



IMPROVING BIRDSTRIKE RESISTANCE OF AIRCRAFT WINDSHIELDS

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ABSTRACT

USAF aircraft repeatedly prove that birds and aircraft cannot occupy the same airspace at the same time; over 3000 birdstrikes per year cause millions of dollars in damage to USAF aircraft. During the past 20 years sixteen aircrew members have been killed and 23 aircraft have been destroyed due to bird impact. More of these losses are due to birdstrikes on the windshield subsystem than to any other subsystem. Windshield systems on several different aircraft are being redesigned to improve tolerance of the birdstrike event. These efforts to improve windshield system birdstrike resistance and other efforts to improve cost-of-ownership characteristics of these windshields will be discussed. Some technical voids in designing for, and integration of, birdstrike resistance will be discussed.

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1. Introduction

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