

目 录

Contents

I

热带气旋的发生、发展和消亡

Genesis, Development and Dissipation of Tropical Cyclones

1 热带气旋的生命史	2
Lifespan	
<hr/>	
热带气旋生命史	2
Lifespan of tropical cyclones	
热带气旋的生成、变性和消亡 (1~12月)	4
Locations of tropical cyclone genesis, extratropical transition, and dissipation (Jan.–Dec.)	
西北太平洋和南海海域热带气旋出现的年日数	9
Annual days with tropical cyclones over the western North Pacific and South China Sea	
西北太平洋和南海海域热带气旋的逐月日数	9
Monthly days with tropical cyclones over the western North Pacific and South China Sea	
2 热带气旋的频数	10
Frequency	
<hr/>	
西北太平洋热带气旋年频数	10
Annual counts of tropical cyclones over the western North Pacific	
南海热带气旋年频数	10
Annual counts of tropical cyclones over the South China Sea	
热带气旋月频数和日频数	11
Monthly and daily counts of tropical cyclones (1981–2010)	
3 热带气旋的强度	12
Intensity	
<hr/>	
累积气旋能量指数	12
Accumulated cyclone energy (ACE)	
各等级热带气旋出现的比例分布	16
Distribution of percentage of tropical cyclones in each intensity category	
各等级热带气旋出现的比例	17
Percentage of tropical cyclones in each intensity category	
热带气旋强度的频率分布	18
Probability distribution of tropical cyclone intensity	
4 热带气旋强度的变化	19
Intensity Change	
<hr/>	
热带气旋强度变化的频率分布	19
Probability distribution of tropical cyclone intensity change	
热带气旋强度的变化	20
Tropical cyclone intensity change	

5 双热带气旋和多热带气旋
Binary and Multiple Tropical Cyclones 26

双热带气旋和多热带气旋过程的频数 Frequency of binary and multiple tropical cyclones	26
双热带气旋和多热带气旋出现的时段 Duration of binary and multiple tropical cyclones	27
双热带气旋和多热带气旋过程期间的频次 Tropical cyclones occurrence frequency during periods with binary and multiple tropical cyclones	30

II 热带气旋的路径和移动
Tracks and Propagation of Tropical Cyclones

1 热带气旋的频次
Occurrence Frequency 34

热带气旋的频次 Tropical cyclone occurrence frequency	34
热带气旋的逐月频次 Monthly tropical cyclone occurrence frequency	38

2 热带气旋移向和移速
Direction and Speed of Propagation 44

移向的频率分布和各方位平均移速 Probability distribution and mean speeds of different propagation directions	44
逐月移向频率分布和各方位平均移速 Monthly probability distribution and mean speeds of different propagation directions	46
移向的频率分布 Probability distribution of tropical cyclone propagation direction	60
移速的频率分布 Probability distribution of tropical cyclone propagation speed	62

3 热带气旋转向
Recurvature 66

热带气旋转向点的分布 Distribution of tropical cyclone recurving locations	66
热带气旋转向前后的平均移速和强度 Mean propagation speed and intensity before and after tropical cyclone recurvature	68

4 热带气旋移动的变化
Changes in Propagation 84

热带气旋移动的变化 Changes in propagation	84
-------------------------------------	----

5 热带气旋的异常路径
Abnormal Tracks 90

热带气旋异常路径出现的频次 Occurrence frequency of abnormal tracks	90
--	----

III 影响和登陆中国的热带气旋
Tropical Cyclones Affecting and Landfalling in China

1 中国近海热带气旋活动
Tropical Cyclones near Coastal China 94

中国近海热带气旋活动的频数 Frequency of tropical cyclones near coastal China	94
中国近海热带气旋强度变化的频率分布 Probability distribution of intensity changes for tropical cyclones near coastal China	98
中国近海热带气旋的移动 Tropical cyclone propagation near coastal China	100

2 影响中国的热带气旋
Tropical Cyclones Affecting China 102

热带气旋影响中国期间的生命史 Lifespan stages of tropical cyclones affecting China	102
热带气旋影响中国的频数 Frequency of tropical cyclones affecting China	104
热带气旋影响中国的季节 Seasonality of tropical cyclones affecting China	115
热带气旋影响中国的年日数 Annual days of tropical cyclones affecting China	116
热带气旋影响中国的月日数 Monthly days of tropical cyclones affecting China	120
影响中国热带气旋的源地 Genesis locations of tropical cyclones affecting China	124
影响中国热带气旋的路径 Tracks of tropical cyclones affecting China	126
影响中国热带气旋的强度 Intensities of tropical cyclones affecting China	130

3 热带气旋影响中国导致的大风 Severe Winds Generated by Tropical Cyclones in China	132
导致中国陆域出现大风的热带气旋频数 Counts of tropical cyclones generating severe wind over the land area of China	132
热带气旋导致中国出现大风的极值分布 Extreme winds generated by tropical cyclones in China	138
4 热带气旋影响中国导致的降水 Precipitation Generated by Tropical Cyclones in China	140
热带气旋暴雨的频次 Frequency of torrential rain generated by tropical cyclones	140
热带气旋暴雨的月频次 Monthly frequency of torrential rain generated by tropical cyclones	142
热带气旋导致中国陆域出现降水时的位置 Locations of tropical cyclones when generating precipitation over the land area of China	158
5 登陆中国的热带气旋 Tropical Cyclones Landfalling in China	162
登陆中国热带气旋的频数 Counts of tropical cyclones landfalling in China	162
热带气旋登陆中国的季节 Seasonality of tropical cyclones landfalling in China	164
登陆中国热带气旋的源地 Genesis locations of tropical cyclones landfalling in China	166
登陆中国热带气旋的路径和移动 Tracks and propagation of tropical cyclones landfalling in China	168
登陆中国热带气旋的强度 Intensity of tropical cyclones landfalling in China	174

IV 热带气旋统计表 Lists of Tropical Cyclones

1 热带气旋名录 List of Tropical Cyclones	180
2 因灾被除名的热带气旋 Tropical Cyclones with Names Retired Due to Severe Damage	190

3 双热带气旋和多热带气旋名录 List of Binary and Multiple Tropical Cyclones	192
4 影响和登陆中国的热带气旋 Tropical Cyclones Affecting or Landfalling in China	194
影响和登陆中国的热带气旋 Tropical cyclones affecting or landfalling in China	194
对中国影响居前50位的热带气旋 Top 50 tropical cyclones affecting China	197
登陆中国时强度居前 20 位的热带气旋 Top 20 tropical cyclones according to their intensity when landfalling	198
1981~2010 年间最早和最晚登陆中国的热带气旋 Earliest and latest tropical cyclones landfalling in China between 1981 and 2010	198
热带气旋登陆中国时的强度极值 Extreme intensity of tropical cyclones when landfalling	198
热带气旋登陆中国前后的强度和移速 Tropical cyclones intensity and propagation speed before and after landfall in China	198
1981~2010 年期间在中国造成重大灾害的热带气旋 Tropical cyclones causing severe damages in China between 1981 and 2010	204

附录 Appendixes

扩展的蒲福风力等级表 Extended Beaufort Wind Scale	209
观测站分布 Distribution of Weather Stations	210