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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Technical requirements for stratospheric airship-Part 2:
Propulsion system**

平流层飞艇通用技术要求 第2部分：推进系统

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Table of Contents

Preface... III Introduction IV 1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Technical Requirements	2
4.1 Composition	2
4.2 Function	2
4.3 Performance	2
4.4 Interface	3
4.5 Environmental Adaptability	4
4.6 Security	4
4.7 Reliability	4
4.8 Maintainability	5
4.9 Testability	5
4.10 Security	5
5 Verification test	5
5.1 Test Items	5
5.2 Test requirements	5
6 Labeling, packaging, transportation and storage	6
6.1 Identification	6
6.2 Packaging	6
6.3 Transportation and storage	6
Appendix A (Informative) Environmental Test Items and Conditions	7
References	9

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is Part 2 of GB/T 44821 "General Technical Requirements for Stratospheric Airships". GB/T 44821 has been published as follows part.

Part 1: Environmental control systems; Part 2: Propulsion systems.- Please note that some

of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document was proposed and coordinated by the National Technical Committee for Aircraft Standardization (SAC/TC 435).

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Introduction

GB/T 44821 "General Technical Requirements for Stratospheric Airships" was formulated to establish a unified system for the development, production and use of stratospheric airships.

Standards will promote the healthy and rapid development of the stratospheric airship field, so as to better meet and serve the economic construction and security needs of China's near-space.

GB/T 44821 is intended to consist of two parts.

Part 1: Environmental Control System. The purpose is to propose general technical requirements and verification for the environmental control system of stratospheric airships.

The testing as well as labeling, packaging, transportation and storage requirements provide a basis for the design and manufacture of stratospheric airship environmental control systems.

Part 2: Propulsion System. The purpose is to propose general technical requirements, verification tests and Labeling, packaging, transportation and storage requirements provide a basis for the design and manufacture of stratospheric airship propulsion systems.

General technical requirements for stratospheric airships Part 2: Propulsion System

1 Scope

This document specifies the composition, function, performance, interface, environmental adaptability, Technical requirements such as safety, reliability, maintainability, testability, and security, as well as corresponding verification test requirements.

This document is applicable to the design and manufacture of propulsion systems for

stratospheric airships driven by pure electric means, and other airships driven by pure electric means, The propulsion systems of high-altitude balloons and solar-powered aircraft are used for reference.

2 Normative references

GB/T 755

GB/T 1311

GB/T 2423.27

GB/T 2900.25

GB/T 2900.27

GB/T 13384

GB/T 43328

3 Terms and Definitions

GB/T 755, GB/T 1311, GB/T 2423.27, GB/T 2900.25, GB/T 2900.27, GB/T 13384 and The terms and definitions defined in GB/T 43328 and the following apply to this document.

3.1 propulsion system

A general term for all devices that provide the propulsion required for the flight of stratospheric airships.

3.2 design airspeed

The airspeed at which a stratospheric airship flies at peak cruising efficiency.

3.3 Rated power

The maximum continuous output power of the propulsion system under nominal conditions.