

SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)  
Commercial Space Flight Safety and Emerging Issues (1)

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THE URGENCY OF SPACE TRAFFIC MANAGEMENT IN SCHEDULED COMMERCIAL SPACE  
FLIGHT

**Abstract**

The success of the Ansari Xprize, SpaceShipTwo flights have shown the world the possibilities of commercial space flight. This has led us today to the new phenomenon of scheduled commercial space flight. It is only a matter of time before scheduled commercial space flights exist where passengers can travel from Paris to New York in less than two hours. This situation means that there is an urgency now to establish a standard and legal basis in anticipation of this new development.

Learning from flights made by the Russian's Buran space shuttle in the 1980's and SpaceShipTwo, an innocent passage for spacecraft in the airspace has been acknowledged. The increasing space traffic volume has guided us into a situation where more and more spacecraft are flying through airspace which is 'still' not subject to ATC. This situation has put both aircraft and spacecraft in danger where the chance for collision between them becomes higher. In regards to these issues, there is an urgency for the establishment of space traffic management.

No doubt an integration between air and space traffic management must be established in order to ensure safety and effectiveness for future space flight. An integration with the current air traffic management under the ICAO regime could become the most practical and realistic solution. With a great deal of experience in the aviation field, the organization has established a system which could be developed for space traffic. The ITU alone could not deal with these issues and establishing a new organization would mean a waste of resources.

The phenomenon of scheduled commercial space also raises (old) important issues, which are how to define an astronaut and the delimitation between air and space. A clear role of insurance companies must also be established, where their policies must take the burden of any SAR operations currently held by state(s). Otherwise many developing states would not cooperate since they know they are paying for the rich who travel for pleasure. Delimitation is needed when ICAO's role becomes real and spacecraft becomes a subject.

The current legal regime under various conventions must be updated in order to harmonize it with recent developments. Further cooperation between space faring states is needed to create new state practice(s). Today states' resistance toward a creation of new convention related to space activities has made bottom to top approach through state practice could become the solution.