

# NASA TECH BRIEF

## *Lewis Research Center*



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### Guidebook of Nondestructive Evaluation Techniques for Materials and Structures

Seventy nondestructive techniques for evaluating materials and structures are described in a single guidebook. A standardized format facilitates comparison of their merits and limitations for solving various problems.

The nondestructive techniques described in the guidebook permit measurement of physical properties, composition, and structures, and reveal or infer hidden flaws. Each technique is described on a single page under six headings: method, principles, objectives, applications, limitations, and references. Schematic diagrams complement the text. Techniques are classified in a modified form of the classification system adopted by the National Materials Advisory Board (NMAB) Ad Hoc Committee on Nondestructive Evaluation. Additional categories have been included to cover advanced techniques.

The guide includes an index of flaw types and a tabulated guide to the use of nondestructive evaluation techniques. Alternative technique names are cross-referenced.

#### Notes:

1. This guidebook has been published as the following report:  
NASA SP-3079 (N73-31441), Nondestructive Evaluation Technique Guide  
Copies may be obtained at cost from:  
Aerospace Research Applications Center  
Indiana University  
400 East Seventh Street  
Bloomington, Indiana 47401  
Telephone: 812-337-7833  
Reference: B74-10122
2. Specific technical questions may be directed to:  
Technology Utilization Officer  
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