OPEN PEER REVIEW

The Legal Frameworks Governing Unmanned Aerial Vehicles

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Received: 2022-05-17	Revised: 2022-06-23	Accepted: 2022-06-29	Published: 2022-07-01
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1. Round 1

1.1. Reviewer 1

Reviewer:

The article is well-structured and presents a thorough examination of UAV regulations. However, the transition between sections can be improved to enhance readability. Specifically, the leap from international to national frameworks could be smoother by providing a brief summary or conclusion at the end of each major section that leads into the next topic of discussion.

While the literature review is extensive, it would benefit from including more recent studies or reports that reflect the latest developments and regulatory changes in the UAV sector. Given the rapid evolution of UAV technologies, incorporating studies from the last 2-3 years could provide a more up-to-date perspective.

The manuscript discusses national approaches through the lens of generalized legal frameworks. Incorporating specific, realworld case studies of UAV incidents or regulatory challenges could illustrate the practical implications of the discussed regulations and the gaps in current frameworks. This addition would make the analysis more tangible and impactful for readers.

The section on comparative analysis of national UAV regulations is insightful. However, it could be enhanced by including a table or summary chart that directly compares key aspects of UAV regulations among the discussed countries. This visual aid would help readers quickly grasp the similarities and differences in regulatory approaches.

The discussion on emerging technologies and their implications for UAV regulations is forward-looking. It would be beneficial to expand this section by providing examples of how specific technologies (e.g., blockchain, advanced communication systems) are currently being integrated into UAV operations and the challenges faced in this integration. The conclusion offers a broad perspective on the need for adaptable legal frameworks. The paper could be strengthened by adding specific, actionable recommendations for policymakers and regulators. This could include suggestions on international collaboration, technology standardization, or privacy protection measures.

Ensure all references are up to date and properly cited throughout the manuscript. Some references seem to be older, and newer sources could provide additional insights into the rapidly changing UAV landscape.

Authors revised the manuscript and uploaded the document.

1.2. Reviewer 2

Reviewer:

The manuscript successfully outlines the role of the International Civil Aviation Organization (ICAO) in harmonizing UAV regulations. It could further benefit from a deeper exploration of specific ICAO standards and recommended practices (SARPs) that relate to UAVs. This would provide readers with a clearer understanding of how international guidelines shape national regulations.

Given the fast-paced advancements in UAV technology and regulations, the manuscript should be updated with the most recent developments and regulatory changes. This could involve adding a subsection that discusses any new international agreements or national laws passed since the manuscript's last revision.

The manuscript touches on privacy issues related to UAV operations but could expand this discussion to include examples of how different jurisdictions are tackling these concerns. For instance, comparing EU's GDPR implications on UAV surveillance with the US's more fragmented privacy laws could enrich the analysis.

The manuscript would benefit from a section dedicated to sector-specific UAV regulations, particularly for emerging applications such as urban air mobility (UAM) and drone delivery services. This addition would highlight the regulatory nuances and challenges specific to these applications.

While the manuscript discusses the implications of technological advancements for UAV regulations, it could offer more detailed examples of how regulators are responding to these challenges. For instance, detailing the FAA's Remote Identification (Remote ID) rule as a response to security and safety concerns would provide practical insights into regulatory adaptations.

The manuscript occasionally uses legal jargon that might not be accessible to all readers. Simplifying these terms or providing brief explanations would make the paper more inclusive to a broader audience, including those without a legal background.

The concluding section could be strengthened by offering more concrete recommendations for future legal research and policy-making in the field of UAVs. This might include suggestions for international collaboration on regulatory standards or the need for adaptive regulations that can accommodate future technological innovations.

Authors revised the manuscript and uploaded the document.

2. Revised

Editor's decision: Accepted. Editor in Chief's decision: Accepted.