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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

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Identification method for El Nino and La Nina events

厄尔尼诺/拉尼娜事件判别方法

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed by the China Meteorological Administration. This standard is nationalized by the National Climate and Climate Change Standardization Technical Committee (SAC/TC540). The drafting unit of this standard. National Climate Center, China Meteorological Science Research Institute. The main drafters of this standard. Ren Hongli, Sun Chenghu, Ren Fumin, Yuan Yuan, Lu Bo, Tian Ben, Zuo Jinqing, Liu Ying, Cao Lu, Han Rongqing, Jia Xiaolong, Liu Changzheng.

El Niño/La Nina refers to the equatorial, eastern Pacific sea surface of a large range of abnormal abnormal warm/cold phenomenon, is the climate system interannual climate The strongest signal in change. The occurrence of the El Niño/La Niña incident will not only directly cause the drought in the tropical Pacific and its surrounding areas, Heavy rain and other catastrophic extreme weather and climate events, but also in the form of remote relations indirectly affect the rest of the world weather and lead to gas Like a disaster. In particular, similar to the.1998 strong El Niño event will cause China's Yangtze River Basin serious floods, to the people's lives Property security and China's economic development has a huge impact. In view of the fact that there is still a lack of uniform El Niño/La Niña incident criteria, in order to standardize the El Niño/La Niña events Criteria for the promotion of climate business and related research work carried out by summing up the existing event monitoring index at home and abroad to absorb the field The latest research results, to develop this standard. El Niño/La Niña Incident Method

1 Scope

China's national standard for deciding whether an El Nino or La Nina event is occurring. It specifies the key monitoring areas and the sea surface temperature indices - the NINO3, NINO4 and NINO3.4 indices and the eastern and central type indices - and the method by which an event, its duration, its intensity and its type are determined, with an informative annex listing the events identified by the method. The introduction states the reason for the standard directly: El Nino and La Nina are the large-scale anomalous warming and cooling of the equatorial eastern Pacific sea surface, and they are the strongest signal in the interannual variability of the climate system; they cause drought and heavy rain in the tropical Pacific and around it, and they influence weather elsewhere through teleconnections, with the strong El Nino of 1998 having contributed to the severe Yangtze basin flooding of that year. And, the introduction notes, there was no uniform criterion for identifying such events. That absence is the problem this standard solves, and it is a real one: without an agreed definition, two agencies can look at the same ocean and disagree about whether an event is underway, how strong it is and when it started - which matters because seasonal forecasts, agricultural planning, water management and disaster preparation are all triggered off that determination. Issued on 12 May 2017 and in force since 1 December 2017.

This standard specifies the method of identification of the El Niño/La Niña incident, including the concepts related to the event, the definition of the monitoring index and the Degree and type. This standard applies to meteorological, marine sector El Niño/La Nina event business monitoring and research institutes, universities and other relevant departments use.

3 Main sea temperature monitoring key areas and indices

3.1 Monitoring key areas Figure 1 shows the key areas of the El Niño/La Niña event, including the NINO1 zone (90 ° W ~ 80 ° W, 10 ° S ~ 0 °) (150 ° W ~ 90 ° W, 5 ° S ~ 5 ° N), NINO4 (160 ° E ~ 150 ° W, 5 ° S ~ 5 ° N) and NINO3.4 (170 ° W ~ 120 ° W, 5 ° S to 5 ° N).