

A technician with a beard, wearing a black baseball cap and a high-visibility yellow safety vest with "ANDT" printed on the back, is operating a Comet X-ray ECO 160DS device. The device is a tall, dark grey unit with a large black steering wheel on top. The technician is kneeling inside the fuselage of an aircraft, surrounded by various components and wiring. The device has a "CAUTION" label and the "comet" logo.

ANDT revolutionize aviation safety with Comet X-ray's ECO 160DS

ANDT Inspection, LLC, a Future Tech Consultant (FTC) subsidiary, stands at the forefront of non-destructive testing, offering innovative solutions across various sectors, including aviation, oil, gas, and education. Embracing state-of-the-art technology, ANDT has been pivotal in enhancing inspection standards for safety and efficiency.

New York, North America

Key staff from ANDT, including William Waterson (RSO-NDE Manager Level III), Ken Krautheim (National Sales Manager), and Mike Marchese (President), engaged in an enlightening discussion, sharing their comprehensive insights and experiences with Comet X-ray's ECO 160DS portable X-ray system. Their conversation provided a vivid illustration of the transformative impact this advanced X-ray technology has on specialized inspection tasks, with a particular emphasis on the demanding and intricate field of aviation.

Primary Application of the ECO 160DS System

ANDT notably utilized the ECO 160DS system for a critical application – the thorough inspection of airplanes. The system was pivotal in examining an 18-year-old Hawker plane, requiring comprehensive imaging from rudder to nose cone. "We needed a system that could intricately inspect every part, from rudder to nose cone, and the ECO 160DS delivered exceptionally," said William Waterson. This extensive inspection, which took approximately

three weeks, exemplified the system's capability to deliver detailed, high-resolution X-ray images, crucial for ensuring aircraft safety and compliance with stringent FAA regulations.

Decision to Purchase the ECO 160DS System

ANDT's decision to acquire the ECO 160DS was driven by the need for a more efficient, reliable, and technically advanced X-ray solution for their specialized inspection services. ANDT chose the ECO 160DS for its unmatched technical prowess in X-ray imaging. "We were looking for a system that was not just efficient but also provided us with the clarity and detail essential for aircraft inspections," Ken Krautheim explained. The ECO 160DS stood out due to its superior image quality, ease of use, and portability – factors essential for the intricate task of airplane inspections.

Advantages of the ECO 160DS System

The ECO 160DS system demonstrated exceptional performance, with its low-weight design facilitating easier maneuverability and setup.



RSO Manager/Level III - William Waterson, and National Sales Manager - Ken Krautheim

"The difference in image clarity between the ECO 160DS and other systems we've used is night and day," Mike Marchese noted, highlighting its superior imaging capabilities. These capabilities allowed for crisp, detailed views of aircraft components, significantly enhancing inspection accuracy. "Its portability made maneuvering around tight aircraft spaces much simpler," added William Waterson, emphasizing the system's practical benefits. The system's efficiency and reduced radiation exposure radius were crucial benefits, allowing inspections to proceed seamlessly within active hangars without disrupting other operations.

Importance of X-ray Inspection in Aviation

X-ray inspection is vital in aviation for its ability to reveal internal structural issues, such as corrosion, cracks, and water infiltration, which are not visible to the naked eye. "With X-ray technology, we can detect internal defects that are invisible externally, which is crucial for aircraft safety," Ken Krautheim emphasized, underlining the critical role of this technology. The detailed imaging provided by systems like the ECO 160DS is essential for complying with aviation safety standards and ensuring the longevity and reliability of aircraft.

Impact of Shielding and Work Radius on ANDT's Operations

The ECO 160DS's innovative shielding and reduced work radius significantly impacted ANDT's operations. The system's design ensured safety and compliance with radiation standards, allowing technicians to work closer to the unit and, thus, optimize their workflow. "The reduced radiation exposure radius allowed us to work more closely to the unit, which was a game-changer in our hangar-based inspections," Mike Marchese remarked. This feature proved particularly beneficial in constrained spaces, typical in aircraft inspection environments.

Future Plans for ANDT with Comet X-ray Products

Encouraged by the success and efficiency gains from the ECO 160DS, ANDT is actively considering expanding its fleet of Comet X-ray products. "Seeing the benefits we've reaped with the ECO 160DS, we're definitely looking into incorporating more of Comet X-ray's products into our workflow," stated Ken Krautheim. The potential for utilizing higher KV models for broader applications, including structur-

al inspections and more complex aviation tasks, is being explored. "The possibility of using higher KV units for more complex inspections is something we are excited about," added William Waterson. The versatility and advanced capabilities of Comet X-ray's product line present exciting opportunities for ANDT to enhance its service offerings in non-destructive testing further.

Through this in-depth exploration, the prowess and versatility of the ECO 160DS in meeting the stringent demands of aviation inspections are vividly demonstrated, setting a new standard in the field of non-destructive testing.



NDT Technician Level II - Brandon Fernandez and the ECO 160DS.



Airplane hangar, where ANDT carried out inspections. To the right, an ECO 160DS is positioned.

**"With X-ray technology, we
can detect internal defects that
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is crucial for aircraft safety"**

Ken Krautheim, National Sales Manager at ANDT



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