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Fundamentals of Space Law and Policy



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Preface

Overview

This book is a concise introductory overview of international space law and policy. It seeks to address an audience relatively new to these fields. The objective of this short book is to cover in simple language the fundamentals of space law and policy and address key pending issues that are relevant to space law and policy experts.

This book provides the legal and political foundations of space activities as well as offering insight on present and future space law and policy trends, challenges, and opportunities. It serves as an excellent tool for those working with civil, commercial, and military space personnel and for anybody interested in these fields. A famed physicist once said that if you cannot explain a concept to someone new to your field, you do not understand it yourself. This book tried to take this admonition to heart by being as clear as possible.

The book is divided into two main parts. The first part deals with Space Law, and the second deals with Space Policy. The former describes the national and international legal frameworks governing space activities and the subjects involved in its formulation and implementation. The latter analyzes the political dimension of space activities and their impact on social, economic, and security matters. The conclusions of the book recount the main points and the way forward by recommending further reading on the subject.

Read in conjunction with the other books in the Springer Space Development series, one can indeed build a broader understanding of the business, economics, law, and policies of space activities.

What is Space Law?

Law is defined as “any system of regulations to govern the conduct of the people of a community, society or nation, in response to the need for regularity, consistency, and justice based upon collective human experience”.¹ In particular, laws are made to achieve desired goals. In democratic institutions in the twenty-first

century these objectives include peace, social cohesion and societal advancement, the balancing of diverging interests, and the avoidance of undesired and dangerous conditions.

One might think that this means that law—and in this case space law—is thus a boring and arcane subject. This is simply not the case. Space law addresses advanced, state-of-the-art technology that is constantly evolving in new directions. It also involves the views and sometimes conflicting opinions from nations around the world about how to conduct space-related affairs. It seeks to develop processes that can be used to settle disputes. Space law is also about how to explore, utilize, and protect outer space, not only for today but for generations yet to come. Finding new solutions to complex problems in a global context is what space law is fundamentally all about.

Thus in many ways space law is exciting, stimulating, path- and precedent-setting, and sometimes quite rewarding—especially when new solutions are found to difficult issues. Although the intricacies of space law treaties and conventions might be a bit heavy going at times, this short book seeks to hit the highlights. The goal is not to be a definitive book on space law but rather to explain the major features of space law and associated space policy. Some of the more important issues currently pending in the early part of the twenty-first century in the field of space law will be explained; for example, the pathway that starts with the so-called “soft law,” including accepted practices and codes of conduct, that over time can evolve into formal agreements among nations having force of law will be discussed.

Broadly speaking the term “space law” is used with reference to the set of international and national rules and regulations governing human activities in and relating to outer space.² The purpose of space law is to establish a legal environment enabling the achievement of common goals and interests related to the exploration and use of outer space; at the same time, it aims at preventing the emergence of tensions and conflicts among the subjects involved in outer space activities.³

As a starting point, we can identify three main facets of space law. These are: its scope, its fragmentation, and its evolutionary nature.

1. Scope: Space law is applicable not only to activities taking in place in outer space, for example the collection of images and data by a satellite, but also to events occurring on Earth that are related to outer space, i.e., liability for damage caused by a space object or a part of it falling to the ground.

Even if it might appear surprising, international space law does not include a definition of “outer space,” nor gives a precise indication of where outer space begins. Scholars and diplomats have been unable to reach an agreement on these two points since the beginning of the Space Age. Nevertheless, many argue⁴ that the lower border of outer space should be set at an altitude of 100 km above sea level (62.5 miles).⁵

2. **Fragmentation:** Although there is a central body of laws, namely the five U. N. space treaties, space law does not exist as a single, coherent, and comprehensive body of legal principles and rules governing human activities in outer space. Rather it can be seen as a ‘box’ containing many different types of norms to deal with the practical problems connected with the exploration and use of outer space. Consequently, regulation of space activities is achieved through amalgamation and application of all possible rules.
3. **Evolutionary Nature:** The body of space law has been constantly growing since the entry into force of the first international treaty on outer space, namely the 1967 Outer Space Treaty. This is the consequence of the fact that, in the past 40 years, new developments and technologies have changed the nature and dimension of space activities. In order to ensure that these activities were carried out in an orderly and peaceful manner, space law had to adapt itself to these changes and progressively evolve.

What is Space Policy?

In its ordinary interpretation the word *policy* means “a plan or course of action, as of a government, political party, or business, intended to influence and determine decisions, actions, and other matters”.⁶ In the context of outer space, the term refers to the official approach of a state towards the exploration and use of outer space. Normally, a “space policy” describes a nation’s strategy regarding its civilian space program and the military and commercial utilization of outer space. Furthermore, space policies include both the making of space policy through the legislative process and the execution of that policy by civilian, military bodies, and regulatory agencies.

As the military, economic, and social implications of the uses of space expand, so it does the relevance of outer space on a worldwide scale. The utilization of outer space has become a global phenomenon affecting the lives of millions of people and influencing international relations. Consequently, questions related to the access and use of outer space have been placed at the core of the strategic agenda of the technologically advanced nations.

In a similar scenario national space policies acquire a special importance. On one side, they give direction to all national subjects involved in space activities. On the other side, they constitute a tool to enhance transparency over the space activities of a certain country. In this way, they also strengthen trust among space participants and, ultimately, favor international cooperation. Thus, nowadays outer space-related issues significantly influence economic, political, and military decision-making at the national and international level.

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A special thank goes to my family, for its continuous support, and to my wife, for her love, patience, and for taking care of me during the writing of this book. This book is dedicated to them.

Obviously, this book remains my own product and I alone bear full responsibility for the views expressed and for any errors or omissions it may contain.

April 2013

Fabio Tronchetti
Harbin, China

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Abbreviations

ABM	Anti-Ballistic Missile
APIC	Asia-Pacific International Space Year Conference
APSCO	Asia Pacific Space Cooperation Organization
APSRAF	Asia-Pacific Regional Space Agency Forum
ASAT	Anti-Satellite Test
CCIC	Commercial Crew Integrated Capability
CGWC	China Great Wall Corporation
CNES	Centre National d'Études Spatiales
DBS	Direct Broadcasting by Satellite
DOD	(U. S.) Department of Defense
EADS	European Aeronautic Defense and Space Company N.V.
ESA	European Space Agency
EU	European Union
EUMETSAT	European Organization for the Exploitation of Meteorological Satellites
EUTELSAT	European Telecommunication Satellite Organization
FAA	(U. S.) Federal Aviation Administration
FAO	Food and Agriculture Organization
FCC	(U. S.) Federal Communications Commission
GALILEO	European Global Navigation Satellite System
GMES	Global Monitoring for Environment and Security
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GSO	Geostationary Orbit
IAA	International Academy of Astronautics
IAASS	International Association for the Advancement of Space Safety
IADC	Inter-Agency Space Debris Coordination Committee
IAF	International Astronautical Federation
ICAO	International Civil Aviation Organization
ICJ	International Court of Justice
IISL	International Institute of Space Law
ILA	International Law Association

INMARSAT	International Maritime Satellite Organization
INTELSAT	International Telecommunication Satellite Consortium
ISRO	Indian Space Agency
ISS	International Space Station
ISSF	International Space Safety Foundation
ISU	International Space University
ITAR	International Traffic in Arms Regulations
ITSO	International Telecommunication Satellite Organization
ITU	International Telecommunication Union
JAXA	Japanese Aerospace Exploration Agency
LEO	Low Earth Orbit
MPCV	Multi-Purpose Crew Vehicle
NASA	(U. S.) National Aeronautics and Space Administration
NPS	Nuclear Power Source
PCA	Permanent Court of Arbitration
RLV	Reusable Launch Vehicle
STS	Space Transportation System
UK	United Kingdom
UN	United Nations
UNCITRAL	United Nations Commission on International Trade Law
UNCOPUOS	United Nations Committee on the Peaceful Uses of Outer Space
UNEP	United Nations Environment Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGA	United Nations General Assembly
UNIDIR	United Nations Institute for Disarmament Research
UNIDROIT	International Institute for the Unification of Private Law
UNOOSA	United Nations Office for Outer Space Affairs
US	United States (of America)
USML	United States Munitions List
WARC	World Administrative Radio Conference
WMD	Weapons of Mass Destruction
WMO	World Meteorological Organization
WTO	World Trade Organization