Submission from Wing Aviation LLC
FAA's Proposed Safety Management Systems

Wing Aviation is one of the world's leading manufacturers of lightweight uncrewed aircraft, air delivery service, and uncrewed traffic management (UTM) platform designed to serve the emerging aviation uncrewed industry.

Wing has been collaborating with the FAA in various capacities over many years to define, design, test, and operate uncrewed aviation delivery services. To date, Wing has developed multiple aircraft designs that are in operation and have flown over 350,000 flights across three continents under the oversight of five different civil aviation authorities.

As one of the leaders in the industry, Wing prioritizes safety and sees tremendous value in Safety Management Systems (SMS). Wing voluntarily developed and implemented its own SMS based on the FAA and ICAO principles. In fact, Wing continually incorporates learnings from our expanding operations to update its SMS and accompanying Safety Management Manual (SMM).

The FAA's existing SMS framework allows for small uncrewed aircraft system (sUAS) operators to have sufficient flexibility in how they design and implement their SMS to meet the needs of their company and type of drone and operating environment. Giving further guidance that is tailored to the sUAS industry, while maintaining flexibility, is critical to achieving safe operations at scale, and relieving sUAS operators of unnecessary compliance burdens.

While Wing is a strong advocate for a risk-based SMS, we think the NPRM's approach that would apply equally to both large, crewed aircraft and sUAS is not appropriate nor is it justified by the examples used in the NPRM. Wing proposes that the FAA task the Advanced Aviation Advisory Committee (AAAC) to make sUAS-specific recommendations to be incorporated into an anticipated operator certification consistent with the Beyond Visual Line of Sight Aviation Rulemaking Committee recommendations (often referred to as Part 108). Until this rulemaking has been completed, we request that sUAS operators and manufacturers be granted a deferral from complying with this proposed rule. That interim period will allow the sUAS industry to develop and the FAA to consider an SMS process that is appropriately

tailored to this industry and achieves horizontal integration with other FAA safety requirements for sUAS.

It is in that context that our comments to the NPRM are provided. To be helpful, in some cases alternative language is provided for the FAA's consideration.

FAA Individual Questions:

1. The FAA requests comment regarding how SMS might present unique opportunities or challenges for smaller organizations.
   (Answer to questions 1-2 below)

2. The FAA is aware that there are 135 operators that use only one pilot-in-command in their operations, as well as § 91.147 LOA holders with low flight volume. The FAA seeks supporting information and data regarding whether this applicability should be limited to a certain subset of part 135 operators and § 91.147 LOA holders, and if so, how? If the applicability is limited to a particular subset of part 135 operators and § 91.147 LOA holders, please provide any recommendations for alternatives that would achieve the same safety objectives as SMS for those operators that would not be included under SMS.

Based on our experience in using a Safety Management System within Wing, we are ***fully supportive of expanding the SMS requirement to a broader set of aviation certificate holders***, with appropriate flexibility. We agree that these organizations are best positioned to prevent future incidents and accidents as they are closest to the hazards, and know the most about their aircraft and operations.

We note, however, that the rationale and examples the FAA uses in this NPRM concern fatalities, accidents, and incidents in crewed aviation. The NPRM makes no specific distinction for lower risk UAS operators. While the NPRM indicates that each SMS can be tailored to the organization's unique operations, as currently written, these prescriptive SMS requirements would be equally applied to crewed passenger carrying services, such as major aircraft manufacturers and airliners, as they would to uncrewed, non-passenger services, such as infrastructure inspection and delivery.

This NPRM calls for ***FAA approval*** of the SMS for all entities in essentially the same way. Wing instead advocates for an ***acceptance-based approach*** for lower-risk sUAS entities**.** We recommend the FAA accept ***the initial SMS and changes thereafter*** as long as the organization continues to demonstrate it is consistently and comprehensively safe within the parameters of its own SMS risk management and safety assurance performance indicators.

This would allow the FAA to focus its resources on needed ongoing approvals for higher risk passenger carrying aircraft and services in its early SMS rule implementation. If, over time, the sUAS industry is not meeting its safety commitments and incident rates are trending higher, additional oversight could be added.

3. The FAA considers that there may be safety benefits to applying SMS to a larger portion of the aviation industry that could lead to safety improvements in the aviation ecosystem as a whole. The FAA invites comments as to whether part 5 should apply to all holders of a TC, PC, supplemental type certificates, technical standard order authorizations, or parts manufacturer approvals. The FAA requests that comments specify whether any exceptions should be made in the event that the FAA extends part 5 to these design and production approval holders, and what those exceptions should entail. The FAA further requests information and data related to the safety benefits or impact of applying part 5 to additional design and production approval holders beyond the applicability in this proposed rule.

Wing is supportive of the requirement for the broader industry to develop, use, and maintain an SMS. However, for manufacturing and production of lower risk sUAS, we believe that the FAA should accept ***the initial SMS and changes thereafter*** as long as the organization continues to demonstrate it is consistently and comprehensively safe within the parameters of its own SMS risk management and safety assurance performance indicators.

As outlined, the NPRM requires ongoing approval from the FAA, which could mean that practically any change to manufacturing or operation may require review and approval of the entire SMS itself. As is often the case, a change in the SMS is based on increasing knowledge or insight, and the change is made to mitigate some newly determined hazard or risk. It is likely that the associated administrative review and continuing approval delay could actually impede a modification that would improve

safety. Minor modifications can be made to sUAS safety through a rigorous change management process, such as Wing employs through its SMS.

4. Under § 5.15(a), the FAA is proposing that any person that holds a TC for a product who allows another person to use the TC to manufacture a product under a PC to be required to submit an implementation plan for FAA approval in a form and manner acceptable to the Administrator no later than December 27, 2024, and implement the SMS in accordance with the FAA-approved plan no later than December 27, 2025. These proposed compliance dates are consistent with the proposal under § 5.11 for holders with a TC and a PC for the same product issued under part 21. The FAA invites comments about whether the FAA should extend the compliance timelines for persons who license their TC to other persons and, if so, what timelines the FAA should establish. The FAA requests that responsive comments include the commenter's rationale.

No further comment.

5. The FAA seeks comment on whether organizations can share information about hazards without disclosing proprietary information. The FAA also seeks comment on whether the holder of the proprietary information would be in the best position to address the hazard. Please provide examples of any situations in which the holder of proprietary information would not be able to share information about a hazard without disclosing that proprietary information.

This NPRM requires a confidential employee reporting system under which companies submit regular summaries of confidential employee reports to the FAA every six months. Wing supports the FAA's provision that employees should report safety concerns without reprisal. This is outlined in Wing's safety policy and ongoing daily operations.

It is unclear how the FAA intends to handle these reports, which may contain proprietary or identifying information. It is possible that some of the content may be outside the FAA's purview, or that these reports could be made public whether through FOIA or some other process. All of these questions may make employees hesitant to report into a company reporting system if they do not know how that information is going to be used or where it might end up.

In order to preserve the comfort level for employees to note potentially unseen safety issues, any mechanism the FAA uses to collect, store, or analyze confidential safety reports from companies must protect against the release of personal identifying information or business sensitive/confidential information.

6. The FAA seeks comments regarding the Annual Burden Estimate for the Paperwork Reduction Act to—
   (a) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;
   (b) Evaluate the accuracy of the agency's estimate of the burden;
   (c) Enhance the quality, utility, and clarity of the information to be collected; and
   (d) Minimize the burden of collecting information on those who are to respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

The sUAS industry continues to struggle with the FAA's approach of very slowly waiving or modifying existing regulations taken from the passenger transport industry to adapt them to uncrewed aircraft and operations.

New methods of practicing safety through safety management (such as the design of sUA to be frangible and easily replaceable rather than maintained), as well as a significant number of ongoing operational demonstrations, and routine services, could be utilized to decrease the number of approval processes necessary for these lower risk operations.

Safety Management Systems are designed to guide organizations in quantifying, mitigating, and sustaining operational safety. We would like to suggest that the FAA, in its practice of safety management, could review the numerous safety regimes and processes designed for passenger transport and encourage the sUAS industry to provide an outline as to how SMS could replace or obviate some of the ongoing burdensome pathways to sUAS operations.

SMS has the capability to be used to reduce the burdensome regulations and paperwork necessary for routine sUAS operations that have already proven

themselves to be sustainably safe. The FAA and industry have the opportunity to align on an overall SMS framework with clear risk tolerances and performance indicators so that the FAA maintains its proper oversight, with full operational transparency through a company's SMS.

7. Is there data or other evidence of the effectiveness of SMS in mitigating accidents and incidents?

Wing believes in safety management and, through our own use of this practice, believes that SMS data can be used to reduce the risk of incidents and accidents. Wing continually assesses system processes and resulting data in its ongoing operational environment to identify and mitigate potential and future hazards.

8. Appendix A of the RIA lists the accidents that inform the RIA and includes the FAA's assessment of the effectiveness of SMS mitigating the accident as well as the FAA's rationale:
   (a) Has the FAA accurately estimated the most likely effectiveness of mitigation of any specific accidents through the proposed rule? Please provide any data or analysis to support your assessment.
   (b) Does the FAA's rationale accurately assess how the use of an SMS would potentially mitigate the hazards that caused the accidents?
   (c) What would be a reasonable intervention to mitigate the specific hazards identified, and what would be a reasonable estimation for the cost of the intervention or mitigation? Please provide data or analysis to support your response.
   (d) Are there additional accidents or incidents that SMS could have meaningfully mitigated?

Wing is not aware of any UAS-related accidents or incidents causing serious injury or death. As part of consultation with the AAAC, the FAA should review UAS accidents or incidents that caused any serious injury or fatality to assess whether an SMS would have improved safety.

9. The FAA seeks comments and information regarding expanding the applicability of part 5 in the future. Should the FAA consider a future rulemaking project to expand the applicability of part 5 to include repair stations certificated under part 145?

Repair stations perform a wide range of repair and maintenance work on an equally wide range of aircraft and components. Some repair stations do not perform work on aircraft used for passenger-carrying operations. Should the FAA consider applying part 5 to all certificated part 145 repair stations? Should applicability be limited to a subset of part 145 repair stations? The FAA seeks information and supporting data regarding how the applicability should be limited to a subset (*i.e.,* to which repair stations should part 5 be applicable).

No comment on repair stations.