Introduction

I. SPACE LAW IS BORN
On October 4, 1957, the Soviet Union launched Earth’s first artificial satellite, Sputnik 1. America’s second-place finish in the first leg of the Space Race came as a great shock to the country, initiating a complete reassessment of the U.S. space program and American science and technology policy. Few people realize that Sputnik also had far-reaching legal implications.

Prior to Sputnik, the legal status of outer space was unclear. The conventional wisdom was that the rules that governed airspace would simply be extended upward to Earth orbit once humanity began operating in that domain. From as early as 1919, international air law provided that a nation’s sovereignty extended vertically to the airspace over its territory. If this rule extended to outer space, the Soviet Union would have violated international law by launching Sputnik into an orbit that passed over many countries, including the United States, without permission. Nevertheless, President Dwight D. Eisenhower, knowing that the United States was interested in eventually overflying Soviet airspace with its own spy satellites, tacitly accepted the Soviet Union’s right to operate a satellite in orbit over U.S. territory. It was thus established that the rules governing spacecraft would differ from those that governed aircraft. And the field of space law was born.

II. THE DEVELOPMENT OF SPACE LAW
The term “space law” refers to the body of international and national laws and customs that govern human activities in outer space. Immediately recognizing the legal vacuum that existed in outer space following Sputnik, in 1958 the United Nations formed the Committee on the Peaceful Uses of Outer Space (COPUOS). The work of the COPUOS delegates eventually resulted in the foundational instrument of the outer space legal regime, the 1967 Outer Space Treaty.

The Outer Space Treaty initiated the “golden age” of international space law development. The treaty was quickly followed by the 1968 Agreement on the Rescue of Astronauts, the Return of Astronauts,
and the Return of Objects Launched into Outer Space; the 1972 Convention on International Liability for Damage Caused by Space Objects; the 1975 Convention on Registration of Objects Launched into Outer Space; and the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. This last treaty is now considered dormant because it has not been ratified by any of the major space powers.

Although no major space treaties have been adopted since the 1970s, international space law has not remained stagnant. COPUOS continues to administer the major space treaties and advises the international community on space policy matters. The U.N. General Assembly has adopted nonbinding resolutions addressing satellite television broadcasting, the remote sensing of Earth from outer space, the use of nuclear power sources in outer space, and international cooperation in the exploration and use of outer space. The International Telecommunications Union, a U.N. organization, has issued regulations concerning the operation of telecommunications satellites in geostationary orbit. There have also been numerous intergovernmental agreements concerning space-related activities, such as the 1998 Intergovernmental Agreement on Space Station Cooperation among the United States, Canada, Russia, Japan, and participating countries of the European Space Agency.

The Outer Space Treaty assigns to national governments responsibility for regulating their governmental and nongovernmental space activities. In the United States, each government agency that operates spacecraft is responsible for complying with U.S. law and international treaty obligations. The United States has also enacted laws and regulations governing various aspects of nongovernmental space operations, including the launch and reentry of private spacecraft and the operation of private telecommunication and remote sensing satellites. Many other federal and state laws, such as those relating to export control, contracts, torts, environmental protection, and intellectual property, also directly or indirectly affect U.S. space activities.

III. A PERIOD OF TRANSITION

The legal framework established by the Outer Space Treaty successfully maintained peace in outer space during the darkest days of the Cold War. The space industry, however, is now in a period of transition and
we stand on the threshold of a new era in spaceflight. For the last half century, most space operations were conducted by government agencies. With the retirement of the Space Shuttle in 2011, private companies are preparing to assume many of the missions traditionally undertaken by governments and to open new markets in outer space.

In the midst of this transition, the spaceflight industry faces many challenges. For instance:

- Humans will soon routinely travel into outer space on spacecraft built and operated by private companies. Governments and commercial spaceflight operators will need to establish licensing criteria for private spacecraft and address questions of liability in the event of accidents.
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- Many useful portions of Earth orbit are crowded with space debris. If enough debris accumulates, it will become virtually impossible to operate spacecraft safely at certain altitudes.
- Export restrictions on space technologies make it difficult for U.S. space companies to compete in the global space marketplace. A more nuanced approach to controlling the export of space technologies will be necessary for U.S. space companies to maintain their leadership in this industry.

Space lawyers will be at the forefront of helping the spaceflight community meet these and other challenges and adapt to the new commercial spaceflight paradigm.

IV. A SPACE LAW GUIDEBOOK

The primary purpose of this book is to introduce lawyers new to the space industry, either at private space companies, in government, or at law firms with space industry clients, to the laws that govern activities in outer space. This is not a treatise on space law, but a practical guidebook. It is meant to help attorneys quickly obtain a basic understanding of spaceflight, the space industry, and the legal issues that their clients confront. We hope that it will also be useful to law students, entrepreneurs, engineers, policymakers, and others who wish to learn about the laws of spaceflight.

This guidebook begins by placing space law in its larger context and then focuses on discrete legal topics. Chapter 1 describes the technical aspects of spaceflight that are most relevant to the legal issues discussed later in the book. Chapter 2 provides a high-level history of human space activities. Chapters 3 and 4 describe the development of international and U.S. space laws. The remaining chapters discuss specific issues that space lawyers routinely address: licensing private spaceflight activities, liability and insurance for spacecraft operators, the regulation of telecommunication and remote sensing satellites, export controls on space technologies, contracting with the U.S. government, environmental protection, and property rights. Being a publication of the American Bar Association that is written by three American attorneys, this guidebook naturally approaches space law from the U.S. perspective. Nevertheless, most of the issues discussed in these pages are common to all spacefaring nations.
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As you begin reading this guidebook, let us be the first to welcome you to the practice of space law. This is a challenging and exciting time to be part of the spaceflight community. We hope that you will find practicing in this field as rewarding as we do. We are delighted to be your guides as you enter the legal profession’s next frontier.

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