

BOOK REVIEW

We invite readers and publishers to send suggestions of books for review to the Book Review Editor: Geff McCarthy, M.D., geffandjulie@comcast.net.

Merlin PW, Bendrick GA, Holland DA. *Breaking the Mishap Chain*. Hardback; 227 pp. NASA SP-2011-594; ISBN 978-0-16-090414-1. Free from: http://www.nasa.gov/connect/ebooks/break_mishap_chain_detail.html

This book is part of the NASA Aeronautics series. Here, the authors describe the analyses and lessons learned from a number of mishaps during research and development flights of U.S. advanced aeronautics, military, and human spaceflight programs (including the Russian-U.S. Mir program). Conquest of the high frontier is risky business, as President John F. Kennedy stated in his famous speech in 1962, "Surely the opening vistas of space promise high costs and hardships, as well as high reward." One of the expressed purposes of this book is to learn from these mishaps and disasters in order to identify and eliminate the causes. If you have ever dreamed of strapping into a test pilot's experimental cockpit to experience some of the challenging aspects of that world, here is your chance, well, at least from the safe perspective of a book. The authors provide the reader a thoroughly detailed account of several well-known, advanced aircraft and spacecraft incidents, organized along the human factors categories of: design, physiological, and organizational factors. The events are organized chronologically within these categories in each analyzed incident. Although there is a great deal of information presented to the reader, the book is not so technical as to overwhelm, and uses understandable prose, with terminologies explained adequately for readers of many disciplines.

I believe the reader will not require aeronautical, engineering, or physics degrees to understand and enjoy this book. Unquestionably, volumes of intense research have poured into the content of this final distilled product. Fortunately, there are well planned breaks from the intensity with biographical interludes and some excellent illustrations. Just remember to keep that restraint harness cinched down until you complete the ride.

On a more serious note, the authors have accorded a sense of revered respect appropriately due to these test pilot heroes of modern aviation. One cannot help but pause periodically to give thanks for all the sacrifices made by the very special individuals detailed in this writing.

The precise causes cannot be completely known from the available objective evidence for some of these mishaps. The conclusions of the authors are best effort interpretations. I found the conclusions presented to be logical; however, not everyone may completely agree. The authors paint detailed pictures; readers have ample opportunity to draw their own conclusions. It is the mark of a good book to promote lively discussions and I hope to be around the table to enjoy some of these future intellectual exchanges.

This is a good book for all students of Human Factors, pilots, aeronautical engineers, flight surgeons, residents, medical students, as a reference, and even just for entertaining reading. I highly and unequivocally recommend this excellent book.

Reviewed by
K. JEFFREY MYERS, M.D.

DOI: 10.3357/ASEM.3491.2013