Sovereignty and Jurisdiction in the Airspace and Outer Space
Legal Criteria for Spatial Delimitation

Gbenga Oduntan
# Contents

Acknowledgements xv
List of abbreviations xvii
Table of cases xxi
Table of treaties, conventions and statutes xxv
Preface xxxiii

## Introduction 1

1 Preliminary considerations: sovereignty, jurisdiction and control in international law 11

1.1 Territory and territorial acquisition in international law and relations 11
1.2 Delimitation and demarcation of international territories 19
1.3 The principle of territorial sovereignty 20
  1.3.1 Sovereignty and property rights 26
  1.3.2 Spatial dynamics of sovereign equality 29
1.4 The principles of territorial jurisdiction and territorial integrity 30
  1.4.1 Quasi-territorial jurisdiction 36
  1.4.2 Personal jurisdiction 37
1.5 Criminal jurisdiction of states 39
  1.5.1 The territorial principle 42
  1.5.2 The nationality principle 44
  1.5.3 The protective (or security) principle 45
  1.5.4 The passive personality or passive nationality principle 48
  1.5.5 The universality principle 48
1.6 Jurisdiction and jurisdiction 51
1.7 Control as a determinant of rights and liabilities 52
1.8 Summary and conclusions 54
2 The legal status of the airspace 57
   2.1 Nature and character of rights over airspace 57
   2.2 Development of the concept of sovereignty over airspace 58
   2.3 Nationality principle and control over aircraft in flight 66
      2.3.1 Nationality principle and the question of what an aircraft is 71
      2.3.2 Nationality of aircraft and the question of “genuine link” 75
   2.4 Obligations with respect to state aircraft, civil aircraft and piloted/pilotless aircraft 80
   2.5 Summary and conclusions 82

3 Jurisdiction over crimes in the airspace and on board aircraft 85
   3.1 Development and patterns of national responses to crimes in airspace 85
   3.2 Hierarchy of sources of jurisdiction over crimes committed in flight 91
   3.3 Jurisdiction over common crimes and unruly passengers 93
   3.4 Control over unlawful interference with civil aviation 102
   3.5 The regime of multilateral treaties 114
   3.6 The regime of bilateral treaties and other regional arrangements 121
   3.7 The problem of state-sponsored crimes against the safety of aircraft 122
   3.8 Summary and conclusions 128

4 Jurisdiction and control in the airspace over international spaces 132
   4.1 International straits 133
   4.2 Contiguous zone 134
   4.3 The exclusive economic zone
      4.3.1 Military activities over the EEZ 138
   4.4 The continental shelf 141
   4.5 The high seas 143
   4.6 Airspace over Antarctic territories 145
   4.7 Airspace over polar territories 146
   4.8 Summary and conclusions 146

5 Sovereignty and trespass in territorial airspace 148
   5.1 Involuntary entry of aircraft 151
   5.2 Deliberate intrusion by state aircraft 152
   5.3 Aerial intrusion by civil airliners
      5.3.1 Trespass by foreign-based dissident, terrorist and activist groups 162
   5.4 The controversial practice of no-fly zones and trespass over national territory 166
   5.5 Summary and conclusions 171
# Contents

## 6 Jurisdiction and control in outer space

6.1 Exploitation and use of outer space: achievements and prospects | 175
6.2 Jurisdiction and control in outer space: relevance of property and possession to the higher grounds | 177
6.3 Summary and conclusions | 188

## 7 Legality of the common heritage of mankind principle in space law

7.1 Outer space – *res nullius* or *res extra commercium*? | 195
7.2 The scope of application of the CHM principle in space law | 197
7.3 The CHM principle and the arguments for and against property rights in space | 199
7.4 Summary and conclusions | 205

## 8 Jurisprudential basis for common ownership

8.1 Jurisprudential basis for common ownership, possession and control over outer space | 207
  8.1.1 The significance of morality | 215
8.2 Summary and conclusions | 217

## 9 Jurisdiction and control *rationae instrumenti* and *rationae personnae* in outer space

9.1 Jurisdiction and control over national and international space stations | 220
9.2 Nature of jurisdiction over space stations | 222
9.3 Nationality and registration over space stations | 225
9.4 Civil jurisdiction over space stations | 229
9.5 Civil jurisdiction and intellectual property in the operation of space stations | 232
9.6 Criminal jurisdiction over space stations | 239
9.7 Jurisdiction and control *rationae personnae* in outer space | 245
  9.7.1 Terminological confusion | 245
  9.7.2 Cases of unsettled jurisdiction | 247
  9.7.3 Liability over aerospace objects | 250
  9.7.4 The legal status of astronauts | 253
  9.7.5 Civil and criminal jurisdiction over envoys of mankind | 257
  9.7.6 Jurisdiction and control over mixed nationality crews | 259
  9.7.7 Socio-scientific considerations in the exercise of criminal jurisdiction in spatial territories | 261
9.8 Summary and conclusions | 264
10 Contemporary trends and threats to the regime of outer space law 266
10.1 Illegality of the militarisation of space 266
10.2 Jurisdiction and control over remote sensing operations: questions surrounding clandestine remote sensing from outer space 269
10.3 Liberal commercialism and entrepreneurship as driving force of international space tourism 273
10.4 Summary and conclusions 280

11 The never ending dispute: legal theories on the spatial demarcation boundary plane between airspace and outer space 282
11.1 The no-present-need theory 285
11.2 The present need school 290
11.3 The criteria of space activities or the functional approach 293
11.4 The aerodynamic lift theory 297
11.5 The Bogota Declaration view 301
11.6 The *usque ad infinitum* theory 305
11.7 The national security and effective control theory 306
11.8 The lowest point of orbital flight theory 306
11.9 Theories of arbitrary distances 309
11.10 Developing a conclusive theory on a legal spatial demarcation boundary plane between airspace and outer space 310

12 General conclusion 314

Appendices 322

Appendix I: Table AI.1 Chronology of notable military and diplomatic responses to aerial intrusions 1946–1999; Table AI.2 Chronology of allegations of Cuban airspace violations by aircraft of US nationality 1992–1996 322

Appendix II: Sample of letters of protest and denial between Cyprus and Turkey – (a) Letter dated 5 December 2010 from the Permanent Representative of Cyprus to the United Nations addressed to the Secretary-General; (b) Letter dated 10 January 2011 from the Permanent Representative of Turkey to the United Nations addressed to the Secretary-General 342

Appendix III: Sample of letters of protest by Iraq against the USA, Britain and France. Letter dated 11 February 2002 from the Chargé d'affaires a.i. of the Permanent Mission of Iraq to the United Nations addressed to the President of the Security Council 350
Appendix IV: Diagrammatic representation of sovereignty and jurisdiction over maritime, air and outer spaces 358

Appendix V: States and their position of choice in response to the spatial demarcation boundary plane question 360

Index 362