

Update on legal and policy aspects of small satellites: Sustainability, frequency interference, registration and ownership

The expanding technical capabilities of small satellites continue to ensure their integration and deployment in a variety of important technical contexts, ranging from disaster constellation missions through to the direct management and control of power supplies delivered by the public grid. Refinement in technology continues to push the capabilities of this sector further ahead, with a corresponding impact on its stake in this steady-growth market.

With this, issues such as formal licensing (or authorisation), frequency allocation at national level, compliance with the ITU Radio Regulations (RR), along with entries of small space craft at registry level (national, international) remain on the catalogue of the compulsory regulatory requirements generally understood at the national and international level. An increase in number and position of these craft over time could, however, also give rise to greater demand for increasingly coordinated procedures to avoid frequency interference, with increasing ITU to national administration interaction. Stopping interference is the duty of the national administration. At international level, interference remains legally prohibited under Art 45 ITU Constitution. Over time, however, its supervision and enforcement may become more complex in line with rising numbers of small spacecraft. However, with the entry of space craft onto the register of space craft, operator-ownership will ultimately become more visible, insofar as registration is in fact undertaken.

This paper takes an updated look at the regulatory requirements for small satellites, including the application of the debris mitigation guidelines to this group of spacecraft. It also looks at the more interesting – possibly even unpredicted – interaction between the separate, and now signed UNIDROIT Protocol on Securities over Mobile Space Assets (2012, Berlin). This international protocol, which was discussed over a longer period of time, enables easier access to asset-backed finance for spacecraft, and with this, to their ultimate asset financiers, owner (-operators). The UNIDROIT Protocol introduces a register of interests in financial securities which, should small satellite owners rely on funding facilities to finance their operations as may well be expected, will enable more direct access to those interests that include any such insurers as are behind the missions. While the financial aspects will have no direct impact on issues such as debris regulation, the register will allow identification of those who might at some stage be required to participate in any possible future insurance or pooling mechanism(s) in the case of interference, conjunctions and/or compensation for damage.