

Thick Multiple Layers Aircraft Structure Crack Detection Using FG_RFEC Sliding Probes

Aircraft NDI challenges these days often involve detecting cracks that are deeply hidden under the thick and multiple layer aircraft structures. Conventional NDI technologies are now reaching their respective limitations in detecting these cracks effectively and reliability. Such limitations include the insufficient depth penetration into the lower layer cracks and the inability to inspect through the gap in between layers effectively for the hand held systems. The limitations also include the extreme high cost, portability and practicality for other high end permanently mounted systems.

IMTT's FG_RFEC Sliding Probes Can Also Used for Crack Detection in Thick Multilayer Aircraft Structure

**SURFACE ACCESS EXTERNAL INSPECTION
HIGH SENSITIVITY & RELIABILITY**



IMTT

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<http://www.imtt-usa.com>



RF4 V3.A

Footprint: 0.85" x 2.15"

CCD = 1.15"*

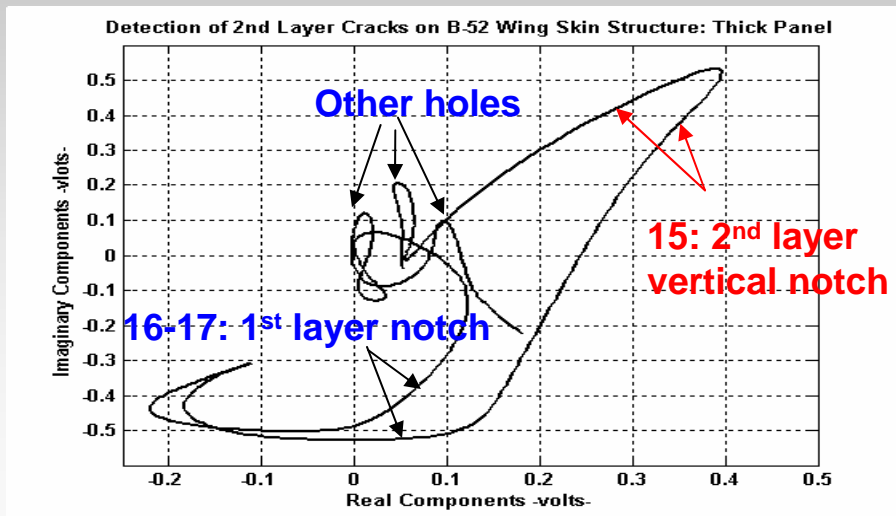
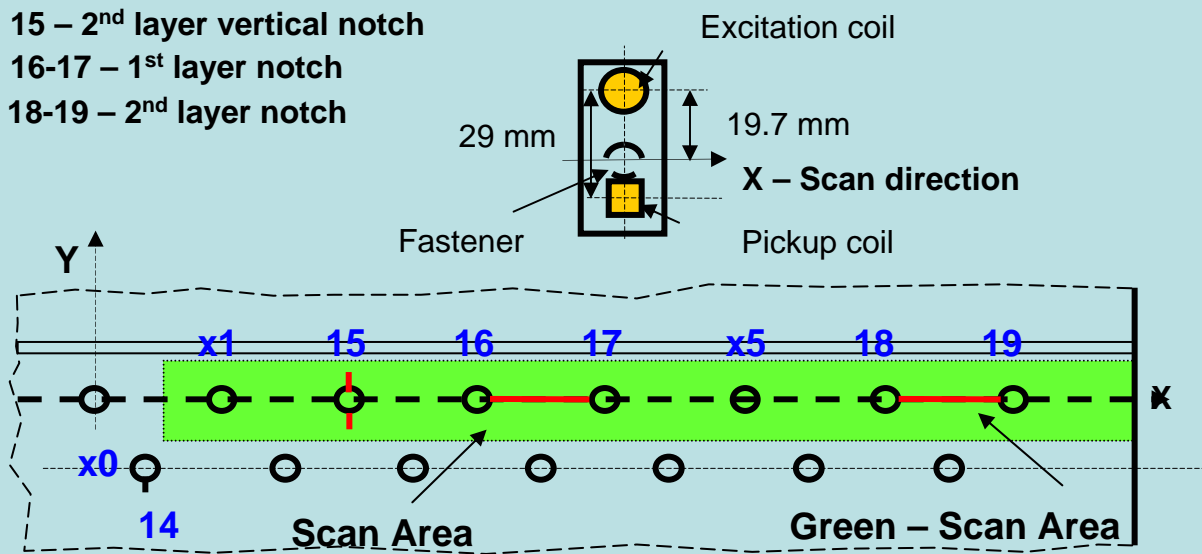
*CCD – Drive Coil Center to Pickup Coil Center Distance

Example – Detecting 2nd Layer Crack at Fastener #15 in 0.25" + 0.25" Thick B-52 Wing Spar Structure

15 – 2nd layer vertical notch

16-17 – 1st layer notch

18-19 – 2nd layer notch



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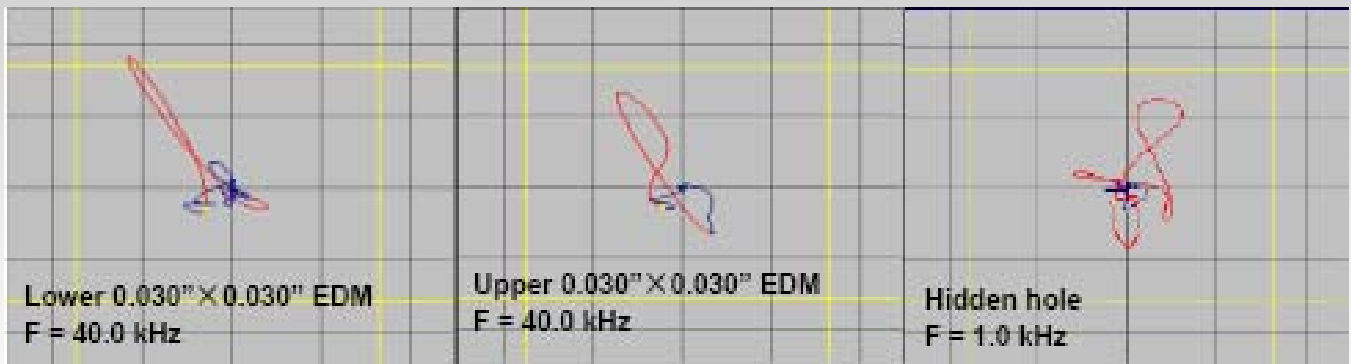
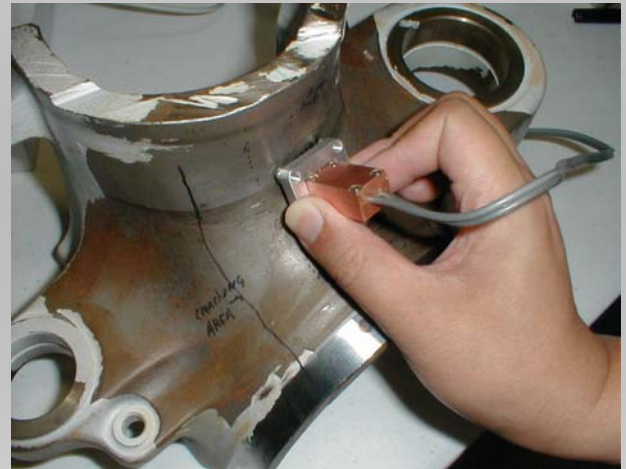
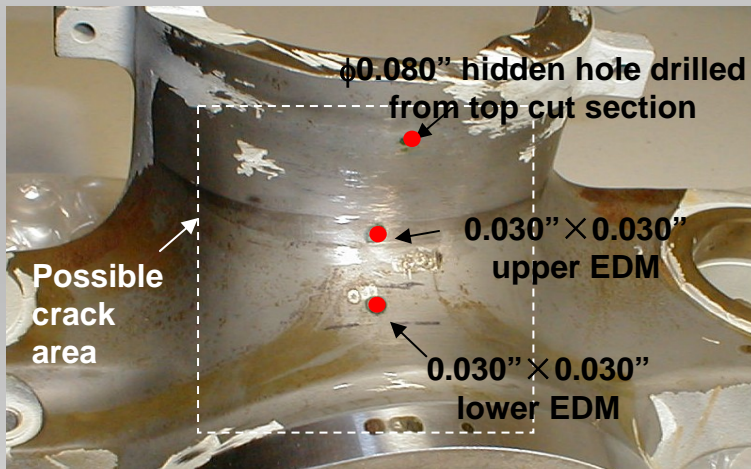
RF2 V3.A

Footprint: 0.30" x 0.62"

CCD = 0.30"*

***CCD – Drive Coil Center to Pickup Coil Center Distance**

Example – Detecting Surface Crack and Hidden Defect on Complex Landing Gear Structure of AIRBUS A320



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