

OUTER SPACE: PROBLEMS OF LAW AND POLICY

By Glenn H. Reynolds and Robert P. Merges.¹
Boulder: Westview Press. 1989. Pp. xvi, 349. \$52.50.

Since well before the launch of Sputnik in 1957, outer space has held a deep fascination for many people. Although the excitement has faded somewhat since the exhilarating days of the moon landings, public interest in space still runs high. In *Outer Space: Problems of Law and Policy*, Professors Glenn H. Reynolds and Robert P. Merges attempt to respond to that interest by providing a casebook to serve as an introduction to the policy issues and treaties relevant to this area. In their words:

What has been lacking . . . is a comprehensive introduction to the subject. That is the purpose of this book. The book is organized around the needs of the space industry and those who deal with it. As private companies become involved in providing launch services and in conducting research and manufacturing in outer space, and as governments band together for multinational space stations and other ventures, legal questions are raised that touch on virtually every subject in the law school curriculum, but in new settings (p. xv).

Reynolds and Merges have indeed sought to be comprehensive. In addition to the expected discussion of the major ratified² and unratified³ outer space treaties, they discuss such topics as the meaning of weightlessness in outer space (pp. 14–15), the physics of launch vehicles (pp. 16–18), and contact with extraterrestrials (pp. 317–23).

Of particular interest is the authors' identification of potential legal issues relating to outer space. For example, how far up into the sky over their territory should nations be able to exert legal control (pp. 38–40)? What should be done about the increased crowding of geosynchronous orbits (pp. 214–15)? Can nations claim sovereignty over celestial

1. Glenn H. Reynolds is Associate Professor of Law at the University of Tennessee. Robert P. Merges is Associate Professor of Law at Boston University Law School. For another review of this work, see Gordon, Book Review, 246 *SCIENCE* 132 (1989).

2. *E.g.*, the Limited Test Ban Treaty of 1963; the Outer Space Treaty of 1967; the Anti-Ballistic Missile Treaty of 1972.

3. Most notably, the Moon Treaty with its problematic language that "[t]he moon and its natural resources are the common heritage of mankind" (p. 106).

objects or particular orbits around the Earth (pp. 41, 69-70)?

The authors stress that they intentionally focus on policy issues (p. xvi) and their approach does cause the reader to re-think many basic ideas. For instance, to most people it probably seems incontrovertible and unremarkable that satellites and space vehicles can traverse national boundaries without objection from any nation. Yet, as the authors note, "[t]here were . . . serious concerns about the international law ramifications of satellite overflights, concerns that were sharpened considerably after the Soviet Union launched the world's first satellite" (p. 4). It is useful to have one's basic assumptions challenged, and by focussing on policy questions, Reynolds and Merges accomplish this goal.

The authors also demonstrate that a surprisingly large number of areas of terrestrial law are relevant to outer space. These include torts, contracts, international law, communications law, international trade law, commercial law, and intellectual property law. This shows that the development of legal doctrine relating to outer space will be shaped by policy choices in terrestrial law as well as by policy choices made explicitly for space law.

As Reynolds and Merges discuss in their brief introduction to the principles of international law, its foundations are treaties and custom (pp. 25-27). Since there is neither custom nor much case law dealing with outer space, its source of law is primarily treaties.⁴ The material in the book examining how treaties related to outer space have been negotiated and interpreted is of interest, especially as it emphasizes that most critical staple of the legal profession, close attention to the details of drafting and the nuances of language. Such concerns are not uniquely confined to outer space law, but the fact that space law presently is based almost exclusively on international agreements makes it especially prominent there.

Concerning the lack of case law in the outer space area,⁵ it is particularly notable that the controversy between Canada and the Soviet Union over Canada's costs in cleaning up the wreckage of Cosmos 954 was not even presented to a judicial body despite the fact that the Soviet Union paid only three million of Canada's six million dollar claim. Since Canada's cost for the cleanup was estimated to be fourteen million

4. There is a useful discussion as to whether admiralty and/or air law provides a sufficient analogy to predicate outer space law on its principles (pp. 27-47).

5. *But see* Florida Coalition for Peace & Justice v. Bush, No. 89-2682-OG (D.D.C. Oct. 14, 1989) (plaintiffs sought a temporary restraining order prohibiting the launch of Space Shuttle *Atlantis* because it was carrying a plutonium-powered space probe, but the court refused).

dollars, it is apparent that Canada did not even choose to bill the Soviet Union for the entire amount of its loss. The book's discussion of this incident raises fascinating issues of treaty interpretation and international law. For example, did the Liability Convention of 1972 require the Soviet Union to notify Canada of the impending crash or did the U.S.S.R. satisfy its obligations by notifying the United States? How much information was the Soviet Union required to give Canada to aid in the clean-up (pp. 167-77)?

Just as the existing case law in the outer space area is sparse, its practical applications are limited at present. For example, whatever its faults or merits, the Moon Treaty is somewhat irrelevant at a time when no nation is going to the moon.⁶ Similarly, the power of a Space Shuttle Commander to arrest and detain an unruly passenger is unlikely to have any practical significance in the foreseeable future.⁷

One difficulty with *Outer Space: Problems of Law and Policy*, especially odd in a book which aspires to comprehensiveness, is its dismissal of the ABM Treaty reinterpretation and *Challenger* compensation disputes as too complicated to be included in detail.⁸ In a book that is 349 pages long, these areas could have been more fully discussed. Perhaps in the current political climate the ABM issue is of less than compelling relevance, but the *Challenger* dispute appears to raise a series of interesting questions concerning such issues as sovereign immunity, worker's compensation, governmental liability for injuries to military personnel, and even whether the government was justified, obligated, or prohibited from reaching generous settlements with crew members' estates using taxpayers' money. (If the government had a complete defense available, should it have settled? Should it have done so without conducting open debate on the issue?) The authors' failure to include any material on these and similar questions is most unfortunate.

Although the casebook format used by Reynolds and Merges results in inevitable chopiness and lack of uniformity, this book has many good points. In particular, the authors' notes and introductory material are quite good and thought provoking.⁹ And, as already discussed, the emphasis on policy is useful. For those seeking a fairly comprehensive

6. The Japanese satellite recently launched to orbit the moon is the first man-made object to arrive in the lunar vicinity in 14 years. See *Boston Globe*, Jan. 29, 1990, at 35, col. 1.

7. See p. 34.

8. "The structure of the [ABM Treaty] reinterpretation is somewhat elaborate" (p. 99). "[I]t would be impossible to review all the intricacies of these actions for recovery on behalf of the *Challenger* victims' estates . . ." (p. 272). Only one page was devoted to the *Challenger* disaster.

9. The excellent quality of their own material makes it even more regrettable that the authors chose to use the casebook format.

introduction to outer space law, *Outer Space: Problems of Law and Policy* will serve reasonably well.

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BOOKS RECEIVED

COMPUTER SOFTWARE PROTECTION LAW, vol. 1 and 2, by C. Sherman, H. Sandison, M. Guren (Bureau of National Affairs, 1989).

CONGRESSIONAL OVERSIGHT, by J. Aberbach (Brookings Books, 1990) pp. 288.

ENERGY LAW AND POLICY, by J. Tomain and J. Hickey (Anderson Publishing, 1989) pp. 572.

IMPROVING RISK COMMUNICATION, National Research Council (National Academy Press, 1989) pp. 332.

JUSTICE FOR ALL: REDUCING COST AND DELAY IN CIVIL LITIGATION, The Brookings Institution (Brookings Books, 1989) pp. 49.

OWNING SCIENTIFIC AND TECHNICAL INFORMATION, V. Weil and J. Snapper, eds. (Rutgers University Press, 1989) pp. 309.

PATENT IT YOURSELF, 2d ed., by D. Pressman (Nolo Press, 1989) pp. 432.

A QUESTION OF BALANCE: THE PRESIDENT, THE CONGRESS, AND FOREIGN POLICY, T. Mann, ed. (Brookings Books, 1990) pp. 265.

SOFTWARE, COPYRIGHT, AND COMPETITION, by A. Clapes (Quorum Books, 1989) pp. 247.

TECHNOLOGY AND ENVIRONMENT, by the National Academy of Engineering (National Academy Press, 1989) pp. 221.