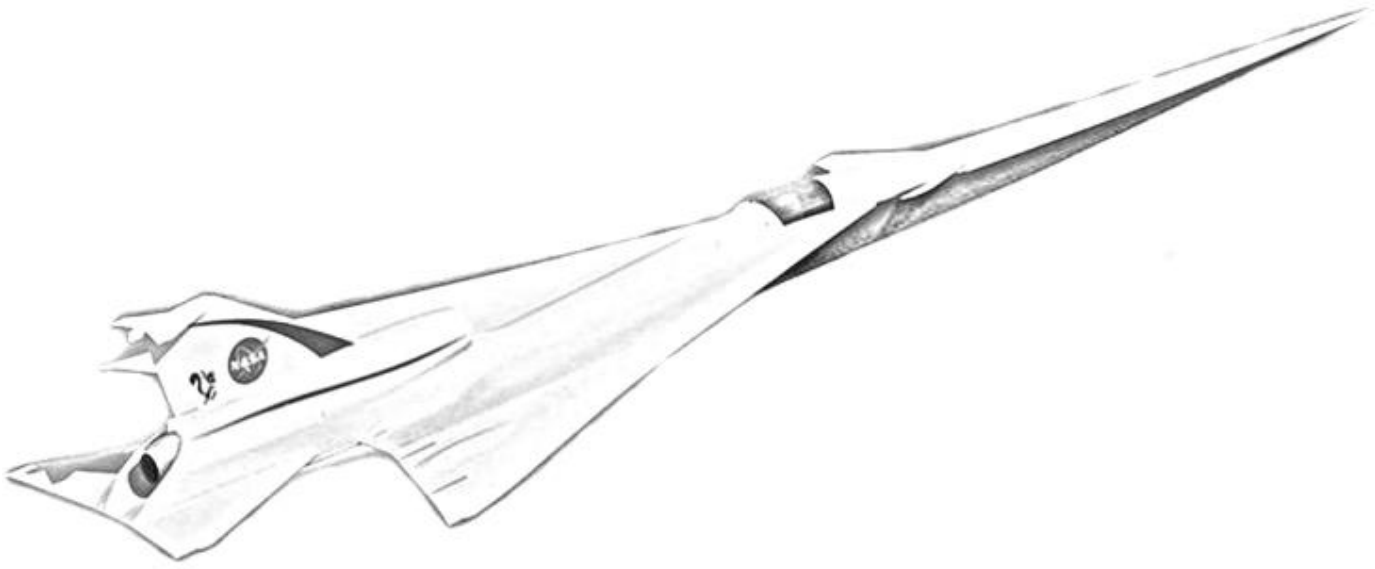
The Aeronautics Innovation Act

Congressman Steve Knight & Congresswoman Marcy Kaptur



KNIGHT.HOUSE.GOV

The Aeronautics Innovation Act: *summary*

- Assures sustained political support for the NASA Aeronautics Research Mission Directorate's (ARMD) Strategic Implementation Plan and encourages NASA to continue pursuing this strategy.
- Affirms NASA's key role in the long-term research in transformative aeronautics technologies for which there is not yet a commercial profit rationale.
- Establishes a national policy for aeronautics research that will maintain U.S. superiority in air capabilities and aviation industrial leadership.
- Sets authorization levels for the Aeronautics directorate for five years: $790 million in FY 2018, $880 million in FY 2019, $924 million in FY 2020, $946 million in FY 2021, and $980 million in FY 2022.
- Establishes a new series of X-Plane and X-System programs rooted in ARMD's strategic plan that will restore NASA's capacity to see legacy priority initiatives through to completion and achieve national economic and security objectives.
- Directs NASA's continuing support of unmanned aircraft system development, particularly automation technologies.
- Encourages the continuation of NASA's work in on-demand aviation.
- Creates a new budget account, the 21st Century Aeronautics Research Capabilities Initiative, to make available funds to modernize the Nation's aeronautics facilities.

The Aeronautics Innovation Act: *goals*

- Provide necessary continuity and budget stability for the United States' aeronautics research throughout administration changes and political shifts in Congress.
- Offer a congressional companion to NASA's New Aviation Horizons Initiative to restore NASA's ability to pursue large-scale vehicle flight testing, an indispensable aspect of transitioning new technologies to commercial and military use.
- Ensure U.S. engineers, mechanics, and technicians will have opportunities to work on the world's most important aeronautics and aviation challenges.
- Expand the U.S aviation industry's substantial trade surplus ($90 billion in 2016 alone).
- Position U.S. industry to maintain its lead in the increasingly competitive commercial aircraft market, which is projected to total $8-10 trillion in new aircraft sales, parts, and services over the next 17 years.
- Secure the economic and national security benefits that derive from American air and space technological superiority.

The Aeronautics Innovation Act: *Section-by-Section Overview*

Sec. 2 — Authorization of Appropriations

Authorizes funding levels for NASA's Aeronautics Research Mission Directorate that increase steadily to build capacity for several concurrent experimental plane (X-Plane) programs:

Fiscal Year 2018: $790,000,000
Fiscal Year 2019: $880,000,000
Fiscal Year 2020: $924,000,000
Fiscal Year 2021: $946,000,000
Fiscal Year 2022: $980,000,000

Sec. 3 — Findings

Lays out the economic benefits generated by the U.S. commercial aviation industry and the enormous opportunity offered by projected growth in global demand for new aircraft, parts, and services.

Affirms NASA's key role in the long-term research of transformative aeronautics technologies.

Affirms that NASA's Aeronautics work is fundamental to NASA's other missions and the research and development objectives of the Department of Defense.

Recommends the NASA Aeronautics Research Mission Directorate's six strategic thrusts as the most effective means for the Nation to develop the next generation of aeronautics technology and maintain its lead in the increasingly competitive commercial aircraft market.

Stresses the direct connection between U.S. aeronautics research and the Nation's economic and national security.

Declares the need for funding NASA's Aeronautics Research Mission Directorate at levels that will allow the science and technology to mature at a pace to meet our 21st century challenges.

The Aeronautics Innovation Act: *Section-by-Section Overview*

Sec. 4 — Definitions

Defines the Aeronautics Strategic Implementation Plan, Air Traffic Management System, NASA, unmanned aircraft, and unmanned aircraft system.

Sec. 5 — Experimental Planes Programs

Expresses the sense of Congress that it is a fundamental NASA role to pursue high-risk, high-reward research investments in aeronautics to meet military objectives and advance the capabilities of the U.S. commercial sector. NASA's Aeronautics Research Mission Directorate (ARMD) must have the means to support full-scale experimentation and related infrastructure over a sustained period of time to see legacy priority programs through to completion and achieve national economic and security objectives.

Declares a national policy for aeronautics research and the maintenance of U.S. superiority in air power projection and civilian aviation.

Establishes a low-boom supersonic flight program and a subsonic flight program that can test and demonstrate a variety of design and technology concepts, including ultra-efficient and hybrid-electric experimental planes. The latter program will drive continual improvements in efficiency and life cycle and noise emissions that will be leading factors in determining global aircraft market winners and losers in the near future.

Creates program requirements, including that X-Plane programs must lead to flight testing and that prime contractors for the X-Plane construction must be U.S. companies.

Encourages NASA ARMD's continued progress in on-demand aviation research.

The Aeronautics Innovation Act: *Section-by-Section Overview*

Sec. 6 — Unmanned Aircraft Systems

Establishes that it is a national policy for the United States Government to be an active partner with the private sector in the research of systems and technologies that will enable the safe integration of unmanned aircraft systems (UAS) into the national airspace.

Directs NASA to continue leveraging its partnership with the private sector to advance technologies and help inform regulatory standards for future air traffic management systems and for the integration of UAS into the national airspace.

Supports NASA's relationship with the Federal Aviation Administration on their jointly-run efforts for the development of UAS air traffic management systems.

Sec. 7 — Century Aeronautics Research Capabilities

Establishes an investment fund to upgrade and create new facilities to ensure NASA has the capability to pursue a path to flight for each of the Act's proposed demonstration projects.

This fund is authorized at $100,000,000 a year for five years.