

Contents

1 Territorial Sovereignty and Flight Information	1
1.1 State Sovereignty Defined	1
1.2 Civil and Military Aviation	6
1.3 Flight Information Regions	9
1.4 The Air Defence Identification Zone	11
1.4.1 Justification for ADIZ	13
1.4.2 Comment on ADIZ	16
References	18
2 The Provision of Air Traffic Services	19
2.1 The CNS/ATM System	19
2.2 Principles of State Liability for Acts of Autonomous Air Traffic Services Providers	21
2.3 The Provision of Air Navigation Services	22
2.4 Meteorological Information	26
2.5 Air Traffic Services	28
2.6 Liability of States	29
2.6.1 Liability Under Administrative Law	30
2.6.2 Liability Under Public International Law	37
2.7 The Air Traffic Service Provider's Liability	43
2.8 Satellite Imagery	53
2.9 Space Law Applications	55
2.10 Outer Space Treaty Law	56
References	66
3 Rules of the Air	69
3.1 Negligence of the Airline Pilot	73
3.2 Applicable Laws and Consequences	74
3.3 Negligence	76

3.4 Cases on Negligence	78
3.5 Substance Abuse and Crew Communication	81
References	87
4 Search and Rescue Operations	89
4.1 Humanitarian Issues	99
4.2 Operation of Aircraft	102
References	104
5 Aircraft Accident and Incident Investigation	105
5.1 Criminalization of the Accident Process	108
References	111
6 Air Crew Licencing	113
6.1 Language Proficiency	115
6.2 Regulatory Developments	117
6.3 Legal Issues	122
6.4 Privileges and Misuse	125
6.5 Fatigue Risk Management Systems	127
6.6 Proposed Amendments to Fatigue Management Standards	130
6.7 Intent of Proposed Amendments	131
6.8 Appendix 8 to Annex 6	132
6.9 The Medical Perspective	133
6.10 Aircrew Integrity	134
6.11 Liability Issues	138
6.12 Article 33	143
References	144
7 Aerodromes	145
7.1 Airport Planning	145
7.2 Airport Responsibility	147
7.3 Elements of Corporate Foresight Planning	152
7.4 Link with Air Transport	154
7.5 Corporate Foresight	155
7.6 Global Runway Safety	160
7.7 Runway Incursions	162
7.8 Runway Excursions	163
7.9 Foreign Object Debris	165
7.10 Bird Strikes	166
7.11 A Look at the Future	168
References	172

8 Carriage of Dangerous Goods by Air	175
8.1 Radioactive Materials	176
8.2 Dangerous Pathogens	180
8.3 Bioterrorism	182
8.4 Legal and Regulatory Issues	184
8.5 ICAO Regulations	187
8.6 IATA Regulations	191
8.7 Some Other Regulations	193
References	194
9 Aviation and Environmental Protection	195
9.1 Aircraft Noise	196
9.2 Aircraft Engine Emissions	197
9.3 Other Regulatory Measures	199
References	209
10 Aeronautical Charts	211
10.1 Liability Issues	214
10.2 NOTAMs and Other Aeronautical Information	217
11 NextGen and SESAR	221
11.1 NextGen	221
11.2 SESAR	225
12 ICAO and the Exploration and Use of Outer Space	229
12.1 The Aerospace Plane and Sub Orbital Flights	229
13 Vulnerabilities of the Air Transportation System to Loss or Degradation of the GPS Signal	235
13.1 Liability of the Signal Provider	242
13.2 Liability of the State Providing Air Navigation Services Through GPS Signals Obtained from Outer Space	246
References	251
14 Conclusion	253
References	259
Index	261