

FEDERAL AVIATION ADMINISTRATION RESEARCH AND DEVELOPMENT ACT OF 2023
EXECUTIVE SUMMARY

The House Science, Space, and Technology Committee has jurisdiction over the research, engineering, and development activities at the Federal Aviation Administration (FAA), which cover a broad range of topics. The purpose of this Act is to reauthorize FAA's R&D activities and prioritize making American aviation safer, more efficient, and more reliable.

Keeping FAA R&D Accountable to Taxpayers

The bill ensures FAA R&D is conducted according to Congressional intent. It directs the Comptroller General to submit a report to Congress on whether at least 70% of FAA's R&D funding is going towards improving safety.

Modernizing Aircraft and Aviation Fuel

The bill makes U.S. aviation cleaner and more modern. It directs FAA to develop an R&D roadmap to safely eliminate the use of leaded aviation fuel. It accelerates the development of new technologies under the Continuous, Lower Energy, Emission, and Noise (CLEEN) program to reduce noise, emissions, and fuel burn. It requires FAA to report on R&D to develop hydrogen into a safe aviation fuel.

Improving Air Traffic Management

The bill improves safety and efficiency through R&D on air traffic control. It establishes a pilot program to test and evaluate air traffic surveillance and tracking over oceans in and in remote areas. It creates a program to research technologies that use space-based assets to improve air traffic control and safety. It improves air traffic surface operations safety through R&D to identify ground-hazards and reduce near-misses at airports. It also requires research into whether air traffic control training time can be reduced without compromising safety. The bill directs continued research into materials used for the construction of airfields to ensure increased durability and reliability during extreme weather conditions.

Developing the Aviation Technologies of Tomorrow

The bill directs R&D into a wide variety of technologies to ensure American aviation continues to lead the world. It requires a review of artificial intelligence technologies to improve airport safety and efficiency. It directs the Administrator to work with the National Oceanic and Atmospheric Administration (NOAA) to review technologies to more accurately detect and predict weather. It requires FAA to develop a plan for R&D into best practices and standards for commercial supersonic aircraft. It directs the Administrator to report on electromagnetic spectrum allocation and how potential reallocation of certain bandwidths might impact communication, navigation, and surveillance. It creates a program to research advanced metal additive manufacturing and safety standards for aerospace vehicles. It ensures FAA is developing and implementing a strategic cybersecurity framework to protect the safety of the National Airspace System.