Commission recommendations International and U.S. Airline Safety Management Systems
Aviation safety systems historically have provided solutions for aviation accidents and in-flight safety issues. The book also provides application of these guidelines to a flight simulator study for the purposes of validation. Beyond this it also discusses the applicability of the approach to industry. Through working with a legacy airline the methods discussed are used as the basis for a new and prospective safety management system.

Improving the Airworthiness of Civil Aircraft - National Research Council - 1998-01-01

As part of the national effort to improve aviation safety, the Federal Aviation Administration (FAA) chartered the National Research Council to examine and recommend improvements in the aircraft certification process currently used by the FAA, manufacturers, and operators.

Improving the Airworthiness of Civil Aircraft - National Research Council - 1998-01-01

The book examines the current state of knowledge about adverse AC and processes that may be used to eliminate it from military and commercial aircraft. It was written for technical, government, and administrative decisionmakers and their technical and administrative support staff, key technical managers in the aircraft manufacturing and operating industries, stability and control engineers; aircraft flight control system designers; research specialists in flight control, flying qualities, human factors; and technically knowledgeable lay readers.

Aviation Safety and Pilot Control - National Research Council - 1997-03-28

Adverse pilot-aircraft collision (APC) events include a broad set of undesirable and sometimes hazardous phenomena that originate in anomalous interactions between pilots and aircraft. As civil and military aircraft technology advances, interactions between pilots and aircraft are becoming more complex. Recent accidents and other incidents have been attributed to adverse APC in military aircraft. In addition, APC has been implicated in some civilian incidents. This book evaluates the current state of knowledge about adverse APC and processes that may be used to eliminate it from military and commercial aircraft. It was written for technical, government, and administrative decisionmakers and their technical and administrative support staff, key technical managers in the aircraft manufacturing and operating industries, stability and control engineers; aircraft flight control system designers; research specialists in flight control, flying qualities, human factors; and technically knowledgeable lay readers.

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Investigating Human Error: Incidents, Accidents and Complex Systems - Barry Strauch - 2008-05-08

This volume presents a method to investigate the human performance issues associated with an accident or incident, with detailed discussion of the types of data to collect, and methods of collecting and analyzing data. The book should be of interest to accident/incident investigators, specialists in nuclear, chemical processing, aviation and other critical industries, safety experts, researchers and students in the field of human error, human factors, ergonomics and industrial engineering, and government agencies for regulation, health and safety.

Forensic Pathology Reviews - Elisabeth E. Turk - 2011-08-12

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Investigating Human Error - Barry Strauch - 2017-03-16

This book provides an overview of, and practical guidance on, the range of human factors (HF) methods that can be used for the purposes of accident analysis and investigation in complex sociotechnical systems. Human Factors Methods and Accident Analysis begins with an overview of different accident causation models and an introduction to the concepts of accident analysis and investigation. It then presents a comprehensive overview of the methods that can be used to collect and analyze data in order to collect appropriate data for accident analysis purposes. Following this, a range of HF-based accident analysis methods are described, as well as step-by-step guidance on how to apply them. To demonstrate how the different methods are applied, and what the outputs are, the book presents a series of case study applications along the way. It concludes by looking at the role of the human factors analysis specialist in the investigation process, along with future directions in the area. Human Factors Methods and Accident Analysis is the first book to offer a practical guide for investigators, practitioners and researchers. It will be of interest to accident/incident investigators, specialists in nuclear, chemical processing, aviation and other critical industries, safety experts, researchers and students in the field of human error, human factors, ergonomics and industrial engineering, and government agencies for regulation, health and safety.

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Error has been brought up to date throughout, with pertinent recent accidents and safety literature integrated. It features new material on fatigue, distraction (e.g., mobile phone and texting) and medication use. It also now explores the topics of corporate culture, safety culture and safety management systems. Additionally, the second edition considers the effects of the reduction in the number of major accidents on investigation quality, the consequences of social changes on transportation safety (such as drinking and driving, cell phone use, etc.), the contemporary role of accident investigation, and the effects of the prosecution of those involved in accidents.

Scientific and Technical Aerospace Reports - 1972

Research Anthology on Reliability and Safety in Aviation Systems, spacecraft, and Air Transport - Management Association, Information Resources - 2020-09-24

As with other transportation methods, safety issues in aircraft can result in a total loss of life. Recently, the air transport industry has come under immense scrutiny after several deaths occurred due to aircraft design and airlines that allowed improperly inspected aircraft to fly. Spacecraft too have found errors in system software that could lead to catastrophic failure. It is imperative that the aviation and aerospace industries continue to revise and refine safety protocols from the construction and design of aircraft, to secure and improve aviation systems, and to test and inspect aircraft. The Research Anthology on Reliability and Safety in Aviation Systems, spacecraft, and Air Transport is a vital reference source that examines the latest scholarly material on the use of adaptive and assistive technologies in aviation to establish clear guidelines for the design and implementation of such technologies to better serve the needs of both military and civilian pilots. It also covers new information technology use in aviation systems to streamline the cybersecurity, decision making, planning, and design processes within the aviation industry. Highlighting a range of topics such as air navigation systems, computer simulation, and airline operations, this multi-volume book is ideally designed for pilots, scientists, engineers, aviation operators, air traffic controllers, air crash investigators, teachers, academicians, researchers, and students.

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Department of Transportation and Related Agencies Appropriations for 1987: Department of Transportation - United States. Congress. House. Committee on Appropriations. Subcommittee on Dept. of Transportation and Related Agencies Appropriations - 1986

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Structural Analysis for the American Airlines Flight 587 Accident Investigation - National Aeronautics and Space Administration (NASA) - 2008-06-27

NAPA Langley Research Center (LaRC) supported the National Transportation Safety Board (NTSB) in the American Airlines Flight 587 accident investigation due to LaRC’s expertise in high-fidelity structural analysis and testing of composite structures and materials. A Global Analysis Team from LaRC reviewed the manufacturer’s design and certification procedures, developed finite element models and conducted structural analyses, and participated jointly with the NTSB and Airbus in subcomponent tests conducted at Airbus in Hamburg, Germany. The Global Analysis Team identified no significant or obvious deficiencies in the Airbus certification and design methods. Analysis results from the LaRC team indicated that the most-likely failure scenario was fatigue initiation at the right rear main attachment fitting (lug), followed by an unstable progression of failure of all fin-to-fuselage attachments and separation of the VTP from the aircraft. Additionally, analysis results indicated that failure initiates at the observed maximum fin loading condition in the accident, when the VTP was subjected to loads that were at minimum 1.92 times the design limit load condition for certification. For certification, the VTP is only required to support loads of 1.5 times design limit load without catastrophic failure. The maximum loading during the accident was shown to significantly exceed the certification requirement. Thus, the structure appeared to perform in a manner consistent with its design and certification, and failure is attributed to VTP loads greater than expected. Young, Richard D. and Lovsey, Andrew E. and Hilburger, Mark W. and Moore, David F. Langley Research Center

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