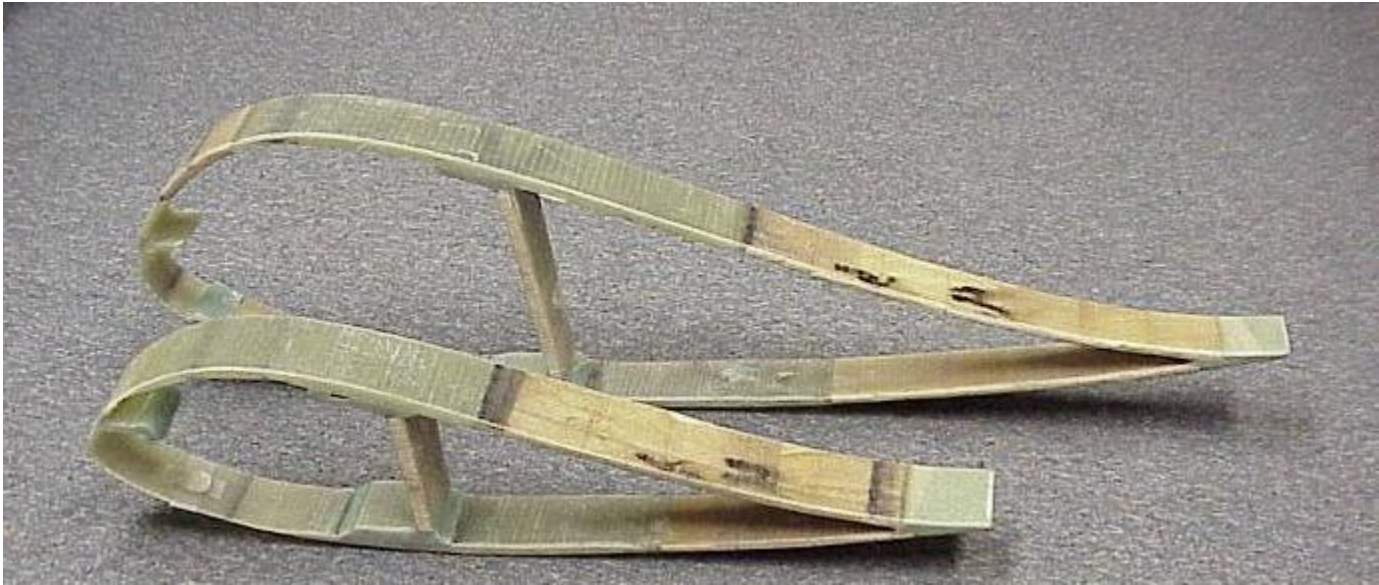


# Inspection and Imaging of Fiberglass Wind Turbine Blades Using Evisive Scan™ Technology





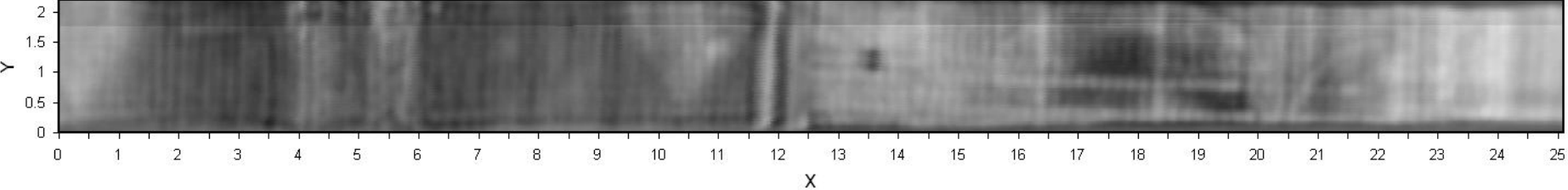
# Wind Turbine Blade Samples



Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC 04-94AL85000.

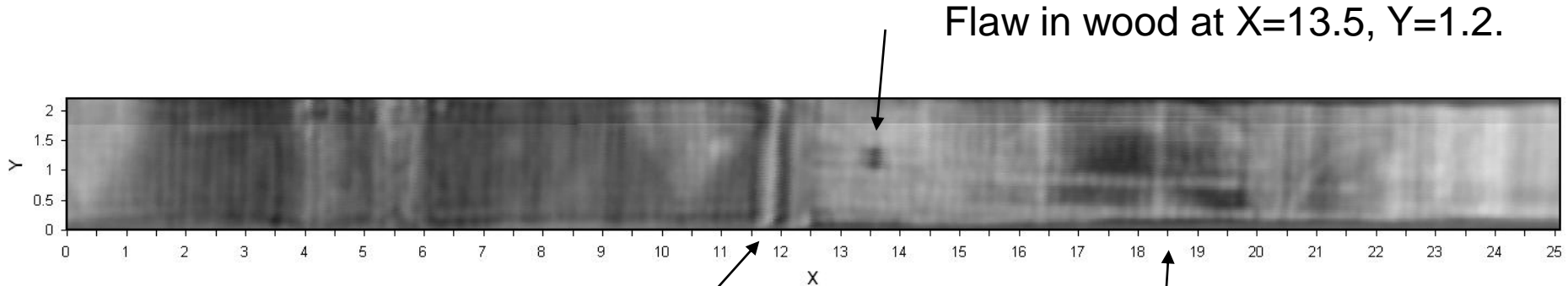
# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon 3000

## Lower Surface to Near Trailing Edge



# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon

## Lower Surface to Near Trailing Edge



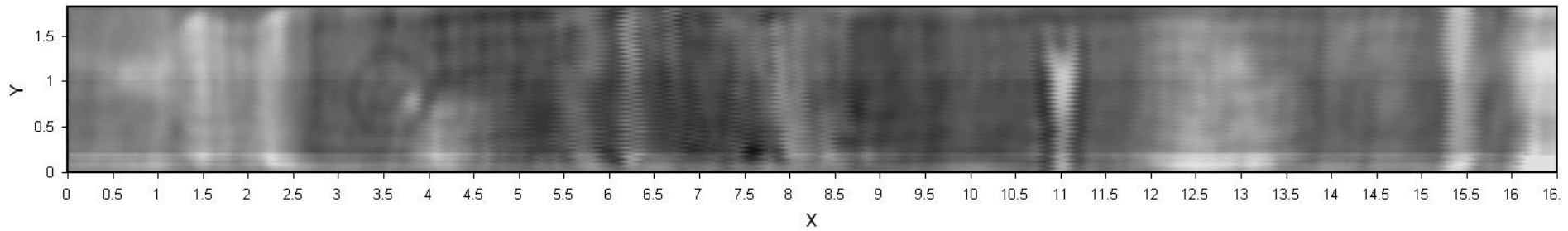
Flaw in wood at  $X=13.5$ ,  $Y=1.2$ .

Transition fiberglass to wood fill at  $X=12.5$ .

Individual wood pieces and wood grain visible.

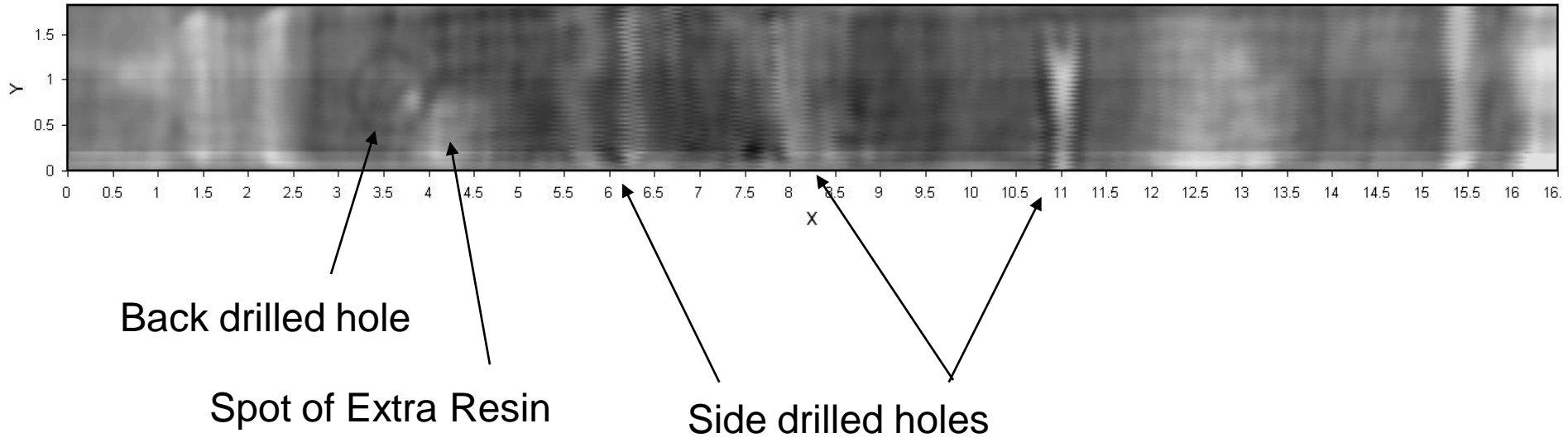
# Evisive Scan of Large Wind Turbine Blade Coupon

Upper Surface Starting  $\sim 5 \frac{1}{2}$  " from Leading Edge



# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon

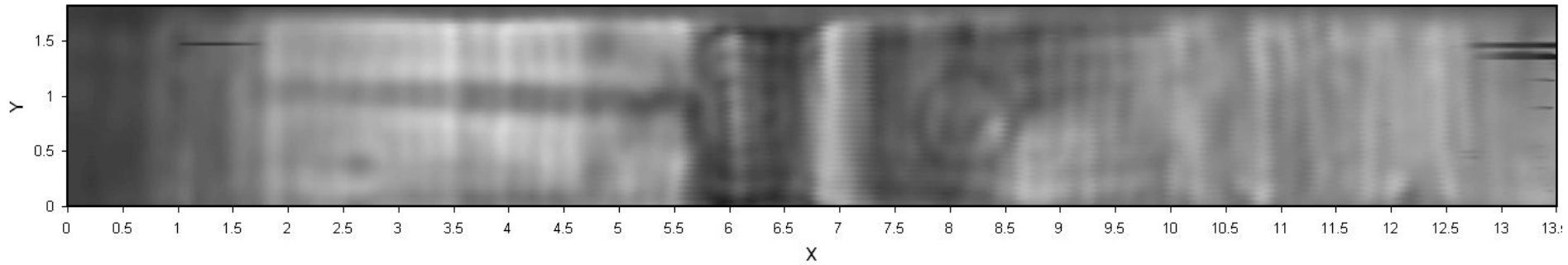
Upper Surface Starting  $\sim 5 \frac{1}{2}$  " from Leading Edge



All Internal Structures Visible in Image

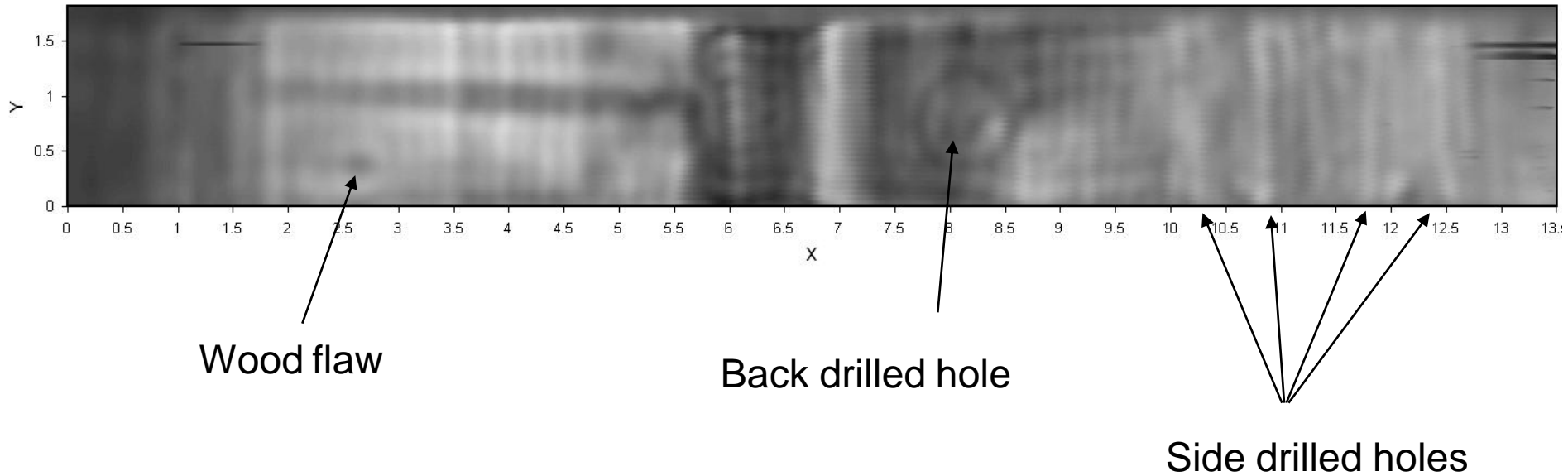
# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon 3000

Upper Surface Starting  $\sim 1 \frac{3}{4}$  " from Leading Edge



# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon 3000

Upper Surface Starting  $\sim 1 \frac{3}{4}$  " from Leading Edge



All Internal Structures Visible in Image

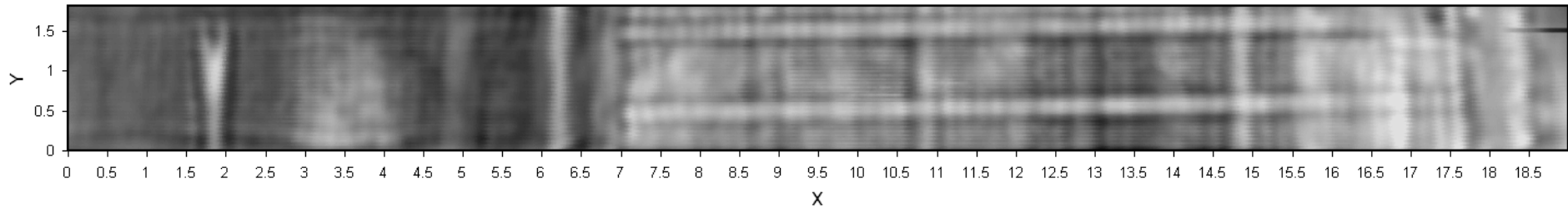


# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon 3000

## Upper Surface Behind Spar to Near Trailing Edge

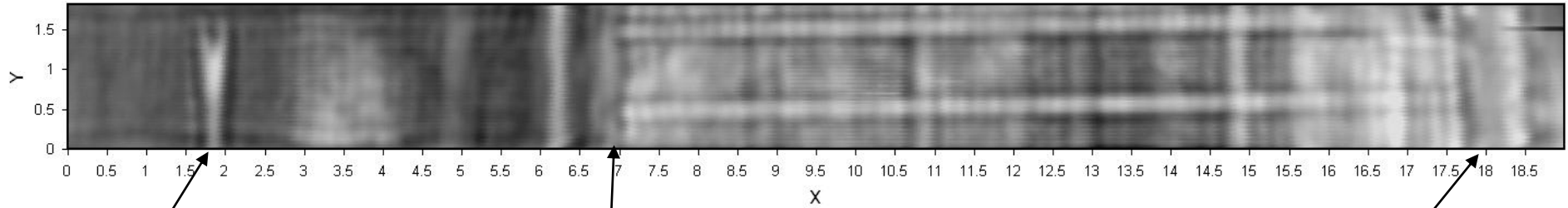
### Evisive Scan of Sandia Labs Large Wind Tutbine Blade Cupon 3000

Channel C Upper Surface to Trailing Edge



# Evisive Scan of Sandia Labs Large Wind Turbine Blade Coupon 3000

## Upper Surface Behind Spar to Near Trailing Edge



Side drilled hole

Fiberglass to wood transition at  $X=7$  and  $17.7$ .

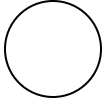
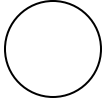
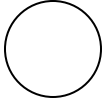
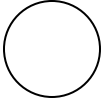
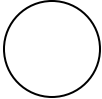
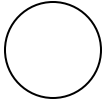
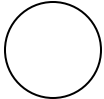
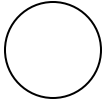
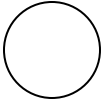
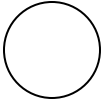
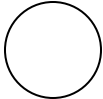
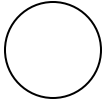
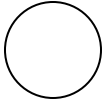
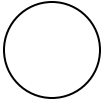
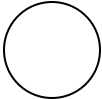
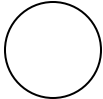
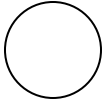
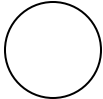
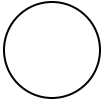
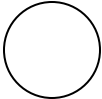
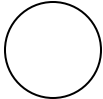
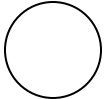
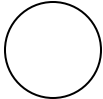
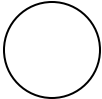
All Internal Structures Visible in Image

# Imaging Fiberglass Thickness Gauge Using Evisive Scan™ Technology

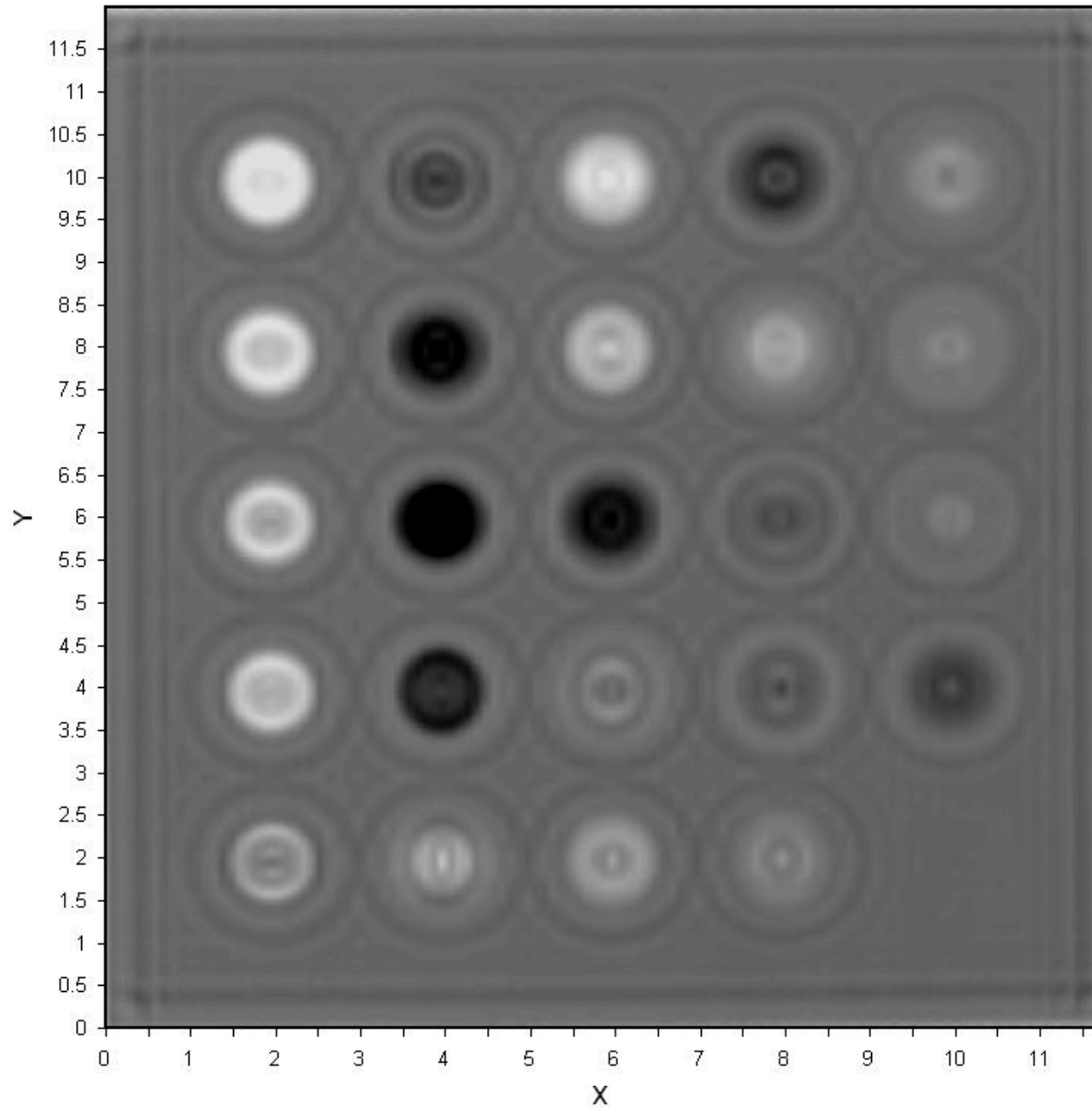
The logo for Evisive, featuring the word "evisive" in a stylized, outlined font. The letters are white with a blue outline. The 'e' and 'i' have small square shapes above them, resembling eyes or sensors. The logo is set against a white background with a blue border.

incorporated

# Fiberglass Panel with differing depth holes drilled from bottom.

	 0.040"	 0.120"	 0.300"	 0.600"
 0.010"	 0.050"	 0.140"	 0.350"	 0.700"
 0.015"	 0.060"	 0.180"	 0.400"	 0.800"
 0.020"	 0.080"	 0.220"	 0.450"	 0.900"
 0.030"	 0.100"	 0.260"	 0.500"	

This scan demonstrates the sensitivity and range of the method. We can detect all of the various thicknesses represented in this sample in a single scan.





Defense and Aerospace Applications

**Advanced materials require advanced NDE methods.**

**Let Evisive, Inc. help you push your envelope.**

