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SAFETY AND LIABILITY ASPECTS OF SOLAR POWER SATELLITES

Abstract

It is an undisputed fact that the global need for energy will grow exponentially in the future and the search for alternative energy sources will intensify. One of the alternative sources will be space based solar power, to be collected in space and transmitted to Earth by solar power satellites (SPS). As the appropriate technology is becoming proven, the economic and operational viability for the launch of SPS system(s) will to a large extent depend upon favorable political and legal determinants. These determinants include those related to safety risks and the possible liability of the operator(s)' SPS system(s). This paper identifies safety risks of, and analyses liability for, damage particularly caused by SPS. Specifically analyzed issues, both under international law and some national laws, include damage caused (in outer space, in the air and on the Earth) by electronic transmission, insurance coverage, waiver of liability, dispute settlement mechanisms, etc. The paper contains recommendations for the concerned governments (and their respective private entities) to take regulatory precautions in order to avoid the risks of possible liability and thereby enhances the chances for launch and operation of SPS system(s).