Ultrasonic Phased Array Inspection of Composites

A 40 hour (1 week) course designed to teach the phased array concepts and inspection techniques needed for composite inspection in the aircraft and aerospace industries, both at the manufacturing stage and also at the in-service stage.

- The course will cover the basic concepts of composite manufacturing, including carbon fiber pre-preg, resin transfer and thermo-plastic composite manufacture in addition to glass reinforced plastic (grp) manufacturing techniques.
- Prime Manufacturer inspection specifications for phased array will be studied and practiced in the practical sessions.
- In-service inspection criteria will be studied including the inspection for impact damage and the subsequent repair and re-inspection of the repaired areas/scarf patches.
- Defect types will be covered including their cause, appearance and optimum inspection techniques for their detection, categorization and evaluation in accordance with manufacturing specifications and in-service inspection criteria.
- On completion, the student should have a good understanding of the composite manufacturing theory along with a detailed understanding of the inspection requirements using phased array techniques using linear array probes, wheel probes, radii probes, daisy arrays, soft wedges etc.
- A pre-requisite requirements for this course would be either; ultrasonic level 1 & 2 training or completion of the TEST NDT Introduction to Phased Array Course or Ultrasonic Phased Array level 1 Course.
- The course can be based on either the Olympus OmnScan MX, OmniScan MX2 or Olympus SX instruments, please specify when booking.



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