

Abstract Submitted
for the OSF08 Meeting of
The American Physical Society

Nondestructive materials characterization using sub-millimeter wave imaging IZAAK KEMP, DOUGLAS T. PETKIE, Wright State University
— A sub-millimeter continuous wave system can be used to image corrosion pitting and structural defects in common aircraft materials such as aluminum 2024. In order to avoid failure of components during operation, many aircraft parts are replaced earlier than necessary leading to higher costs that could be reduced if the degree of damage in the component material could be determined non-destructively. Sub-millimeter wave systems are ideally suited for this purpose because of their ability to penetrate through substances such as paint, oil, and epoxy commonly found on the surfaces of aircraft. We will discuss the system we are developing and several set of results.

Douglas Petkie
Wright State University

Date submitted: 12 Sep 2008

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