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Geff McCarthy, M.D., geffandjulie@comcast.net

# Book Review

**Koglbauer IV, Biede-Straussberger S, editors. *Aerospace psychology and human factors: applied methods and techniques.*** Newburyport (MA): Hofgrefe Publishing Corp; 2025.

From the European Association for Aviation Psychology, *Aerospace Psychology and Human Factors: Applied Methods and Techniques* is a compendium of contemporary research methods in human performance, organized into 14 short chapters on topics familiar and arcane: "Integrating Human Factors into the Design Process," "The Five Pillars of Assistance Systems," "Hazards of Human Space Exploration," etc. The last 7 chapters intensely illustrate progress in virtual reality research and effectiveness in pilot training. Numerous references from a plethora of journals follow each chapter, with a small minority from *Aerospace Medicine and Human Performance* and the *International Journal of Aerospace Psychology.*

Although written by Europeans, the English usage is accurate, especially when describing theoretical concepts; however, its long British sentences may not appeal to American readers. Curiously, the last pages comprise very positive reviews from other human factors researchers! Several design and process block-and-flow diagrams are very useful.

Conversely, some theoretical chapters lack examples, and others recite experimental results with no indication that a global literature search is the source. The chapter entitled "CIMON: The First Artificial Crew Assistant in Space" is both illuminating and charming.

Another chapter on meta-analysis methods will be familiar to physician researchers, perhaps not to engineers, and therefore worthwhile. The chapter on situational awareness will also be familiar to tactical pilots, and perhaps less so to novice airline crews. Spaceflight hazards might be seen as a brief review of space medicine.

The implicit subject of the authors is airline operations and business flying. Rarely mentioned is use of these methods in tactical aircraft. Thus, the chapter on cockpit design does not consider sound and vibration as feedback performance cues for the aviator. Similarly, the extensive discussion of cybersickness minimization in virtual reality does not address adaptation techniques, and the test sessions are surprisingly short at 20 min of simulation.

A brief search for similar human factors texts produced only Proctor and Van Zandt's *Human Factors in Simple and Complex Systems*, Wickens and Hollands' *Engineering Psychology and Human Performance,* and Keebler et al.'s *Human Factors in Aviation and Aerospace*, which are broader and more basic in content.

*Aerospace Psychology and Human Factors: Applied Methods and Techniques* is current and looks to the future, a worthwhile investment for *Aerospace Medicine and Human Performance* readers. Highly recommended.

**Reviewed by**
Geoffrey W. McCarthy


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