

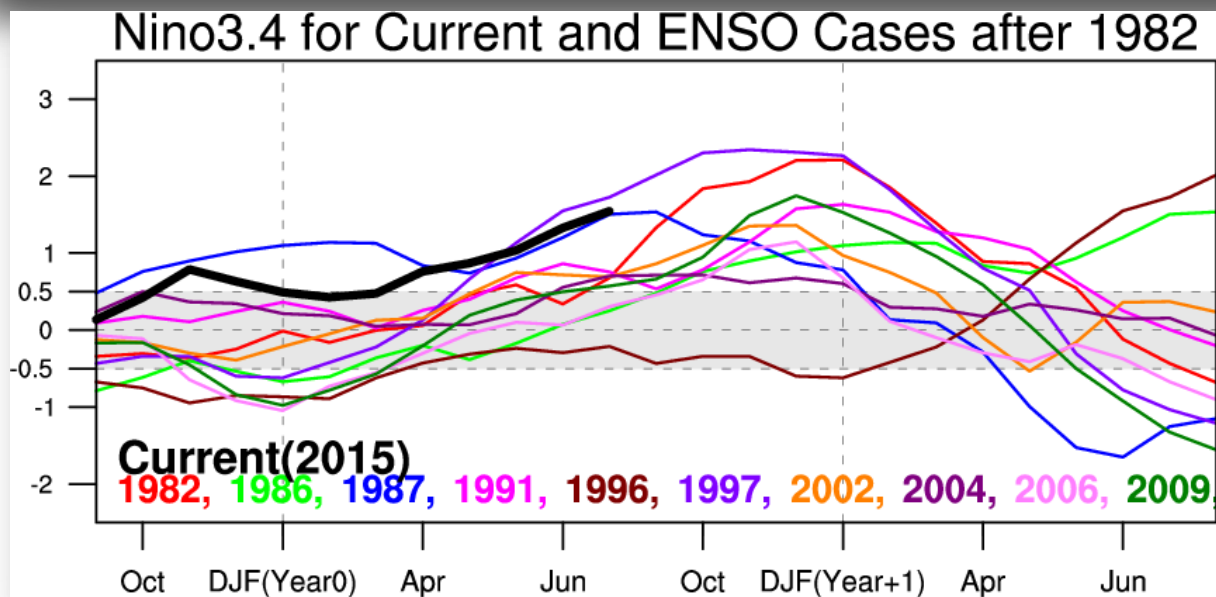
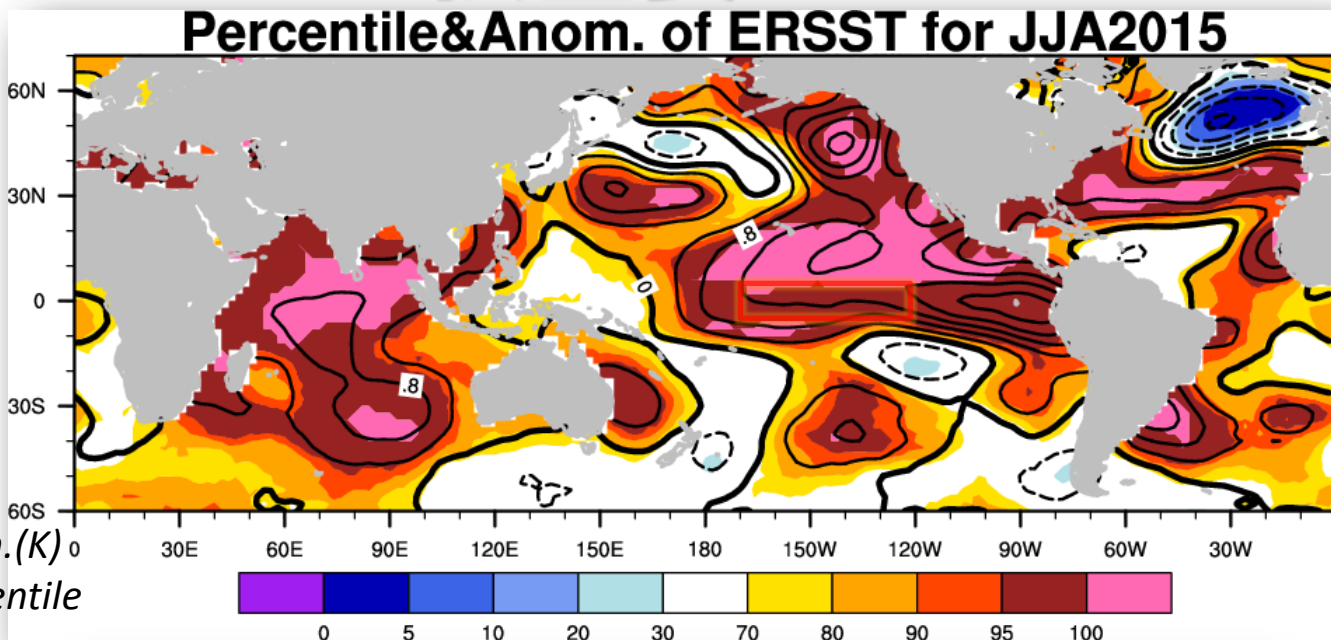
# 聖嬰、季內振盪與颱風 在2015年的交響曲

李明營<sup>1</sup>、許晃雄<sup>2</sup>、洪志誠<sup>3</sup>

中央氣象局<sup>1</sup>、中央研究院<sup>2</sup>、臺北市立大學<sup>3</sup>

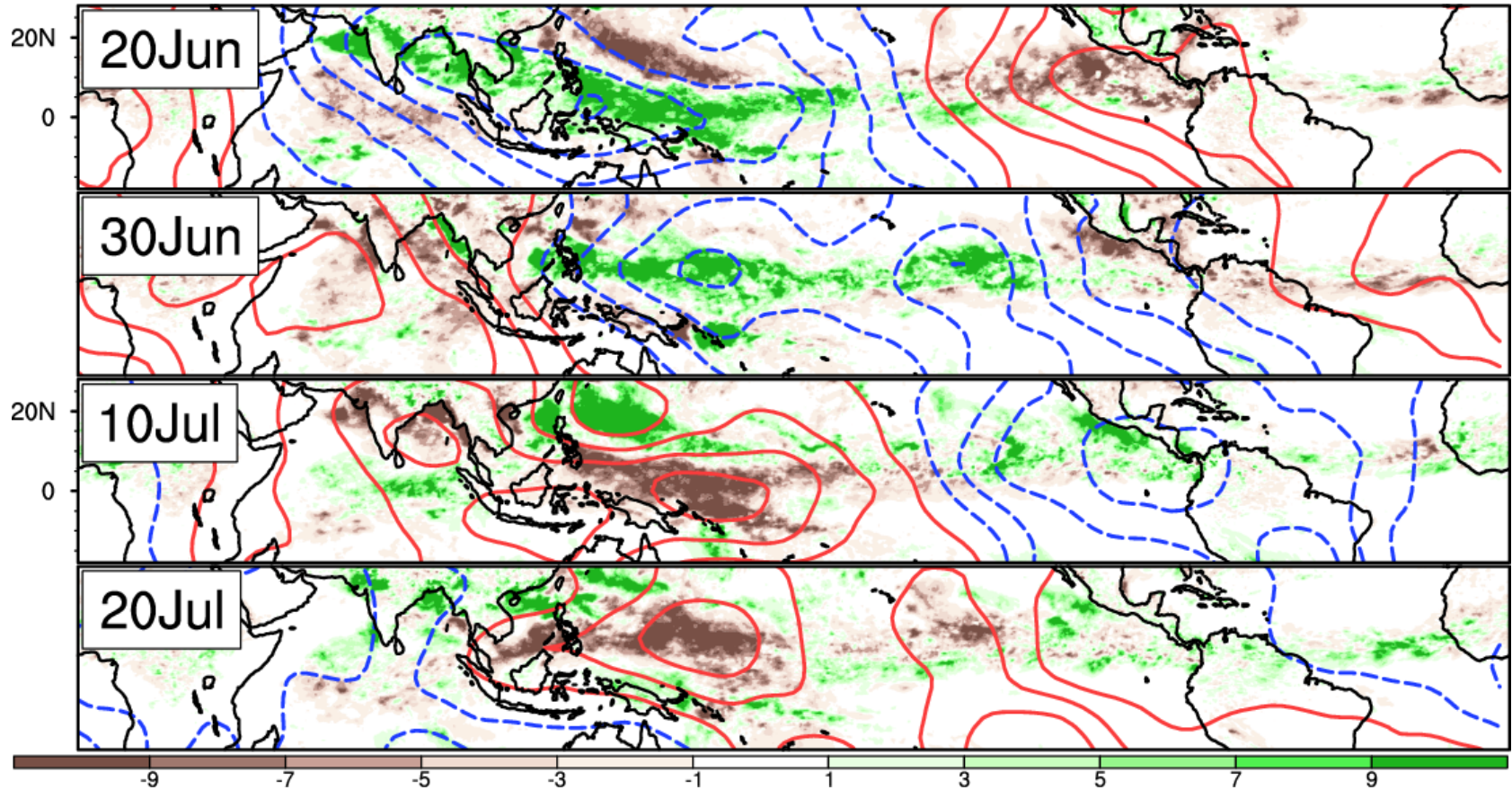
2015天氣分析與預報研討會

# 主角一：發展中的強聖嬰 & ...



# 主角二：不容忽視的季內振盪

25-90day pass Precp.&Chi200 in 2015

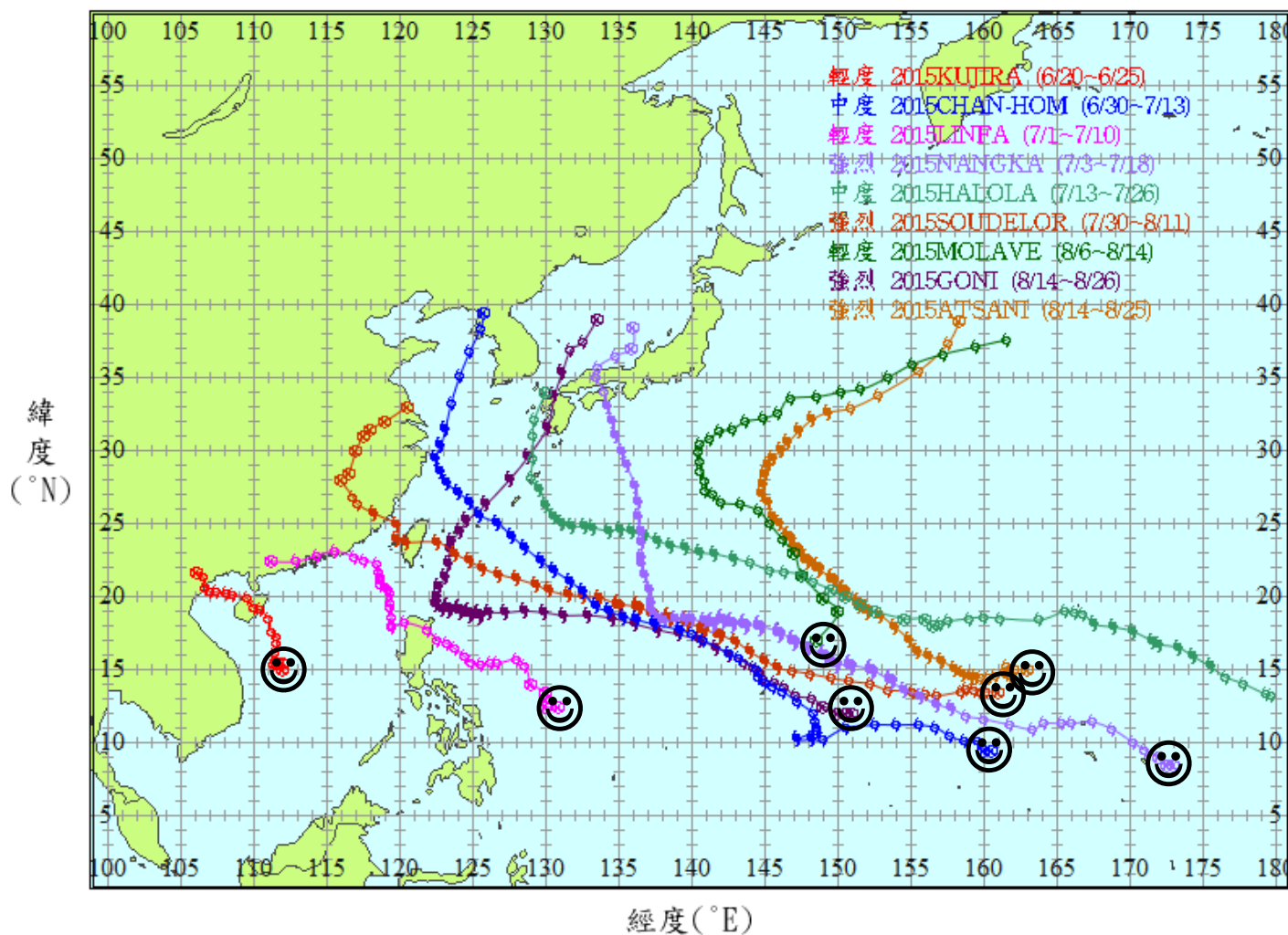


Contour:  $\chi_{200}$

Shading : Precip.

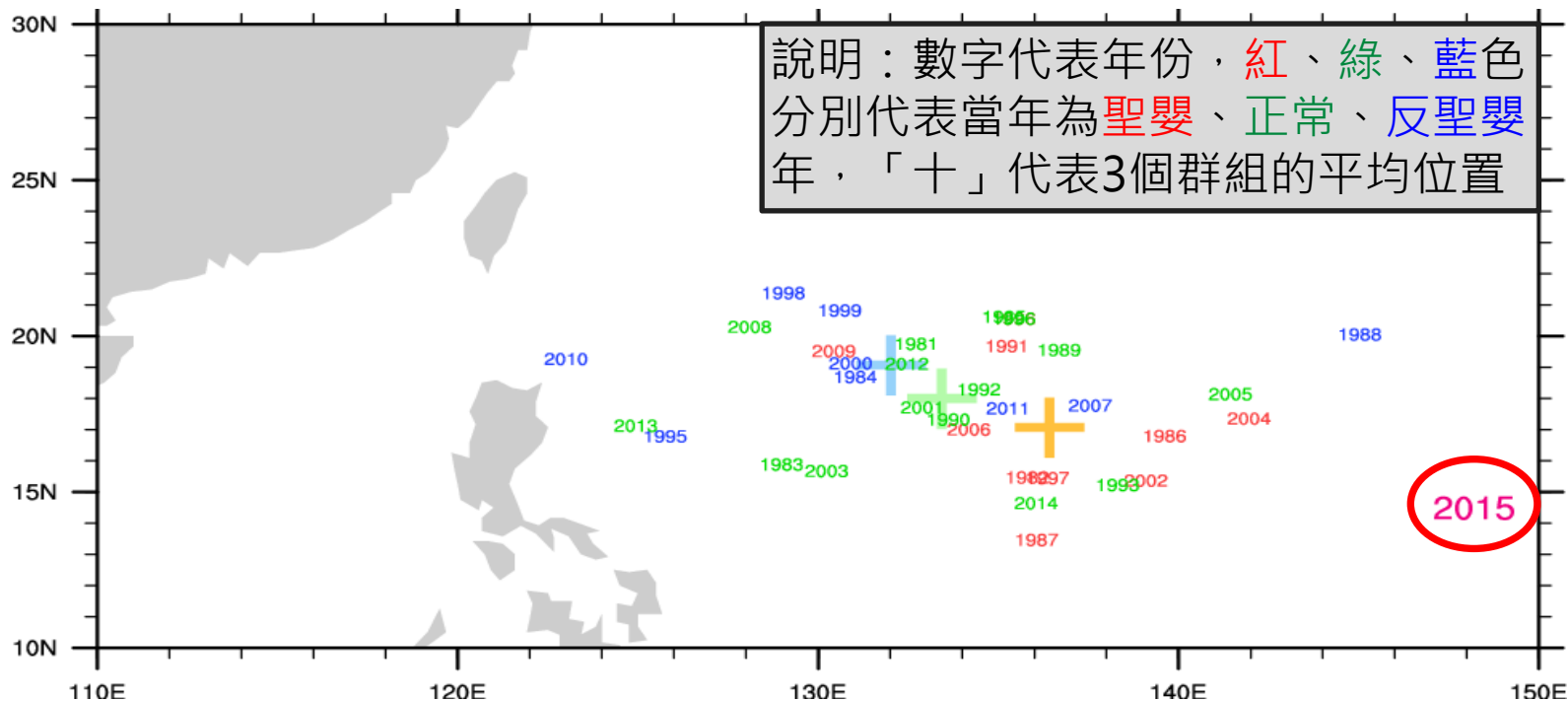
# 主角三：颱風生成位置超偏東

2015年6月-2015年8月 北太平洋西部海域生成颱風路徑圖

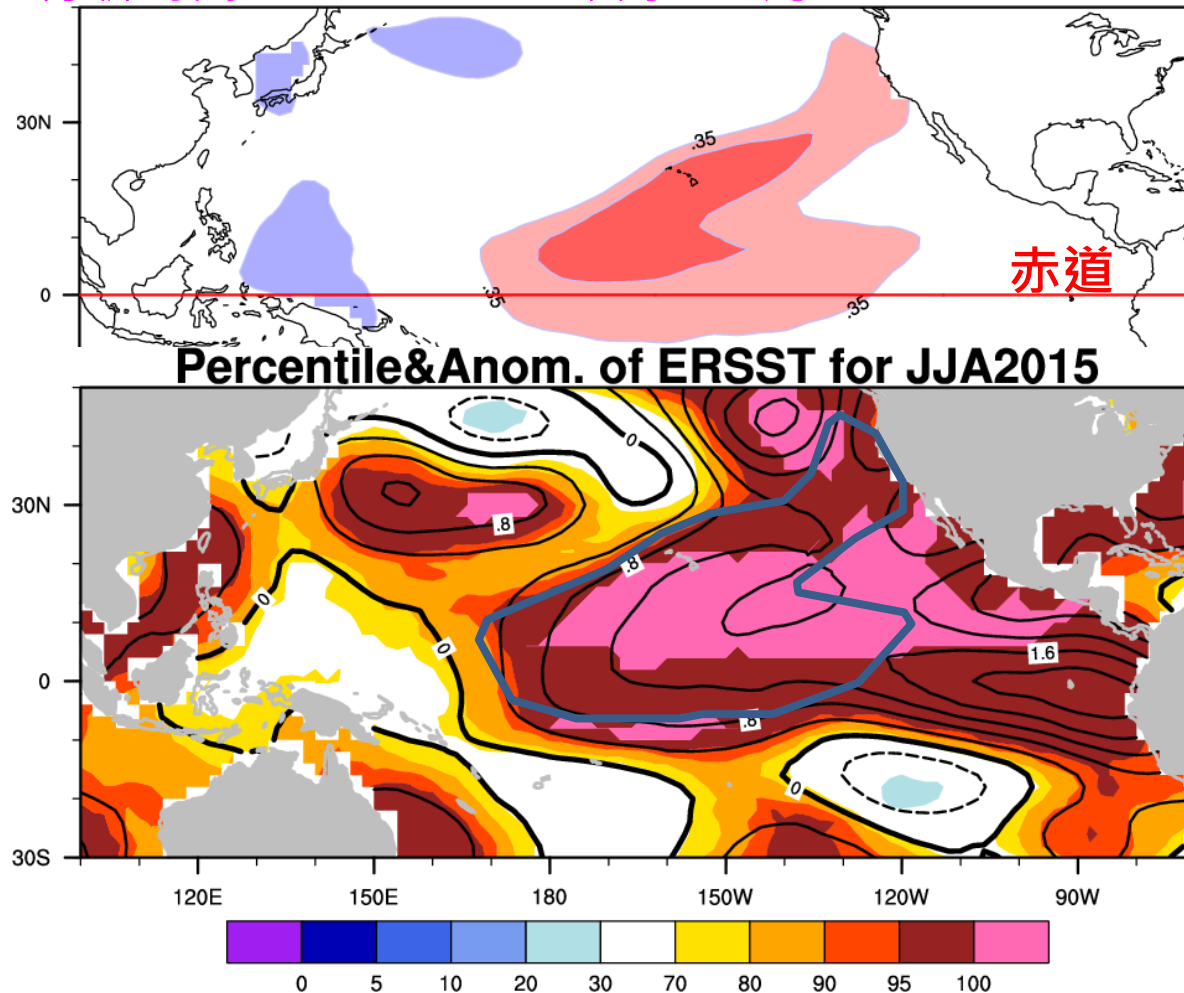


颱風生成數：2015年: 9個；氣候平均：10.9±2.9個

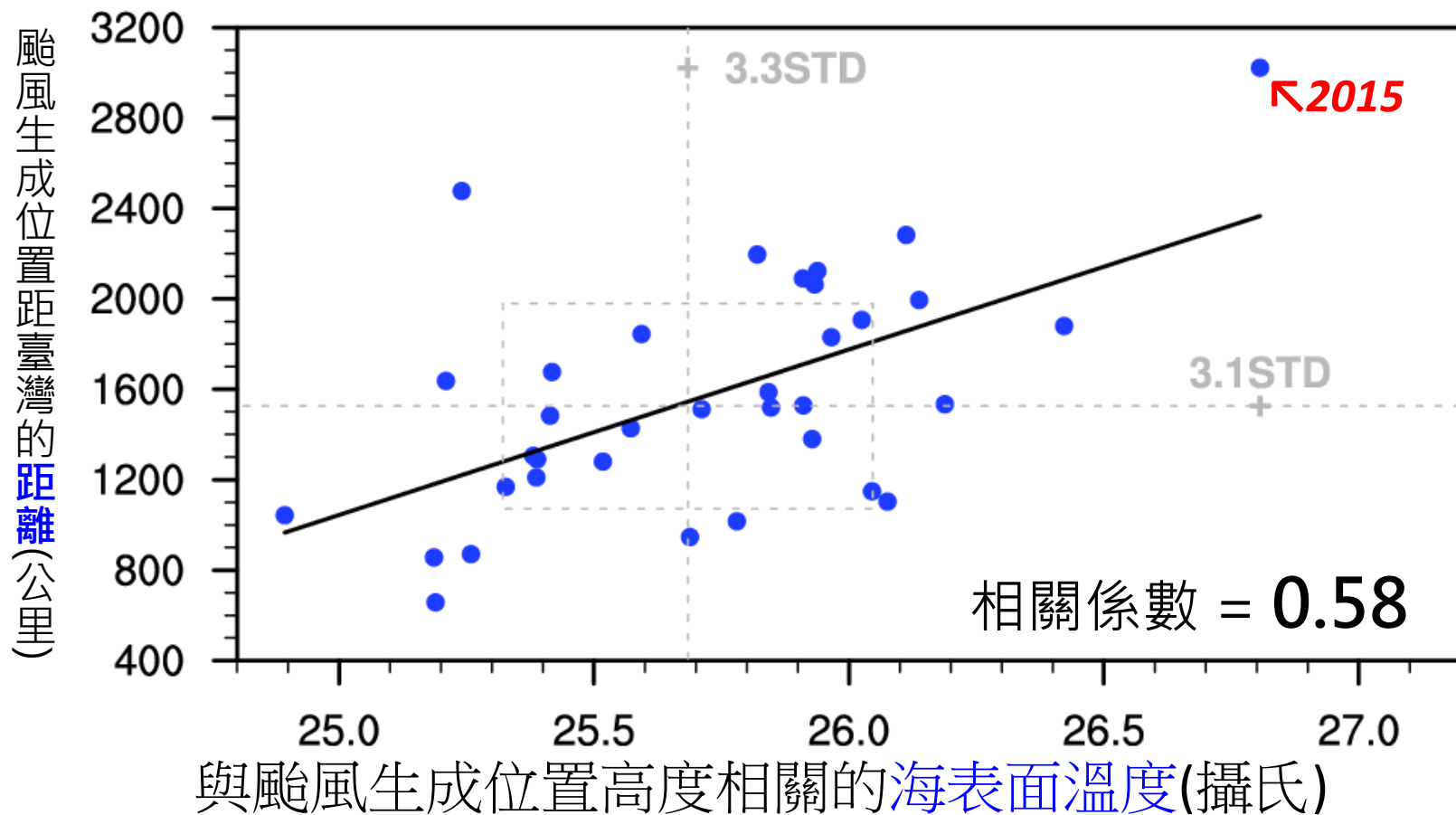
# 1981~2015年,6~8月的颱風平均生成位置



相關分析圖：颱風生成位置距臺灣的距離 vs 海表面溫度  
分析時間：1981~2015年的6~8月



散佈分析圖：**西太平洋**颱風生成位置距臺灣的距離 vs **海表面溫度**  
分析時間：1981~2015年的6~8月

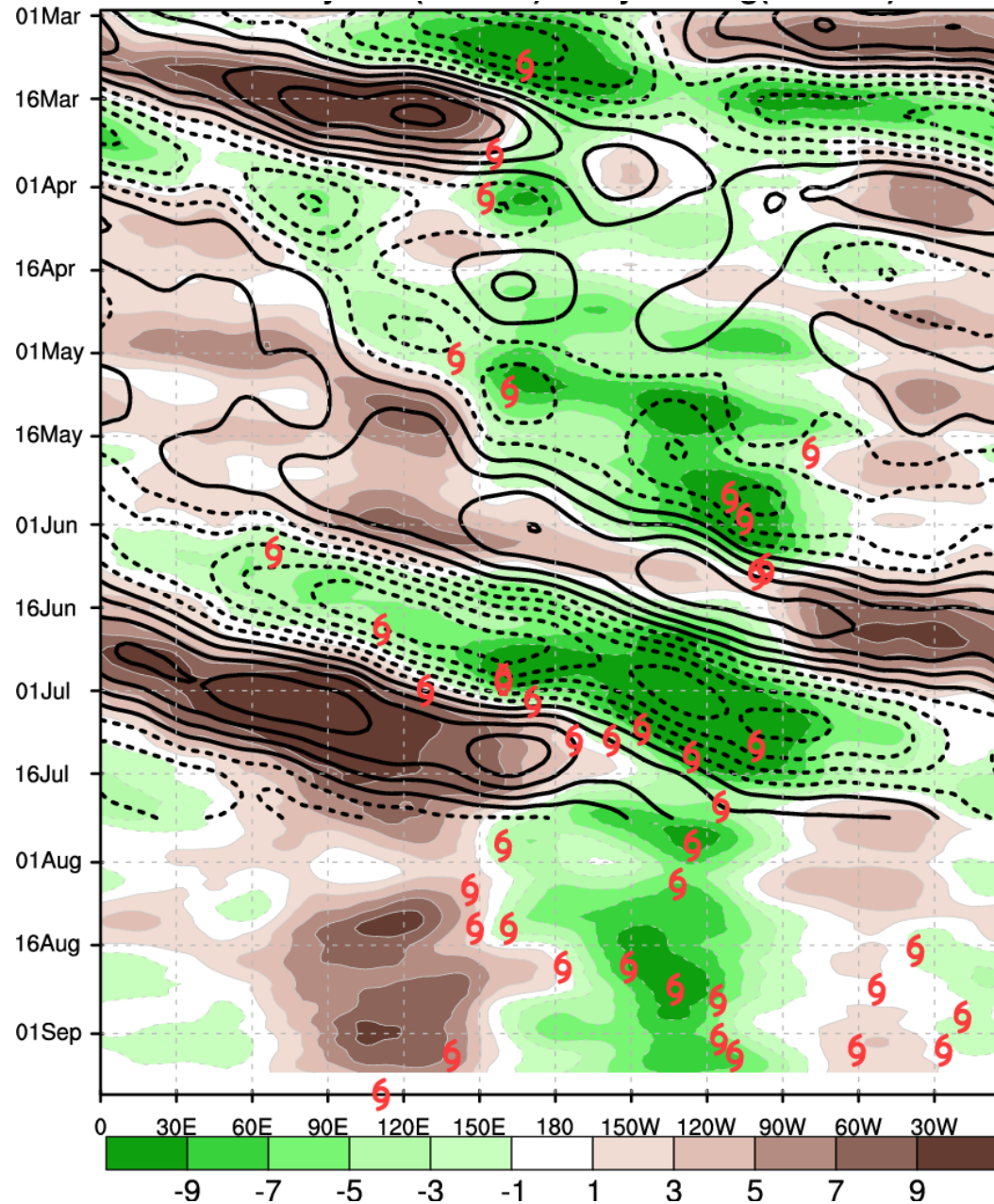


# Velocity potential at 200hPa aver. over 10°S-10°N in Mar-Sep 2015

Shading :  
9 day running

Contours:  
25-90 day filter

☪ Tropical storms





# 結論 for 2015年

- 3月-7月中旬，活躍的熱帶季內振盪，為影響颱風/颶風生成的因素之一。
- 強聖嬰逐漸發展，又副熱帶東北太平洋海溫破紀錄偏暖，為西北太平洋颱風生成位置距臺超遠的影響因素之一。



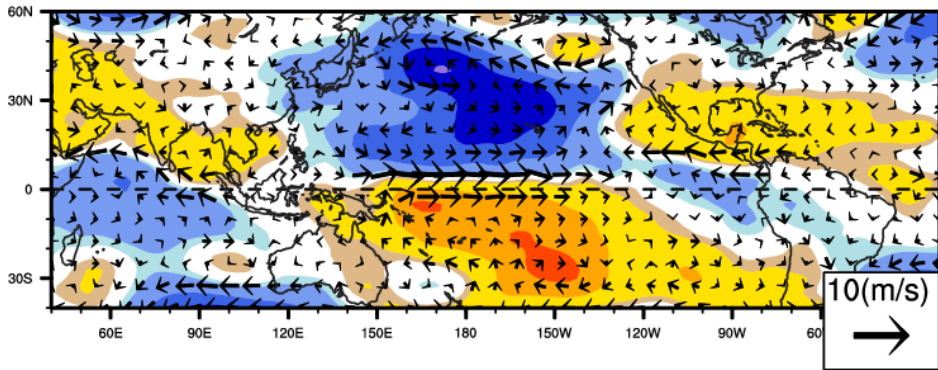
報氣候  
FB粉絲團 

Since 2015/7/27

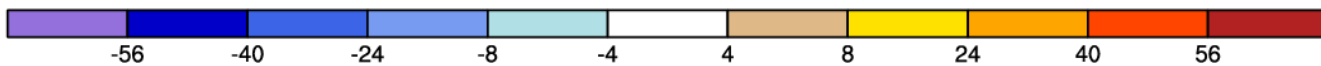
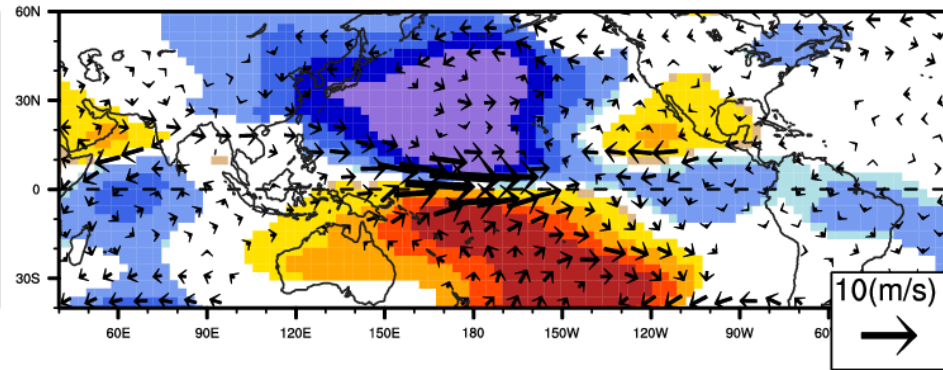
# 副熱帶東太北太平洋的暖海溫，主宰2015年夏季環流

## Simulated Wind&StreamFunction at 850hPa for Jun-Aug2015

OBS

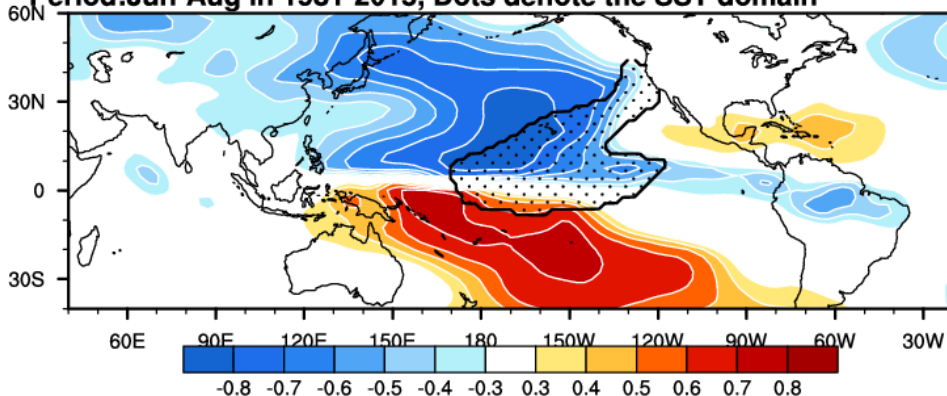


ENP run **AGCM, ECHAM5, T42L31**

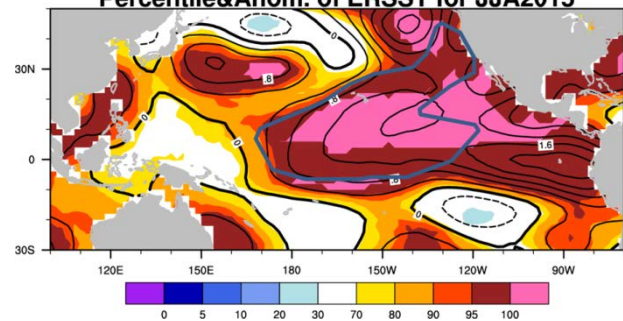


### Statics, correlation

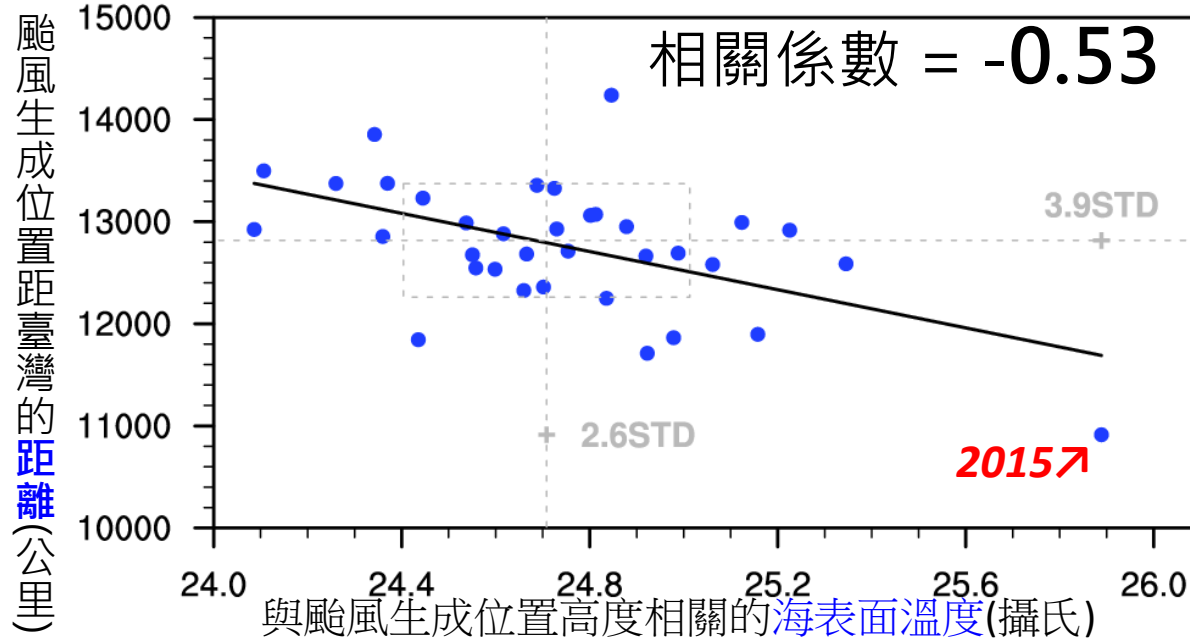
Corr. map for SST associated with Ty distance onto StreamFunction850  
 Period: Jun-Aug in 1981-2015, Dots denote the SST domain



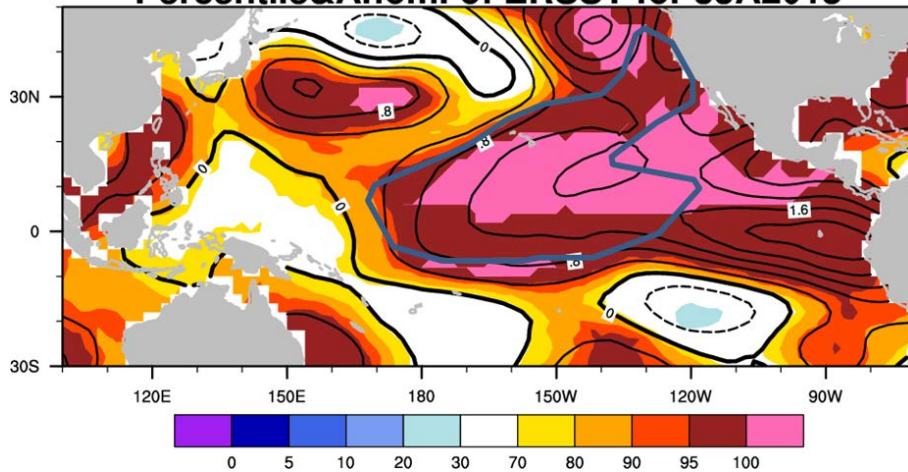
Percentile&Anom. of ERSST for JJA2015



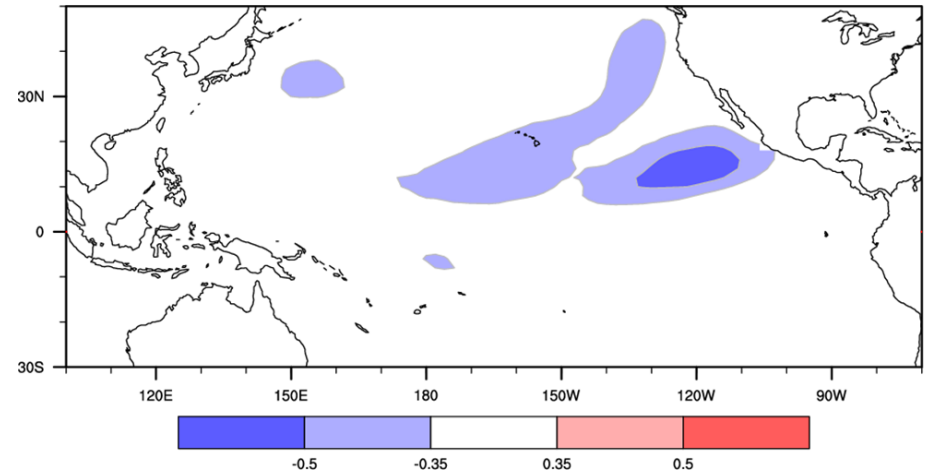
散佈分析圖：東太平洋颱風生成位置距臺灣的距離 vs 海表面溫度  
 分析時間：1981~2015年的6~8月



Percentile&Anom. of ERSST for JJA2015

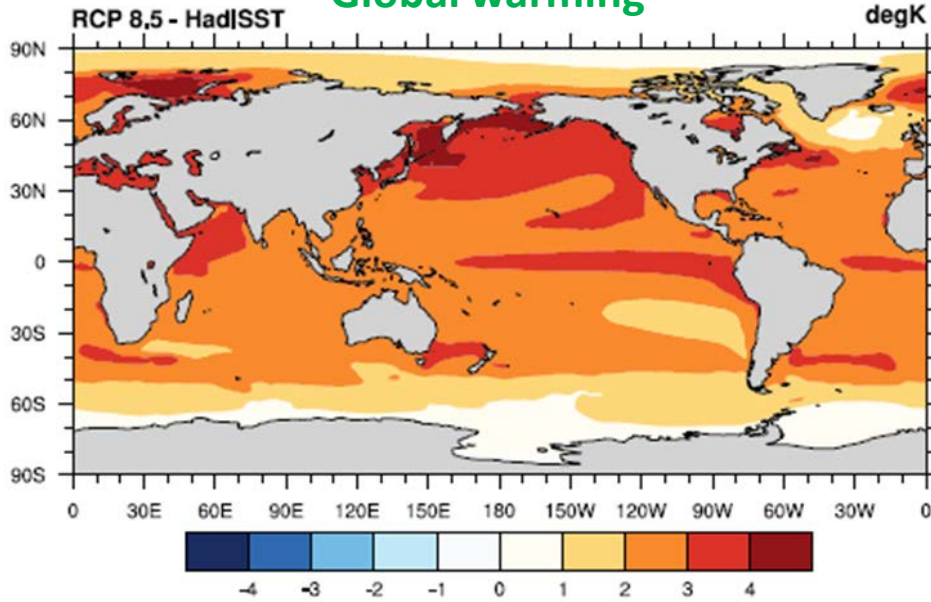


Corr. map of EP Ty generation distance from TW and SST for Jun-Aug, 1981-2015

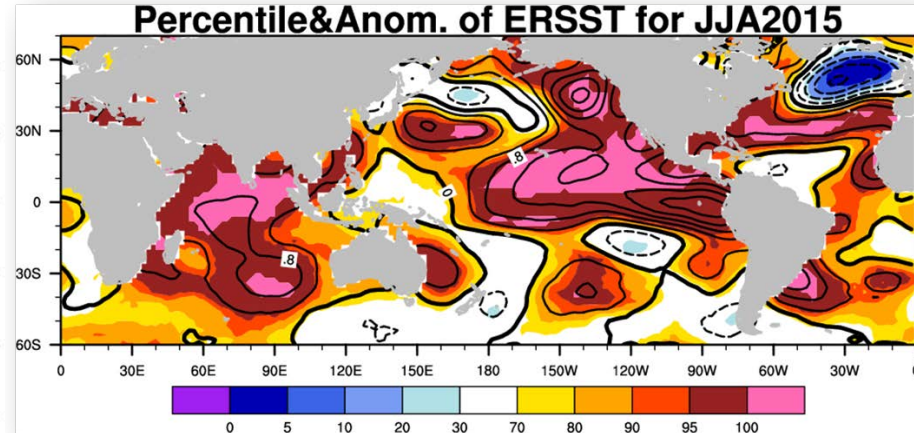


# 2015年 海溫像什麼??

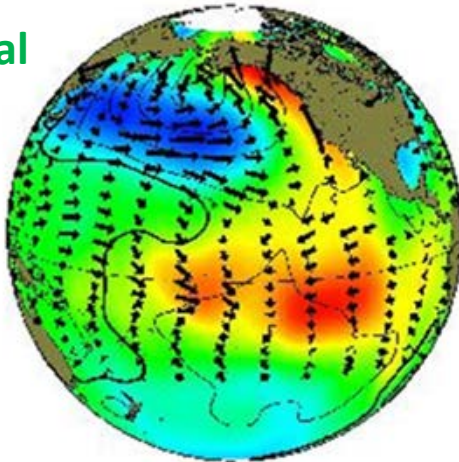
Global warming



JJA2015 SST

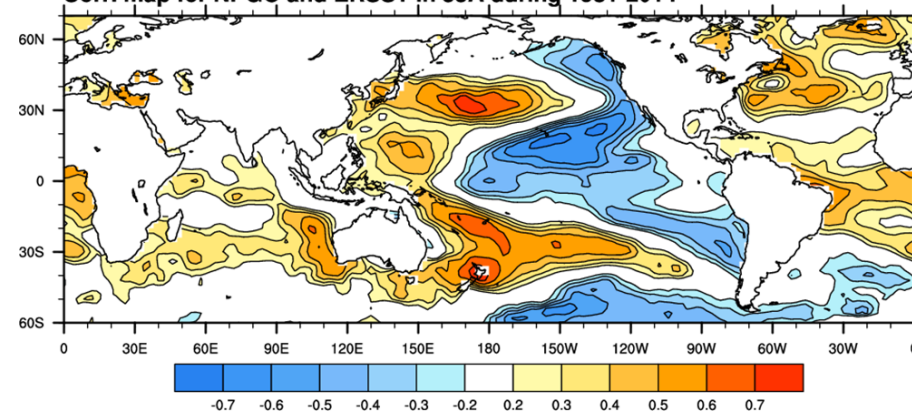


Pacific Decadal Oscillation



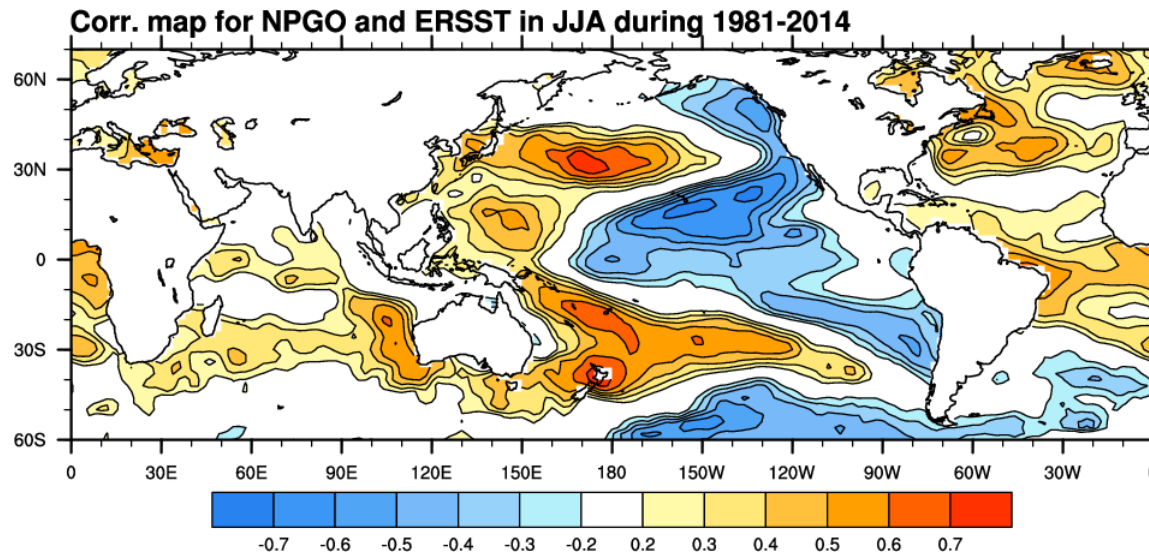
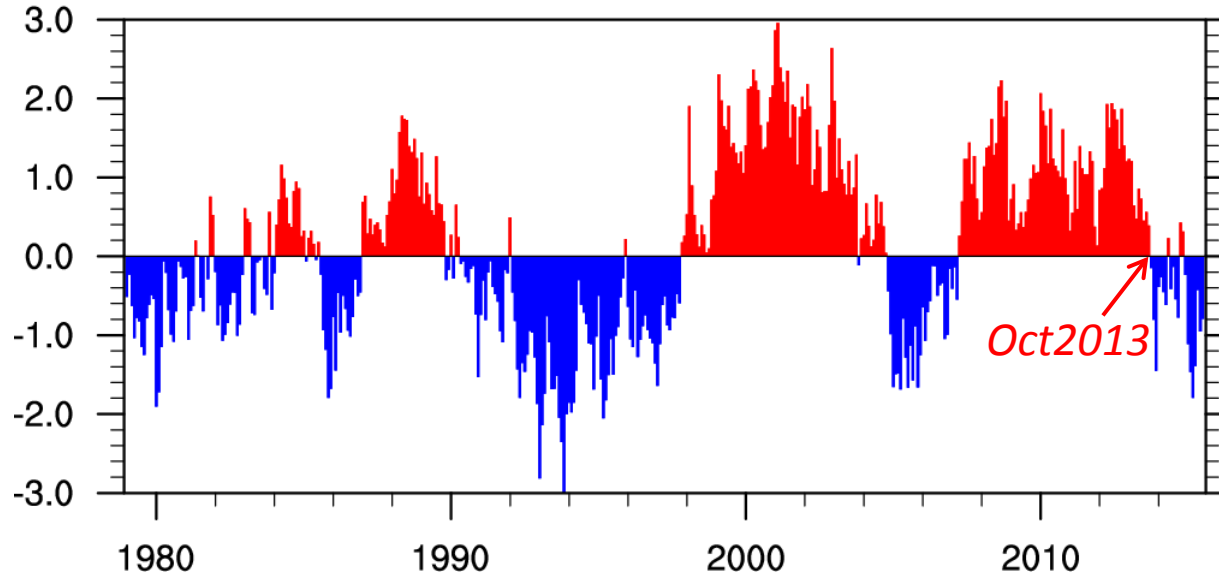
North Pacific Gyre Oscillation

Corr. map for NPGO and ERSST in JJA during 1981-2014



# North Pacific Gyre Oscillation

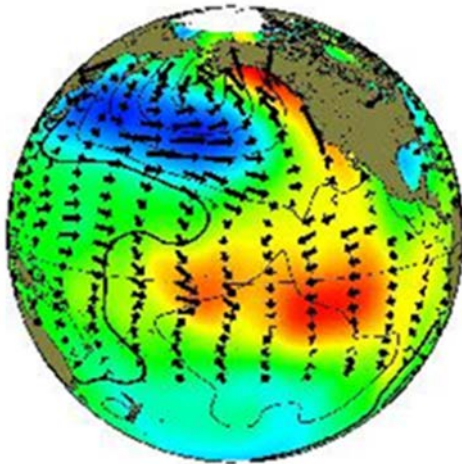
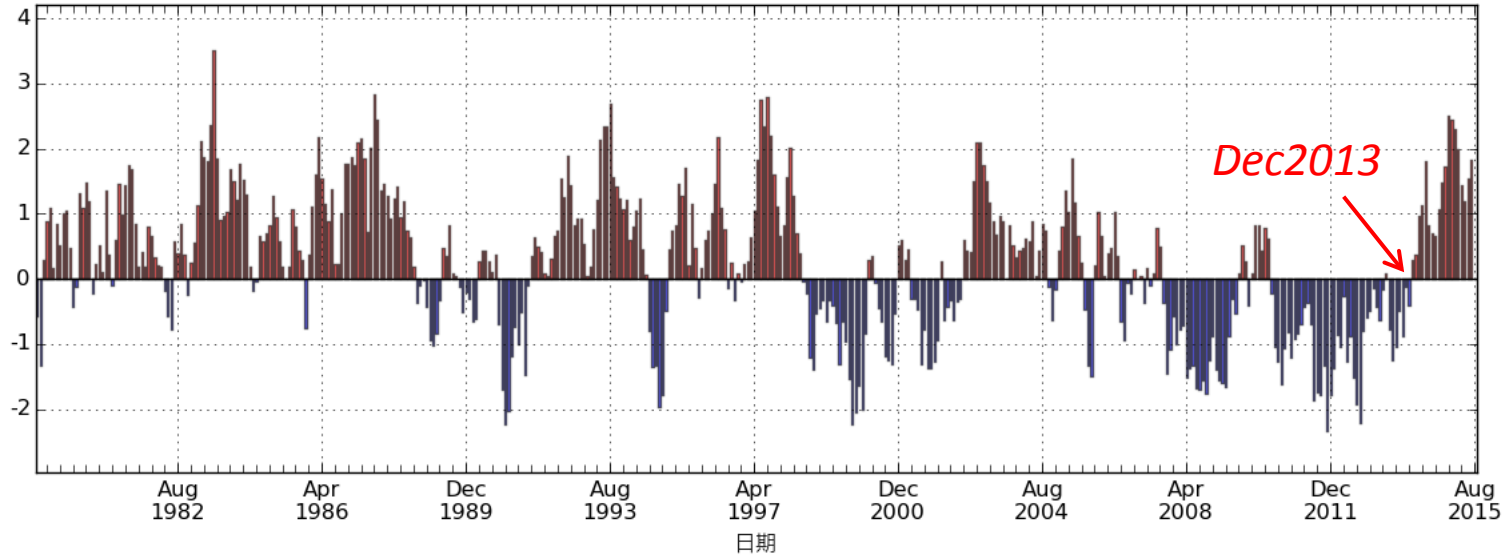
Monthly NPGO index in Jan1979-Jul2015



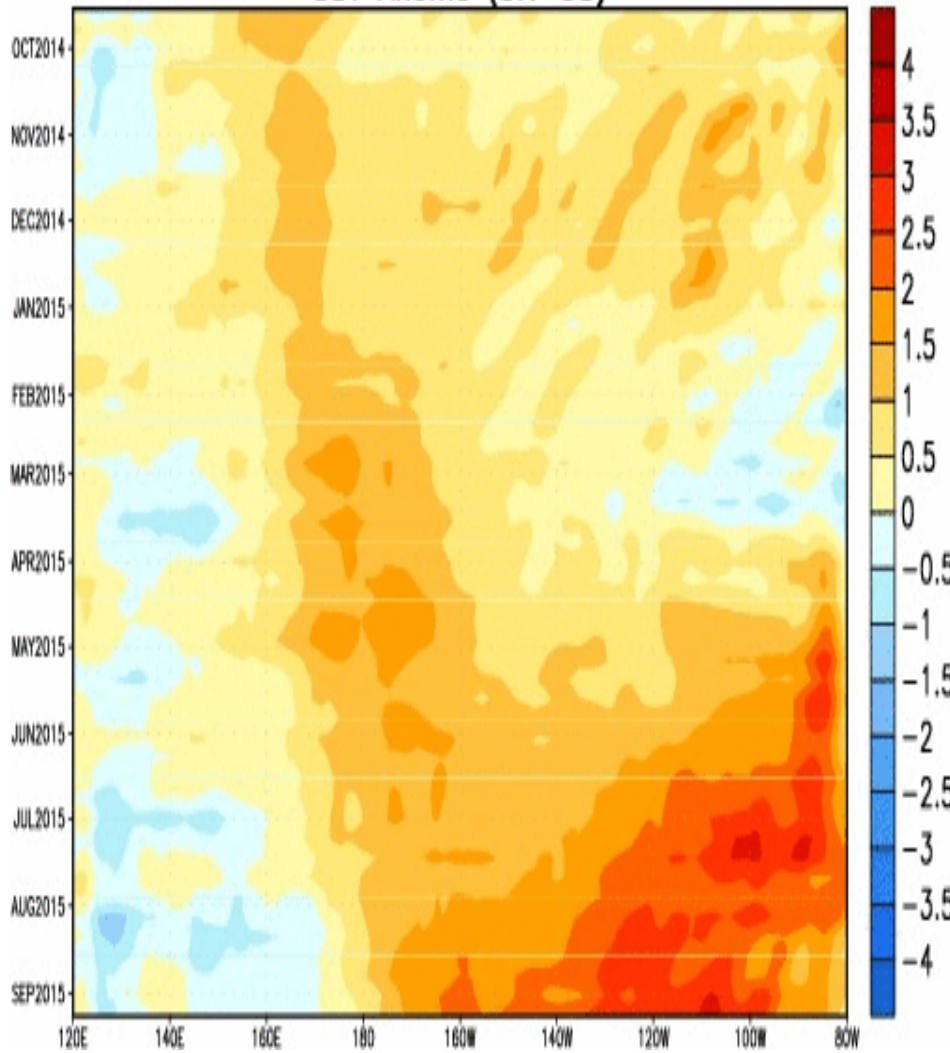
# Pacific Decadal Oscillation

指數值

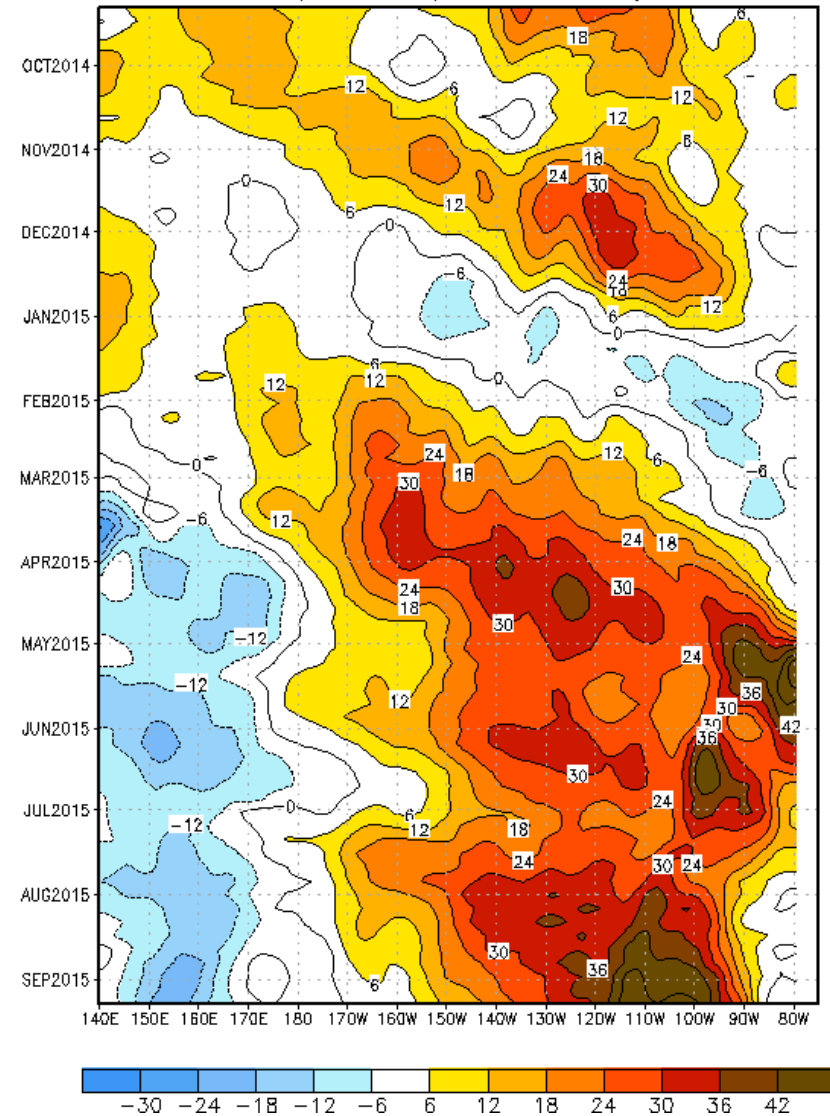
指數曲線圖 1979年1月 ~ 2015年8月



SST Anoms (5N-5S)

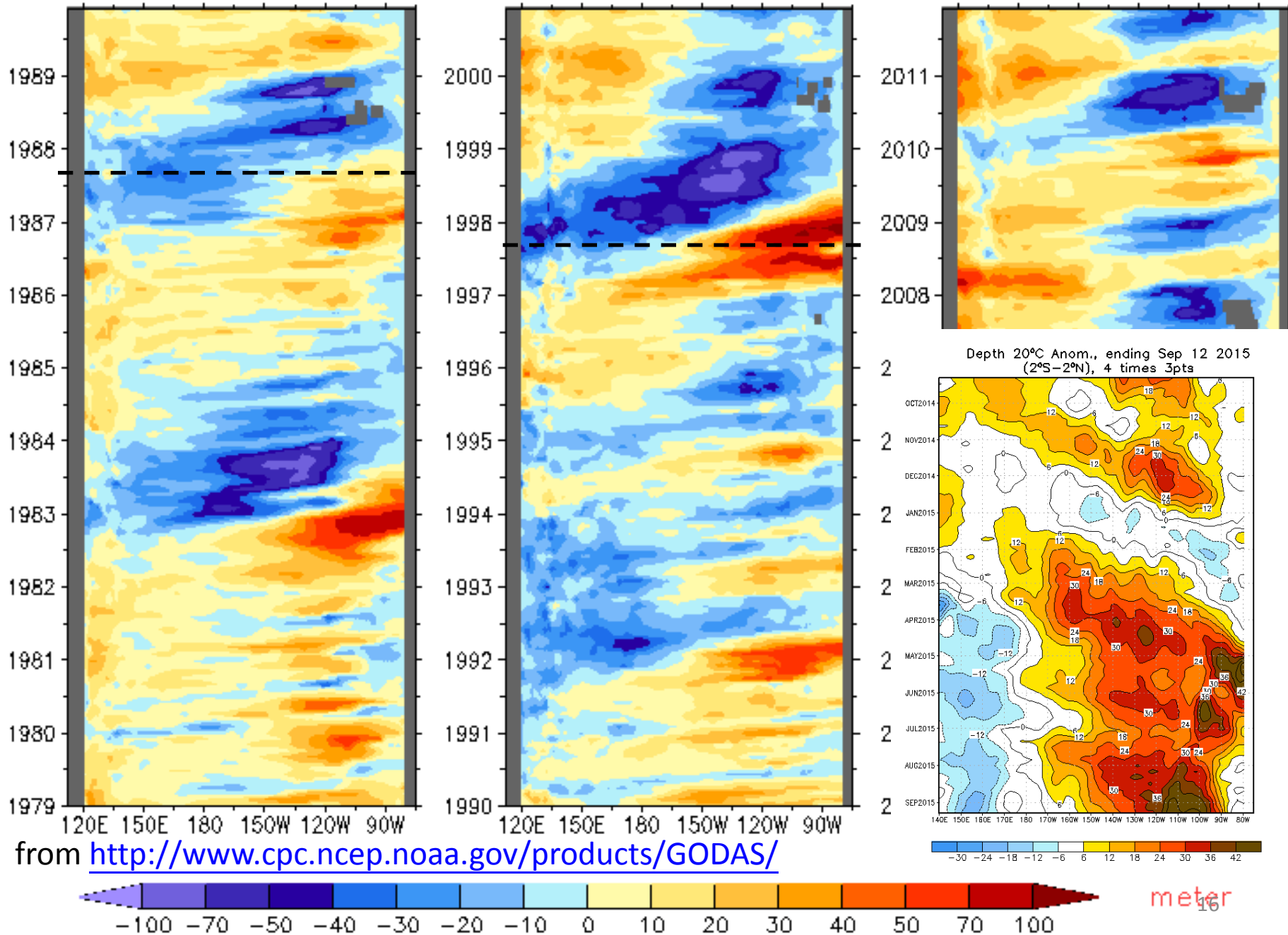


Depth 20°C Anom., ending Sep 12 2015 (2°S-2°N), 4 times 3pts



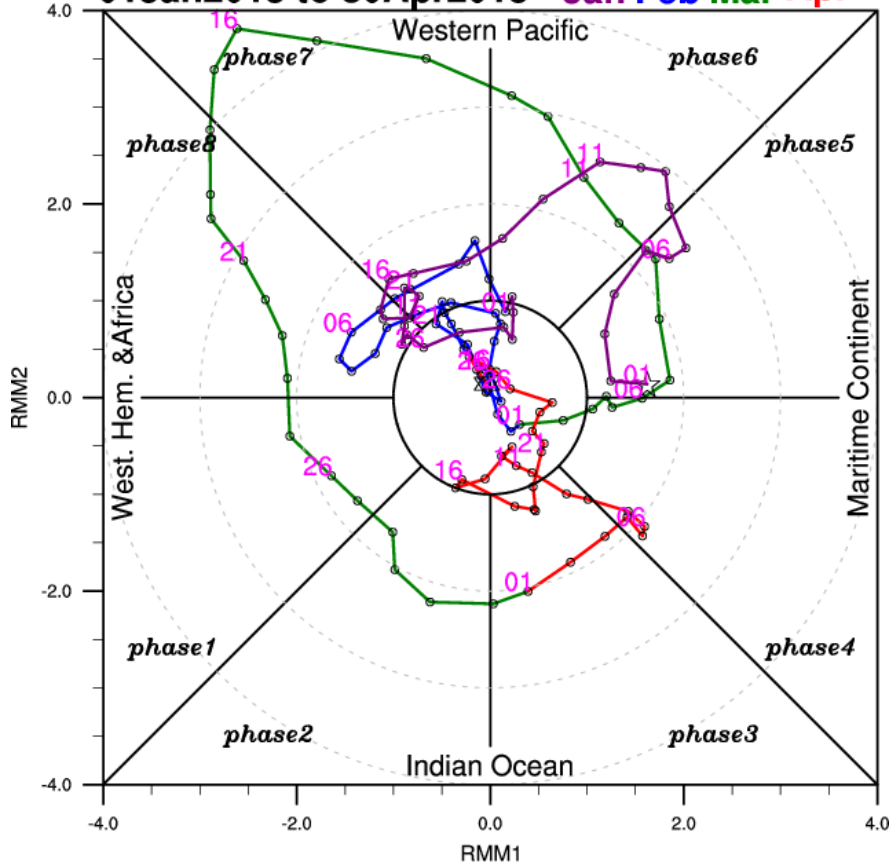
From <http://www.cpc.noaa.gov/>

# GODAS 20°C Depth Anomaly (2°N–2°S), Pacific





**MJO RMM1&2 Phase Space for 01Jan2015 to 30Apr2015** Jan Feb Mar Apr



**MJO RMM1&2 Phase Space for 01May2015 to 31Aug2015** May Jun Jul Aug

