

TABLE OF CONTENTS

Preface	v
Introduction	xiii
1. China's Space Programmes	1
1.1. A Brief Historical Review of China's Space Programmes	1
1.2. China's Major Space Programmes and Its Achievements	3
1.2.1. Satellite Capabilities	3
1.2.2. Launch Capabilities	4
1.2.3. The Manned Space Programme	7
1.2.4. Lunar and Deep Space Exploration	10
1.3. China's Space Actors	14
1.3.1. The Governmental Institutions	14
1.3.2. Military Sectors	17
1.3.3. Space Programme Organs	19
1.3.4. Two Major State-Owned Space Companies: CASTC and CASIC	21
1.3.5. The Science and Education Community	24
1.3.6. The Emergence of New Space Actors	27
1.4. The Comparative and Future Perspective of China's Space Programmes	29
2. China's Space Policy	33
2.1. The Space Policy Documents and Diplomatic Statements	33
2.1.1. Comprehensive Development Plans and Policy Papers	33
2.1.2. The White Papers on Space Activities	35
2.1.3. Other Policy Documents of Implementing Nature	36
2.1.4. Relevant Diplomatic Policy Documents and Positions	37
2.2. The Fundamental Constituent Elements of National Strategy for Space Programme	39
2.2.1. The Development of Space Capabilities Conforms to China's Vital Interests	39
2.2.2. China Adheres to the International Legal Framework for Space Activities	41
2.2.3. Civil and Military Integration	44
2.2.4. An Emphasis on the Effects and Influence of Space Science and Technology	47
2.3. The Basic Principles for the Development of Space Activities	48

TABLE OF CONTENTS

2.3.1.	Space Industry as an Indispensable Part of National Development	49
2.3.2.	Self-Reliant and Innovative Development	50
2.3.3.	Peaceful Development	52
2.3.4.	Coordinated Development	59
2.3.5.	Cooperative Development	61
2.4.	The Evaluation of China's International Space Cooperation	64
2.4.1.	The Overall Situation of China's International Space Cooperation	65
2.4.2.	Some Cooperative Partners and Their Joint Space Activities	66
2.4.3.	The Achievement and Limitation of China's Space Cooperation	70
2.5.	Concluding Remarks	74
3.	China's Space Law	77
3.1.	The Trend Towards Strengthening National Space Legislation	77
3.2.	The Status Quo of China's Space Regulatory Framework	79
3.2.1.	Major Documents Relevant for the Space Regulatory Framework	79
3.2.2.	Evaluation of the Current Regulatory Framework	85
3.3.	Why Has No Space Law Been Adopted for Six Decades?	93
3.3.1.	The Starting-Late Development of the Rule of Law	93
3.3.2.	The Initial Lack of Need for Space Legislation Owing to China's Model Development	97
3.3.3.	The Bureaucratic Setbacks and Conundrum About Space Legislation	99
3.4.	The Emerging and Increasing Indigenous Need to Improve Space Legislation	101
3.4.1.	The Space Activities Have Outgrown the Traditional Regulatory Framework	101
3.4.2.	The New Height of Administrative Reforms Requires Upgrading the Space Governance	103
3.4.3.	To Better Concretize and Implement the Obligations Assumed by China and Be Considered as a Responsible Space Power	107
3.4.4.	To Regulate and Encourage Commercial Space Activities and Foster A Sustainable Space Economy	114
3.4.5.	To Break Down Political Obstacles and Unlock the Potential of Space Cooperation	118
3.5.	The Prospects of Space Legislation	121
3.5.1.	The Legislation Path and Major Content of Future Outer Space Law	121

3.5.2. The Core Controversy Over the Space Legislation	124
3.6. Concluding Remarks	127
Annexes Policy Documents, Regulatory Rules and Diplomatic Statements	129
1. White Papers on Space Activities	131
1.1. China’s Space Activities of 2000	131
1.2. China’s Space Activities of 2006	143
1.3. China’s Space Activities of 2011	158
1.4. China’s Space Activities of 2016	174
1.5. China’s Beidou Navigation Satellite System of 2016	193
1.6. China’s Space Program: A 2021 Perspective	203
2. Other Policy Documents on Space Activities	225
2.1. Notice on Promoting the Development of Satellite Application Industry	225
2.2. Medium and Long-Term Development Plan for China’s Satellite Navigation Industry	231
2.3. Medium and Long-Term Development Plan for National Civil Space Infrastructure (2015-2025)	245
2.4. The Guiding Opinions on Accelerating the Construction and Application of the “One Belt One Road” Space Information Corridor	263
3. Policy Documents Applicable to Space Activities	275
3.1. White Paper on China’s National Defense	275
3.2. White Paper on China’s Military Strategy	276
3.3. Made in China 2025	276
3.4. National 13th Five-Year Plan for the Scientific and Technological Innovation	277
3.5. National 13th Five-Year Plan for the Development of Strategic Emerging Industries	281
3.6. National 13th Five-Year Plan for Satellite Surveying and Mapping	282
3.7. Guidelines on Deepening Civil-Military Integration in Science and Technology and Industry for National Defense	285
3.8. White Papers on China’s National Defense	286
3.9. White Paper on China’s International Development Cooperation in the New Era	287
4. Regulatory Rules on Space Activities	291
4.1. Law on National Security	291
4.2. Law on National Defense	291

TABLE OF CONTENTS

4.3. Measures for the Administration of Registration of Objects Launched into Outer Space	292
4.4. Interim Measures on the Administration of Licensing the Projects of Launching Civil Space Objects	295
4.5. Regulation on the Licensing Administration of the Scientific Research and Production of Arms and Equipment	301
4.6. Measures for the Implementation of Scientific Research and Production Licensing of Arms and Equipment	311
4.7. Interim Measures for the Recordation Administration of the Scientific Research and Production of Arms and Equipment	326
4.8. Regulation on the Export Control of Military Items	334
4.9. Regulation on the Export Control of Missiles and Related Items and Technologies	339
4.10. Interim Measures for the Management of Civil Satellite Projects	344
4.11. Interim Measures for the Management of Remote Sensing Satellites Data in the National Major Specialized Project of High-Resolution Earth Observation System	353
4.12. Interim Measures for the Management of Remote Sensing Satellites Data from China's Civilian Satellites	362
4.13. Measures for the Management of Scientific Data of Lunar and Deep Space Exploration Project	370
4.14. Measures for the Management of Lunar Samples	375
5. China's Space-Related Statements and Proposals in the UN	383
5.1. China's Statements, Proposals and Other Information Submitted to UNCOPUOS	383
5.1.1. China's Activities on International Cooperation in the Peaceful Uses of Outer Space	383
5.1.2. China's Submissions Regarding the UNCOPUOS Discussion on the Safety of Space Nuclear Power Sources	389
5.1.3. China's Activities in the Field of International Cooperation in the Peaceful Uses of Outer Space	394
5.1.4. Statement by Ma Xinmin	400
5.1.5. Keynote Speech of Shi Zhongjun	402
5.1.6. Safety Practice of Space Nuclear Power Sources in China	405
5.1.7. Position Paper on the Issue of Long-Term Sustainability of Outer Space Activities	409
5.1.8. China's Activities in the Field of International Cooperation in the Peaceful Uses of Outer Space	415

5.1.9.	China's Replies on Transparency and Confidence-Building Measures in Outer Space Activities	418
5.1.10.	China's Views on Transparency and Confidence-Building Measures in Outer Space Activities	419
5.1.11.	Note Verbale on the Re-entry of Tiangong-1	424
5.1.12.	Note Verbale on the Re-entry of Tiangong-1	425
5.1.13.	Note Verbale on the Re-entry of Tiangong-1	425
5.1.14.	Note Verbale on the Re-entry of Tiangong-1	426
5.1.15.	Note Verbale on the Planned Re-entry of Tiangong-2	426
5.2.	China's Statements and Proposals Submitted to the Conference on Disarmament	427
5.2.1.	Position on and Suggestions for Ways to Address the Issue of Prevention of An Arms Race in Outer Space	427
5.2.2.	Working Paper on Possible Elements of the Future International Legal Instrument on the Prevention of the Weaponization of Outer Space	432
5.2.3.	Working Paper on Possible Elements of a Future International Legal Agreement on the Prevention of the Deployment of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects	436
5.2.4.	Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat of Use of Force against Outer Space Objects (PPWT)	439
5.2.5.	Answers to the Principal Questions and Comments on the Draft PPWT	443
5.2.6.	The Updated Draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat of Use of Force against Outer Space Objects (PPWT)	449
5.2.7.	Comments Regarding the USA Analysis of the 2014 Updated Draft PPWT	454
5.2.8.	Joint Statement from XI Jinping, President of China, and Vladimir V. Putin, President of the Russian Federation, to the Conference on Disarmament on Strengthening Contemporary Global Strategic Stability	460
5.3.	Xi's Speeches Regarding a Community of Shared Future for Mankind	462
5.3.1.	Working Together to Create a New Mutually Beneficial Partnership and Community of Shared Future for Mankind	462
5.3.2.	Working Together to Build a Community of Shared Future for Mankind	467

TABLE OF CONTENTS

6. Agreements on International Space Cooperation	477
6.1. Memorandum on Agreement on Liability for Satellite Launches between China and the United States	477
6.2. Memorandum of Agreement on Satellite Technology Safeguard	479
6.3. Memorandum of Agreement Regarding International Trade in Commercial Launch Services	484
6.4. Memorandum of Agreement on Satellite Technology Safeguards	490
6.5. Memorandum of Agreement Regarding International Trade in Commercial Launches Services	496
6.6. Agreement on Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes	503
7. The Judicial Cases Applying and Interpreting the Outer Space Treaties	507
7.1. The CEO of Moon Village of China Lost His Case against Beijing Administration for Industry and Commerce	507
7.2. The Moon Village Sued Beijing Administration for Industry and Commerce and Lost the Final Trial	508
Bibliography	511
Books and Chapters	511
Articles	514
Documents, Evaluations and Reports	517
News Articles and Websites	518
China's Law and Regulatory Rules	519
China's Policy Documents	520
China's Diplomatic Statements	522
China's Space Cooperation Agreements and Other Documents	523
About the Author	525
Acknowledgements	525