

## **Unmanned Aircraft Systems: The New Paradigm of Air Law?**

The system of air law has been developed in accordance with certain facts, policies, and principles. One fact of aviation has for long been that nearly all aircraft are operated from within the aircraft, for which reason air law has focused on creating rules for manned aviation. Additionally, air law has primarily concerned itself with solving problems pertaining to manned aviation, delineating the acceptable legal argumentation within the field—the normal science or research tradition of air law. A core example of this is how air law manages international air traffic rights and slots, both essential to commercial air transport. But the focus on manned aviation also reflects in issues like airspace management and safety.

Air law, as a profession and normal science, has been a very cumulative enterprise. It has for long enhanced the ability of professionals and academics to solve practical problems pertaining to manned aviation. Yet, air law has always contained a significant anomaly: unmanned aircraft systems (UAS), or drones. While the history of UAS extends far further than manned aircraft, in the field of air law, they have always remained on the fringes. Although prominent in military use, in civil aviation they have been regarded as the exceptional case, as “model aircraft” that only interest hobbyists.

However, in recent years the number of UAS has increased greatly both in terms of leisure and professional use. This challenges the idea that drones could any longer be treated as a fringe phenomenon: an anomaly in the paradigm of air law. The normal science and profession of air law, focusing on manned aviation, find it difficult to address the special nature of drones. For example, the operation of drones does not focus on fixed aerodromes, which can cause them to fall outside institutions such as airworthiness inspections and air traffic management. Similarly, the operational environment of drones is different, as they chiefly fly in low level airspace and often amidst urban areas. Even traditional flight rules are ill-fitting, since drones can be operated beyond the visual line of sight of the pilot (BVLOS).

My presentation, which aims to encapsulate the core of my dissertation, deals with the given issue: drones as an anomaly and possibly the new paradigm of air law. In the presentation, I seek to outline the normal science of air law, present the challenges of drones thereto, and explain how the challenges are being solved at the international and, to a greater extent, European level. I will likely focus on issues relating to airspace management, which I recently explored in a research article titled *The U-space Concept* (see <https://bit.ly/2DdaMfU>).