U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Administrator

800 Independence Ave., S.W.
Washington, DC 20591

September 23, 2022

The Honorable Patrick Leahy
Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Chairman Leahy:

Enclosed is the Federal Aviation Administration (FAA) report to Congress in response to a request in House Report 116-452 that accompanied the Consolidated Appropriations Act, 2021 (P.L. 116-260).

The House Report requested that the FAA submit a report to Congress on the annual occurrences of fuel dumps in the United States over the Fiscal Year (FY) 2015 to 2020 period. Specifically, the report was requested to include the amount of fuel dumped; the location of the fuel dump; the population density of the location (if the dump occurred over land); and the FAA's process for reviewing fuel dumps. However, the FAA does not collect information on the amount of fuel dumped, the location of the fuel dump, or the population density of the location. As a result, the only information available for this report is the number of reported fuel dumps over the requested period of FY 2015 to 2020.

A similar response has been sent to the Vice Chairman of the Senate Committee on Appropriations, and the Chair and Ranking Member of the House Committee on Appropriations.

Sincerely,

Billy Nolen
Acting Administrator

Enclosure

U.S. Department
of Transportation
**Federal Aviation
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Office of the Administrator

800 Independence Ave., S.W.
Washington, DC 20591

September 23, 2022

The Honorable Richard Shelby
Vice Chairman, Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Vice Chairman Shelby:

Enclosed is the Federal Aviation Administration (FAA) report to Congress in response to a request in House Report 116-452 that accompanied the Consolidated Appropriations Act, 2021 (P.L. 116-260).

The House Report requested that the FAA submit a report to Congress on the annual occurrences of fuel dumps in the United States over the Fiscal Year (FY) 2015 to 2020 period. Specifically, the report was requested to include the amount of fuel dumped; the location of the fuel dump; the population density of the location (if the dump occurred over land); and the FAA's process for reviewing fuel dumps. However, the FAA does not collect information on the amount of fuel dumped, the location of the fuel dump, or the population density of the location. As a result, the only information available for this report is the number of reported fuel dumps over the requested period of FY 2015 to 2020.

A similar response has been sent to the Chairman of the Senate Committee on Appropriations, and the Chair and Ranking Member of the House Committee on Appropriations.

Sincerely,

Billy Nolen
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September 23, 2022

The Honorable Rosa L. DeLauro
Chair, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Chair DeLauro:

Enclosed is the Federal Aviation Administration (FAA) report to Congress in response to a request in House Report 116-452 that accompanied the Consolidated Appropriations Act, 2021 (P.L. 116-260).

The House Report requested that the FAA submit a report to Congress on the annual occurrences of fuel dumps in the United States over the Fiscal Year (FY) 2015 to 2020 period. Specifically, the report was requested to include the amount of fuel dumped; the location of the fuel dump; the population density of the location (if the dump occurred over land); and the FAA's process for reviewing fuel dumps. However, the FAA does not collect information on the amount of fuel dumped, the location of the fuel dump, or the population density of the location. As a result, the only information available for this report is the number of reported fuel dumps over the requested period of FY 2015 to 2020.

A similar response has been sent to the Ranking Member of the House Committee on Appropriations, and the Chairman and Vice Chairman of the Senate Committee on Appropriations.

Sincerely,

Billy Nolen
Acting Administrator

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800 Independence Ave., S.W.
Washington, DC 20591

September 23, 2022

The Honorable Kay Granger
Ranking Member, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Ranking Member Granger:

Enclosed is the Federal Aviation Administration (FAA) report to Congress in response to a request in House Report 116-452 that accompanied the Consolidated Appropriations Act, 2021 (P.L. 116-260).

The House Report requested that the FAA submit a report to Congress on the annual occurrences of fuel dumps in the United States over the Fiscal Year (FY) 2015 to 2020 period. Specifically, the report was requested to include the amount of fuel dumped; the location of the fuel dump; the population density of the location (if the dump occurred over land); and the FAA's process for reviewing fuel dumps. However, the FAA does not collect information on the amount of fuel dumped, the location of the fuel dump, or the population density of the location. As a result, the only information available for this report is the number of reported fuel dumps over the requested period of FY 2015 to 2020.

A similar response has been sent to the Chair of the House Committee on Appropriations, and the Chairman and Vice Chairman of the Senate Committee on Appropriations.

Sincerely,

Billy Nolen
Acting Administrator

Enclosure

FAA
Aviation Safety

REPORT TO CONGRESS:

Annual Occurrences of Fuel Dumps in the United States, Fiscal Year 2015–2020

Consolidated Appropriations Act of 2021 (Public Law 116-260)

Executive Summary

On rare occasions, due to emergencies, aircraft in the National Airspace System (NAS) must land before they have consumed most of their fuel, and therefore, weigh too much to land safely. In these cases, pilots must dump enough fuel to bring the aircraft to a safe weight, as determined by the manufacturer's limitations and airport conditions before landing.

Under Federal Aviation Administration's (FAA) guidance, such fuel dumps are to be performed over remote or oceanic areas, or at an altitude at which the jettisoned fuel can atomize before reaching the ground. However, in dire emergencies, when the lives of the crew and passengers are at risk, pilots have the discretion to monitor circumstances and bypass guidance to ensure a safe landing for the aircraft and passengers aboard.

The FAA investigates all emergency landings and, as part of these investigations, recommends that pilots report whether they dumped fuel. However, under the current regulatory framework, the FAA does not collect information on the amount of fuel dumped, the location of the fuel dump, or the population density of the location. As a result, the only information available for this report is the number of reported fuel dumps over the requested period of Fiscal Year (FY) 2015 to 2020. Moving forward, as part of the FAA's investigation of a declared emergency, the FAA will inquire if fuel was dumped, and if it was dumped, the FAA will ask for the amount of fuel dumped and the location (latitude and longitude) where the fuel was dumped.

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Introduction

The FAA submits this report to Congress regarding the annual occurrences of fuel dumps in the United States over the FY 2015 to 2020 period, in response to a request in House Report 116-452 that accompanied the Consolidated Appropriations Act of 2021 (P.L. 116-260).

Legislative Mandate

House Report 116-452 states, in pertinent part:

Fuel dumping —The Committee is troubled by a January 14, 2020, fuel dump over Los Angeles and its surrounding communities. Not later than 180 days after the date of enactment of this Act, the FAA shall submit a report to the House and Senate Committees on Appropriations on the annual occurrences of fuel dumps in the United States over the fiscal year 2015–2020 period. This report shall include the location of the fuel dumps, the amount of fuel dumped, the population density of the community over which the fuel dump location occurred, if the fuel dump occurred over land, and the FAA's process for reviewing fuel dumps.

Background

When an aircraft experiences an emergency, whether mechanical, medical or other, and is forced to land prematurely, it may still be carrying fuel intended for use during the originally planned journey. That excess fuel renders the plane overweight for landing. To create a safer landing scenario, pilots reference the manufacturer's limitations and airport conditions to assess the need to dump fuel in these cases.

FAA Job Order 7110.65Y[1] calls for fuel dumping to occur where it is safe, presuming this will not place the aircraft at further risk, such as over remote or oceanic areas, or at an altitude at which the jettisoned fuel can atomize before reaching the ground. This guidance places the aircraft in an area where it will not be at risk of a controlled flight into terrain at a lower altitude, but above 5,000 feet. If the situation is too dire, at the pilot's discretion, the pilot may dump fuel where it is not optimal. An example of a situation that is too dire is when a two-engine plane has lost one engine and the other is threatening to fail, or when there is a fire onboard the aircraft.

Even though modern-day aircraft is designed to land overweight, landing performance, including tire speed and brake energy limits, can be exceeded. This, along with the available runway length, runway slope, runway conditions, including wet, dry or contaminated, field elevation, and temperature, must be considered to ensure the pilot can safely land and stop the aircraft on the available runway.

[1] See FAA Order JO 7110.65Y- Air Traffic Control, Chapter 9. Special Flights, Section 4. Fuel Dumping: https://www.faa.gov/air_traffic/publications/atpubs/atc_html/chap9_section_4.html

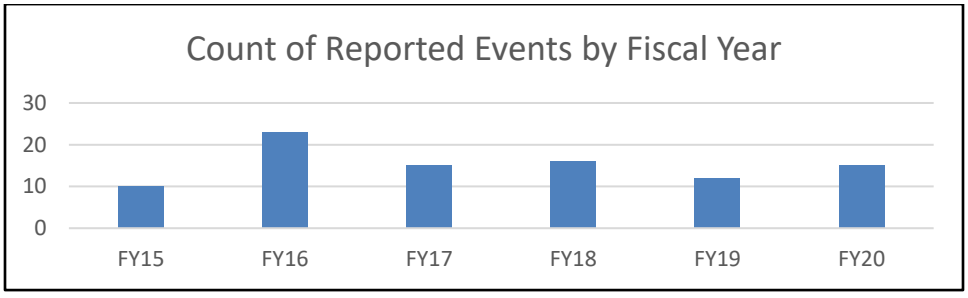
Methodology

To report on the annual occurrences of fuel dumps in the United States over FY 2015 to 2020, the FAA assessed reported incidents by certificate holders. However, data on the amount of fuel dumped, location, and population density were not recorded in fuel dump reports and are therefore not available for this report.

Response

Reported Fuel Dumping

Reported fuel dumping events covered by the FAA occur at a rate of roughly 0.00000588% of flights per year. Between FY 2015 and FY 2019[2], there was an average of more than 25.5 million flights over the U.S. per year. In that same period, there was an annual average of 15 reported fuel dumps. Since the FAA can only account for reported fuel dumping incidents, reported figures do not account for possible outlier instances of flights that dumped fuel during a non-emergency situation; for example, if a pilot erroneously thought the aircraft was overweight, and was on approach to the destination airport.



Reported Fuel Dumps per Fiscal Year

Process for Reviewing Fuel Dumps

The FAA performs incident investigations in emergency and overweight landings, but does not specifically investigate fuel jettisoning. For safety occurrences, the FAA reviews root cause analysis to understand the reasoning for the fuel dump, but it does not focus on the amount of fuel, the precise location of the fuel dump, or the population density of the location over which fuel was dumped.

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[2] Only partial data was available for FY 2020; for this reason, the computation only reflects up to FY 2019.