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Paper ID: 21779

## 57th IISL COLLOQUIUM ON THE LAW OF OUTER SPACE (E7)

Legal issues associated with private human flight, including space and ground facilities, traffic management and spaceports (4)

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## FROM SPACE TOURISTS TO UNRULY PASSENGERS? THE US STRUGGLE WITH 'ON-ORBIT JURISDICTION'

## Abstract

With the first proper commercial sub-orbital 'space tourist' flights seemingly around the corner, the need to develop a proper legal system addressing all relevant parameters, scenarios and events also arises more visibly. This is particularly true for the United States, where so far the major developments in private manned spaceflight are concentrated, some of which may soon move from relatively straightforward up-and- down sub-orbital trajectories to longer-duration sub-orbital and/or orbital flights, or even longduration presence in (potentially private) space stations. As one author succinctly put it: humans are essentially unpredictable, and the longer their flights will be, the less pre-ordained and foreseeable will their activities be. As a consequence, the somewhat haphazard and multifaceted approach US national law has so far taken vis-à-vis space activities now threatens to result in major gaps, notably in the exercise of domestic jurisdiction for the purpose of compliance with US international responsibilities and liabilities under the outer space treaties. In between the regulatory competencies of the FAA (to license launch and re-entry). FCC (to license and regulate satellite operations as far as the use of radio-frequencies and attendant orbits is concerned), NOAA (to license and regulate remote sensing satellite operations) and NASA (to regulate life on board the ISS, at least as far as the US modules and/or US astronauts is concerned), questions now arise in Congress for example as to how to legally address a future space tourist turned unruly passenger. The paper addresses these issues in some detail, which includes addressing some vexing definitional issues as regards 'launch', 're-entry', 'sub-orbital', 'orbital' and 'outer space' itself as these will have to be clarified before a comprehensive, logical and effective legal regime for exercising of US national jurisdiction as appropriate and necessary can be developed.