



**WORKING PAPER**

**ASSEMBLY — 41ST SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 31: Aviation Safety and Air Navigation Standardization**

**GLOBAL HARMONIZATION OF POLICIES ON RECYCLING OF AIRCRAFT  
DISMANTLING PARTS**

(Presented by China)

**EXECUTIVE SUMMARY**

This paper is developed based on the developing trend of global aircraft dismantling industry and in conjunction with Annex 8 and the Airworthiness Manual (Doc 9760), to propose the harmonization on policies for managing the aircraft dismantling activities, which are for the purpose of aircraft parts recycling, so as to facilitate the efficient global circulation of aircraft dismantling parts while ensuring flight safety.

All Member States are encouraged to harmonize their approach by maintenance organization approval for managing the aircraft dismantling activities for the purpose of parts recycling, and work together with industry associations to establish reliable data banks for ensuring the traceability

**Action:** The Assembly is invited to:

- a) call on Member States to harmonize policies on management of aircraft dismantling activities for purpose of parts recycling; and
- b) instruct the Air Navigation Commission to amend the SARPs in Annex 8 to provide fundamentals for the specific guidance in Doc 9760.

<i>Strategic Objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	The activities referred to in this paper will be undertaken with the resources available in the 2023-2025 Regular Programme Budget.
<i>References:</i>	Annex 8 — <i>Airworthiness of Aircraft</i> Doc 9760, <i>Airworthiness Manual</i>

<sup>1</sup> English and Chinese versions provided by China.

## 1. INTRODUCTION

1.1 It is estimated that an average of over 1,000 aircrafts will be retired from service each year worldwide, which emerges quick grows of aircraft dismantling industry. It has become a global common practices in the civil aviation community to recycle parts dismantling from retired aircraft, and complementing the industrial chain of aircraft life cycle from design, manufacture, operation, maintenance and further to their recycling.

1.2 In addition to solve the environmental pollution issues caused by retired aircraft, aircraft dismantling has become an important means for supporting the operation of legacy aircraft types and reduce the cost of spare parts by recycling usable dismantling parts. But meanwhile, it also poses certain risks for safety management.

1.3 In Chapter 9 of Part III of *Airworthiness Manual* (Doc 9760), Paragraph 9.10, “Authenticity and Serviceability of Aircraft Parts”, provides specific guidance on “parts removed from an aircraft no longer in service”, indicating that “the part removal process should be planned and controlled in a manner as close as possible to that adopted for routine maintenance tasks on in-service aircraft” (9.10.8.3 refers) and that “an assessment for condition and eventual return to service of each removed part will need to be conducted by a suitably approved organization” (9.10.8.4 refers). Also included in 9.10 is a specific guidance on “parts recovered from aircraft involved in accidents”.

1.4 At present, the management on aircraft dismantling agencies and recycling of dismantling parts vary among Member States. Some Member States have neither developed such regulations nor identified “suitably approved organizations”. Although some countries are self-regulated by their respective industry associations, it is difficult to support the efficient global circulation of aircraft dismantling parts without harmonized management approach among Member States.

1.5 The biggest obstacle to the global circulation of aircraft dismantling parts is hard to trace their source, including the traceability of aircraft dismantled and chains during circulation. If the government of a Member State does not perform its oversight obligation, it is difficult to carry out relevant investigations through coordination even if suspected dismantling parts reports are received, and there is no foundation for taking necessary legal actions. Some states, therefore, fears to use aircraft dismantling parts.

1.6 The Civil Aviation Administration of China (CAAC) has issued the Advisory Circular AC-145-FS-017 *Aircraft Dismantling* in 2019, which regulates domestic aircraft dismantling activities for parts recycling purpose by means of maintenance organization approval, and also established a reliable databank for query jointly with the Civil Aviation Maintenance Association of China (CAMAC), which significantly emerges the Chinese air operators’ to use recycled aircraft dismantling parts in their maintenance activities. Now, CAAC is in discussing with the Aircraft Fleet Recycling Association (AFRA) on cooperation for solving issues on aircraft dismantling organizations approval and traceability requirements for overseas, so as to lift the restrictions for the Chinese air operators on using the aircraft dismantling parts from overseas.

## 2. DISCUSSION

2.1 Paragraph 9.10, Chapter 9, Part III of Doc 9760 provides guidance on aircraft dismantling activities in purpose for parts recycling, but it is not an obligation for all Member States as there is no

fundamental Standard and Recommended Practice (SARP) in Annex 8. In addition, although 9.10 states that “the part removal process should be planned and controlled in a manner as close as possible to that adopted for routine maintenance tasks on in-service aircraft”, it does not indicate which kind of organization should be a “suitably approved organization” for conducting the assessment.

2.2           It can be seen from the guidance in Doc 9760 that an approved maintenance organization can be designated as a “suitably approved organization” for aircraft dismantling activities for the purpose of parts recycling, and the maintenance organization should be responsible for investigating the records of the dismantling aircraft and its parts, including the recycled parts from aircraft involved in accidents.

2.3           In addition, there is no clear traceability requirements for dismantling parts in the receiving processes included in Doc 9760, Chapter 10, 10.13 “Inspection and Acceptance of Aircraft Components and Material from External Suppliers and Contractors”. As a result, no recyclable parts from aircraft dismantling can be easily accepted following simple maintenance and release, and may be normally circulated globally, posing hidden safety risks. A feasible solution is to set up a traceable databank for dismantling aircraft parts by relevant industry associations.

### 3.           **CONCLUSION**

3.1           If all Member States can adopt a harmonized approach by incorporating aircraft dismantling activities for the purpose of parts recycling into management of maintenance organizations approval, and coordinate with industry associations to set up reliable and traceable databanks, it will help to facilitate global transfer of aircraft dismantling parts and reduce operation cost for global air transportation industry while ensuring flight safety.

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