International Civil Aviation Organization
ICAO South American Regional Office
Seventeenth Meeting of the Civil Aviation Authorities of the SAM Region (RAAC/17)
(Santiago, Chile, 10 to 14 April 2023)

Agenda Item 4A: Initiatives for the Development and sustainability of air transport in the Region

Implementing the light-sport aircraft category as a means of a safe and sustainable development of the small aircraft industry in the SAM Region

(Presented by BRAZIL)

SUMMARY

Over the years, civil aviation authorities have struggled to create new regulation models capable of encouraging manufacturers to develop new safe small aircraft, mainly due to the high costs associated to the type and production certification process. In turn, the light-sport aircraft category has gained growing acceptance in the general aviation market worldwide, mainly due to the simplicity of the regulatory model and its cost savings while meeting the level of safety appropriate for such aircraft. This aircraft category has the potential to safely foster the international trade and the development of the small aircraft industry in a cost-effective manner. To accomplish this goal, the States in the SAM Region must make efforts to implement such category in their national regulatory framework and cooperate internationally to reduce technical barriers to international trade.

References:

- *Resolution A41-24 Aviation's contribution towards the United Nations 2030 Agenda for Sustainable Development*
- *Declaration to promote connectivity through the development and maintenance of air transport in the Pan-American region that presents the vision for the 2020-2035, Sept. 2018*
- *Goal 9 in A/RES/70/1 Transforming our World: The 2030 Agenda for Sustainable Development, Sept. 2015*

***ICAO Strategic Objectives*:**	This working paper relates to the Strategic Objective on Safety and Economic Development of Air Transport

1. Introduction

1.1 The aviation industry plays a key role in the economic development at the national, regional, and global levels. The ICAO, on the 41st Assembly, through Resolution A41-24, relies on the significant contributions of aviation towards the United Nations 2030 Agenda for Sustainable Development by stimulating employment, trade, and industrialization to significantly raise the gross domestic product.

1.2 However, over the years, civil aviation authorities have struggled to create new regulation models capable of encouraging manufacturers to develop new safe small aircraft, mainly due to the high

costs associated to the establishment of an aviation industry that meets the requirements of a type and production certification process.

1.3 Moreover, most of the certified small general aviation aircraft have an old certification basis and gradually they are being replaced by experimental aircraft in many places worldwide.

1.4 To address these issues, the light-sport aircraft category was created in 2004 by the United States of America´s Federal Aviation Administration (FAA), focused on relatively small, slow, and simple aircraft. Since then, this category has been increasingly adopted by authorities worldwide into their regulatory framework.

1.5 Over the years, this category has gained growing acceptance in the general aviation market mainly due to the simplicity of the regulatory model and its cost savings while meeting the level of safety appropriate for such aircraft. In most countries, this category is not submitted to a type certification process or a production certification of the manufacturer. Instead, the Authorities issue airworthiness certificates based on manufacturers' statements of compliance with the consensus standards accepted by the Authorities.

1.6 Although the provisions for the light-sport aircraft category have been included in the Latin American Aeronautical Regulations (LAR in Spanish) of the Regional Safety Oversight Cooperation System (SRVSOP in Spanish), the lack of harmonization on the procedures used by the SAM Authorities to approve these aircraft limits their trade and benefits in SAM Region.

2. Discussion

2.1 The consensus standards for the light-sport category have been developed and updated by the ASTM International Committee F37 on Light-Sport Aircraft through global collaboration among civil aviation authorities and industry. Following the publication or review of a consensus standard by the ASTM Committee F37, the Authorities publish their acceptance of that consensus standard for certification of a light-sport aircraft.

2.2 This approach allows manufacturers to self-declare that each aircraft meets the authority's consensus standards. The manufacturer is solely responsible for the aircraft's review, testing and approval, and manufacturing quality assurance system in accordance with the consensus standards. This procedure is an alternative to the high costs associated with type and production certificate processes and provides greater safety than experimental aircrafts without substantially increasing the burden on the industry.

2.3 An important fact to be highlighted is that experience has shown, over the years, that the accident rate of light-sport aircraft tends to be the same as that of certified aircraft of the same size in personal use, affirming the appropriate level of safety of the category.

2.4 In 2010, Brazil National Civil Aviation Agency (ANAC) established a rule for manufacturing and designing light-sport aircraft.

2.5 The rule aimed to address the following problems in the Brazilian small general aviation market:

- high demand for experimental aircraft, less expensive than certified ones, but with an unknown safety level;
- high costs of type and production certification process;
- a low number of certified national manufacturers; and

- aged and low-tech certified aircraft fleet.

2.6 Over the years, dozens of aircraft manufacturers have joined the light-sport category in Brazil, obtaining acceptance by ANAC. Six of them are Brazilian manufacturers previously acting only in the experimental aircraft market. Other Brazilian manufacturers are in the process of being accepted by ANAC. These outcomes indicate that the Brazilian regulatory strategy has been contributing to enhancing safety and industry development.

2.7 Regional Safety Oversight Cooperation System (SRVSOP) has continuously made efforts to update the Latin American Aeronautical Regulations (LAR) with provisions for the light-sport aircraft category in several aspects regarding design, manufacturing, training, licensing, maintenance, and operations. Such a work lays the foundations for closer collaboration and effective partnerships for the sustainable development of the light-sport aircraft category in the SAM Region.

2.8 However, while there is much room for expanding the light-sport aircraft market in the SAM Region, there are challenges to its trade.

2.9 A critical aspect is related to poor adherence of SAM Region to light-sport aircraft model. Despite SRVSOP's rulemaking efforts towards light-sport aircraft category, some States in the SAM Region have not changed their regulatory framework on that basis.

2.10 Efforts on regional harmonization would bring potential benefits in the SAM Region, fostering international trade, industry development and global safety, reduced costs, easier fleet renewal by safer aircraft, and reduced regulatory barriers to industry development.

3. Suggested action

3.1 The Meeting is invited to consider the information presented in this working paper and urge the States in the SAM Region to:

a) continue supporting the development of light-sport category in the Latin American Aeronautical Regulations (LAR);
b) prioritize the establishment of a national regulatory framework towards the light-sport aircraft category and foster the small aircraft industry.

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