
Part I

Background Paper

I - INTRODUCTION

A. Purpose and Scope

Space station activities will be affected by *international law*, (customary international law, treaties, and other international agreements); *national space law* (laws to encourage scientific or commercial space activities or to regulate or establish new space industries); and, *ordinary domestic law* (e.g., criminal law, contract law, tort law, etc.).

This paper is primarily concerned with international law and regular domestic law because these will have the greatest effect on space station operations. National laws designed to encourage commercial space activities or to regulate new space industries (e.g., The Remote Sensing Act and the Space Launch Commercialization Act) are discussed only insofar as they offer interesting insights regarding space station activities. The relationship between military space activities and international law has been discussed in other recent OTA reports.

It is, of course, impossible to describe how every U.S. law would apply to activities aboard a space station. Therefore, this paper examines an illustrative set of legal issues and outlines an analytical means for examining other areas of law. It begins with a brief review of the current international space laws; it then describes the concept of "jurisdiction" and explains how U.S. laws may be applied outside the territory of the United States. After this general discussion, the paper analyzes three specific areas of law that will be critical to space station activities: intellectual property law, criminal law, and tort law.

B. Definition

Before beginning a legal analysis, it is first necessary to clarify just what is meant by *space station*. Is it something more than a *satellite*? Must an object in space be habitable to be considered a space station? Must it be capable of orbiting for a specific duration before it gains the status of space station? Can separate, free-flying space objects (e.g., two separate research modules) be considered as part of one space station? If objects must be attached to be considered a space station, must that attachment be of a relatively permanent nature?

¹U.S. Congress, Office of Technology Assessment, *Ballistic Missile Defense Technologies*, OTA-ISC-254 (Washington, DC: U.S. Government Printing Office, September 1985); U.S. Congress, Office of Technology Assessment, *Anti-Satellite Weapons, Countermeasures, and Arms Control*, OTA-ISC-281 (Washington, DC: U.S. Government Printing Office, September 1985).

As explained in detail below, the answers to these questions will help to determine the 'nationality' of space stations and, consequently, the reach of national laws. Although international acceptance of such terms may eventually result from specific agreements and the common practice of states, no such consensus exists today. Lacking such a consensus, this report is forced to adopt an arbitrary definition of "space station. "

For the purposes of this report, a space station is an object or a collection of objects (attached or free-flying) which is in an intentional, long-duration earth orbit and is, at least in part, habitable.² Under this definition, orbital duration and habitability would be determined by both the actions and the stated intentions of the relevant parties. Space objects would not be considered to be components of a space station unless: 1) the relevant parties make clear, through their statements or actions, that this is their intention; or 2) the technological relationship between the objects is so complete as to make such a determination obvious (e.g., a station's power module) .

2 This definition would specifically exclude space transportation systems such as the Space Shuttle. This paper does not attempt to define the legal status of interplanetary spacecraft or space stations on or in orbit about celestial bodies other than the Earth.