

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

Author: Dr. Michail Chatzipanagiotis
Cyprus, m.chatzipanagiotis@aetherspace-consultants.com

Dr. George Kyriakopoulos
National and Kapodistrian University Of Athens, Greece, yokygr@gmail.com

“ONE-STOP” SPACE SAFETY REGULATION: SHOULD WE DO IT AND HOW?

Abstract

The significant increase of manned private space activities brings to the fore the discussion about the appropriateness and the feasibility of a “one-stop” space safety regulation. At national level, both outer space and aviation authorities could be competent for the safety of private manned spaceflights. At international level, there seems to be no common understanding on safety requirements for manned spaceflights, contrary to what is in force in aviation. Thus, to comply with the applicable safety requirements a private operator may have to adhere to a plurality of national and international safety provisions, the scope of which is often uncertain and the oversight of which belongs often to different authorities. This paper examines the reasons for such situation and proposes possible solutions. One cause is regulatory and oversight “inertia” and habit, i.e. national agencies are used to have specific competencies for specific issues and encounter difficulties in adjusting to new situations either by relinquishing or assuming new responsibilities. Another reason, at both national and international level, is the traditional dichotomy between aviation and space law, which have been developed independent from each other, based on different principles and situations. At international level, despite the freedom of use of outer space, States often act unilaterally and connect outer space with national security, which makes them reluctant to delimitate outer space and entrust an international organization with promulgation of safety regulations. In addition, private manned spaceflights are just starting to develop their potential, which means that so far uniform regulation appeared to be no real necessity. To overcome these issues, at national level, a mixed aviation and space (aerospace) authority could be created, which would combine expertise from both fields. Such authority should be competent for all flights into/from outer space (orbital, suborbital, deep space) and in airspace. Furthermore, new rules applicable to all spaceflights, irrespective of their specifications, could be developed, or existing rules could be amended to accommodate spaceflights. At international level, such a task inevitably requires the institutional upgrading of the UNCOPUOS to an autonomous international spaceflight organization, with powers to issue uniform technical safety standards, at the example of ICAO for aviation.