USHPA
UNITED STATES HANG GLIDING & PARAGLIDING ASSOCIATION

A 501 (C) (3) Corporation

July 28, 2022

Ms. Laura E. Gómez
Federal Aviation Administration
800 Independence Avenue, S.W.
Washington, D.C. 20591

Dear Ms. Gómez,

The United States Hang Gliding and Paragliding Association (USHPA) represents 9000 hang gliding and paragliding pilots and instructors operating under 14 CFR 103 in the United States. Established in December of 1973, nine years prior to the issuance of Part 103, the USHPA has administered programs for pilot and instructor certification, and has worked in support of the Hang Glider Manufacturers Association's program for certification of hang gliders under the HGMA's consensus airworthiness standards program. Both the USHPA programs and the HGMA program were recognized by the FAA as "consistent with the original intent of Part 103" in a June, 1984 letter issued by Walter S. Luffsey, Associate Administrator for Aviation Standards for the FAA. The USHPA has also worked with the FAA and ASTM during the development of standards for Sport Pilot and Light Sport Aircraft, and has consistently supported the pursuit of safety in the practice of recreational aviation.

The USHPA strongly opposes certain recommendations contained in the UAS BVLOS ARC Final Report – specifically those that recommend specific changes to FAR 91.113. The USHPA finds these recommendations to be inconsistent with safety, inconsistent with the ARC Final Report itself, and inconsistent with the FAA's 3rd Edition 2020 Integration of Civil Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) Roadmap.

Quoting from the ARC Final Report:
"The ARC proposes to amend 91.113 to require crewed aircraft that are not equipped with ADS-B or TABS operating below 500 feet and away from structures to yield right of way to UA conducting Low Altitude BVLOS Operations away from Airports/Heliports. The UA would be required to detect and avoid only those crewed aircraft that are broadcasting ADS-B out or TABS. Unequipped crewed aircraft would be required to yield the right of way to UA traffic."
And:
"The ARC is recommending that § 91.113 (d) be amended to give UA right of way over all aircraft for Shielded Operations."

These ARC recommendations originate, in part, from a flawed assumption that there is little aviation traffic that operates at less than 500 feet. Quoting from the report: *"Moreover, the UA are operated at very low altitudes and in volumes of airspace that do not have significant numbers of general aviation operations."*
And: *"The unmitigated risk of mid-air encounter between UA and unequipped GA aircraft in the below 500' AGL operating environment is low."* In fact, there are numerous aircraft operating under Part 103 at less than 500 feet in altitude, as well as hot air balloons, helicopters and others. These aircraft meet the separation requirements required for safety through the practice of "see and avoid." For this to be effective, it must be possible to both see, and avoid other aircraft in the airspace. In the direct experience of hang glider and paraglider pilots, under many operational circumstances, UAS are virtually impossible to see, and the significantly higher speeds and greater maneuverability of UAS make them essentially impossible for hang gliders and paragliders to avoid. The ARC recommendations therefore propose a regulatory structure under which the most basic practice in support of safety cannot be effectively implemented. The ARC report acknowledges the difficulties associated with see and avoid as it pertains to seeing and avoiding UAS, but then inexplicably proposes a solution to this that requires that the sole responsibility for seeing and avoiding in the case of a crewed aircraft not equipped with ADS-B or TABS should lie with the

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crewed aircraft and not with the UAS. The ARC report also fails to take into account the effect on this issue that will result from the large anticipated increase in the amount of total air traffic in the airspace below 500 feet as drones continue to proliferate. (The FAA notes, in its Roadmap referred to below, that there are already "nearly four times as many UAS as registered manned aircraft.")

The FAA's 3rd Edition 2020 Integration of Civil Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) Roadmap states that "through partnerships with industry and other stakeholders, the FAA is harnessing the energy, know-how, and innovation needed to reach the goal of full UAS integration as soon as possible. To do that, it will continue to be a combined effort between the FAA and our stakeholders, sharing trends, efficiencies, and solutions **to ensure aviation safety remains at the forefront."** (Emphasis added). The roadmap further states "The FAA has reinforced its **focus on the safety of all aircraft operations** as we work on a number of initiatives to support UAS integration." (Emphasis added). Finally, the Roadmap notes, "The UAS-related requirements in the FAA Reauthorization Act of 2018 support the integration of UAS, **maintaining the overall safety and security of the NAS.**" (Emphasis added).

In the Roadmap, it would appear that the FAA clearly anticipates an appropriately shared responsibility for safety and specifically for collision avoidance between crewed aircraft and UAS. The Roadmap states:

"A safe and effective DAA (Detect And Avoid) system **is essential** to ensure UAS remain well clear of all hazards, including manned aircraft and other UAS. DAA is needed to enable routine UAS flights operating BVLOS without the aid of visual observers, especially for long-range flights. DAA research is underway to support requirements and standards for DAA. A number of companies have developed technology intended to automatically detect and avoid other aircraft, but the technology is still maturing." (Emphasis added).

And:
"In addition, we (the FAA) will work to solve the technical challenges, such as DAA, that **must be addressed** in order to support BVLOS operations…" (Emphasis added).

In apparent agreement with these concepts, the ARC Final Report states, in its Background section, *"The industry is ready and willing to provide resources, technology, and expertise to scale BVLOS…"*

Right of way rules that impart an appropriate level of shared responsibility for collision avoidance between crewed aircraft and UAS are essential for maintaining an acceptable level of safety as UAS are integrated into the NAS. The proposed rule changes contained in the ARC Final Report are not consistent with this.

In addition to the important compromises to aviation safety that would ensue from the adoption of the changes to right of way rules proposed by the ARC Final Report, there are significant legal and liability implications as well. As noted by Daren T. Johnson in an article published in Journal of Air Law And Commerce:
"FAR's are the implementation of the Federal Aviation Act of 1958 and their purpose is 'to promote safety of flight of civil aircraft.'' Their violation is equivalent to violation of a statute, which is equated with negligence per se or a presumption of negligence, depending on the jurisdiction whose laws are applied. Title VI of the Act 'establishes a system of safety regulations of civil aeronautics'' and authorizes the Administrator to prescribe '[s]uch reasonable rules and regulations... [as] necessary to provide adequately for ... safety in air commerce.' The FAR's are promulgated under that authority and have the force and effect of law. The Act itself makes it unlawful to operate an aircraft in violation of those regulations. When an aircraft is involved in an accident and a suit to recover damages is instituted, the claim is almost invariably made that the accident was proximately caused by violation of one or more FAR's. In these cases, the courts have consistently construed the FAR's as being safety regulations that are relevant to the standards of care of negligence law. In fact, the courts have applied some extremely rigorous interpretations to the FAR's. United States v.

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Miller is certainly a case in point. That case involved a right-of-way dispute. The Ninth Circuit held that 'beyond the pilot's control' and 'cannot be seen' appear to contemplate that only physical impossibility, due to such factors as weather or terrain, should excuse application of the right-of-way rules. Had mere difficulty of recognition or perception been intended as the relevant criterion, more appropriate language would have been used. With particular pertinence to the legal effects of FAR's generally, the Miller court held: It may be that in order to have seen the [other aircraft] against this background Miller would have had to look thoroughly and diligently in the area in which [it] was flying.... We believe that this is the standard imposed by the rules, and it is not for the courts to say that the standard is too exacting.' "

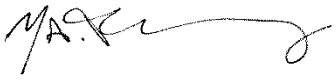
In light of the above, it would appear from a legal standpoint that the adoption of the recommendations of the ARC Final Report would absolve UAS from legal liability in the event of a collision with a crewed aircraft not equipped with ADS-B or TABs, and place all liability on the operator of the crewed aircraft without regard for whether the operator had any legitimate opportunity to avoid the encounter.

In light of all of the foregoing, the USHPA strongly recommends that the changes to aircraft right of way rules proposed in the ARC Final Report not be adopted. We thank you for the opportunity to comment.

Respectfully,

Michael Meier
National Coordinating Committee Chair
Member Part 103 Users Group – Riverside FSDO
Member ARAC for Part 103 (Aviation Rulemaking Advisory Committee)
Member ASTM F37 Committee on Light Sport Aircraft – Lead Technical Writer on Design Standard for Weight Shift Aircraft

Steve Pearson
President



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