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

GB/T 47054-2026

**Forest and grassland fire prevention - Technical specification
for unmanned aerial vehicle patrol**

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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 document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the National Forestry and Grassland Administration. This document is under the jurisdiction of the National Technical Committee on Standardization of Forest and Grassland Fire Prevention (SAC/TC523). This document was drafted by: Institute of Resource Information, Chinese Academy of Forestry, Nanjing Forestry University, National Forestry and Grassland Administration, and the State Forestry Administration. National Forestry and Grassland Administration Forestry and Grassland Survey and Planning Institute, Northeast Forestry University, Hebei Agricultural University, DJI Innovation Technology Co., Ltd., China Aviation Comprehensive Joint Technology Research Institute, Beijing Tianshu Tongda Technology Co., Ltd., Chengdu Zongheng Automation Technology Co., Ltd., Shanghai Huace Navigation Technology Co., Ltd. Limited Liability Company, Beijing Zhuoyi Intelligent Technology Co., Ltd., Hive Aerospace Technology (Beijing) Co., Ltd., Woco Aerospace Technology (Suzhou) Co., Ltd. Ren Company, Zhongyao Tiandi (Beijing) Information Technology Co., Ltd., Hebei Xiaolin Digital Electrical Technology Co., Ltd., Shenzhen United Aircraft Technology Limited Liability Company, Zhongke Haizhi (Beijing) Technology Co., Ltd., Saihanba Mechanical Forest Farm of Hebei Province, Central and Southern Survey and Planning Institute of the National Forestry and Grassland Administration, Northwest Survey and Planning Institute of the National Forestry and Grassland Administration, Hunan Provincial Forestry Resources Survey, Monitoring and Evaluation Center, Beijing Jiangshan Hengyuan Technology Co., Ltd. Hunan Zhongdian

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1 Scope

GB/T 47054-2026 is the Chinese national standard covering patrolling for fire by drone - the flight planning and the sensors carried, the thermal and optical detection of a smoke plume, the transmission of what is seen, and the coordination with aircraft when a real fire is found. First edition, in force since 1 May 2026, one of five forest fire standards issued together. It was issued on 28 January 2026 and has been in force since 1 May 2026, as a first edition. The document is under the responsibility of the National Forestry and Grassland Administration. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the general requirements, patrol tasks, patrol operations, and handling of abnormal situations for forest and grassland fire prevention drone patrols, and describes... The corresponding verification methods. This document applies to the use of multi-rotor drones, fixed-wing drones, and compound-wing drones (hereinafter referred to as "drones") for forest and grassland fire prevention. Patrol operations. Other types of unmanned aerial vehicles can refer to this application.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 35018 Classification and Grading of Civil Unmanned Aerial Vehicle Systems

GB/T 38152 Terminology for Unmanned Aerial Vehicle Systems

GB 42590 Safety Requirements for Civil Unmanned Aerial Vehicle Systems
MH/T 1069 Technical Specifications for Operation and Flight of Unmanned Aerial Vehicle Systems

3 Terms and Definitions

The terms and definitions defined in GB/T 35018, GB/T 38152 and MH/T 1069, as well as the following terms and definitions, apply to this document.

3.1 Unmanned aerial vehicles (UAVs) or UAV systems equipped with optional payloads such as visible light cameras, infrared thermal imagers, and laser rangefinders can conduct aerial surveillance. Real-time patrols of forest and grassland fire risks, hazards, or fire situations.

Note. An unmanned aerial vehicle (UAV) system includes the UAV, mission payload, communication unit, and control station.

3.2 Routine patrol Regular patrols are conducted in fire prevention zones during the forest and grassland fire prevention period.

3.3 fire situation patrol Patrols are conducted at the fire site when forest and grassland fires occur.

3.4 Manual patrol Operators control drones and mission payloads to conduct routine patrols and fire inspections.

3.5 autonomous patrol The intelligent control device autonomously operates the drone and its payload to perform routine patrols and fire patrols.

Note. It has patrol capabilities such as automatic take-off and landing, automatic cruise, automatic identification, automatic recording and automatic transmission.