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Author: Mr. Joshua Easterson United States, eastjo01@gmail.com

YOU CAN LEAD AN ASTRONAUT TO WATER...: PROSPECTS FOR LEGAL USE AND WATER RIGHTS ON THE MOON AND OTHER CELESTIAL BODIES

Abstract

Water is essential to supporting all known life. Scientists in search of extraterrestrial planets which could sustain life have made the search for water a key indicator of biological possibility. It has even been proposed that the presence of water is necessary for the formation of a number of significant organic compounds. More close to home, water can easily be converted into vital resources for manned space missions. Its usefulness in providing astronauts with breathable oxygen and necessary hydrogen for fuel offer new prospects for space exploration and diminish the often-prohibitive expense of the otherwise required payloads. The discovery of significant water ice on the moon's southern pole by NASA's LCROSS probe in October 2009 and, more recently, the ISRO's Chandrayaan-I discovery of millions of tons of ice near the north pole of the moon, sent ripples of excitement through the space community over the opportunities these findings offer. With the new potential for lunar water use looming, we must look beyond the excitement of space exploration strategists and engineers and weigh the requirements for the use of such water under the existing space law regime. This paper will examine the current permissibility of the use of water on the moon under Article 6(2) of the 1979 Moon Agreement, as well as the conditions set on use by other articles of the same treaty and the Outer Space Treaty of 1967. The relevance of U.S. federal and state laws, as well as other foreign national laws, regarding the issue of resource use of celestial bodies will also be considered. In February 2010, NASA announced that it was discontinuing the Constellation program and the related plans for manned missions to the Moon. In light of the agency's new commitment to encouraging commercial spaceflight resources, this paper will also assess the legal implications and possibilities of extraterrestrial water use by non-governmental space-faring actors. While Article 9 of the Outer Space Treaty implies permissive language regarding the space travel of non-state actors under the oversight of responsible state signatories, the globalization of the aerospace industry has resulted in a significant number of concerns regarding multinational corporations with space launch interests. With specific attention to the use of lunar water ice, this paper will propose that a new international regime governing the exploitation of natural resources in space be set up as provided for by the Moon Treaty in Article 11(5).