

James L. Ferris, Jr  
Lockheed Martin Corporation  
1801 State Route 17C  
Owego, NY 13827

Subject: Expansion of Exemption No. 10395; docket No. FAA-2011-0953 to include 14 CFR 91.151

Lockheed Martin is currently engaged in the development, testing and support of small unmanned air systems. As part of this activity, Lockheed Martin works with the FAA to support testing and integration of these small unmanned air systems in the NAS, under experimental certification in accordance with FAA Order 8130.34. Currently, Lockheed Martin has exemption 10395 for 14CFR 91.9(b) and 91.203 (a) & (b) in support of our Owego operations. Lockheed Martin also has exemption 10673 for 14 CFR 91.9(b), 91.151(b), and 91.203(a) & (b) for the Vertical Capability Airborne Platform. Lockheed Martin requests that exemption 10395 be revised to include exemption to 91.151 (a) & (b) in support of small UAV activities conducted in accordance with approved experimental certifications and associated limitations. As this is an ongoing line of business activity and the conditions requiring these exemptions are anticipated as remaining unchanged, Lockheed Martin would also request that these exemptions be granted with no expiration date.

Lockheed Martin believes that granting this exemption is in the public interest in that it supports the ongoing development, testing, refinement and safety of small unmanned aircraft systems to support a number of functions such as aerial photography and assessments for power companies, agriculture and other commercial operations, as well as uses in search and rescue and other safety functions. These experimental certification activities are conducted for research and development, crew training, and market survey operations. This exemption request is also consistent with other exemptions granted by the FAA under similar circumstances, particularly under Section 333 exemption requests.

As a general class, small unmanned aircraft are electrically powered, and operate on rechargeable batteries that have typical endurance ratings of approximately one hour, and weigh less than 25 lbs. The aircraft do not operate from established airports or airfields and do not require large prepared areas for launch and recovery. Operation is limited to pre-defined and approved operating areas associated with the experimental certificate limitations, with the operating areas being over sparsely populated areas with minimal exposure to ground personnel or property. Their flights are required to be conducted within visual line of sight of the operator/observer which includes the proximity to the launch and recovery area. Under visual line of sight, the UAV is operated within areas that support launch and recovery, with suitable landing areas always being readily available within a distance easily traversed in 5 minutes or less. Operations within the line of sight operating areas also means the actual flight plan routes are considerably compressed from traditional manned aviation flight routes. Lockheed Martin believes that an operating endurance estimate of 10 minutes available after reaching the first point of intended landing for a fixed or rotary small UAV would provide an equivalent level of safety to the standard manned aircraft day VFR requirement of 30 minutes (fixed wing) and 20 minutes (rotorcraft). Depending on the specific UAV, this 10 minute remaining endurance would vary in the percentage of remaining battery life, but is a value that is relatively easy for the operator to determine and monitor.

To summarize, Lockheed Martin is requesting exemption to 91.151 for operation of small unmanned air systems under 25 pounds, consistent with exemptions previously granted by the FAA associated with Section 333 submissions. Lockheed Martin believes that for small unmanned air systems, a 10 minute air vehicle endurance remaining on the platform is an equivalent level of safety to 91.151 criteria and requests that this exemption be granted without a defined expiration date.

If additional information is needed to support this request, please contact the undersigned at (607)-751-6416, or via email at [james.ferris@lmco.com](mailto:james.ferris@lmco.com).