

CASE STUDY

RUGGED, ELEGANT AND PURPOSE BUILT: DURABOOK COMPUTERS HELP POWER THE AIR FORCE

CUSTOMER

Anovium

CHALLENGE

The Air Force faced a critical vulnerability in logistics and maintenance due to limited mobile solutions. The challenge was complicated by multiple stakeholders, restricted access, and limited documentation.

SOLUTION

Durabook and Anovium applied a systematic strategy: context discovery, hands-on research, test development, and remote guidance.



U11 Tablet

Introduction

Awe-inspiring squadrons of United States Air Force jets piercing the vast blue sky are powered by a massive network of on-ground aviation experts, technologies, and systems ensuring that every aircraft meets the highest standards to take on any mission anywhere at a moment's notice. Rugged, elegant and purpose built describes Air Force jets and the Durabook mobile computing units on which the Air Force relies. Durabook mobile computing devices are used across Air Force bases that support logistics operations and aircraft and munitions maintenance.

For more than 15 years, Durabook Federal has proudly supported key United States Air Force programs by providing purpose-built rugged computing solutions tailored to the unique challenges of flightline diagnostics and maintenance work. This long-standing partnership reflects Durabook's commitment to delivering dependable and adaptable technology that aligns with mission-critical demands.

In an environment where precision, durability, and reliability are paramount, Durabook continues to enable airmen to perform their maintenance actions with confidence—whether on the flightline, in hangars, or extreme field conditions. By consistently offering customized solutions to meet evolving demands, Durabook has become a trusted provider for Air Force personnel responsible for keeping aircraft and munitions mission ready. So, when the Air Force had a technical challenge within a proprietary logistics application, Durabook earned its stripes and was given the opportunity to go above and beyond their mandate as a leading manufacturer of rugged computing solutions to work out a solution led by Joe.



Mission Critical Technical Challenge

For more than a year, the Air Force sought to provide options to their customer base in available mobile solutions deployed and supporting applications to their logistics and maintenance operations. The situation created a critical vulnerability for this function in their supply chain operations. The issue became an obstacle to meeting critical mission needs.

The Air Force's technical challenge was complicated by the involvement of multiple organizational stakeholders, access restrictions to certain system components, and limited documentation of closed, proprietary systems. Durabook approached the challenge with its U11 Rugged Tablet in mind. The ability to integrate a barcode scanner into the U11 tablet allows a user to support multiple tasks that in the past may have required a hand-held device and a computer system. Theoretically, an airman could use his Durabook U11 tablet for his desktop computing needs, and logistics support for barcode scanning and maintenance actions.

The U11 units meet MIL-STD-810H and 461G standards, are HERO compliant and have an IP66 rating. Drop-tested from six feet, the U11 tablet can survive being dragged around and dropped during an airman's day of maintenance. It can operationally survive 120 degrees in a warehouse or on a flightline, its screens are viewable in direct sunlight due to proprietary DynaVue® sunlight readable technology and it supports non-stop operation up to 20 hours with a single battery, making it a perfect device for those working outside a traditional office. Windows 11 technology in the U11 provides an extra layer of protection. By integrating hardware, firmware, software, and identity protection, these secured-core computing devices deliver the highest level of protection against highly advanced threats, including sophisticated protection of firmware and dynamic root of trust measurement.

Durabook partnered with Anovium, which specializes in strategic imple-

mentation of digital transformation. Anovium helps businesses in logistics, transportation, and distribution modernize operations and build for future growth by combining industry expertise and innovation with technology. The company's comprehensive understanding of logistics technology and operational requirements inform its core capabilities of technology strategy, system integration, AI and machine learning, automation, and data analytics.

A Systematic Problem-Solving Approach

Durabook and Anovium undertook a systematic problem-solving approach, applying a comprehensive strategy that included context discovery; hands-on research; test development; and remote guidance.

1. In **Context Discovery** the companies established a comprehensive problem framework, identifying operational requirements and system constraints through stakeholder interviews and documentation analysis.
2. Through **Hands-on Research** the team conducted a methodical hands-on assessment, isolating potential failure points and identifying component interaction issues.
3. **Test Development.** They then designed a systematic testing framework that could be executed by USAF personnel, providing clear validation steps and results documentation.
4. **Remote Guidance.** Working closely with component manufacturers and USAF staff with privileged access to certain systems, remote guidance was given to gather additional context, direct firmware redesign, and verify solutions.

Solution

The U11 tablet's all-in-one design enables airmen to complete barcode scanning, computing, and maintenance tasks from a single device—eliminating the need for multiple pieces of equipment and streamlining daily operations. Engineered for resilience, the U11 is

built to withstand the rigors of military environments, from extreme temperatures to impact and weather exposure, making it exceptionally reliable on the flightline or in warehouses. Enhanced with Windows 11 secured-core capabilities, the device also delivers advanced protection against cyber threats, ensuring secure handling of sensitive data. This outcome was further amplified by Durabook's partnership with Anovium, whose expertise in logistics and systems integration ensured a seamless implementation that aligned with mission-critical objectives. Together, the solution modernized workflow efficiency while strengthening operational readiness across Air Force logistics and maintenance operations.

Resolution

Through this systematic strategic implementation approach, Durabook and Anovium worked effectively with multiple stakeholders across multiple organizations and base locations. The partnership successfully resolved an intricate technical issue in a secure system that had impeded progress for over a year.

The Air Force's year-long technical obstacle in barcode data capture posed a barrier to efficient logistics and maintenance operations. By leveraging the powerful, rugged, and highly adaptable U11 tablet, Durabook—alongside strategic partner Anovium—delivered a solution that not only addressed the immediate scanning challenge but also introduced a modern, consolidated approach to field computing. This collaboration showcased how innovation, combined with mission-driven design and deep domain expertise, can overcome even the most complex technical hurdles in military environments. Durabook's ability to tailor its technology to the real-world demands of defense applications reaffirms its long-standing commitment to supporting military readiness and operational success.