

ON TEST PROGRAMS OF AIRCRAFT STRUCTURES

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Abstracts

Key words: fatigue, random loading, pseudorandom process, program loading, statistical characteristics of random processes.

Approximate methods of fatigue life estimate and test programs development are discussed. The alternative approach implies that an actual loading process has been replaced by a pseudorandom process with the same statistical characteristics. Results of specimens' tests under pseudorandom and actual processes of loading are presented. The method of estimation of the crack initiation time under the regular random loading process is set out. Some rules of the pseudorandom process synthesis are mentioned and illustrated for the purposes of development of the structures test programs.