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Comparison between Pulse-Echo and Through-Transmission methods for Non-Destructive Evaluation of Aircraft Parts

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Abstract

This paper compares two different ultrasonic Non-Destructive Evaluation methods, namely, the pulse-echo method and through-transmission method, used in NDE of composite Aircraft components. Same probe positioning mechanism is used along with similar piezoelectric probes for conducting the experiments. Coupling between probe face and test material surface is achieved through water jet. The probe positioning mechanism is able to place the probes at any particular point of a given specimen with probes facing normal to the surface of the specimen. C-Scan Images of various standard test specimens were taken using both methods and compared.