

Handbook of Pilot Selection

By David R. hunter and Eugene F. Burke

By Floris Boesveldt

This book is intended to acquaint the reader with the significance of pilot selection in terms of money, safety, and volume of training underway. It presents the history of aircraft pilot selection and the scientific methodology underlying the development of effective and valid selection procedures.

After an introduction to settle on some definitions and philosophy, chapter 2 discusses some preliminary planning issues that must be considered before undertaking the development of a pilot selection system. As the authors put it: *No air carrier manager would ever consider simply going out and buying a new aircraft or a fleet of aircraft, without carefully considering the purposes to which the aircraft will be put. By the same token, one does not simply go out and buy or build a new selection system without first carefully considering the purpose to which the system will be put.* Also the impact of a country's culture on selection and the multiple purposes of selection in general are discussed.

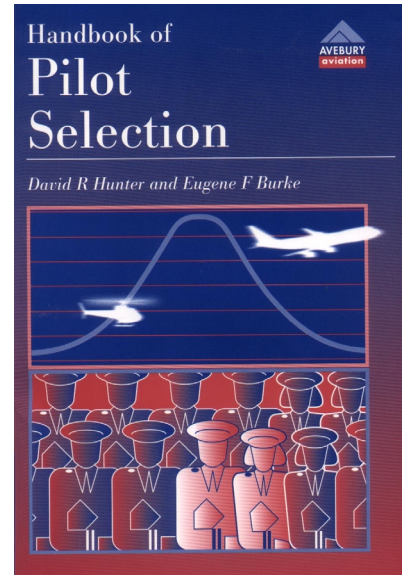
Chapter 3 is called *deciding what to measure* and as it states, examines the methods used in deciding what should be measured by the selection system. I find that it gives a good overview of the relationships between different job analysis perspectives as well as some reviews of different methods. The next chapter gives a range of selection instruments that could be employed in pilot selection. How to measure abilities and attributes identified as critical to job performance of the pilot is talked over in general in chapter 4. Selection methodology has come a long way since the Wright brothers tossed a coin to decide which one of them would first pilot the Wright Flyer. Measurement using computer-based testing, the much maligned interview,

biodata, and personality are among the measurement techniques discussed. Chapter 5 shows how to assess the effectiveness of the selection system. The purpose of the authors has been to establish principles rather than go into detailed descriptions of statistical formulae or research strategy. In a clear way, but only on selective areas, the selection system is being evaluated in this chapter.

A very impressive description of the history of Pilot selection research is given in chapter 6. Historically military researches from WW2 on have been heavily involved in pilot selection research. The demands for pilots in WW2 led to the establishment of exclusive research programs and some of them are still used in the present day. Besides the military research programs, civilian research (only of European and Australian air carriers) programs are also discussed. However, only a few publications were available to both authors. Publications about US carriers are especially rare, because of regulation issues and legal considerations. Besides the history, a numerous measures for the selection of pilots mostly ab initio are evaluated

Chapter 7, called *putting it all together*, deepens the evaluation of the numerous measures for the selection of ab initio pilots given in the last chapter. The authors statistically evaluate, with a technique called meta-analysis, the research data to produce valid predictions of performance.

In the last chapter, *future directions*, the authors address their views on the future development of pilot selection. As changes occur in the physical systems in which pilots operate- the demands placed upon the pilots may well be expected to change. The authors list a few of the changing aspects of the pilot's job like increased automation,



the glass cockpit and different cultures of (new) operators. Also the changes in physical, environmental and social systems must be carefully monitored for possible impacts on pilot selection systems.

Concluding remarks

In eight chapters both authors give a good overview of the history of pilot selection and present an excellent scientifically based description of selection procedures. The book has an impressive bibliography and in last part of the book an appendix with a hypothetical example is given how to set up a pilot selection system for a hypothetical airline, Zeebree Airways. I particularly enjoyed reading this appendix for only limited research/ data is available about pilot selection with commercial carriers.

The authors consider only how to select applicants from outside the organisation who apply for employment as pilots. There is nothing discussed in the book that describes the selection process for pilots who are already, inside the organisation and who are selected to become instructors or even are selected to become managers. I would have enjoyed some discussion about that. But without this discussion, the book remains a very interesting and impressive work.

About the reviewer

Floris Boesveldt is an associate with an international consultancy firm for the aviation industry. He has worked on several international engagements, focusing on strategic, tactical and security issues for aviation related companies. He is a former treasurer and external affairs board member of Aerius.