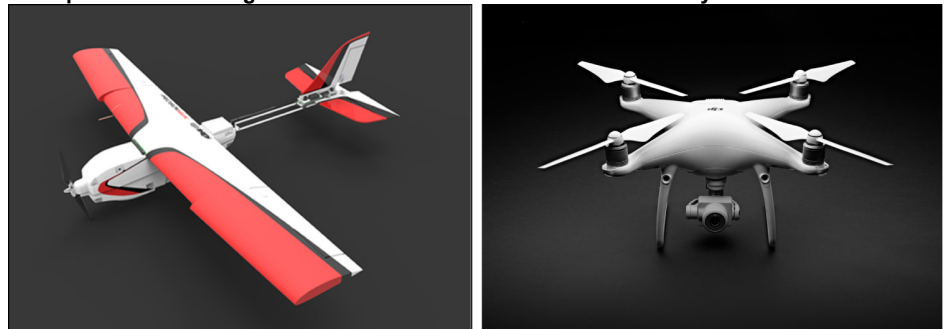
## SMALL UNMANNED AIRCRAFT SYSTEMS

### FAA Should Improve Its Management of Safety Risks

## What GAO Found

The Federal Aviation Administration’s (FAA) information on the extent of unsafe use of small unmanned aircraft systems (UAS) in the national airspace system is limited. Although FAA collects data on several types of safety events involving small UAS, the accuracy and completeness of the data are questionable. For example, since 2014, pilots and others have reported to FAA over 6,000 sightings of UAS, often flying near manned aircraft or airports, but FAA officials told GAO that FAA cannot verify that small UAS were involved in most of the sightings. Officials explained that small UAS are often difficult for pilots to identify definitively and typically are not picked up by radar. Such data limitations impede the agency’s ability to effectively assess the safety of small UAS operations. FAA is taking steps to improve its data. For example, it is developing a web-based system for the public to report any sightings of UAS that are perceived to be a safety concern and a survey of UAS users on their UAS operational activity. FAA did not have time frames for completing these efforts, but according to FAA, each of the efforts is underway and at varying stages of development. FAA is also evaluating technologies for detecting and remotely identifying UAS, and that could improve data on unsafe use.

#### Examples of Fixed-Wing and Multi-Rotor Small Unmanned Aircraft Systems



Sources: PrecisionHawk and DJI. | GAO-18-110

Of the five key principles of safety risk management in its policies, FAA—in its regulatory efforts related to small UAS—followed two and partially followed three. FAA followed the principles of (1) defining appropriate roles and responsibilities for safety risk management and (2) describing the aviation system under consideration. FAA partially followed the other three principles: (1) analyzing and assessing safety risks; (2) implementing controls to mitigate the risks; and (3) monitoring the effectiveness of the controls and adjusting them as needed. For example, FAA did not consistently analyze and assess safety risks in terms of their severity and likelihood; FAA officials told GAO that for some efforts, the agency did not have sufficient data to do so. However, for other efforts for which FAA did not have sufficient data, the agency made estimates based on expert judgment, as allowed under the agency’s safety risk management policy. Improved risk management practices would help FAA determine whether additional actions are needed to ensure the safety of the national airspace and provide FAA and other decision-makers with confidence that FAA is focusing on the most critical safety risks posed by small UAS.