



BOOK REVIEW - Automation Airmanship: Nine Principles for Operating Glass Cockpit Aircraft



By: Richard Keltner

Safety Specialist, Global Aerospace, Inc.

*By Christopher J. Lutat and S. Ryan Swah
McGraw Hill Education; 253 pages; ISBN 978-0-07-181586-4*

Appropriate for: Directors of Flight Operations, Senior Pilots, Check Airmen, Line Pilots, Private pilots operating advanced avionics, students.

If you are reading this book review it is probable that you are or intend to be a 21st century aviation professional. This is an exciting and dangerous time. It is reminiscent of the decade when Boeing and Lear and their worthy competitors propelled us into the general aviation jet age.

Between 1955 and 1965 senior and junior line pilots who had skills customized for props and pistons found themselves in cockpits with new and unusual gages. The fuel in the wings smelled strange. Climb rates, cruise speeds, approach and STALL SPEEDS defied previously learned norms. And our industry experienced a lot of bent metal and fatalities.

Eventually, over the course of 40 years, training and experience and continuous improvements in technology drove down the accident rates to points almost infinitesimal. You are living in a similar transition era: the era of rapid introduction of flight deck automation and computerized systems management.

The people who purchase new expensive aircraft with state of the art automation probably assume they will experience an immediate, seamless improvement in flight department safety, performance, flexibility and economics. That is, after all, what the aircraft sales teams promise.

In the preface of *Automation Airmanship*, the authors reference a quote attributed to Pierre



SM4 Safety

Planning • Prevention • Response • Recovery

Sparracco (properly credited in the footnotes):

(As technology expands to change almost everything in aviation) "...there is too little emphasis on the concept of airmanship compared to the focus on improving profit margins gained from efficiencies and cost cutting."

When organizations transition from legacy "steam gauge" aircraft to newer technologically advanced models they often experience a significant increase in accident and incident risk during the sometimes lengthy transition. The authors identify a core challenge.

"...how to impart the successful practices of experienced glass cockpit crewmembers from across the industry on an operation with little experience in operating fully integrated glass cockpit aircraft, without requiring years of service gaining experience, and without the attendant lessons of accidents and incidents..."

Lutat and Swah believe there exists a "special kind of airmanship" evidenced by a select, identifiable class of experienced and expert pilots of advanced aircraft. The authors spent years observing these experts and over the course of their research identified central skills, techniques, and tricks of the trade that top performers use in seemingly effortless ways. The list of learnable skills (redefined into nine "principles") creates the core of this book.

The authors propose that those who read *Automation Airmanship* closely and implement the principles (and attendant tools, checklists and habit patterns) into their professional approach to their jobs will accelerate their arc to expert performance.

The book is arranged logically in general textbook fashion and there is a comfortable building block approach to the presentation. Careful reading is required. Keep your highlighter handy. There will be times when you slap your forehead and say, "Of course. Why didn't I think of that?" And there are procedures you can implement to improve your risk profile dramatically - overnight.

As you progress you may, at times, wish for a "Quick" version. Lutat and Swah built one. The Appendix provides an excellent review and reference.

Automation Airmanship is an important book. It is destined to become a primary text and tool box. College courses will be built around it. Do yourself a favor. Read it. Use it. Be a Level Three Professional.



SM4 Safety

Planning • Prevention • Response • Recovery

GLOBAL AEROSPACE



Global Aerospace, Inc.

As the world's leading specialist aerospace insurer, Global Aerospace has been servicing the needs of the aviation industry for over 85 years.

<http://global-aero.com/us/>