

Classification of Impact Damages with Respect of Damage Tolerance Design Approach and Airworthiness Requirements

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Abstract : This paper describes airworthiness requirements with respect damage tolerance. Damage tolerance determines the amount and magnitude of damage on parts of the airplane. Airworthiness requirements determine the amount of damage that can still be in flight capable of the condition. Component damage can be defined as barely visible impact damage, visible impact damage or clear visible impact damage. Damage is also distributed it according to the velocity. It is divided into low or high velocity impact damage. The severity of damage to the part of airplane divides the airworthiness requirements into several categories according to severity. Airworthiness requirements are determined by type airplane. All types of airplane do not have the same conditions for airworthiness requirements. This knowledge is important for designing and operating an airplane.

Keywords : airworthiness requirements, composite, damage tolerance, low and high velocity impact

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