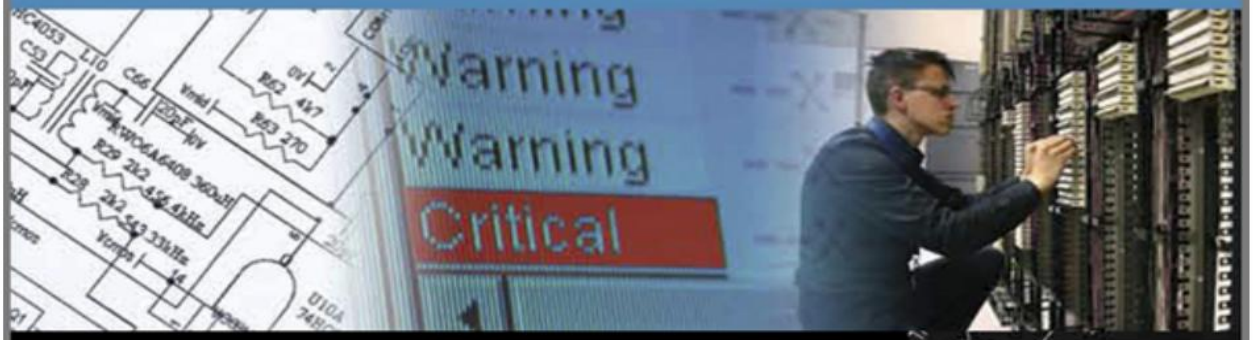
SYSTEM HEALTH MANAGEMENT

with Aerospace Applications

Editors

STEPHEN B. JOHNSON • THOMAS GORMLEY
SETH S. KESSLER • CHARLES MOTT • ANN PATTERSON-HINE
KARL REICHARD • PHILIP A. SCANDURA Jr.



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SYSTEM HEALTH MANAGEMENT

WITH AEROSPACE APPLICATIONS

Edited by

Stephen B. Johnson
NASA Marshall Space Flight Center
and University of Colorado at Colorado Springs, USA

Thomas J. Gormley
Gormley & Associates, USA

Seth S. Kessler
Metis Design Corporation, USA

Charles D. Mott
Complete Data Management, USA

Ann Patterson-Hine
NASA Ames Research Center, USA

Karl M. Reichard
Pennsylvania State University, USA

Philip A. Scandura, Jr.
Honeywell International, USA

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This book is dedicated to Joan Pallix, a pioneer in our field. Joan's ingenuity brought many of us together to develop early demonstrations of system health management technologies for the Space Shuttle Thermal Protection System, and her trailblazing approach provided a key foundation of the System Health Management process that we describe herein. Her dedication, originality, and technical expertise earned the respect of the System Health Management community.

About the Editors

Stephen B. Johnson has been active in the field of system health management since the mid-1980s. His experience includes the development of fault protection algorithms for deep-space probes, research into SHM processes within systems engineering, the development of SHM theory, the psychological, communicative, and social aspects of system failure, and the application of directed graph methods for assessment of testability, failure effect propagation timing, and diagnostic systems. He is the author of *The Secret of Apollo: Systems Management in American and European Space Programs* (2002) and *The United States Air Force and the Culture of Innovation 1945–1965* (2002), the general editor of *Space Exploration and Humanity: A Historical Encyclopedia* (2010), and has written many articles on SHM and space history. He has a BA in Physics from Whitman College and PhD in the History of Science and Technology from the University of Minnesota. He currently is an associate research professor at the University of Colorado at Colorado Springs, and a health management systems engineer at NASA Marshall Space Flight Center.

Thomas J. Gormley has been involved in the aerospace industry for 24 years and brings a systems engineering and implementation perspective to this SHM textbook. He was the Integrated Vehicle Health Management Project leader for Rockwell Space Systems during the early 1990s and was the developer of the Propulsion Checkout and Control System that was successfully demonstrated on the next generation reusable launch system testbed. Mr. Gormley transferred to Lockheed-Martin Telecommunication Systems where he focused his efforts on fault protection systems for commercial telecommunications. In 2000 he formed Gormley & Associates and has been a consultant for NASA

on several SHM projects. He is presently supporting NASA's Constellation Program Information Systems Office and is applying his systems engineering and health management expertise to NASA's Space Exploration Program. Mr. Gormley has published several technical papers on SHM and is a member of the American Institute of Aeronautics and Astronautics.

Seth S. Kessler is the president and CEO of the Metis Design Corporation, a small consulting firm that has specialized in structural health monitoring technologies for a decade. He has experience from managing more than three-dozen government-funded BAA, SBIR, and STTR contracts. His research interests have included distributed sensor network architectures, analytical modeling of guided waves, diagnostic algorithms for composite materials, and carbon nanotube (CNT) based multifunctional structures. In 1998 he received his SB in aerospace engineering at the Massachusetts Institute of Technology (MIT) studying the effects of a cryogenic environment on composite materials. In 1999, he received his SM from that same department, creating and experimentally validating a design tool to analyze composite structures subjected to extreme inertial loading. Dr. Kessler completed his PhD from MIT in 2002, researching structural health monitoring piezoelectric-based techniques for damage detection in composite structures. He also was a post-doc in that department, modeling durability effects in composite laminates as part of the DARPA-funded, Boeing-led Accelerated Insertion of Materials Program. Dr. Kessler was a Draper Fellow working on the DARPA seedling WASP Program, and at the Lockheed Martin Skunk Works was an advanced concepts engineer on the X33/VentureStar Program. In 1998, he received the Admiral Luis De Florez Award for Ingenuity and Creativity in Design, in 2001 was awarded the American Society for Composites PhD Research Scholarship, and was awarded Best Paper by

ASC in 2002 and the PHM Society in 2009. Dr. Kessler has more than three-dozen technical publications and holds 10 patents in his areas of expertise.

Charles D. Mott brings expertise in the social and economic aspects of large-scale technological projects. He has experience in business process improvement, systems analysis and design, financial system design and implementation, and organizational management. He has worked at Bank One, Patriot Management Corporation, Don Breazeale and Associates, Dow Chemical, and NASA. He has a bachelor's degree in management information systems from Michigan Technological University and a masters in space studies from the University of North Dakota. He is a member of the Prognostics and Health Management Society.

Ann Patterson-Hine, PE, has worked at NASA Ames Research Center since 1988. She is the branch chief for Discovery and Systems Health in the Intelligent Systems Division. She has been the project leader for advanced technology demonstrations under the Next Generation Launch Technology Program and many of the program's predecessors including the Reusable Launch Vehicle and Space Launch Initiative Programs. She participated on the Shuttle Independent Assessment Team and Wire Integrity Pilot Study at Ames. She was Principal Investigator for NASA's Exploration Technology Development Program's Integrated Systems Health Management project. Her research has focused on the use of engineering models for model-based reasoning in advanced monitoring and diagnostic systems. She received a BS degree in mechanical engineering from The University of Alabama and a doctorate in mechanical engineering from The University of Texas at Austin, and is a member of the American Institute of Aeronautics and Astronautics and a senior member of the IEEE.

Karl M. Reichard is the a research associate at the Pennsylvania State University Applied Research Laboratory and assistant professor of acoustics. He is the head of the Applied Research Laboratory's Embedded Hardware/Software Systems and Applications Department and teaches and advises graduate students in The Pennsylvania State University Graduate Program in Acoustics and the Department of Electrical Engineering. He has over 25 years of experience in the design and implementation of signal processing, control, and embedded diagnostics/prognostics systems. He has developed unattended remote sensing, active control, and health monitoring systems for land- and sea-based platforms. He earned BS, MS, and PhD degrees in electrical engineering from Virginia Tech.

Philip A. Scandura, Jr. has over 25 years of experience in the system definition and implementation of real-time embedded systems, for use in safety-critical and mission-critical applications. Mr. Scandura joined Honeywell in 1984 where he is currently employed as a staff scientist in its Advanced Technology Organization. During his tenure at Honeywell, he has specified, designed, and tested avionics systems for use in commercial, regional, business, and commuter aircraft, as well as human-rated space vehicles. He served as system architect, contributing to the development of several integrated modular avionics (IMA) and integrated vehicle health management (IVHM) systems, including those used on the Boeing 777 aircraft family. Mr. Scandura served for eight years as a certified FAA Designated Engineering Representative (DER), specializing in the certification of critical systems and equipment for aircraft. He is the author of Chapter 22, “Vehicle Health Management Systems,” in *The Avionics Handbook, Second Edition*, edited by Cary R. Spitzer (CRC Press, 2006), and has written many papers on vehicle health management