oral

Paper ID: 12135

Legal Issues Related to Space Exploration (13) Specific legal issues of space exploration and exploitation (2)

> Author: Mr. Matthew Kleiman Draper Laboratory, United States

PREVENTING A RACE TO THE BOTTOM IN OUTER SPACE REGULATION

Abstract

Under maritime and aviation law, a ship or aircraft operates under the law of its country, or "flag," of registration. The term "flag of convenience" refers to the practice of registering a ship or aircraft in a country different from that of its owners for the purpose of avoiding burdensome taxes and regulations. In 2009, when measured in terms of total tonnage, more than half of the world's merchant ships were registered under flags of convenience. Due to lax regulations, minimal oversight and poor record keeping in these countries, flags of convenience are often criticized for creating a permissive environment for criminal activities, unsafe working conditions and environmental contamination.

Current international space law lays the groundwork for a similar flag of convenience problem in outer space. Like ships and aircraft, spacecraft operate under the laws of their country of registration, or "launching state". The term "launching state" is loosely defined in the relevant U.N. treaties, so it would not be difficult for a commercial space company to register its spacecraft in a country with more favorable space regulations than its home country.

In the future, companies hiding behind flags of convenience might encourage unsuspecting space tourists to fly on unsafe spacecraft, fail to follow adequate space debris mitigation practices, and avoid liability for causing harm to others. Moreover, the prospect of collecting hefty licensing fees from these companies might incentivize cash-strapped countries to enact weak space regulations, resulting in a "race to the bottom" among potential launching states.

The aviation and maritime communities have implemented several strategies to mitigate the harms posed by flags of convenience. For example, under maritime law, port states have the authority to inspect and detain unsafe ships until the ship has been brought back to a seaworthy condition. Many countries, including the United States, European Community and Japan, have created blacklists of certain flag states whose vessels are subject to additional inspections. International aviation law has begun to separate the responsibilities of the State of Registry from the State of the Operator, which shifts the burden of safety compliance to the country in the best position to monitor aircraft operations. Space law should take advantage of the experience of the maritime and aviation communities by implementing these and other measures to curb the development of outer space flags of convenience.