PROCEEDINGS OF THE INTERDISCIPLINARY WORKSHOP FOR QUANTITATIVE FLAW DEFINITION

HELD AT:

SCIENCE CENTER, ROCKWELL INTERNATIONAL
THOUSAND OAKS, CALIFORNIA

JUNE 17–20, 1974

TECHNICAL REPORT AFML–TR–74–238
NOVEMBER 1974
REPORT FOR PERIOD 17 JUNE 1974 – 20 JUNE 1974

Approved for public release; distribution unlimited.

ADVANCED RESEARCH PROJECTS AGENCY
1400 WILSON BOULEVARD
ARLINGTON, VIRGINIA 22209

AIR FORCE MATERIALS LABORATORY
AIR FORCE SYSTEMS COMMAND
WRIGHT–PATTERSON AIR FORCE BASE, OHIO 45433
### Report Documentation Page

**Title:** Proceedings of the Interdisciplinary Workshop for Quantitative Flaw Definition

**Authors:** Donald O. Thompson, Program Manager

**Performing Organization:** Science Center, Rockwell International
1049 Camino Dos Rios
Thousand Oaks, California 91360

**Controlling Office:** Advanced Research Projects Agency
1400 Wilson Blvd.
Arlington, Virginia 22209

**Report Date:** November 1974

**Number of Pages:** 540

**Distribution Statement:** Approved for Public Release; Distribution Unlimited.

**Abstract:**
In this report the transcripts of the Workshop for Quantitative Flaw Definition held at the Science Center, Rockwell International, June 17-20, 1974, are presented. Besides an introductory session which emphasizes NDE needs and costs in various branches of the DOD, three sessions are devoted to three key problem areas which are examined in some detail. These problem areas include the quantitative evaluation of flaws, the nondestructive evaluation of composites and adhesively bonded materials, and the detection of residual stresses and...

### Key Words
- Nondestructive evaluation
- Nondestructive testing
- Quantitative ultrasonics
- Signal processing
- Adhesive bonds
- Composites
- Residual stress
- Acoustic emission
- Exo-electrons

---

**Security Classification:** Unclassified

---

**DD Form 1473 Edition of 1 Nov 65 is Obsolete**

---

**UNCLASSIFIED Security Classification of This Page (When Data Entered)**
other failure related properties. These sessions are composed of both tutorial presentations defining both the problems and the incomplete solutions presently available, and reports of research in progress in the related areas. Group discussions associated with these presentations are also given.