

GAO Highlights

Highlights of [GAO-18-57](#), a report to congressional committees

Why GAO Did This Study

The federal government shares liability risks with the commercial space launch industry for accidents that result in damages to third parties or federal property. This arrangement requires space launch companies to have a specific amount of insurance to cover these damages. The government is potentially liable for damages above that amount, up to a cap GAO estimated to be \$3.1 billion in 2017, subject to appropriations in advance.

CSLCA, enacted in 2015, directed the Department of Transportation, of which FAA is a part, to evaluate its MPL methodology and, if necessary, develop a plan to update that methodology. The act also included a provision requiring GAO to assess FAA's evaluation and any actions needed to update the methodology.

This report discusses the extent to which (1) FAA's evaluation report addresses the requirements in CSLCA and (2) FAA has addressed previously identified weaknesses in the MPL methodology. GAO reviewed documents and interviewed FAA on its loss methodology evaluation and actions to address weaknesses.

What GAO Recommends

FAA should fully address mandated requirements in evaluating its MPL—probability thresholds, direct costs, and stakeholder consultations—and establish an estimated completion date for developing guidance on tools and methods to use for specific launch scenarios. The Department of Transportation concurred with the recommendations, and provided technical comments.

View [GAO-18-57](#). For more information, contact Alicia Puente Cackley at (202) 512-8678 or cackleya@gao.gov.

January 2018

COMMERCIAL SPACE LAUNCH INSURANCE

FAA Needs to Fully Address Mandated Requirements

What GAO Found

The Federal Aviation Administration's (FAA) report evaluating its maximum probable loss (MPL) methodology did not fully address the evaluation and consultation requirements specified by the U.S. Commercial Space Launch Competitiveness Act (CSLCA).

- **Balance of Risk.** CSLCA required FAA to include ensuring that the federal government is not exposed to greater indemnification costs and that launch companies are not required to purchase more insurance coverage than necessary as a result of FAA's MPL methodology. FAA said that it ensured this balance by improving its methodology, but it did not reevaluate its probability thresholds after revising its methodology. These thresholds are used to divide the risk of loss between launch companies and the government.
- **Impact on Costs.** The act required FAA to consider the costs to both the industry and the federal government of implementing an updated methodology. FAA's report discussed the impact on indirect costs, such as data collection, but did not discuss direct costs: insurance premiums for launch companies and indemnification liability for the federal government.
- **Consultation.** The act also required FAA to consult with the commercial space sector and insurance providers in evaluating its MPL methodology in accordance with the preceding requirements. While the agency consulted with some stakeholders, these consultations were limited in scope.

FAA officials said they have not been able to take the actions needed to fully satisfy the mandated elements because of issues such as resource limitations and the lack of available data. However, by not resolving these issues, FAA lacks assurance that launch companies are not purchasing more insurance than needed or that the federal government is not being exposed to greater indemnification costs than expected.

FAA has addressed two of three previously identified weaknesses in its MPL methodology but has not yet dealt with the remaining weakness. Specifically, the agency has revised its methodology for estimating the number of potential casualties for a launch and changed the factor it uses to derive estimated property damage from estimated casualties. However, FAA has not updated the amount used for the cost of an individual casualty. GAO recommended in a March 2017 report (GAO-17-366) that FAA update this amount. Not doing so could understate the amount of insurance launch companies are required to purchase, exposing the federal government to excess risk.

GAO also determined that while FAA has two tools and methods it can use in making its MPL estimates, it does not have guidance on determining which are most appropriate for a given launch scenario. For example, one tool is more comprehensive but also labor intensive to use, while the other is inappropriate for certain launch scenarios and could result in misleading MPL amounts. Officials said they have begun to create such guidance but do not have an estimated completion date. Without such guidance, FAA cannot ensure that the most appropriate MPL methodology is used for each launch.