

CONTENTS

FOREWORD/INTRODUCTION

GUIDE TO THE GUIDE

CHAPTER 1

Human Factors Describes the field of Human Factors and Ergonomics and defines important terminology and concepts

CHAPTER 2

Establishing a Human

Factors/Ergonomics Program Describes what an ergonomics program is and why aviation organizations should establish a program

CHAPTER 3

Workplace Safety Describes the major hazards associated with industrial workplaces and the steps maintenance supervisors and planners can take to mitigate the hazards

CHAPTER 4

Shiftwork & Scheduling Describes the major research findings related to various shift scheduling practices

CHAPTER 5

Facility Design Describes the major Human Factors concepts related to facility design, with emphasis on elements found in the aviation maintenance environment such as movable scaffolding

CHAPTER 6

Work Design Describes the most prominent Human Factors concepts related to designing both the workplace and the job to incorporate human capabilities and limitations

CHAPTER 7

Training Describes the overall training requirements in the aviation maintenance environment and the training methods that are appropriate for teaching various types of knowledge and skills

CHAPTER 8

Testing & Troubleshooting Describes the concepts and techniques related to testing and troubleshooting, such as fixation, tunnel vision, and uncertainty

CHAPTER 9

Automation Describes the major concepts related to automation and how to decide which workplace functions are most amenable to automation. Discusses some of the myths and potential pitfalls of automation

CHAPTER 10

Disabilities Describes the requirements of the [ADA](#) and provides a Human Factors perspective on adjusting to the capabilities and limitations of disabled individuals

CHAPTER 11

Sexual Harassment Describes the underlying social and legal concepts related to sexual harassment. Describes the latest court decisions and regulatory requirements regarding this topic

CHAPTER 12

Personal & Job Related Factors Describes the most common personal and job-related factors that adversely affect workers' job performance, such as substance abuse, job-related stress, financial problems, and family problems. Discusses the use and misuse of Employee Assistance Programs

CHAPTER 13

Communication Describes the process and elements of communication. Provides guidelines for evaluating effective communicators and for establishing effective communication in the workplace.

CHAPTER 14

Human Error Defines human error as it relates to the aviation maintenance domain. Provides methods for identifying errors and error-causing circumstances, minimizing the risk of error, and dealing with the consequences of errors.

CHAPTER 15

Information Transfer Describes the various types of information transfer that occur in the aviation maintenance workplace. Provides guidelines for evaluating the human- machine interfaces that allow information to be transferred among various elements of the maintenance system.

CHAPTER 16

Maintenance Resource Management Defines MRM, describes current practices, and provides approach to designing and developing an MRM training program.