

National Advisory Committee for Aeronautics (NACA) Contributions

Cassandra E Courchesne

College of Aeronautics, Embry-Riddle Aeronautical University

ASCI 254 Aviation Legislation

Adjunct Associate Professor Stephen W. Smith, J.D.

September 4th, 2022

National Advisory Committee for Aeronautics (NACA) Contributions

Introduction

The National Committee for Aeronautics (NACA) is responsible for a large amount of the fine-tuning and consolidation of multiple types of aircraft prior to and throughout World War II. Such as, drag cleanup, the beginnings of de-icing, and assisting the United States Navy with their seaplanes.

Structural and Aerodynamic Research

Between the years of 1938 and 1940, researchers were trying to enhance the speed and reduce the drag on planes, especially for the Army's aircraft. They did this by constructing a wind-tunnel and taping the entire surface of the aircraft, only after the aircraft was covered, they would take one piece of tape off at a time to see how much drag was depleted and made small specifications to the aircraft after instead of rebuilding it to clean up the drag.

Ice has and is still to this day one of the biggest problems that pilots can face. When ice builds up on the wing of the plane it can cause it to become more weighted in certain places making it very difficult and dangerous to fly the plane. NACA wanted to solve this problem and started engineering ways to do so. NACA, "developed a heat deicing system which piped air heated by hot engine exhaust along the leading edge of the wing" (Dunbar, 1995). The Army then asked NACA to install this into two of their bombers, this saved many lives in the war.

Conclusion

This is only two of the many examples of the National Advisory Committee for Aeronautics going above and beyond for the aeronautical community. They helped and saved countless lives during and after the Second World War.

References

Dunbar, B. (1995). *Wwii & naca: US aviation research helped speed victory*. NASA.

<https://www.nasa.gov/centers/langley/news/factsheets/WWII.html>