

Aerospace Medical Association



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The Aerospace Medical Association is concerned that the Department of the Air Force is considering elimination of its previously funded requirement to field the Joint Strike Fighter (JSF) equipped with the Automatic Ground Collision Avoidance System (Auto-GCAS). Auto-GCAS is part of the flight control computer which prevents the pilot from flying the aircraft into the ground.

Controlled flight into terrain (CFIT) has been a problem for aviation for decades. The USAF finally possesses promising technology to save lives and aircraft. The singular requirement for automatic recovery is demonstrated by the fact that most of our current military fighter-attack aircraft have up to six manual systems that are designed to warn the pilot of an impending collision, but, despite these investments, the loss rate due to the spatial disorientation induced CFIT remains unchanged over the last fifty years. Only automatic recovery will stop the losses of these highly dynamic air vehicles and their crews.

The flight history of the F-16 is a good example. Retrospective analysis reveals that inclusion of Auto-GCAS in the F-16 would have preserved 35% of the aircraft lost and prevented the loss of 89% of the pilots killed. Analysis reveals that no amount of additional training (of the type currently administered) or experience will have any beneficial effect on the preservation of lives and equipment.

It is essential that the JSF be produced with Auto-GCAS as was planned when its requirements were established and funded. Failure to continue as planned with this essential technology is estimated to result in the loss of about 150 lives and \$7.5 billion in airframes over the life of the airframe. Consequently, the Aerospace Medical Association urges the Legislative and Executive Branches of Government to require the Department of Defense to use Auto-GCAS in the JSF.

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