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PEOPLE'S REPUBLIC OF CHINA**

GB/T 43222-2023

Safety requirements for stratospheric airship test

平流层飞艇测试安全性要求

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents" Drafting. Please note that some content in this article may involve patents. The publisher of this document assumes no responsibility for identifying patents. This document is proposed and coordinated by the National Aircraft Standardization Technical Committee (SAC/TC435). This document was drafted by: China Special Aircraft Research Institute, Hunan Aerospace Yuanwang Technology Co., Ltd., Chinese People's Liberation Army Air Force Research Academy of Strategic Early Warning Research Institute, China Aviation Integrated Technology Research Institute, and Beijing Aerospace High-tech Co., Ltd. The main drafters of this document. Liu Zongqiang, Tao Wei, Hong Tao, Chen Chaoqun, Wang Daguang, Wan Rong, Li Yuanyuan, Meng Bochao, Geng Jun, Kang Peifang, Yuan Hongyan, Tian Hong, Qi Yanhua, Zhang Bobo, Liu Wu, Li Yanjiang, Wen Li. Safety requirements for stratospheric airship testing

1 Scope

GB/T 43222-2023 sets the safety requirements for testing stratospheric airships. A stratospheric airship is an enormous, extremely light gas envelope that has to be inflated and handled on the ground in wind that would not trouble any other aircraft, carried to twenty kilometres, and recovered; the ground phases are where the hull is lost, and the hazards include a very large inventory of lifting gas, a structure that cannot take a point load, and a flight profile that crosses controlled airspace on the way up and down. The standard sets the general requirements and then the detailed requirements for test safety, with informative annexes on the safety verification items to be completed before a test, a worked risk analysis for an airship test, and an example of test safety management. It took effect on 1 January 2024.

This document specifies the general requirements related to stratospheric airship test safety and pre-test status requirements, test safety work requirements, safety Safety

management requirements and safety assurance requirements. This document is applicable to field ground testing of stratospheric airships.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 38060 Aerostat sphere structure process terminology

GB/T 41885 Classification and classification of aerostats

3 Terms and definitions

The following terms and definitions as defined in GB/T 38060 and GB/T 41885 apply to this document.

3.1 With the goal of ensuring the safety of flight tests, after the stratospheric airship completes the final assembly and integration, ground testing is conducted to verify the various capabilities of the stratospheric airship. Interview.

Note. The test content includes sub-system functional performance inspection, closed-loop test of the stratospheric airship and ground measurement and control systems, and electromagnetic compatibility inspection of the entire ship.

3.2 accident An unexpected event or series of events that results in personal injury, occupational disease, product damage, property damage, or environmental damage.

3.3 danger hazard A condition that could lead to an accident.

3.4 safety The ability of a product to not cause casualties, product damage, property damage or endanger human health and the environment.

3.5 risk A comprehensive measure of the hazard likelihood and hazard severity of a hazard.

4 General requirements

Apply professional knowledge such as engineering methods, technology and safety management to plan and implement a series of management, design, analysis and evaluation, etc.