

April 11, 2023

Docket Operations, M-30  
U.S Department of Transportation  
1200 New Jersey Ave, SE  
Room W12-140  
West Building, Ground Floor  
Washington, DC 20590-0001

**RE: Docket No: FAA-2021-0419; Safety Management Systems**

The National Business Aviation Association (NBAA) represents the interests of more than 11,000 members who own, operate, and maintain business aircraft, including those companies who provide on-demand, commercial air transportation. NBAA holds safety as a core value, and we work closely with the FAA to ensure that regulatory and policy development reflects input from affected stakeholders, including participating in the Safety Management System (SMS) Aviation Rulemaking Committee (ARC) in 2009.

On behalf of NBAA and the business aviation community, we submit these comments in response to the FAA's Safety Management System Notice of Proposed Rulemaking (NPRM). We developed these comments to share concerns regarding the content of the proposal, identify possible alternatives and to provide feedback to FAA's many questions embedded within the NPRM.

**Summary**

NBAA has long been supportive of voluntary implementation of SMS and related initiatives, including Aviation Safety Information Analysis and Sharing (ASIAS) program, Aviation Safety Action Program (ASAP) and Flight Operational Quality Assurance (FOQA) programs, to name a few. In fact, NBAA and sister organizations of the International Business Aviation Council (IBAC) first started work to develop an SMS and operations standard in 1999. That effort created the International Standard for Business Aircraft Operations (IS-BAO) that has seen robust Part 91 and Part 135 operator support.

While NBAA supports the adoption of pathways for greater SMS adoption within the Part 135 community, we have significant concerns about requirements in the proposed rule as currently written. We will continue to support the adoption of SMS programs broadly, however, we believe that the NPRM is problematic for a majority of entities covered by this proposal.

As a strong proponent of SMS, NBAA participated in the FAA's SMS ARC in 2009 to assist the Agency with managing comments submitted as part of its effort to establish Part 5. During the ARC, the FAA and industry consensus was that when the FAA sought to expand SMS beyond operations conducted under FAR Part 121, we would return to the table to explore options for expanding an SMS mandate to small operations. Unfortunately, we and the business aviation community did not have the opportunity to share our decades of SMS experience with the FAA prior to the release of this proposal.

The NPRM seeks to expand the scope of SMS regulations found in Part 5 to Part 135 operators, Section 91.147 air tour Letter of Authorization (LOA) holders and certain Part 21 certificate holders. While NBAA supports the implementation of SMS and related safety initiatives, the NPRM does not provide a scalable pathway to compliance for small operators, which represent many of the entities impacted by this proposal.

Of the almost 2,000 Part 135 certificate holders, over 800 are single PIC, single pilot or basic operators. This NPRM will apply to the largest Part 135 certificate holders – operating hundreds of aircraft – and the smallest Part 135 certificate holders - even those operating just one small, single-engine piston-powered aircraft with only one pilot.

The majority of Part 135 certificate holders which would be subject to this rule are small operators with one or two aircraft. The NPRM as written does not provide a feasible path to compliance for these operators, despite the FAA's assertions of scalability in the preamble.

Lack of scalability of this proposed ruling translates into an overly complex, and therefore unduly challenging, implementation for small operators. Small operators make up roughly 40% of the certificate-holding population affected by this ruling. This equates to an unfair targeting of those operators, leading to potential non-compliance and adverse action against small air carriers as a byproduct of the proposed Part 5 changes.

Further, as explained later in our comments, the NPRM does not harmonize with the International Civil Aviation Organization (ICAO), despite the FAA's claims, creating conflicts for Part 135 certificate holders with activities and operations outside of the U.S.

NBAA strongly believes that the FAA should consider including SMS requirements within the Part 135 rule, as was done for airport SMS requirements established in Part 139. We believe this structure would better achieve the following objectives, as further explained in these comments:

1. Establishment of an effective SMS that incorporates best practices and allows for scalability and incremental improvement.
2. Alignment with and/or acceptance of language and standards within ICAO Standards and Recommended Practices (SARPs) (Annex 19<sup>1</sup> and Doc 9859<sup>2</sup>) to ensure acceptance of U.S. certificate holders' SMS across the globe.
3. Resolution of identified contradictions within the NPRM to ensure effective SMS programs within the industry.

### **Scalability, Timeline and Oversight Implementation Concerns**

NBAA's primary concerns center on scalability for small operators of the SMS mandate, the timeline for implementation, those operators' ability to effectively comply with all of the requirements, the tangible value and benefit that complex Part 5 requirements have on the

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<sup>1</sup> Safety management, Annex 19 to the Convention on International Civil Aviation, Second Edition (2016).

<sup>2</sup> International Civil Aviation Organization. (2018). *Doc 9859: Safety management manual, fourth edition.*

safety of small operators versus the adverse impact on the business thereof and the FAA's ability to oversee a mandate which applies to so many entities.

### ***Scalability Concerns***

Section 3, Subpart F of the NPRM states that Part 5 is scalable due to the performance-based nature of the regulation. However, NBAA members reported significant concerns regarding scalability of the proposed rule. In fact, Part 5 is very prescriptive and will be difficult for some operators to implement. In particular, small operators have expressed great difficulty with several elements of Part 5 and FAA's Voluntary Program including emergency response planning, safety performance management, safety communication, confidential reporting, oversight of external entities, safety risk management and system analyses.

At its most extreme, the NPRM suggests that the SMS rule for one of the largest scheduled airlines in the world with over 130,000 employees should be suitable for a company consisting of one pilot who flies people and their fishing guides to remote sandbars in Montana.

Single pilot and single Pilot in Command Part 135 certificate holders will find compliance with Part 5 as written challenging or, in some cases, impossible. A single-person entity cannot comply with a confidential reporting system, for example, and likely does not have a company structure large enough to support the additional administrative requirements of Part 5 as proposed.

As proposed, the regulation does not consider unique challenges for the smallest operators. For example, NBAA is concerned by the FAA's proposed removal of existing language in § 5.3(a) for an SMS to be appropriate to the size, scope, and complexity of the organization's operation. We believe it is a critical foundation of a scalable SMS mandate. NBAA strongly opposes the removal of that language as it is important to keep that language in the regulation itself to ensure that SMS programs reflect the specific needs of each operator and for harmonization with ICAO standards on SMS.

A few examples of the prescriptive nature of Part 5 are as follows:

5.21(a)(5): The requirement for a policy that defines unacceptable behavior and conditions for disciplinary action is inappropriate for one-person organizations. This may be appropriate for organizations with more than one person. However, a significant number of affected operators have only one person who wears all hats in the operation. In a single-person operation, how would an SMS define acceptable behaviors beyond compliance with all FARs and operating limitations? Furthermore, how would the SMS policy define conditions for disciplinary action for an employee set of one when that individual is the entirety of the operation?

5.21(a)(7): Implementing a code of ethics that clarifies safety as the organization's highest priority is a prescriptive requirement. This mandate provides little value and regresses safety thinking to the early 1990s. Organizations are not in the business of manufacturing safety and it should be noted that it is the production side that pays for

the protection side (J. Reason, 2016)<sup>3</sup>. An organization's highest priority should be to sustain the business through maximizing profit balanced against appropriate risk control. In other words, maintain in the parity zone (J. T. Reason, 1997)<sup>4</sup>. As well, safety should be a core value of the organization through which decisions are evaluated. Priorities change, but core values endure over the long term.

5.27: The requirement for coordination of emergency response planning is unclear, impractical, and burdensome for many of the operations that will be subject to this rule. As an example, some Part 135 operators may already coordinate their ERPs with the airport and fire and rescue authorities at their home base airport or frequent locations, but due to the on-demand nature of Part 135, it would be unrealistic for an operator to have such ERP coordination with every airport and its respective fire and rescue authorities prior to a flight. However, NBAA sees value in an operator having such coordination with a contracted third-party organization that aids the operator with ERP responsibilities, such as next of kin notification and family assistance.

5.53(a): This is a prescriptive requirement to perform a systems analysis when "applying safety risk management". First, the term "applying safety risk management (SRM)" is confusing as SRM is not an application but rather a continuous and iterative process (ICAO, 2018)<sup>5</sup>. Second, the use of the systems analysis, as outlined in Doc. 9859, is a tool to help scope the SMS and set the stage for identifying hazards – not a step prior to analyzing every hazard in the system. Using the system analysis to "identify hazards" is prescriptive and limiting. Hazard identification can use a variety of tools including, but not limited to: reporting, surveys, investigations, audits, data analysis and safety case analysis (ICAO, 2018)<sup>6</sup>. These methods can be used to identify hazards proactively and reactively.

5.53: Overall, requiring a system description/analysis is a practical mandate. However, requiring documentation of a system description/analysis for every single identified hazard is unrealistic, particularly for small organizations, and becomes a paperwork burden with no identifiable benefit.

5.53(b)(5): Understanding of risks introduced by other interfacing entities is important. Any such risks identified should be controlled. However, expecting small organizations to assess external entities is an unrealistic approach and counterproductive. Conducting audits/assessments on every external agency, FBO or contractor is overly burdensome and not practical given the on-demand nature of most Part 135 operations. Instead of assessing each external entity, operators should be permitted to develop and implement policies and procedures which mitigate the risks possibly introduced by these interfacing entities. For example, risks associated with FBO services might include misfuelling or damage incurred during ground handling. A policy requiring the pilot-in-command or other trained crewmember to supervise fueling and ground handling, or, when that is not

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<sup>3</sup> Reason, J. (2016). *Organizational accidents revisited*. Ashgate.

<sup>4</sup> Reason, J. T. (1997). *Managing the risks of organizational accidents*. Ashgate.

<sup>5</sup> International Civil Aviation Organization. (2018). *Doc 9859: Safety management manual, fourth edition*.

<sup>6</sup> International Civil Aviation Organization. (2018). *Doc 9859: Safety management manual, fourth edition*.

possible, to conduct a thorough preflight to include verification of fueling and visual inspection for any damage mitigates that risk without conducting a thorough audit of each organization. Similarly, an operator can mitigate risk by choosing vendors with accredited safety programs, such as the International Standard for Business Aircraft Handlers (IS-BAH), when available.

There are many methods of mitigating risk potentially introduced by third-party entities. Organizations should have the flexibility to use risk-based approaches to mitigate that risk.

5.71: Safety performance monitoring processes can often become a misguided - if not purely administrative - exercise (e.g., an organization utilizes Safety Performance Indicators (SPIs) as proxy for safety performance, manage SPIs instead of safety, chase the asymptote or track events that rarely happen or that are somewhat irrelevant, etc.).

5.71 (a)(7): The requirement to implement and maintain a confidential versus an anonymous reporting system is a prescriptive requirement. There is a difference between the two (Global Aviation Information Network Working Group E, 2004)<sup>7</sup> and some organizations may wish to implement an anonymous reporting system over a confidential one to provide more comfort in reporting. Second, how would a confidential – or even anonymous – reporting system work in a one- or two-person organization? These small organizations are common in Part 135 operations.

5.93: Communication processes vary from organizations of different sizes. Forcing an operator to comply with specific documentation processes can be counterproductive. While recordkeeping is an important aspect of compliance, especially in terms of the risk controls, recordkeeping requirements can become overly burdensome for small organizations. Although most records listed in Part 5 are necessary for the use of the organization itself in the future (i.e., risk management processes, safety assurance processes – in a very simple manner – and, arguably, training), the records of communications are particularly challenging and have no value-add to the organization itself.

The proposed AC 120-92D is similarly challenging. Unlike AC 120-92B, the proposed AC 120-92D differs significantly from the modern SMS SARPs detailed in ICAO Annex 19 and, in fact, reduces scalability through its prescriptive language and unsupportable descriptions of the role of technology in an SMS. For example, the draft AC claims to describe scalable options for compliance but quickly diverges to language more appropriate for large operators. In the case of 5.97, the AC says employee meetings with rosters of attendees, dedicated records staff or department are evidence of compliance. The smallest operations will not have a roster to track the attendance of a single employee, nor will they have dedicated record staff.

Also, the AC states, “Due to the size and complexity of the organization, the use of technology is probably more pronounced.” This is an example of a misunderstanding between scalability

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<sup>7</sup> Global Aviation Information Network Working Group E. (2004). *A roadmap to a just culture: Enhancing the safety environment*.

and capability or adoption of technology. There is no correlation between size or complexity of organization and use of technology.

Further, its system diagram, a prescriptive element common to both the draft AC and Part 5, restricts hazard identification to only one location, while a learning culture understands that hazard identification occurs throughout the organization and its SMS.

Other National Aviation Authorities (NAAs) and organizations provide more scalable mandates and guidance for small operators. The FAA should strongly consider these references when drafting regulations and guidance applicable to small operators.

Safety Management International Collaboration Group (SMICG): [SMS for Small Organizations | SKYbrary Aviation Safety](#)

Civil Aviation Safety Authority (CASA) of Australia: [Safety management systems for aviation: a practical guide SMS 7 Scaling for size and complexity \(casa.gov.au\)](#)

United Kingdom Civil Aviation Authority (UK CAA): [CAP 1059 Safety Management Systems: Guidance for small, non complex organisations \(caa.co.uk\)](#)

The SMICG SMS for Small Organizations: Considerations for Regulators, encourages regulators to consider the size and complexity of an organization when developing SMS regulations or evaluating an operator's SMS. Complexity considerations include:

- Operating environment (mountainous terrain, arctic operations, offshore operations, etc.);
- Number of types of operations (passenger operations, cargo, aerial work, Emergency Medical Services, etc.);
- Fleet complexity —number of aircraft or aircraft types;
- Number of locations (bases);
- Maintenance —number of ratings, types of product ratings, specialized work, technologies employed, number of customers and sub-contractors;
- Types of products and parts designed/manufactured;
- Number of aircraft movements (aerodromes and Air Navigation Service Providers [ANSPs]);
- Surrounding terrain and levels of equipment at aerodromes;
- Density and complexity of traffic for ANSPs;
- Extent of contracted activities; and
- Number of runways and taxiways at aerodromes.

This approach to regulating SMS is far more effective than the one-size-fits-all prescriptive approach of the proposed Part 5.

For example, the SMICG SMS for Small Organizations includes guidance for “very small” organizations, defined as less than five staff members, and “small” organizations, defined as between five and twenty staff members, on hazard reporting policies.

“For Very Small organizations, a separate reporting policy may not be required if individuals are intimately involved in most aspects of the organization’s operations and employees feel free to report safety-related information.

A Small organization should have a reporting policy so that everyone has a clear understanding of the organization’s values regarding the reporting of safety-related information and how it encourages a healthy reporting culture.”

The document also provides clear guidance for very small and small organizations to meet the Safety Promotion pillar, specifically safety training:

“Very Small Organization Safety Training: The simplest way is to require all staff to read and understand the SMS Manual and sign for reading the manual as part of the Training Record.

Small Organization Safety Training: All staff members need to understand their role and responsibilities in the SMS and this can be done through training and/or reading and understanding the SMS Manual. All training needs to be recorded.”

CASA’s SMS 7 - Scaling for Size and Complexity also emphasizes the need for scalability:

“SMS is scalable, so your system needs to reflect what you do, your specific risks, and what you are doing about them. Above all, the way you manage safety needs to be systematic...Although this may seem a daunting task, especially for some smaller organisations, breaking the system down into discrete elements will help you to recognise what you already have in place and what you may still need to develop.”

The CASA guidance follows the SMICG concepts of evaluating an organization’s size and complexity to determine appropriate SMS mandates and activities. For example, this guide describes safety accountabilities and key personnel accordingly:

“For small organisations this structure may be very simple and consist of the person in charge, being the accountable manager (CEO or owner) and a few key staff members who have a role in how the organisation is managed on a day-to-day basis.”

These are just a couple of examples of performance-based, scalable compliance methods the FAA should consider in its own rulemaking and guidance documents.

The FAA should consider lessons learned by EASA and Transport Canada, both of which produced similar SMS models in past decades. In subsequent years, these agencies published feedback highlighting difficulties small organizations face when implementing and maintaining a regulatory requirement like FAA’s Part 5.

For example, experience in other regulatory frameworks has illustrated the need for additional full-time personnel or requiring external contractors to manage the system. An SMS must be scalable, otherwise, the administrative burden on operations can be problematic and unsustainable for organizations with a small roster of personnel.

Because of these distinct differences in the nature, scale and types of Part 135 operations, NBAA proposes that, as the FAA did with Part 139, any new SMS requirement for Part 135 resides within Part 135. Changing Part 5 enough to accommodate Part 135 operators would also create difficulties for the Part 121 operators already complying with Part 5.

Alternatively, the FAA could designate specific regulations as being applicable to particular entities based on size or complexity, utilizing criteria similar to the complexity criteria identified by SMICG and listed above.

Consider regulations such as 14 CFR § 135.411, which establishes different requirements for different types of aircraft operators based on the certificated number of passengers the aircraft can carry (i.e., aircraft certificated for a maximum of ten or more passengers must comply with all of Part 135 Subpart J, while aircraft certificated for a maximum passenger seating of nine or fewer passengers must only comply with designated regulations in Subpart J). Regulatory reliefs for single-pilot operators throughout Part 135 are another such example of methods that are currently in use to scale regulatory requirements for small operators.

### ***Timeline Concerns***

The FAA's implementation timeline is unrealistic and inconsistent with previous SMS Final Rules. For example, the FAA Airports SMS Final Rule, issued February 16, 2023, allows four to five years for Part 139 airports to fully implement an SMS. The proposed rule allows 24 months for certain Part 21 to submit an implementation plan and allows for Section 91.147 air tour operators and 135 certificate holders to submit a statement of compliance with no deadline for full implementation.

Experienced international safety auditors, including auditors accredited through IBAC to conduct IS-BAO audits, suggest a three- to five-year timeline is more realistic for a certificate holder to implement an SMS.

A survey of NBAA members indicated that while many organizations may be able to implement an SMS in 24 months, others (almost 25%) required 24 to 48+ months for a variety of reasons.

The FAA states in preamble language that the agency considers the Part 21 certificate holder to have adopted the SMS system at the time the certificate holder files the implementation plan. However, the proposed rule for Section 91.147 air tour operators and Part 135 certificate holders requires a statement of compliance within 24 months.

The timeline for Section 91.147 air tour operators and Part 135 certificate holders to submit a statement of compliance is not reasonable. NBAA recommends the FAA harmonize implementation for all entities newly subject to SMS requirements by providing 24 months to submit an implementation plan, not a statement of compliance.



Full and effective implementation of an SMS can take several years. Forcing certificate holders to implement an SMS on an expedited deadline could result in “binders on the shelf” or a box-checking exercise rather than effective safety management.

Further, FAA inspectors will require adequate guidance and training to acknowledge the implementation plan as sufficient to meet the initial mandate.

The FAA should also develop Safety Assurance System Data Collection Tools in consideration of scalability needs for different size and complexity of operations, as well as implementation milestones and overall SMS principles.

### ***FAA Oversight Implementation - Resources/Alternate Means of Compliance***

The FAA has limited resources to meet existing SMS oversight requirements, much less to oversee new programs. The Agency should strongly consider alternate means of compliance or methods of oversight and compliance assurance. The preamble of the NPRM considers this possibility, stating, “The FAA acknowledges that organizations may be able to leverage consensus or community standards, which are typically developed by third-party consultants or trade associations, to meet the requirements of Part 5.”

NBAA sees several paths forward for an alternate means of compliance, aligning with this preamble statement.

1. The FAA has previously recognized certain industry programs, including IS-BAO and the Air Charter Safety Foundation Industry Audit Standard (ACSF IAS), as meeting ICAO Annex 19 standards. (See Information for Operators InFO 11010 FAA SMS Developments for General Aviation Operators.) The FAA could simply recognize accreditation through one of these programs as compliance with Part 5 requirements. A survey of NBAA members with an implemented SMS shows almost 80% of survey responders are accredited under IS-BAO and almost 20% are accredited through the ACSF IAS. This demonstrates the industry commitment and buy-in for these programs.
2. The FAA could also issue a statement of compliance for third-party methods of implementing an SMS. This method is already recognized by the FAA as an efficient way to streamline the authorization of LOAs for new aircraft, where international flight operations procedures manual vendors, training vendors and aircraft manufacturers are issued a statement of compliance for operator use in the authorization of LOAs.

To receive a statement of compliance, the vendor must be evaluated by the FAA to ensure their product, when provided to an operator, will allow the operator to meet regulatory requirements for the LOA. The operator then provides the FAA a copy of the statement of compliance as part of the LOA application package. The process eliminates the need for hundreds of inspectors to review the same manual, training program, or

aircraft equipment. It further expedites the approval because the statement of compliance presents information to the inspector in a standardized manner, thereby eliminating the need to search for information scattered throughout the application package. A statement of compliance could yield similar benefits for ensuring operators meet the requirements of SMS regulations.

3. A third possibility is the use of trained, FAA-approved designees to conduct oversight on behalf of the FAA. The use of designees which allows the FAA to delegate to a qualified private person a matter related to issuing certificates, or related to the examination, testing, and inspection necessary to issue a certificate on behalf of the FAA Administrator as authorized by statute to issue under 49 USC 44702(a), could serve as a model for this type of compliance method.

NBAA strongly encourages the FAA to consider including these options described above as acceptable means of compliance.

The FAA must provide considerable, appropriate training for inspectors if the FAA plans to oversee implementation of these requirements itself. NBAA remains concerned about the FAA's ability to successfully oversee the SMSs of these organizations given the current significant inspector resource challenges the agency is experiencing with current oversight activities.

Scalability, implementation timeline and limitations of the mandate must be understood by each inspector charged with overseeing a regulated entity's SMS. For example, oversight of the SMS is limited in scope to aviation activities; an inspector has no authority over financial decisions, other than to ensure adequate resources are available to ensure safe and compliant operations.

Further, inspector opinions and decisions vary significantly over much more objective concepts than SMS. Inspector training and guidance must allow for flexibility in implementation methods but ensure some consistency between inspectors' applications of the rules.

Inspector guidance and related policy documents should also address aviation organizations with multiple lines of business or certificates subject to an SMS mandate to ensure a single SMS can encompass all of their aviation-related safety activities, as mentioned in the preamble language.

### **NBAA Key Recommendations**

The following recommendations address the key concerns of scalability, implementation timelines and FAA resources. These actions are necessary for any SMS implementation. Progressing with the Agency's proposed rule unaltered will not result in improved safety.

1. The FAA should incorporate the requirements for SMS for Part 135 operators within the Part 135 rule, as was recently done for airport SMS requirements within Part 139 to allow for more scalability for Part 135 operators with provisions therein to allow for meaningful implementation for small operators.

2. The FAA should use less prescriptive language to allow for more scalability. Industry-established programs, including IS-BAO and ACSF IAS, already recognized by the FAA follow ICAO Annex 19 and most importantly, provide scalable implementation processes. CASA, UK CAA and SMICG also offer practical, performance-based language for small organizations.
3. The FAA should strongly consider a phased timeline similar to that allowed for Part 121 airlines during the original Part 5 implementation and Part 139 airports subject to SMS mandates.
4. The FAA should strongly consider alternate means of compliance, including expansion of its recognition of programs like IS-BAO and ACSF IAS, allowing a statement of compliance for SMS vendors to indicate their product ensures operators meet the mandate for SMS, or use of designees to oversee entities' SMSs.
5. Utilize an Aviation Rulemaking Committee (ARC) following the conclusion of the public comment period to assist the FAA with reviewing comments and developing additional recommendations as was done as part of the process to implement Part 5.

## **Additional Concerns**

### ***Lack of ICAO Harmonization***

The FAA asserts in the NPRM preamble that a key goal of the proposal is to align with ICAO Annex 19. However, the FAA has deviated considerably from the performance-based framework found in Annex 19, Appendix 2 by introducing prescriptive language. The resulting FAA model of SMS is very rigid and confusing, as well as potentially inefficient and ineffective for organizations with existing Annex 19 conforming SMS.

The FAA appears to assert in its proposal that voluntary SMS programs, "... may not yield as much safety benefit as a mandatory SMS...". As the goal of any SMS program is hazard identification and mitigation, we should not confuse the safety benefits identified for the operator and the safety benefits identified for the regulator. An operator that has successfully mitigated a hazard has in fact received the benefits of a fully functional and integrated SMS. The totality of the safety benefit for the operator must be evaluated through the same lens that we use to determine the appropriateness of the size and complexity of the SMS program. To suggest that voluntary programs yield less benefit than mandatory programs is simply wrong and fails to appreciate the commitment to safety made by hundreds of operators that have adopted ICAO SMS standards and the positive improvements to safety these operators have realized.

NBAA notes AC 120-92D diverges significantly from AC 120-92B. AC 120-92B which was very consistent with ICAO Annex 19. NBAA recommends the FAA return to AC 120-92B, which is far less prescriptive than the proposed AC 120-92D.

While Annex 19 is a requirement for the member state and how each member state complies is up to that member state, inconsistencies with Appendix 2 create challenges for compliance. Operators rely on the flexibility of the performance-based standards described in Annex 19 Appendix 2, particularly when conducting international operations.

This lack of alignment with ICAO means certificate holders with active, mature SMS programs, compliant with ICAO Annex 19, will have to adapt their programs to meet the more prescriptive requirements of proposed Part 5 without any clear safety benefit for doing so.

Further, it is common for an aircraft flown entirely under Part 91 to utilize the management and maintenance services of a Part 135 certificate holder. That Part 91 aircraft might currently be included in a voluntary SMS that aligns with ICAO. Because Part 5 applies to the regulated organization (i.e., Part 135 certificate holder) and its employees, aircraft managed by the certificate holder will likely also face compliance with the proposal. Revising the existing SMS to meet these new Part 5 requirements might mean the SMS no longer aligns with ICAO Annex 19, creating challenges when operating internationally.

One example of ICAO inconsistency is the FAA's more prescriptive view of the Accountable Executive than ICAO's. The applicable ICAO guidance states the Accountable Executive is "typically" the CEO and "should" have authority over financial decisions. In some organizations, a board of directors or postholder other than the CEO has authority over financial decisions and may in fact be the Accountable Executive. ICAO Annex 19 and related guidance provides this level of flexibility; Part 5 does not.

§ 5.25 Designation and responsibilities of required safety management personnel states,

"(a) Designation of the accountable executive. Any person required to have an SMS under this part must identify an accountable executive who, irrespective of other functions, satisfies the following:

(1) Is the final authority over operations authorized to be conducted under the person's

certificate(s) or Letter(s) of Authorization.

(2) Controls the financial resources required for the operations to be conducted under the

person's certificate(s) or Letter(s) of Authorization."

In a very small organization, this designation is clear - the owner or CEO is the Accountable Executive. But two other scenarios demonstrate the concerns created by this prescriptive language.

First, consider a nonprofit entity. Requiring the CEO to be the Accountable Executive could jeopardize an organization's 501(c)(3) status by violating the bylaws of a nonprofit entity whereby such authority is vested in the entity's Board of Directors, not an individual position within the entity. subpart

Second, consider a company with several subsidiaries. Each subsidiary might have its own budget and individual responsible for financial resources. In that scenario, who would be the Accountable Executive - the lead of each subsidiary or the CEO of the entire company? It might

be appropriate for the lead of each subsidiary company to be the Accountable Executive. The prescriptive language in 5.25(a) could lead to unnecessary - and inefficient - business structure changes, particularly in organizations not organized in the manner of a typical airline.

NBAA recommends this language be modified to more closely match ICAO Annex 19 and Doc. 9859 and provide appropriate inspector guidance to provide necessary flexibility while meeting the intent of the mandate.

It is also important to note that Canada (CAR 107.03), Australia (CASA 119F), Hong Kong (HK CAD 712), and Saudi Arabia (GACA 19.02) - to list a few – applied the Annex 19, Appendix 2 framework to their respective regulatory frameworks.

The following proposed requirements are also clearly outside the scope of ICAO Annex 19:

- Code of ethics, which is a Congressional mandate for Part 21 certificate holders only.
- Data sharing as described in proposed Part 5.
- Systems description/analysis as described in proposed Part 5.

### ***Organization of the Regulation & Applicability of Sections***

The use of “person” and “persons” in place of “certificate holder” is confusing. While it is understood that the use of “certificate holder” does not apply to Section 91.147 LOA holders, using “person” across the board is inappropriate in reference to safety management. Safety management is an organizational tool to identify and mitigate risk to reduce the likelihood of an organizational accident (J. Reason, 2016<sup>8</sup>; J. T. Reason, 1997<sup>9</sup>). As an organizational tool, reference to a person or persons infers a single individual as required to implement SMS or a non-organized group.

### ***Fatigue Management***

The FAA included the Part 135 Pilot Rest and Duty Rules Aviation Rulemaking Committee (ARC) report, presented to the FAA on July 2, 2021, in the docket materials for this proposed rule. The NPRM preamble states that the hazard identification processes in SMS may include analyzing potential risk of fatigue, with a footnote reference to the Part 135 Pilot Rest and Duty ARC report.

Addressing hazard reports related to fatigue is indeed a part of a mature SMS. However, this should not be interpreted to mean that Part 135 certificate holders and Section 91.147 LOA holders must implement a fatigue risk management system. The FAA previously mandated fatigue risk management through Part 117, rather than Part 5. Furthermore, the regulatory impact statement for the expansion of Part 5 did not address any costs associated with implementing fatigue risk management, nor did it address any legal repercussions of requiring fatigue risk management without adjusting existing Part 135 Subpart F. In contrast, the FAA

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<sup>8</sup> Reason, J. (2016). *Organizational accidents revisited*. Ashgate.

<sup>9</sup> Reason, J. T. (1997). *Managing the risks of organizational accidents*. Ashgate.

proposed to eliminate the existing rest and duty requirements in Part 121 in the initial NPRM for Part 117, which would eliminate any possible contradiction or legal discrepancy.

NBAA strongly urges the FAA to separately implement the necessary recommended regulatory changes to ensure safety and compliance with flight and duty regulations. This ARC included Part 135 certificate holders of various sizes, legal experts, industry associations, and others, and the final report included several robust, reasonable recommendations to improve safety through revised rest and duty rules.

Specifically, the ARC unanimously agreed upon the following core principles:

J. From a safety perspective, eliminate “tail-end ferries” that function like additional duty time beyond allowable limits and reduce sleep opportunities.

...

M. Create hard limits and requirements that are enforceable. Require recordkeeping regarding the scheduling of both duties and prospective rest.

Currently, an operator may assign, and a pilot may accept, a part 91 flight at the conclusion of a Part 135 duty period that would have otherwise exceeded the allowable duty limits for part 135, had the part 91 flight been considered as a part of the Part 135 duty period. This practice, referred to as “tail-end ferry flights,” among other terms, allows an operator or pilot to claim the flight is outside the scope of the part 135 duty period, and therefore, the rest and duty regulations for Part 135 would not apply.

Part 91 flying after the conclusion of a maximum duration Part 135 duty period has long been identified as an unacceptable safety hazard by the FAA and NTSB.

The NTSB issued the following recommendations to “Reduce Fatigue Related Accidents” in part 135 operations, which specifically address tail-end ferry flights:

- A-94-194: “TO THE FEDERAL AVIATION ADMINISTRATION: Revise the Federal Aviation Regulations contained in Title 14 Code of Federal Regulations Part 135 to require that pilot flight time accumulated in all company flying conducted after revenue operations—such as training and check flights, ferry flights and repositioning flights—be included in the crewmember’s total flight time accrued during revenue operations.”
- A-95-113: “TO THE FEDERAL AVIATION ADMINISTRATION: Finalize the review of current flight and duty time regulations and revise the regulations, as necessary, within 1 year to ensure that flight and duty time limitations take into consideration research findings in fatigue and sleep issues. The new regulations should prohibit air carriers from assigning flight crews to flights conducted under 14 CFR 91 unless the flight crews meet the flight and duty time limitations of 14 CFR 121 or other appropriate regulations.”

In response to NTSB Recommendations A-94-194 and A-95-113, the FAA issued a response dated March 16, 2020, stating:

“The FAA will publish an advance Notice of Proposed Rulemaking (NPRM) addressing Part 91 tail-end ferry operations for Part 135 operators and an NPRM to extend Part 121 flight, duty, and rest limits to tail-end ferry flights that follow an all-cargo flight.”

In late 2021, the FAA indicated to the NTSB that it no longer intended to publish the ANPRM and as a result the NTSB closed these recommendations as unacceptable action in August 2022. Ending Part 91 tail end ferry flights will enhance safety, fulfill the intent of the NTSB recommendations, and justify any costs. While the FAA addressed tail-end ferry operations for Part 121, the agency has yet to address such operations under Part 135. As stated in the ARC report, It has been well established that, from a physiological standpoint, the time spent awake (measured from the time the last restorative sleep opportunity was obtained) increases fatigue levels and decreases performance in the average person. In addition, while less established from a scientific study perspective, workload factors (including flight time and flight segments) contribute to acute fatigue and should be mitigated to the greatest extent possible. If the FAA established that it is not safe for commercial crew members to fly more than a certain number of hours per day, that limit should not change because the flight is operated under a different set of regulations.

While NBAA supports implementation of rules in accordance with the unanimously agreed upon general principles from the ARC, NBAA does not believe hazard reports addressing fatigue will sufficiently address fatigue risk. Nor does NBAA support including fatigue in the SMS regulatory process. The FAA developed Part 117 to address fatigue risks in operations conducted under Part 121. Part 117 was a significant rule expected to cost the industry \$1.25 billion over ten years. The FAA did not include operational impacts due to fatigue mitigations in the regulatory impact analysis for this proposed rule.

In contrast to the dramatic cost of a fatigue risk management system, NBAA does not believe that the cost of ending tail end ferry flights will be significant. Many Part 135 operators already recognize the risks posed by such operations and voluntarily disallow tail end ferries. The costs would only affect those operators pushing pilots' physiological limits.

Additionally, the NBAA supports an amendment to the recordkeeping requirements in 135.63. The ARC recommended that the FAA require Certificate Holders to record rest, duty, and flight times in sufficient detail to determine compliance with the rest, duty, and flight time limitations of Part 135. Today, operators are only required to record flight time. While monitoring flight time is an important component of preventing fatigue, it is not the only component. Hence, the regulations stipulate flight and duty limits along with rest minimums. However, the regulation only requires recording the flight time, which is insufficient to ensure flight crews receive adequate, prospectively scheduled rest.

Because the recordkeeping requirements are inadequate, the FAA is unable to effectively monitor and enforce the flight, rest, and duty regulations, thereby creating an environment in which operators may fail to assign rest prospectively.

NBAA supports rule changes adhering to the principles stated above. Such changes would eliminate tail end ferry flights and provide sufficient information for enforcement of existing rest

and duty rules. For example, a small tweak to §135.63(a)(4)(vii) would enhance recordkeeping, enable enforcement, and reduce fatigue.

§ 135.63 Recordkeeping requirements.

(a) Each certificate holder shall keep at its principal business office or at other places approved by the Administrator, and shall make available for inspection by the Administrator the following -...

(4) An individual record of each pilot used in operations under this part, including the following information: ...

(vii) The pilot's flight, rest and duty time in sufficient detail to determine compliance with the flight, rest and duty time limitations of this part.

(viii) Each certificate holder must report within 10 days:

(1) Any flight duty period that exceeded the maximum flight duty period permitted in this part, by more than 30 minutes;

(2) Any flight time that exceeded the maximum flight time limits permitted in this part; and

(3) Any flight duty period or flight time that exceeded the cumulative limits permitted in this part.

(ix) The report required by (a)(4)(viii) must contain the following:

(1) A description of the extended flight duty period and flight time limitation, and the circumstances surrounding the need for the extension; and

(2) If the circumstances giving rise to the extension(s) were within the certificate holder's control, the corrective action(s) that the certificate holder intends to take to minimize the need for future extensions.

### NBAA Additional Recommendations

1. The FAA should more closely align with ICAO Annex 19, utilizing the resources provided in these comments as effective precedents.
2. The FAA should consider using the ICAO term "service provider" (Safety Management, 2016) or even "organization" in lieu of "person."
3. The FAA should make the regulatory changes necessary to eliminate tail-end ferry flights and require sufficient recordkeeping to enable enforcement of current rest and duty regulations through separate rulemaking rather than addressing this issue by including fatigue-related hazards in the SMS proposals.

### Conclusion

Safety remains a core value for NBAA and our members. The diversity of the on-demand charter and air tour industries perfectly demonstrates the need for tailored approaches that reflect the unique needs of each operator segment. The one-size-fits-all approach prescribed in the NPRM will never achieve the safety benefits suggested in the analysis when the compliance burden far exceeds the safety benefits.

As NBAA has urged the FAA previously, industry must be viewed as a stakeholder in the successful expansion of SMS to additional segments of the aviation community. A single rule is



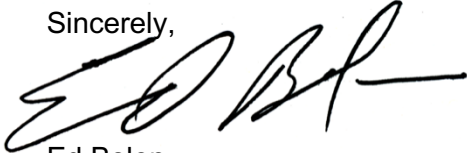
unable to effectively discriminate between the different needs for large scheduled airline operations, air ambulance operations, sightseeing tours, on-demand passenger and cargo operations and dozens of other use cases, and the environments in which each of them fly.

The common global framework for SMS established by ICAO Annex 19 created the right balance between size and complexity. As regulators, the FAA must balance compliance costs with safety benefits and we have identified that the smallest of operators will face the greatest burdens complying with the proposed rule with the least gain in safety.

We strongly urge the FAA to conclude the public comment period and convene a group of industry experts to collaborate and consider performance-based options for an effective and valuable expansion of SMS.

Thank you for the opportunity to provide these comments. We look forward to working with the FAA now, and in the future, to continue improving safety. Please let us know if any additional information would assist with your review and analysis of our comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ed Bolen', with a long horizontal stroke extending to the right.

Ed Bolen  
President & CEO

## Appendix 1: SMS NPRM FAA Comment Solicitation List

The FAA directly requested stakeholder comments or feedback on a number of specific issues. Most of these are found in Section IX. Additional Information, C. Comments Requested. However, some requests for comment are embedded in preamble language and are listed later.

### IX. Additional Information, C. Comments Requested

1. The FAA requests comment regarding how SMS might present unique opportunities or challenges for smaller organizations.

See Scalability Concerns above for detailed examples.

2. The FAA is aware that there are 135 operators that use only one pilot-in-command in their operations, as well as Section 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 Section 91.147 LOA holders, and if so, how? If the applicability is limited to a particular subset of part 135 operators and Section 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.

See Scalability Concerns above for detailed examples.

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.

[no comment]

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 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.

*Response*

The answer is largely dependent on the operator and the situation, as some Part 135 operators conduct basic passenger, cargo and/or air ambulance work in the public view, with a limited quantity of proprietary information, and safety reporting does not need to identify the customer or other purely commercial details. Others are engaged in more specialized or discreet work, sometimes under contracts that preclude such information sharing without the specific approval of the governing organization or individual. In those circumstances or otherwise similar situations, effective safety reporting may compromise operational security or contractual mandates if information sharing is required. Among the organizations specifically at risk are those operations under contract with other agencies of the U.S. Government which mandate both compliance with Part 135 and strict control of information release.

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.

*Response*

Because of the incompatibility of Part 5 and this NPRM with ICAO Annex 19 SARPs and the other national standards that generally conform with those SARPs, the FAA's data management team will have to expend significant effort and time to contribute data to international safety databases and studies. The use of a standard that mirrors the language and expectations of the ICAO SARPs would ease the FAA's workload and expense, both in rulemaking and in data collection/sharing. Further, the continued use of nonconforming data structures will inhibit industry and academic study of the effectiveness of SMS in the U.S. aviation industry, especially in comparison to the world's other aviation regulatory systems, as we have already seen since the initial implementation of Part 5.

- b. Evaluate the accuracy of the agency's estimate of the burden;

*Response*

Contrary to the assertions of the NPRM, many smaller Part 121 operators have not effectively implemented Part 5, as observed and reported by several SMS service providers who are also members of NBAA. The specific elements of our responses to items 1 and 2 address the relevant issues.

The totals used in Table 47 of the RIA Appendix A also do not reflect the actual expense that an organization would face. The total Year 5 cost of \$43,930,765 distributed across the 1,840 Part 135 operators listed by the FAA (as of 1 January 2023) equals \$23,875 per operator. According to current industry information, the cost of employment of a Part 135 safety manager with sufficient experience to design, implement, and supervise the operation of a new SMS would be at least \$150,000 per year, more than six times the estimated cost of implementation in Table 47. This cost does not include recurrent training of that employee, the initial and recurrent SMS training of other employees, software purchases and subscriptions, support provider engagement for those elements that the operator cannot source from within its own workforce, periodic SMS audits, or the other steps required for the allocation of necessary resources to support the SMS, as required by both 14 CFR § 5.21(a)(3) and ICAO Annex 19, Appendix 2, para 1.1.1.b.

Further, given that 88% of Part 135 operators listed by the FAA have 10 or fewer aircraft on their Operations Specification D085 Aircraft Listing (as of 1 January 2023), this burden will fall disproportionately on smaller operators, who will have to absorb most of the same costs as larger operators. Even more, those smaller operators will have to pay to outsource many basic SMS functions because they simply cannot add enough employees with no return on investment and because the requirements of the NPRM mandate elements like confidential safety reporting within the organization and SMS oversight that simply cannot exist in such a small workforce.

NBAA conducted a survey of its members, including business aircraft operators of various sizes, which indicates annual ongoing implementation costs for software, vendors and staff person-hours can easily exceed the number provided in the RIA with some operators reporting annual costs of \$20,000 to \$100,000. The highest costs are associated with organizations that hire full-time safety personnel.

- c. Enhance the quality, utility, and clarity of the information to be collected;

*Response*

As noted in item 6.a, the FAA will be collecting information that does not conform to ICAO SARPs. Collecting this information compromises the

data's quality, utility and clarity, as well as the study of this information in determining the relative effectiveness of SMS implementation by operators governed by the FAA.

- 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.

*Response*

As noted in item 6.a, the incompatibility of Part 5 and this NPRM with ICAO SARPs and the other Annex 19-based national standards is well established, and this incompatibility would place an unreasonable burden on the operators required to maintain compliance with both. NBAA members flying internationally and participating in the FAA's Voluntary SMS programs have only been able to resolve these incompatibilities by running parallel safety programs, one to satisfy the FAA and one to satisfy the rest of the world. This duality compromises the positive effects of SMS on safety culture, as employees can clearly see that an organization is having to "game the system" in order to achieve compliance.

Moreover, operators participating in both standards have noted that Annex 19 standards are more modern, complex, and effective, while maintaining scalability, when compared to Part 5, which resembles the earliest QMS based aviation SMS programs of the 1990s, as clearly intended in FAA Order 8000.369C. Simply put, Part 5 does not conform to Annex 19 SARPs, unfairly penalizes those operators required to meet those SARPs in their operations, and would force operators with Annex 19 conforming SMS programs to degrade their existing programs in order to comply with the NPRM.

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

*Response*

As the FAA noted in the NPRM and in describing the references cited therein, an extensive review of scholarly and anecdotal sources provides no such evidence. A study by the Transportation Research Board of the National Academy of Sciences reflected a reduction in the number of accidents in a specific transit agency that the researchers considered reflective of improved safety culture, one of the known byproducts of SMS, but even this study did not attribute either the accident reduction or the improvement in safety culture to SMS.

The primary reason for this absence of evidence was that the industry adopted Reason's logic that one could not measure the effectiveness of a safety program by the occurrence or frequency of accidents. In addition to this dissociation, the overall reduction in aviation accidents has had many likely technological and cultural causes that overlapped in history with the greater adoption and/or

mandate of SMS, so the cause of the reduction was not discrete in a general review of those statistics.

Another factor related to the availability of data to support such a study is that many researchers and students of aviation safety relied on the term “accident” or “incident” as defined within Part 5.5 and 49 CFR § 830.2, as well as ICAO Annex 19. These definitions only addressed events that occurred where the “intention of flight” or effect on the “operation of an aircraft,” respectively, was present. Neither the FAA nor other national aviation authorities, then, count the majority of occurrences of injuries or damage in the aviation industry, beyond those relatively rare events associated with operation of an aircraft, generally with an intent for flight.

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.

*Response*

This question raises the inherent challenges contained within this proposal. An SMS does not mitigate or reduce the number of accidents in any known definition or study of such programs. The logic defining the conclusions of Appendix A of the RIA indicated that an effective SMS would have prevented the behaviors that led to or were the probable causes of the cited accidents when SMS theory and research make no such assertion.

While both the ICAO and FAA definitions of SMS are so vague as to be meaningless, SMS experts agree that SMS exists to identify hazards and mitigate the risks associated with those hazards. In order to do so most effectively, the SMS should exist within an organizational culture that encourages participation by personnel at all levels of the organization. The learning culture of the organization should also be apparent in the use of multiple sources to identify potential hazards to their operations.

As a result of this effort, an SMS does not, as the RIA postulated in numerous Table 43 examples, prevent an accident without precedent. Used most effectively, an SMS discovers a hazard before an accident because an action or event known to precede an accident, i.e., a leading indicator, has occurred within the awareness of a member of the organization via any of the learning mechanisms described in the preceding paragraph. Given the prevalence of regulatory non-compliance by both organizations and pilots-in-command within Table 43, the RIA has inadvertently made the case for an effective standards program, not an SMS.

Moreover, the RIA ignores the type of accident most prevalent in aviation, the occurrence of injuries and damage in activities not associated with “intention for flight” or “operation of an aircraft.” As the Safety Committee of the Aviation Insurance Association has attested, the industry suffers far more occurrences of injury or damage in those activities than events identified by FAA or ICAO definitions of an accident or incident. Given that an SMS is supposed to apply across the entire organization, this omission appears to be a significant flaw in the RIA, the NPRM, and, more generally, 14 C.F.R. § 5. This omission also leads to the gross underestimation of the costs and effort associated with the implementation of an SMS.

- b. Does the FAA’s rationale accurately assess how the use of an SMS would potentially mitigate the hazards that caused the accidents?

*Response*

As noted earlier, an organization only mitigates the risks associated with the hazards that they encounter in their activities. If we accept that the FAA intended for respondents to address the mitigation of risks, then an effective SMS should have mitigated risks associated with the operations of organizations associated with those 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.

*Response*

The cost of risk mitigations in each of these cases varies widely. The only constant is that these costs would be in addition to the cost of implementing and operating the organization’s SMS. It is also fair to note that these costs of mitigation would be far less, in both human and monetary terms, than the costs of the accidents themselves.

- d. Are there additional accidents or incidents that SMS could have meaningfully mitigated?

*Response*

Since SMS cannot mitigate accidents, this question is not consistent with the purposes or definition of an SMS, and no answer is possible.

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).

*Response*

NBAA remains a strong advocate of the use of SMS by any organization due to the effectiveness with which these programs identify hazards and mitigate their associated risks. Part 5 as it exists or as it is proposed in this NPRM, however, would not be the appropriate vehicle for most organizations to undertake the implementation of an SMS. The aviation industry, both those elements envisioned within this NPRM and those elements that the FAA might add in the future, already have effective SMS standards available to them that have the advantages of scalability and adaptability to the varied types of regulated organizations. For example, the International Business Aviation Council has been beta testing its International Standard for Business Operators (IS-BAO) to audit the SMS of Remotely Piloted Aviation Systems (RPAS), to which Part 5 could not possibly scale or adapt.

NBAA strongly recommends that the FAA add a provision by which the agency would recognize an organization's compliance with ICAO Annex 19 Appendix 2 SARPs as compliant with the FAA's mandate to implement SMS. Given the increasing complexity of the aviation environment anticipated by the growth of RPAS and the addition of Advanced Air Mobility, the greater flexibility afforded by the two standards would allow operators to choose the option best suited to their operations, while maintaining the improved safety performance that NBAA commends to any organization.

[Comments Requested in Other Preamble Language or Not Listed in IX. Additional Information, C. Comments Requested](#)

**VII. Regulatory Notices and Analyses, B. Regulatory Flexibility Act**

General request for comment on economic impact:

The FAA is publishing this Initial Regulatory Flexibility Analysis (IRFA) to aid the public in commenting on the potential impacts to small entities from this proposal. The FAA invites interested parties to submit data and information regarding the potential economic impact that would result from the proposal. The FAA will consider comments when making a determination or when completing a Final Regulatory Flexibility Analysis.

*Response:*

As noted above, a survey of NBAA's members, including business aircraft operators of various sizes, indicated annual ongoing implementation costs for software, vendors and staff person-hours can easily exceed the number provided in the RIA with some operators reporting annual costs of \$20,000 to \$100,000. The highest costs are associated with organizations that hire full-time safety personnel.



**VII. Regulatory Notices and Analyses, B. Regulatory Flexibility Act, 3. Description and Estimate of the Number of Small Entities, c. Section 91.147**

The FAA requests data and information that may enable determination of whether these air tour operators would meet the SBA small size threshold.

[no comment]

**VII. Regulatory Notices and Analyses, H. Regulations Affecting Intrastate Aviation in Alaska**

Because implementation of SMS can be scaled to the size and complexity of an organization, SMS requirements would not be overly burdensome for smaller part 135 operators. The increase in safety benefits to intrastate operations in Alaska would positively impact air commerce in Alaska with the same requirements applicable to every organization under part 5. The FAA specifically requests comments on whether there is justification for applying the proposed rule differently in intrastate operations in Alaska.

[no comment]