FAA
Aircraft Certification Service (AIR)

AIR Strategic Plan
For
Light-Sport Aircraft

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REVISION HISTORY		
Rev	**Description of Change**	**Effective Date**
0	Original Issue	August 7, 2012
1	Revised cover page and added signature page and revision history page. Revised SLSA strategic vision traceability from *Destination 2025* to the *AIR: 2018* plan. Revised SLSA Strategic Vision statement by adding "increasing" to industry accountability. Revised 2.2 by adding "increasing" to industry accountability. Revised 2.2.1 by replacing "Creating" with "Supporting." Revised 2.2.2 by replacing "Relying on" with "Enabling." Revised 2.2.3 by replacing "Creating a system for FAA oversight…" with "Applying a scalable oversight approach to a manufacturer's self-auditing and self-declarative certification process." Revised 3.0 Safety – Objective Description to remove "yet comparatively affordable" and "ownership of." Revised 3.0 Industry Accountability – Objective Description to include "-developed and maintained" to industry consensus standards. Revised 3.0 Industry Growth – Objective Description to remove "full" from part 23. Revised 3.0 Regulatory Future – Objective Description to remove "competitive and fair" from regulatory structure. Revised 3.1.1 to align with revised 3.0 Safety – Objective Description. Revised 3.1.1.4 to change "Ensure" to "promote." Revised 3.1.1.5 to change "Monitor and ensure industry addresses" to "Oversee industry's correction of." Revised 3.1.1.6 to include "initial airworthiness certification." Revised 3.1.2 to align with revised 3.0 Industry Accountability – Objective Description. Revised 3.1.2.1 – added information and edited for clarification. Revised 3.1.2.2 to include "scalable" oversight. Revised 3.1.2.3 to change "Ensure industry creates a new" to "Promote industry's." Revised 3.1.2.5 to correctly identify the intent of this action item. Revised 3.1.2.6 to remove "oversight by" and correct a typo. Revised 3.1.2.7 to change "Establish the level of FAA oversight according to" to "Establish a level of FAA oversight utilizing the FAA RBDM model consistent with."	August 2015

	Revised 3.1.2.8 to change "exit strategy" to "scalable oversight strategy" and to change "transition from FAA audits of SLSA manufacturers to internal and industry-led third party audits" to "increasing reliance on industry-led systems of self-audits and statements of compliance. Also added reference to the Annex. Added 3.1.2.9 Establish and implement a voluntary Partnership for Safety Plan (PSP) Program. Revised 3.1.3 to align with revised 3.0 Industry Growth – Objective Description. Revised 3.1.4.4 to include the FAA RBDM model. Revised 3.1.6 to align with revised 3.0 Innovation – Objective Description. Revised 3.1.6.1 – edited for clarification. Added ANNEX - Plan for Success Criteria and Scalable Oversight Strategy.	

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1.0 Executive Summary

The intent of this document is to communicate the aircraft certification strategy for the continued support of the special light-sport aircraft (SLSA) segment of aviation and the continued safe integration of SLSA into Federal Aviation Administration (FAA) operations. This document provides a direct line-of-sight from our SLSA objectives to the *Aircraft Certification Service AIR: 2018* plan and outlines tactical methods for achieving these objectives with safety as a first priority. The *AIR: 2018* plan includes the mission, vision, and values of the Aircraft Certification Service (AIR) that will be followed to advance aviation safety.

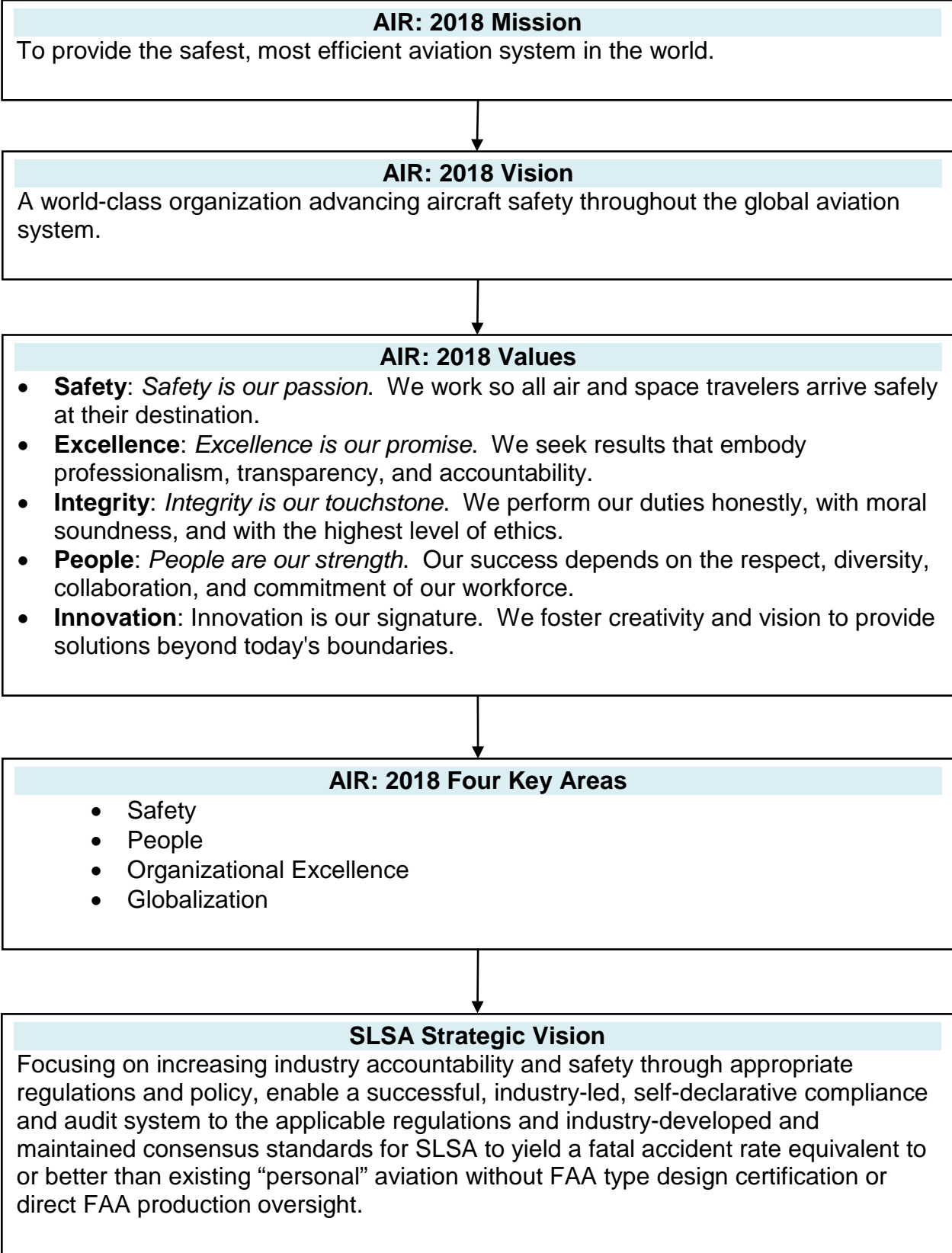*AIR: 2018* is built around four key areas:
- Safety
- People
- Organizational Excellence
- Globalization

This strategic plan currently focuses on aircraft airworthiness certification issues and continued operational safety (COS) issues, but may be expanded to encompass sport pilot and maintenance issues through coordination with appropriate offices in the Flight Standards Service (AFS).

2.0 SLSA Strategic Vision Traceability

It is important that the strategic plan for the SLSA industry be aligned with the vision of the *AIR: 2018* plan, with a primary focus on aviation safety. The following sections of this strategic plan contain information to bridge the SLSA strategic vision and objectives to the *AIR: 2018* plan.

The figure on the following page shows how the SLSA strategic vision is driven by the mission, vision, values and four key areas as stated in the *AIR: 2018* plan.

AIR: 2018 Mission
To provide the safest, most efficient aviation system in the world.

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AIR: 2018 Vision
A world-class organization advancing aircraft safety throughout the global aviation system.

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AIR: 2018 Values

- **Safety**: *Safety is our passion*. We work so all air and space travelers arrive safely at their destination.
- **Excellence**: *Excellence is our promise*. We seek results that embody professionalism, transparency, and accountability.
- **Integrity**: *Integrity is our touchstone*. We perform our duties honestly, with moral soundness, and with the highest level of ethics.
- **People**: *People are our strength*. Our success depends on the respect, diversity, collaboration, and commitment of our workforce.
- **Innovation**: Innovation is our signature. We foster creativity and vision to provide solutions beyond today's boundaries.

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AIR: 2018 Four Key Areas

- Safety
- People
- Organizational Excellence
- Globalization

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SLSA Strategic Vision

Focusing on increasing industry accountability and safety through appropriate regulations and policy, enable a successful, industry-led, self-declarative compliance and audit system to the applicable regulations and industry-developed and maintained consensus standards for SLSA to yield a fatal accident rate equivalent to or better than existing "personal" aviation without FAA type design certification or direct FAA production oversight.

Figure 1 – SLSA Strategic Vision Traceability

2.1 Summary of *AIR: 2018* Four Key Areas (i.e., Goals)

2.1.1 **Safety**: AIR applies safety management principles to achieve the next level of product safety consistent with the safety continuum.

2.1.2 **People**: AIR fosters a culture where the people are dedicated to the success of the organization.

2.1.3 **Organizational Excellence**: AIR is an agile and responsive organization that optimizes its effectiveness in achieving its mission.

2.1.4 **Globalization**: AIR provides leadership to achieve a consistent level of product safety across geopolitical boundaries.

2.2 Explaining the SLSA Strategic Vision for the Future

We are focused on increasing industry accountability and safety with a goal of creating a light-sport aircraft (LSA) system with an equivalent or lower fatal accident rate than other segments of "personal" aviation without requiring FAA type design certification or FAA production oversight.

2.2.1 **Supporting** a regulatory and policy structure for industry to achieve FAA safety goals through self-declared compliance with industry developed and maintained consensus standards.

2.2.2 **Enabling** an industry-led system of self-audits and statements of compliance.

2.2.3 **Applying** a scalable oversight approach to a manufacturer's self-auditing and self-declarative certification process.

2.2.4 **Committing** FAA resources to actively participate in the development and acceptance of industry consensus standards.

3.0 SLSA Strategic Plan Objectives

The Small Airplane Directorate (ACE-100) and the Design, Manufacturing and Airworthiness Division (AIR-100) have identified the following objectives to accomplish the SLSA strategic vision.

Objective Focus	Objective Description
Safety	Provide a safer alternative to experimental amateur-built aircraft or ultralight vehicles. (Supports *AIR: 2018* safety goal)
Industry Accountability	Enable a successful, industry-led, self-declarative system of compliance to applicable regulations and industry-developed and maintained consensus standards with the efficient use of FAA resources. (Supports *AIR: 2018* safety and organizational excellence goals)
Industry Growth	Create a clear path for companies starting in experimental aircraft to potentially transition into producing light-sport, primary category, and ultimately part 23 designs and production certification, if so desired. (Supports *AIR: 2018* safety goal)
International Leadership and Harmonization	Provide and support a model of SLSA oversight that results in the international acceptance of the model and specifically the use of one set of international consensus standards for the design, manufacturing and quality, continued airworthiness, maintenance and operations, etc., of aircraft intended for personal recreational flying and flight training. (Supports *AIR: 2018* globalization goal)
Innovation	Enable and facilitate innovation in recreational aviation, including the development of safety enhancing, energy efficient and environmentally responsible products. (Supports *AIR: 2018* safety and globalization goals)
Regulatory Future	Provide an appropriate regulatory structure to allow SLSA to maintain FAA safety goals, accommodate innovation, and continue international leadership and harmonization. (Supports *AIR: 2018* safety and globalization goals)

3.1 Implementation Strategy for Each SLSA Objective

For each SLSA objective listed above, an implementation strategy has been outlined below, and specific actions have been identified. These actions have been harmonized with the SLSA manufacturer assessment report and the actions from that effort, wherever possible.

Each strategic action is meant to assist the FAA in achieving its long term SLSA safety goals and industry accountability goals. Each requires cooperative action within the FAA and with industry.

3.1.1 Safety - Provide a safer alternative to experimental amateur-built aircraft or ultralight vehicles.

> 3.1.1.1 Participate in government/industry consensus standards development through ASTM International (ASTM) F37 Committee on Light-Sport Aircraft.
> 3.1.1.2 Establish, implement, and maintain regulations and policy for SLSA manufacturers and owners/operators.
> 3.1.1.3 Establish and implement training for Aviation Safety Inspectors (ASIs) and Designated Airworthiness Representatives (DARs) with light-sport functions.
> 3.1.1.4 Promote manufacturer compliance with FAA regulations and ASTM consensus standards.
> 3.1.1.5 Oversee industry's correction of continued operational safety (COS) issues for SLSA.
> 3.1.1.6 Maintain a list of active SLSA manufacturers so ASIs and DARs can use the data and contacts for initial airworthiness certification and COS support.

3.1.2 Industry Accountability - Enable a successful, industry-led, self-declarative system of compliance to applicable regulations and industry-developed and maintained consensus standards with the efficient use of FAA resources.

> 3.1.2.1 Identify needed services, current gaps, and future needs of the LSA industry regarding airworthiness certification and COS. Provide suggestions to the ACMT to support an organizational structure for the efficient oversight and management of resources. (Tie to FAA reorganization effort.)
> 3.1.2.2 Implement the LSA strategic plan with documented expectation for FAA scalable oversight of the LSA segment.
> 3.1.2.3 Promote industry's manufacturer education program to clarify FAA and ASTM expectations and communicate minimum requirements for a manufacturer's entry into SLSA.
> 3.1.2.4 Assist ASTM with the development of compliance guides providing clear industry expectations for design, manufacturing, quality, continued airworthiness, maintenance, operations, etc.
> 3.1.2.5 Implement an airworthiness certification program for new make/model aircraft to be performed by FAA Aviation Safety Inspectors (ASIs) only.

3.1.2.6 Apply the appropriate level of FAA resources to implement a Safety Management System (SMS)-based manufacturing oversight program, with increasing reliance on manufacturers' self-auditing programs (i.e., internal and external audits), as appropriate.

3.1.2.7 Establish a level of FAA oversight utilizing the FAA RBDM model consistent with the industry's continued success towards meeting FAA expectations for the self-certification process to applicable regulatory and consensus standard requirements.

3.1.2.8 Create a plan for determining success criteria that enables a scalable oversight strategy for increasing reliance on industry-led systems of self-audits and statements of compliance. (Ref. attached Annex)

3.1.2.9 Establish and implement a voluntary Partnership for Safety Plan (PSP) Program for the working relationship between the FAA and a manufacturer of SLSA. An effective PSP may be used in support of the FAA scalable oversight strategy.

3.1.3 Industry Growth - Create a clear path for companies starting in experimental aircraft to potentially transition into producing light-sport, primary category, and ultimately part 23 designs and production certification, if so desired.

3.1.3.1 Document and provide information and training to existing manufacturers utilizing the Federal Register, FAA resources, and/or ASTM regarding the expected level of safety, FAA oversight, and manufacturer responsibilities for the different types of GA aircraft; from experimental, to SLSA, to aircraft with FAA design and production approval.

3.1.3.2 Work with new manufacturers to clarify their intended market and help them understand FAA expectations in documenting their design, conducting manufacturing efforts, and supporting continued airworthiness.

3.1.3.3 Consider connectivity between strategic SLSA objectives and other efforts to streamline general aviation aircraft certification and oversight.

3.1.3.4 Describe the path and how we plan to make industry aware of the differences between each level of airworthiness, design, and production certification.

3.1.4 International Leadership and Harmonization - Provide and support a model of SLSA oversight that results in the international acceptance of the model and specifically the use of one set of international consensus standards for the design, manufacturing and quality, continued airworthiness, maintenance and operations, etc., of aircraft intended for personal recreational flying and flight training.

3.1.4.1 Support international regulatory conferences and ASTM meetings.

3.1.4.2 Conduct seminars on the details of the United States LSA industry for foreign authorities and manufacturers at air shows, public forums, and upon request.

3.1.4.3 Consider and encourage harmonization of SLSA approval processes, given the differences between international design and operational regulatory constraints, and highlight the flexibility of the ASTM standards.

3.1.4.4 Apply FAA risk management tools, such as the FAA RBDM model and the AVS SMS, to help determine the appropriate level of FAA involvement and oversight.

3.1.5 Innovation - Enable and facilitate innovation in recreational aviation, including the development of safety enhancing, energy efficient and environmentally responsible products.

> 3.1.5.1 Support development of design standards for emerging SLSA concepts, like electric aircraft and roadable SLSA.
> 3.1.5.2 Consider rulemaking to acknowledge the unique needs of emerging SLSA designs, such as electric powered or roadable SLSA.
> 3.1.5.3 Develop policy to support emerging vehicle technologies, addressing the relationship between ASTM standards and other transportation authority requirements that may be applicable to these concepts.
> 3.1.5.4 Explain processes to industry that may allow companies to introduce new and innovative technology or new designs in LSA, and how they may eventually pursue FAA design certification, if desired.

3.1.6 Regulatory Future - Provide an appropriate regulatory structure to allow SLSA to maintain FAA safety goals, accommodate innovation, and continue international leadership and harmonization.

> 3.1.6.1 Actively plan for the future of the SLSA segment to determine what boundaries are needed regarding the type of aircraft that will be included as future SLSA, including roadable, gyroplane, electric, etc.
> 3.1.6.2 Review current light-sport aircraft rules and identify any needed changes and/or additional rulemaking to allow SLSA to maintain FAA safety goals.
> 3.1.6.3 Continue to identify appropriate changes to regulations, policy, and consensus standards to allow continuous improvement of the industry-led light-sport program.

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ANNEX

Executive Summary

The FAA has established an oversight program for the LSA industry as defined in Order 8130.2( ) *Airworthiness Certification of Products and Articles* and Order 8130.36 ( ) *Special Light-Sport Aircraft Audit Program.* This FAA light-sport aircraft (LSA) oversight program provides for oversight of a manufacturer's quality assurance (QA) and continued operational safety (COS) programs. This annex establishes success criteria for the LSA manufacturer in their implementation of required QA and COS programs. The FAA does not intend to "exit" or "cease" from oversight of the LSA industry even when the success criteria have been sufficiently demonstrated and sustained. However, this annex establishes an oversight strategy plan that provides for "scalability" in the implementation of the FAA oversight program when there is demonstrated and sustained success with a manufacturer's QA and COS programs.

This "scalability" allows evolving from the more extensive LSA oversight program defined by FAA policy to a reduced type of oversight program administered by fewer FAA resources. Scalability of the FAA LSA oversight program will be enhanced as industry provides for internal audits, third-party audits and effective systems to monitor and correct safety-of-flight issues through the issuance of safety directives. As the LSA industry demonstrates success in meeting the expectations defined in this annex, the FAA will rely more on compliant industry systems and less on FAA direct oversight in support of expected industry accountability and LSA safety objectives. A scalable model will also give the FAA flexibility to adjust oversight if any consistent negative trends emerge.

Light-Sport Aircraft Manufacturers Assessment

During the 2008 Experimental Aircraft Association (EAA)/Federal Aviation Administration (FAA) Recreational Aviation Summit, the FAA Aircraft Certification Service, Production and Airworthiness Division (AIR–200) [now the Design, Manufacturing and Airworthiness Division, AIR-100] agreed to assess the current state of the LSA industry. AIR–200 chartered and sponsored an assessment team, comprised of individuals from several offices within FAA Aviation Safety (AVS).

The Light-Sport Aircraft Manufacturers Assessment (LSAMA) team's goal was to review current LSA manufacturing industry systems and processes through on-site evaluation, analysis, and reporting. The team was also tasked to recommend enhancements to industry consensus standards for LSA design, manufacturing, continued airworthiness, and maintenance and FAA processes and procedures. The team's methodology was to collect data from LSA manufacturers, including their extensions and distributors, located in the United States. The team collected data on LSA industry compliance with applicable regulations, standards, and existing processes.

The team's report identified four areas that needed minor to significant improvement. Deficiencies varied from manufacturer to manufacturer, by degree, quantity, and type.

- Compliance with FAA-accepted consensus standards.
- Implementation of manufacturing systems.
- Understanding FAA regulatory requirements, policy and guidance, and industry consensus standards.
- Industry's system for managing, assessing, and maintaining the effectiveness of the consensus standards.

Success Criteria

The *AIR Strategic Plan for Light-Sport Aircraft* and the LSAMA report provide the foundation for the <u>success criteria</u> of the FAA LSA scalable oversight program. Success criteria described in the following table relate to critical system elements identified in the strategic plan and the LSAMA report that support the FAA's goals of increasing industry accountability and safety of LSAs.

Table A1 – Success Criteria

System Element	Success Criteria
Industry Consensus Standards	Valid Statement of Compliance
Industry Consensus Standards	Operational Safety of Aircraft
Manufacturing Systems – QA and COS	Compliance with Standards
FAA Regulations/Policy – Aircraft Airworthiness	Issuance of Airworthiness Certificate

Scalable Oversight Strategy

The *AIR Strategic Plan for Light-Sport Aircraft* and the LSAMA Report also provides the foundation for the FAA <u>scalable oversight strategy</u> of the LSA industry. The scalable oversight strategy supports FAA's objectives for increasing industry accountability and safety of the LSA industry while utilizing the FAA risk-based decision making (RBDM) model.

It is not the expectation of the FAA that the LSA industry must reach a 100% success rate in each defined area prior to scaling FAA oversight and increasing reliance on industry-led systems of self-audits and statements of compliance. Rather, the FAA will determine the scalability of its oversight of the LSA industry based on the demonstration of the ability to support the success criteria and to achieve the established accountability and safety objectives to the satisfaction of the FAA. The FAA will utilize a systems approach to validate trending in the oversight of manufacturers' self-auditing and self-declarative systems. As success rates trend upward, the FAA will increase reliance on industry-led systems and proportionally scale direct oversight.

Briefly stated, the scalable oversight strategy is based on the **LSA industry demonstrating the ability to support the identified success criteria to the satisfaction of the FAA.**

The following tables provide examples of the demonstration of success criteria for each system element for use in determining levels of success. Sustained high levels of success will lead to the FAA's implementation of a more scalable oversight program.

Table A2 – Valid Statement of Compliance

System Element	*Success Criteria*
Industry Consensus Standards	**Valid Statement of Compliance**
Industry - (1) Issues complete and correct manufacturers' statements of compliance with each aircraft and "kit" produced. (2) Demonstrates a clear understanding and use of the industry consensus standards.	
FAA – (1) Reviews the manufacturers' statements of compliance (FAA Form 8130-15) for proper completion. (2) Reviews FAA Form 8130-15 for compliance to the applicable industry consensus standards and applicable FAA regulations.	

Table A3 – Operational Safety of Aircraft

System Element	*Success Criteria*
Industry Consensus Standards	**Operational Safety of Aircraft**
Industry – (1) Develops, maintains and implements comprehensive and understandable industry consensus standards. (2) Demonstrates safe operation of aircraft designed, produced and maintained using the industry consensus standards.	
FAA – (1) Accepts new and revised industry consensus standards through publication of a notice of availability (NOA) in the *Federal Register*. (2) Reviews operational use of aircraft that are designed, produced and maintained using the industry consensus standards.	

Table A4 – Compliance with Standards

System Element	Success Criteria
Manufacturing Systems – QA and COS	**Compliance with Standards**
Industry – (1) Implements effective QA and COS programs. (2) Implements effective internal audit system. (3) Implements effective industry-led third party audit system.	
FAA – (1) Reviews compliance to the QA and COS programs. (2) Reviews compliance to the internal audit system. (3) Reviews compliance to the industry-led third party audit system.	

Table A5 – Issuance of Airworthiness Certificate

System Element	Success Criteria
FAA Regulations/Policy – Aircraft Airworthiness	**Issuance of Airworthiness Certificate**
Industry – (1) Presents aircraft to the FAA for airworthiness inspections that conform to the applicable consensus standards and that comply with the FAA regulatory/policy requirements for issuance of an airworthiness certificate. (2) Demonstrates a clear understanding and use of the industry consensus standards and the FAA regulatory/policy requirements.	
FAA – (1) Reviews aircraft for conformity to the applicable consensus standards and compliance with the FAA regulatory/policy requirements for issuance of an airworthiness certificate. (2) Reviews aircraft documentation for conformity to the applicable consensus standards and compliance with the FAA regulatory/policy requirements for issuance of an airworthiness certificate.	