

# COMPUTED RADIOGRAPHY BEATS FILM IN AIRCRAFT INSPECTION

*NDE Services, Inc. has been providing Nondestructive Testing services throughout the country since 1979. NDE Services, Inc. is a recognized leader in the field of Nondestructive Testing. NDE Services, Inc. has the personnel to respond to all Nondestructive Testing requirements. NDE Services is certified to meet the requirements of NAS 410 and ASNT-SNT-TC-1A. Personnel experience levels vary from 10 years to 45 years in the field of Nondestructive Testing.*



NDE Services prides itself on keeping up to date with new equipment and technology when it benefits their customers and capabilities: "Computed Radiography was one of the technologies we felt could benefit our customers and after considerable research and evaluation we decided on the DÜRR NDT HD-CR 35 NDT. The HD-CR 35 NDT allows us to keep our versatility to perform inspections in the lab as well as the field without heavy and bulky equipment. With the HD-CR 35 NDT, set up time for processing is not any longer, and in most cases less, than traditional film when working in varying climates and environments as we do. The HD-CR 35 NDT allows us to perform any radiographic inspections from critical high resolution aerospace welds and components to pipe profile or other lower resolution applications. The ability to scan images to an SD card in the scanner and download to a computer at a later time is also a huge benefit when results can be viewed at a later time. The ability to scan odd sizes or cut to fit images is also a big factor in choosing the HD-CR 35 NDT.

The D-Tect software's functions allows for image viewing and image measurement tools that meets all the required standards. Once you've learned the navigation, moving around in the software becomes pretty efficient. Storage of images in different project names allows for easy location of images within the software. One of the best features is the viewer capability that

is supplied to the end customer. Most I have seen have so limited capabilities that the customer has no way review an image and make adjustments.

One of the most beneficial uses for CR that we have seen so far has been the efficiency in viewing large numbers of piping profile images and measurement of wall thickness. Our customer has been ecstatic over the time savings and reduced storage space of film. With how we have integrated the process using CR it has increased production and reduced overall time spent processing images and interpretation and allows the customer to review the images in a much improved manner at their convenience with less sorting and changing light bulbs.

Much of our business is also aircraft related and with a number of aircraft manufacturers still dragging their feet and delaying the implementation of CR, it is our intention to help them through the process of accepting it as an alternate method to film. We feel that CR has the capability to replace film on most, if not all the aircraft we inspect.

After nine months of use I can say we are very happy with the HD-CR 35 NDT and the support from DÜRR NDT has been phenomenal. We have greatly appreciated the excellent response Richard and Steve have provided when we do have questions."

**NDE SERVICES, INC.**  
PROFESSIONAL NON-DESTRUCTIVE EXAMINATIONS

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## Past Experience/Performance

NDE Services, Inc. performs a wide variety of laboratory and field inspections in the aircraft- aerospace, construction, oil and gas, chemical processing plants and nuclear fields. NDE Services has in-house and field capabilities for Radiographic (RT), Ultrasonic (UT), Magnetic Particle (MT), Liquid Penetrant (PT), Eddy Current (ET), Visual (VT) and Bondtest inspections.

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## **Aircraft and Aerospace**

NDE Services performs major in-service overhaul inspections to help extend the life of aircraft using RT, MT, PT, UT, ET and Visual Optical Prism techniques on Learjet, Cessna Citation and Hawker aircraft. NDE Services also performs inspections on many other different types of aircraft from small single engine planes to large cargo, research and passenger airliners. NDE Services also works with manufacturing customers to perform inspections on machined aerospace components.

## **Plant Maintenance**

NDE Services performs RT, ET, UT and VT inspections on piping systems, vessels and storage tanks in chemical processing, water, power, oil and gas plants to locate corrosion and determine remaining wall thickness. NDE Services also performs inspections on support equipment for locating cracks or anomalies that may interfere with the equipment's intended use.

## **Fabrication**

NDE Services performs RT, UT, MT, PT and VT inspections on welded vessels, piping and structures during fabrication to ensure they meet governing code requirements prior to installation or during construction.

## **Research and Development**

NDE Services has worked on a Probability Of Detection (POD) study using RT, MT, ET, PT, UT and VT on specimens to help determine the detectability of various defects and sizes. NDE Services has performed RT, UT, PT, ET, MT and VT on disassembled aircraft to help determine the life extension of aircraft.