

1. Record Nr.	UNINA9910781420803321
Titolo	Spatial disorientation in aviation [[electronic resource] /] / edited by Fred H. Previc, William R. Ecoline
Pubbl/distr/stampa	Reston, Va., : American Institute of Aeronautics and Astronautics, Inc., c2004
ISBN	1-60086-670-0 1-60086-451-1
Descrizione fisica	1 online resource (580 p.)
Collana	Progress in astronautics and aeronautics ; ; v. 203
Altri autori (Persone)	PrevicFred H EcolineWilliam R
Disciplina	629.1 s 612/.0144
Soggetti	Space perception Orientation Flight - Physiological aspects
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	""Cover""; ""Title""; ""Copyright""; ""Foreword""; ""Table of Contents""; ""Preface""; ""Chapter 1. Spatial Disorientation in Aviation: Historical Background, Concepts, and Terminology""; ""I. Definition""; ""II. Historical Background""; ""III. Types of SD""; ""IV. Aircraft Motions in Flight""; ""V. Summary""; ""References""; ""Chapter 2. Nonvisual Spatial Orientation Mechanisms""; ""I. Introduction""; ""II. Overview of Spatial Orientation Mechanisms in Flight""; ""III. Vestibular Input to Orientation""; ""IV. Vestibular Contribution to Gaze Stability"" ""V. Interactions Between the Semicircular Canals and Otoliths"" ""VI. Visual-Vestibular Interaction""; ""VII. Vestibular Influence on Cardiovascular Control""; ""VIII. Vestibular Habituation""; ""IX. Alignment with the Gravitational Vertical""; ""X. Vestibulospinal vs Corticospinal Motor Mechanisms""; ""XI. Somatosensory Input to Orientation""; ""XII. Auditory Input to Orientation""; ""XIII. Cortical Input to Spatial Orientation""; ""XIV. Summary""; ""References""; ""Chapter 3. Visual Orientation Mechanisms""; ""I. Introduction""; ""II. Nature of Three-Dimensional Space""

""III. Function of Ambient Vision""""IV. Ambient Visual Mechanisms"";  
""V. Neurophysiology of Ambient Vision""; ""VI. Summary"";  
""References""; ""Chapter 4. Psychological Factors""; ""I. Personality and  
Other Traits""; ""II. Mental and Physical State""; ""III. Experience""; ""IV.  
Task""; ""V. Environment""; ""VI. SD Phenomena Related to Psychological  
Factors""; ""VII. Summary""; ""References""; ""Chapter 5. Spatial  
Disorientation Mishap Classification, Data, and Investigation""; ""I.  
Introduction""; ""II. Human Factors Modeling""; ""III. Spatial  
Disorientation Mishap Classification Issues""  
""IV. Mishap Statistics""""V. Investigation Concerns and Techniques"";  
""VI. Summary""; ""References""; ""Chapter 6. Nonvisual Illusions in  
Flight""; ""I. Introduction""; ""II. Illusions Primarily Involving the  
Semicircular Canals""; ""III. Illusions Primarily Involving the Otoliths"";  
""IV. Illusions Involving Semicircular Canals and Otoliths""; ""V. Visual  
and Audio Correlates of Somatic Illusions""; ""VI. Illusions Contributed  
by the Somatosensory System""; ""VII. Incapacitating Illusions""; ""VIII.  
Inner-Ear Problems Contributing to SD""; ""IX. Summary""  
""Appendix A: Assortment of Practical Recommendations for Flight  
Surgeons""""References""; ""Chapter 7. Visual Illusions in Flight""; ""I.  
Introduction""; ""II. Specific Visual Illusions of Flight""; ""III. Optical-  
Device Distortions and Illusions""; ""IV. Summary""; ""References"";  
""Chapter 8. Spatial Disorientation Instruction, Demonstration, and  
Training""; ""I. Introduction""; ""II. Didactic Instruction""; ""III. Ground-  
Based Devices""; ""IV. In-Flight Demonstration and Training""; ""V.  
Efficacy of Demonstration and Training""; ""VI. Improvements in SD  
Education""; ""VII. Summary""  
""Appendix A: Didactic Syllabus of the SD Mechanisms""

---