

CONTENTS

EDITORIAL NOTES

- 203 **Preface to the Special Issue: Climate Change and Variability of Tropical Cyclone Activity**
Liguang WU, Bin WANG, Johnny C. L. CHAN, Kyung-Ja HA, Il-Ju MOON, Jun MATSUMOTO, Zhemin TAN,
and Ke FAN

REVIEW

- 205 **Understanding of the Effect of Climate Change on Tropical Cyclone Intensity: A Review**
Liguang WU, Haikun ZHAO, Chao WANG, Jian CAO, and Jia LIANG

ORIGINAL PAPERS

- 222 **Growing Threat of Rapidly-Intensifying Tropical Cyclones in East Asia**
Kin Sik LIU and Johnny C. L. CHAN
- 235 **Impact of the Western Pacific Tropical Easterly Jet on Tropical Cyclone Genesis Frequency over the Western North Pacific**
Ruifen ZHAN, Yuqing WANG, and Yihui DING
- 249 **Tropical Cyclones over the Western North Pacific Strengthen the East Asia–Pacific Pattern during Summer**
Sining LING and Riyu LU
- 260 **Quantifying the Contribution of Track Changes to Interannual Variations of North Atlantic Intense Hurricanes**
Jun LU, Liguang WU, and Shunwu ZHOU
- 272 **Changes in Typhoon Regional Heavy Precipitation Events over China from 1960 to 2018**
Yangmei TIAN, John L. MCBRIDE, Fumin REN, Guoping LI, and Tian FENG
- 284 **Projection of the Future Changes in Tropical Cyclone Activity Affecting East Asia over the Western North Pacific Based on Multi-RegCM4 Simulations**
Jie WU, Xuejie GAO, Yingmo ZHU, Ying SHI, and Filippo GIORGI
- 304 **Northward Shift in Landfall Locations of Tropical Cyclones over the Western North Pacific during the Last Four Decades**
Ting CHEN, Shumin CHEN, Mingsen ZHOU, Chaoyong TU, Aoqi ZHANG, Yilun CHEN, and Weibiao LI
- 320 **Climatology of Tropical Cyclone Extreme Rainfall over China from 1960 to 2019**
Ying LI and Dajun ZHAO
- 333 **A Climatological Perspective on Extratropical Synoptic-Scale Transient Eddy Activity Response to Western Pacific Tropical Cyclones**
Yao HA, Zhong ZHONG, Haikun ZHAO, Yimin ZHU, Yao YAO, and Yijia HU

LETTERS & NOTES

- 344 **What Drives the Decadal Variability of Global Tropical Storm Days from 1965 to 2019?**
Yifei DAI, Bin WANG, and Weiyi SUN

On the cover

The beautiful satellite image shows the remarkable features of a powerful tropical cyclone. Hurricanes, typhoons, and cyclones are tropical cyclones that form in the Atlantic, Pacific, and Southern Hemisphere and Indian Oceans, respectively, and typically begin over tropical or subtropical waters. In the image, the eye can be clearly seen and is surrounded by the eyewall and spiral rain bands with deep convection. Tropical cyclone activity exhibits climate change and natural variability on multiple time scales, which are closely associated with multitime-scale variations of atmospheric and oceanic circulations. Understanding of natural variability and climate change is important to the projection of tropical cyclone activity in a warming climate and seasonal forecasting. The published papers in this special issue provide valuable insights into the challenging research on climate change and the variability of tropical cyclone activity.