



THE 2021 MANFRED LACHS SPACE LAW MOOT COURT COMPETITION

PROCLIVIA vs ASTERIA

Synopsis of the Case Concerning Mega-Constellations, Autonomous Space Operations and Freedom of Scientific Investigation

Inspired by the successes of the ‘NewSpace’ wave, the privately-owned CUSKO entity deployed to low Earth orbit a 1500-satellite constellation featuring revolutionary technologies: a ‘green propellant’ and the first-ever autonomous attitude and orbit control system (AOCS) reminiscent of self-driving cars. However, PROCLIVIA, the home state of CUSKO, declined to authorize the launch and operation of the constellation because it found it impossible to qualify and quantify the associated risks. The license denial prompted CUSKO to turn to ASTERIA, which is not a State Party to the Outer Space Treaty, has not enacted national space legislation but, allured by the prospects of publicity and tourism interest, welcomed the relocation of CUSKO to its jurisdiction. Eventually, the entity commenced launching its satellites from a floating launch pad anchored off the shores of ASTERIA.

Soon after the deployment of part of the constellation in orbit, the functioning of the engines and the AOCS raised concerns: some satellites were reported lost within weeks and an unplanned close conjunction event occurred. This raised concerns within the ASTERIAN government, which, among other actions, unilaterally publicly declared a ‘safety zone’ at the orbital altitude of the constellation, and requested space actors intending to enter or cross that zone to submit advance information of their plans so as to avoid risk of collision.

Subsequently, PROCLIVIA launched the world’s most advanced Earth observation satellite, with its own automatic collision avoidance system. In order to reach its designated orbit, the satellite needed to cross the CUSKO constellation zone. That crossing led to a cascade of catastrophic events, as the respective software systems executed conflicting emergency escape maneuvers, ultimately resulting in an on-orbit collision. Years later, part of the debris, including a plutonium battery, re-entered the Earth’s atmosphere and eventually crashed into Antarctica. The radioactive pollution brought an abrupt end to the decades-long scientific investigations by PROCLIVIA in Antarctica. CUSKO and ASTERIA are accused of irresponsible profit-making at the cost of hindering safe access to space for others. Being unable to resolve their dispute, PROCLIVIA and ASTERIA agree to present the case to the International Court of Justice.