

天氣分析與預報研討會

中央氣象局動力區域氣候預報系統 之預報能力分析

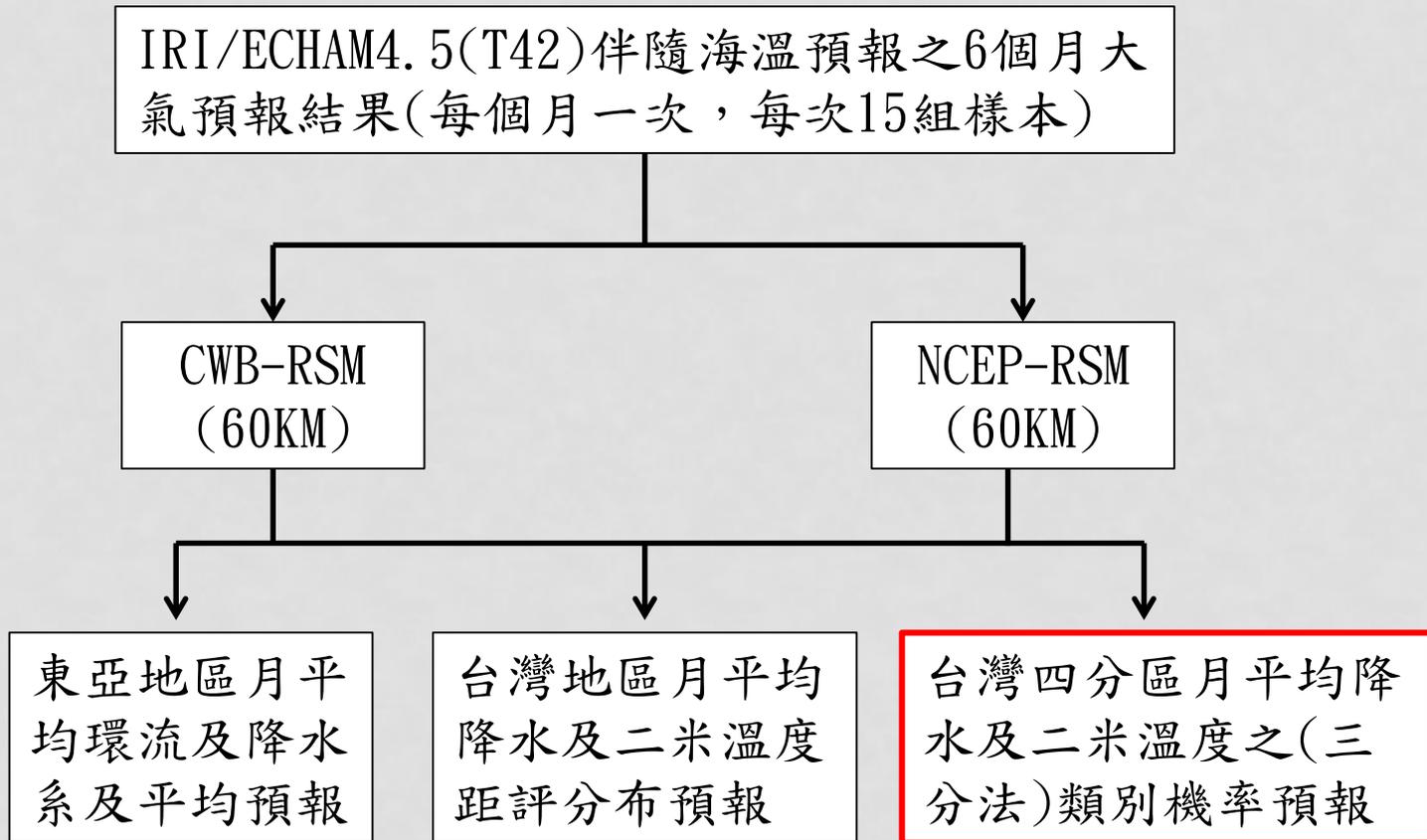
中央氣象局、中央大學
林欣怡、蕭志惠



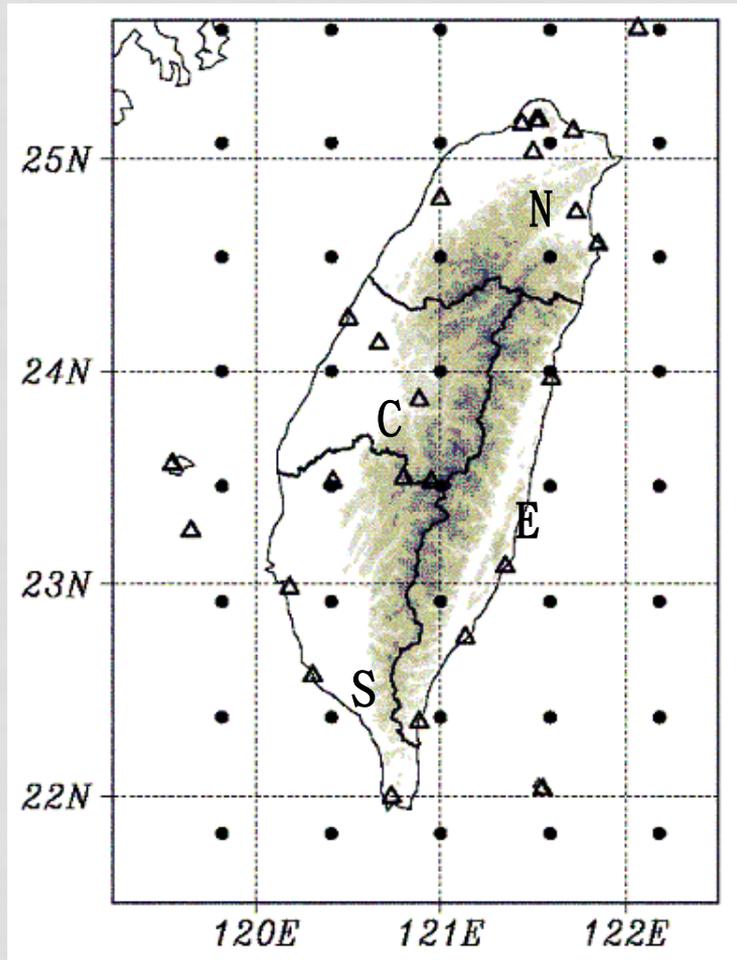
前言

- 中央氣象局之動力區域氣候預測系統，自2003年起即針對台灣地區降水及二米溫度機率預報持續進行預報作業
- 預報能力的校驗，隨預報資料的累積亦不斷進行完整的統計及分析
- 本報告針對2007-2012年，為期6年的機率預報結果，計算檢出率、誤報率及可信賴圖等，分析台灣地區降水及二米溫度預報能力之季節變化及區域分布等特徵
- 區域氣候模式之動力降尺度季節平均環流，亦會針對2007-2012年夏(5-9月)、冬(11-3月)與再分析資料做比較

CWB動力區域氣候預報系統架構

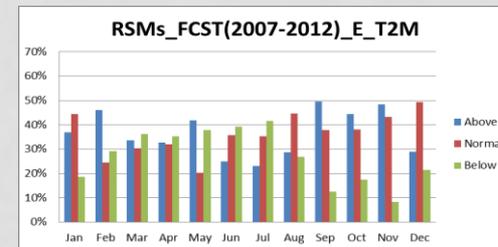
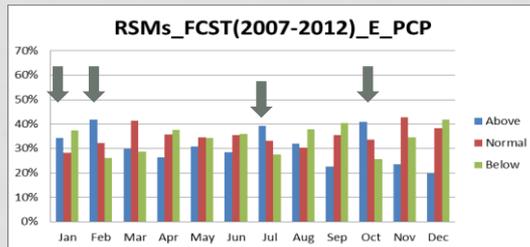
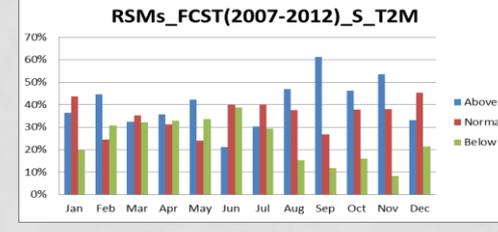
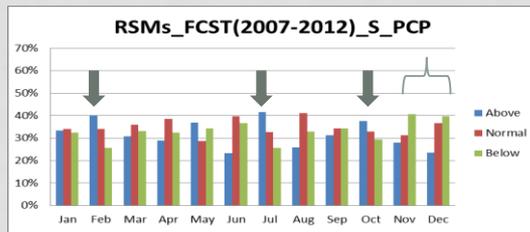
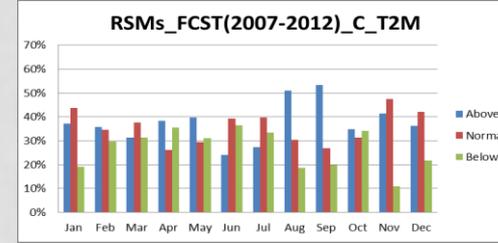
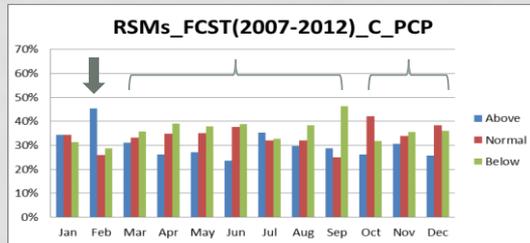
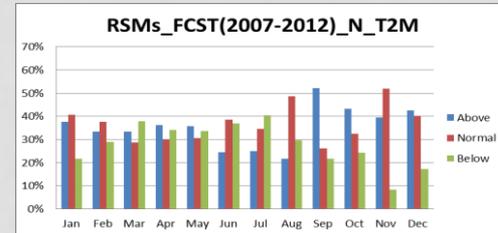
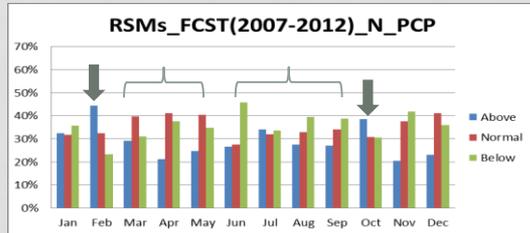


CWBSTN 區域平均距平分析對各測站之代表性

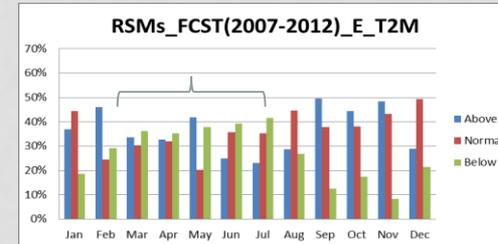
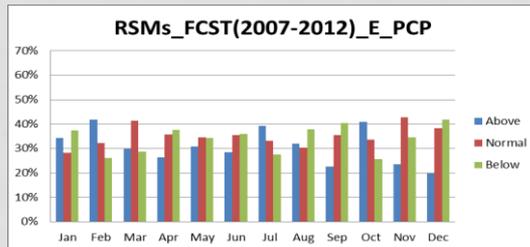
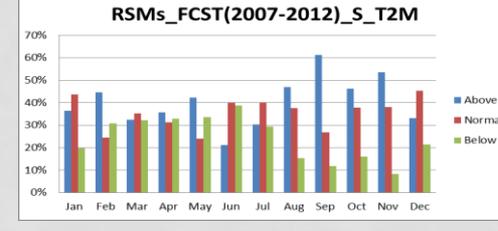
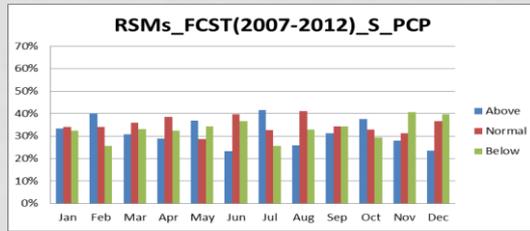
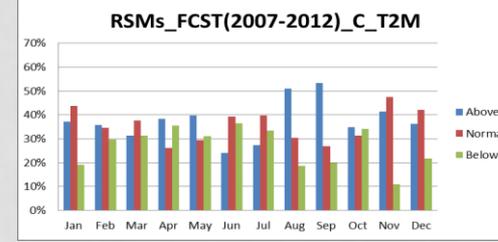
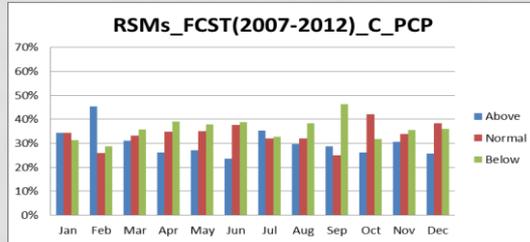
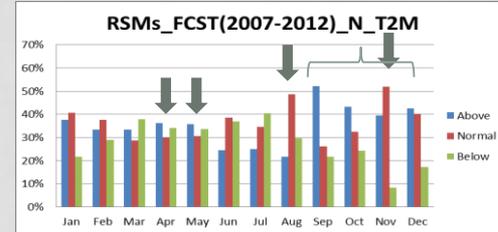
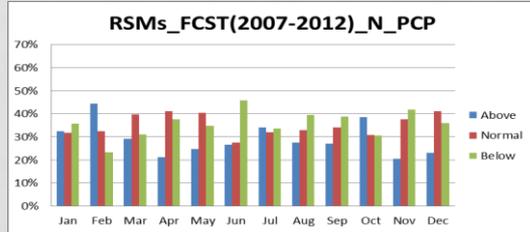


N	C	S	E
淡水	台中	東吉島	花蓮
鞍部	日月潭	澎湖	成功
台北	梧棲	台南	蘭嶼
竹子湖		高雄	台東
基隆		嘉義	
彭佳嶼		阿里山	
蘇澳		大武	
宜蘭		恆春	
新竹			

月平均氣候特徵



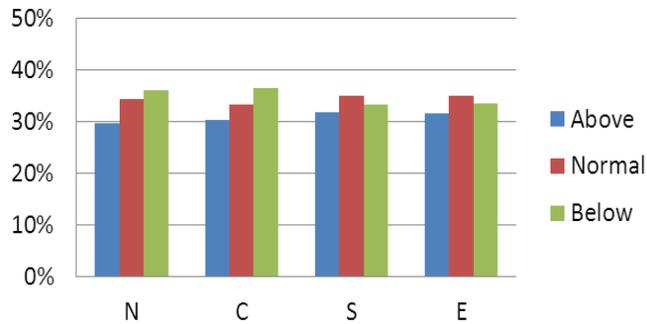
月平均氣候特徵



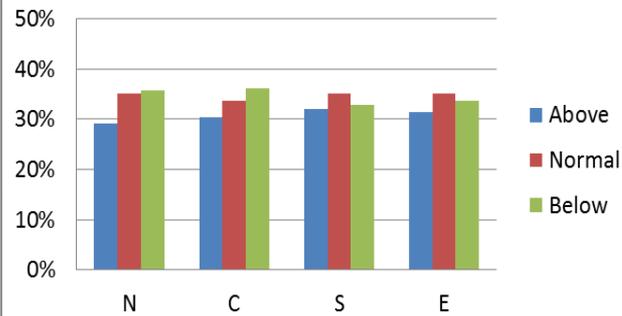
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氣候特徵-四分區

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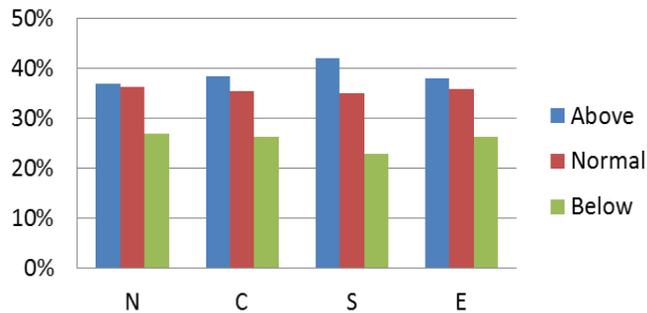


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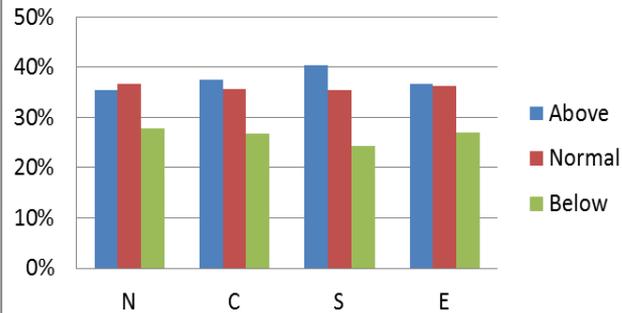


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RSMs_FCST(2007-2011) T2M 機率預報

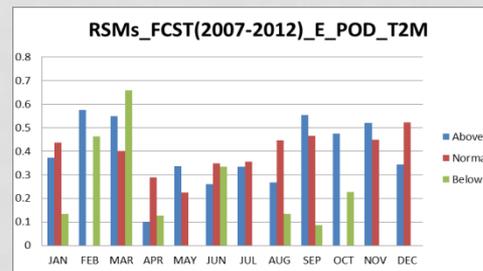
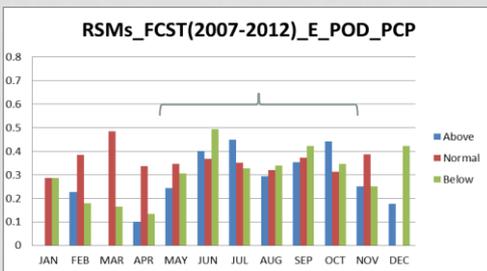
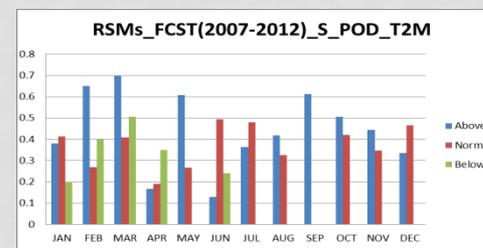
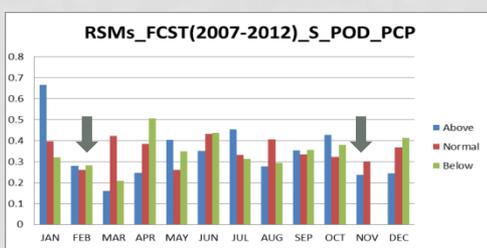
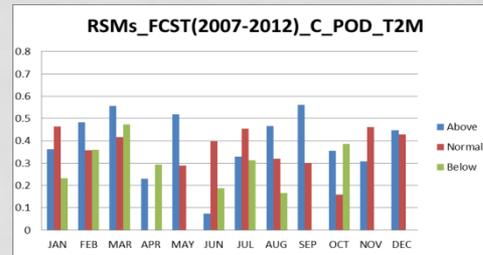
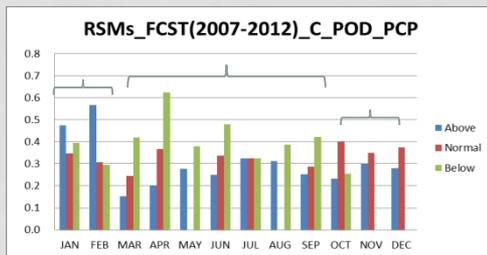
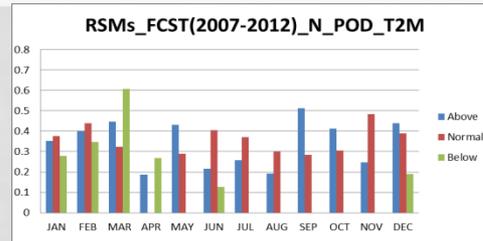
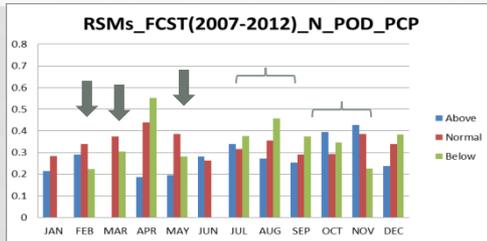


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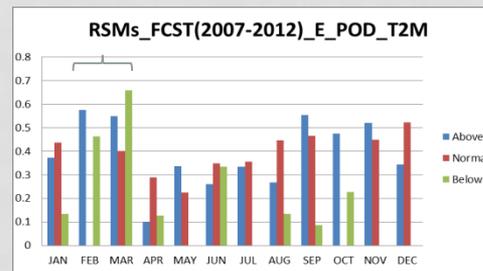
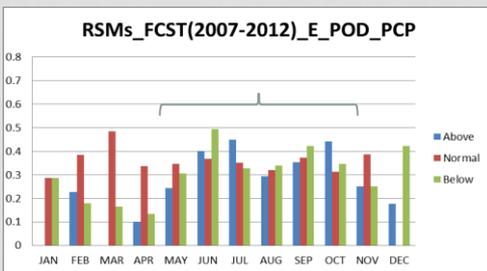
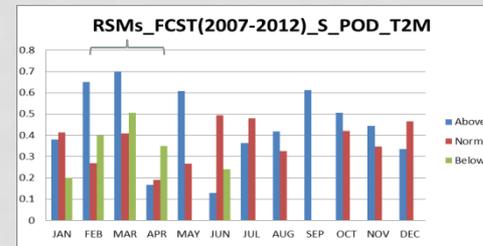
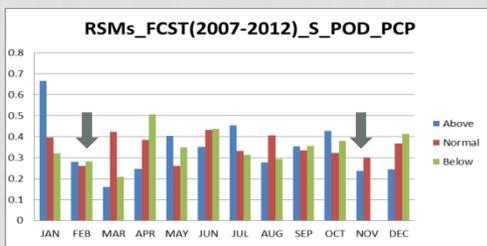
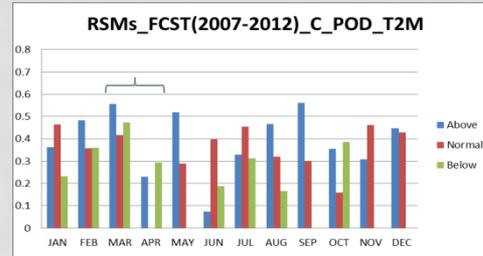
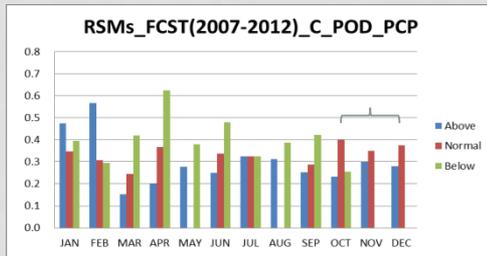
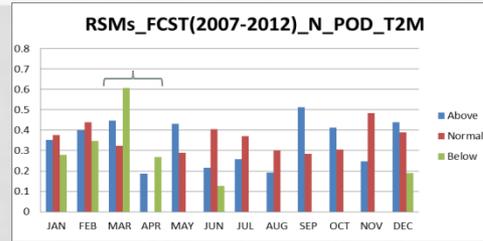
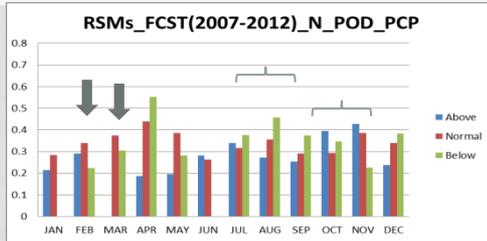


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檢出率

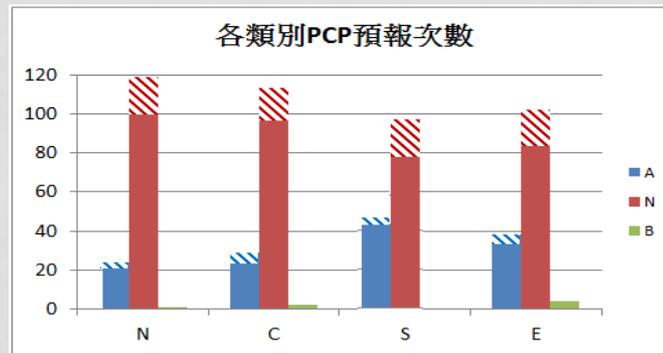
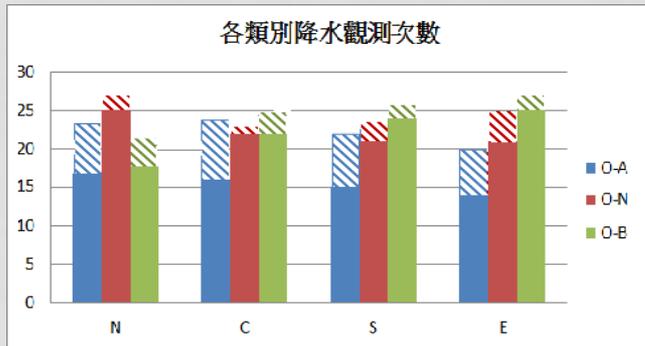
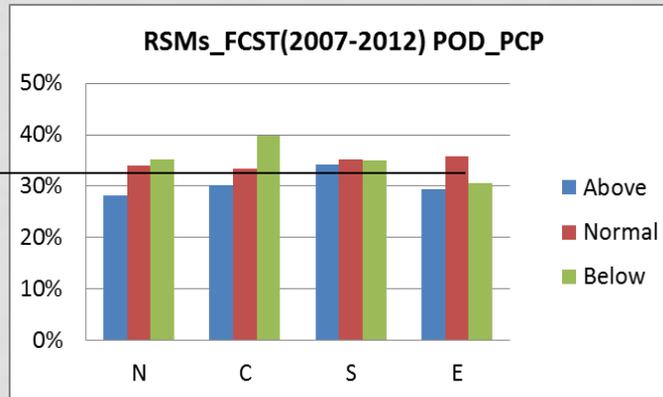
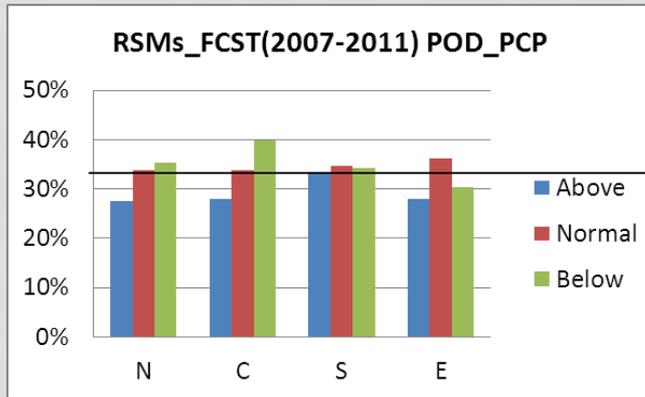


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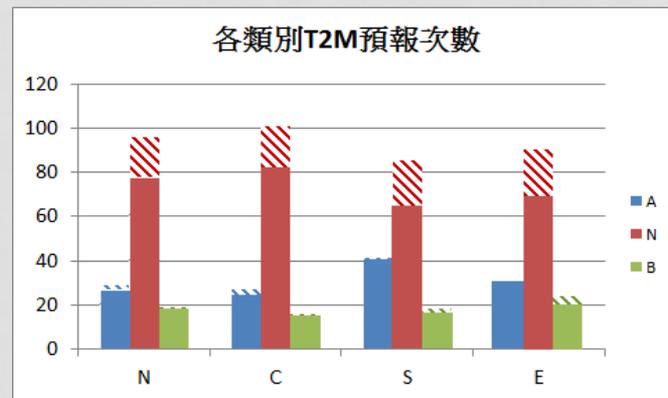
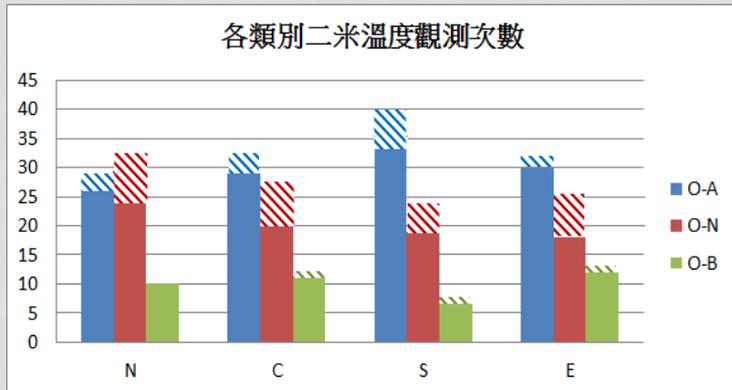
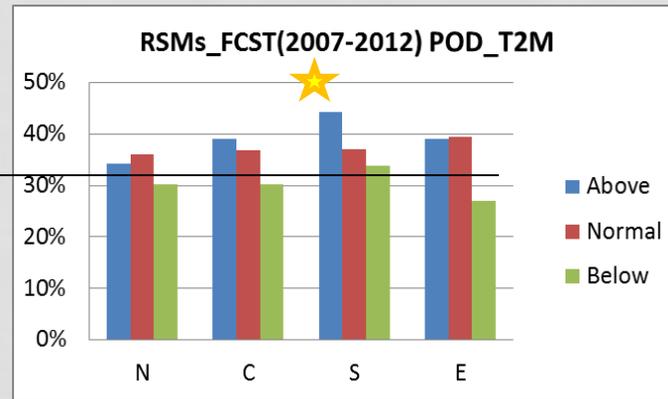
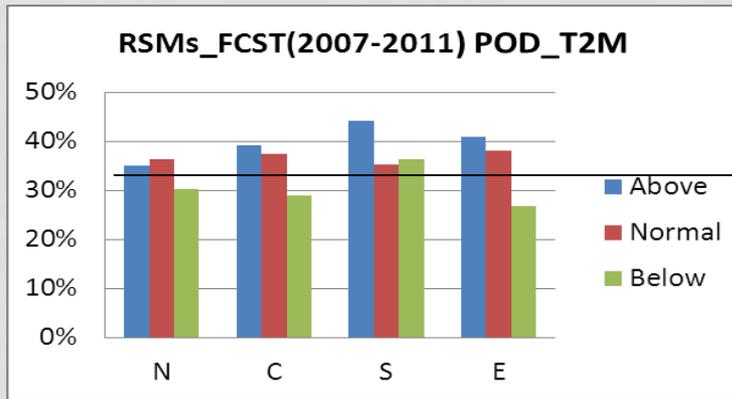


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實際觀測&預報次數-PCP



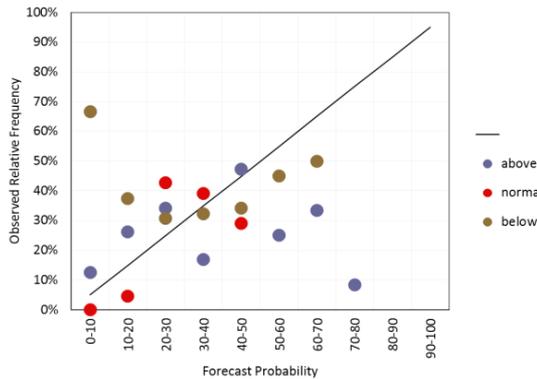
實際觀測&預報次數-T2M



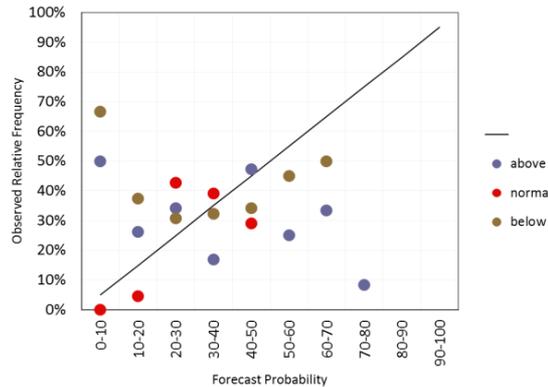
溫度預報能力優於降水，其中又以南部高於正常及接近正常檢出率較高

可信賴度比較

2007-2011PCP機率預報可信賴度圖

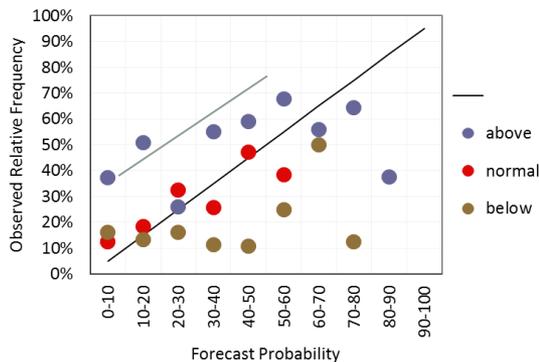


2007-2012 PCP機率預報可信賴度圖

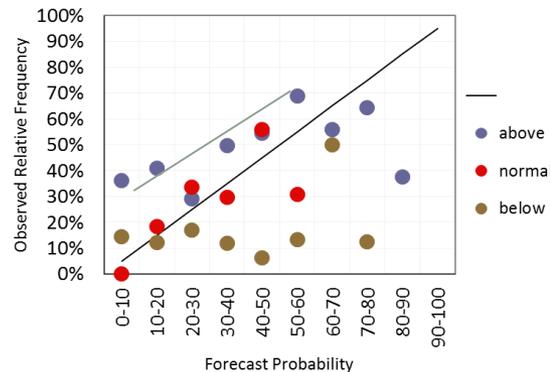


由台灣四分區平均之機率預報可信賴圖可看出：降水之預報機率在30%之下者常為缺乏自信的預報，在50%之上者常為過於自信的預報情形。

2007-2011T2M機率預報可信賴度圖

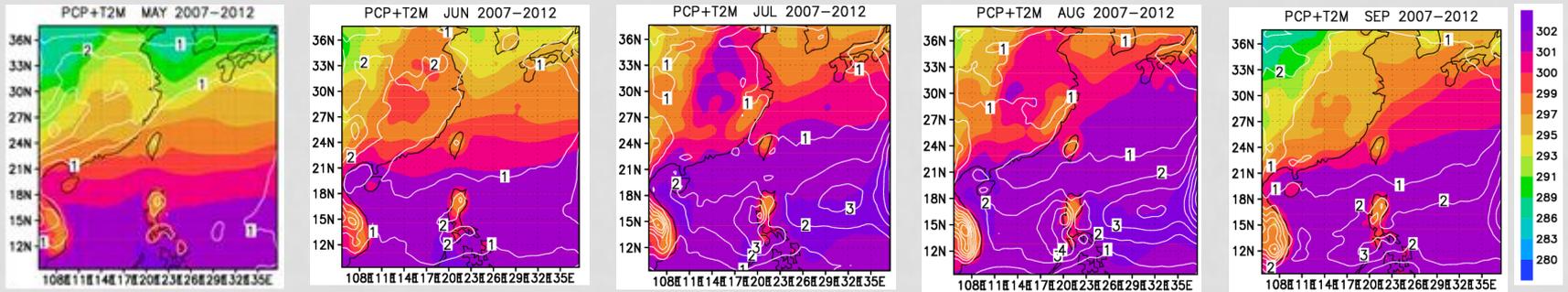


2007-2012T2M機率預報可信賴度圖

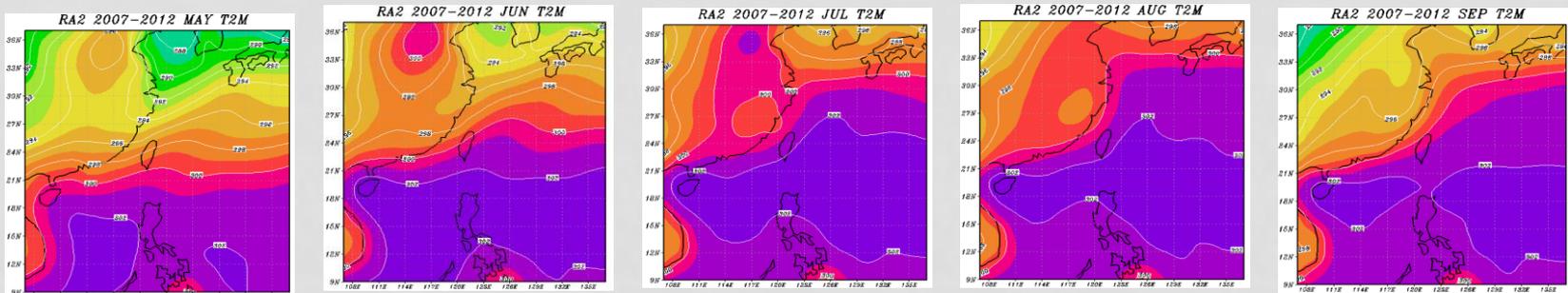


二米溫度之預報機率，對高於正常者常有低估的情形，對低於正常者常有高估的情形，對於接近正常類形預報機率值在60%之下者有較高的可信度。

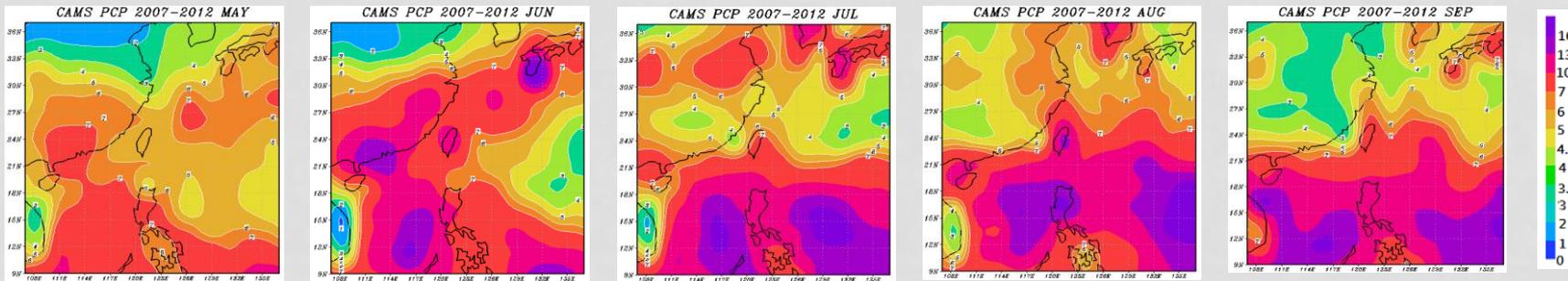
區域氣候模式之動力降尺度季節預報-夏



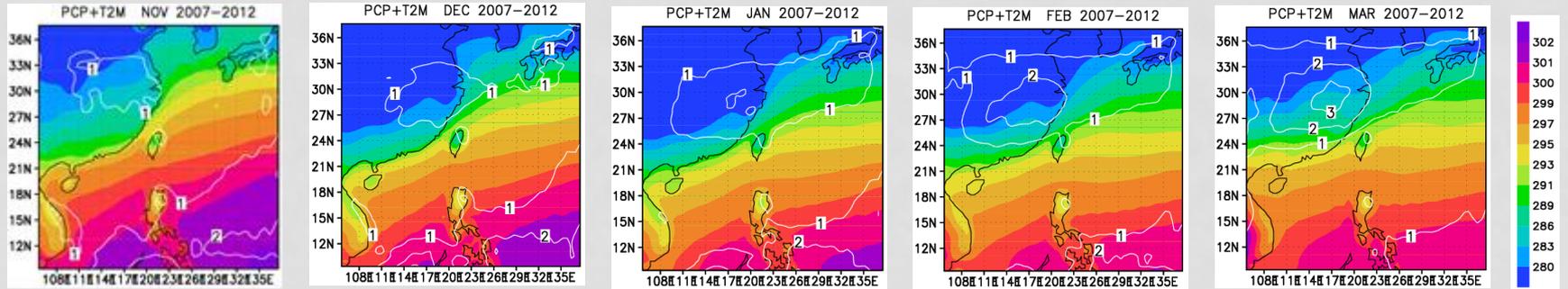
RA2



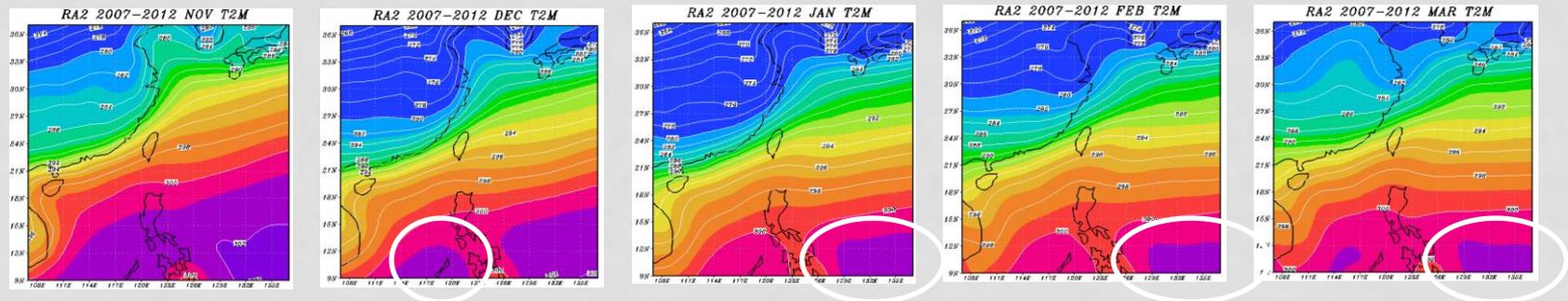
CAMS



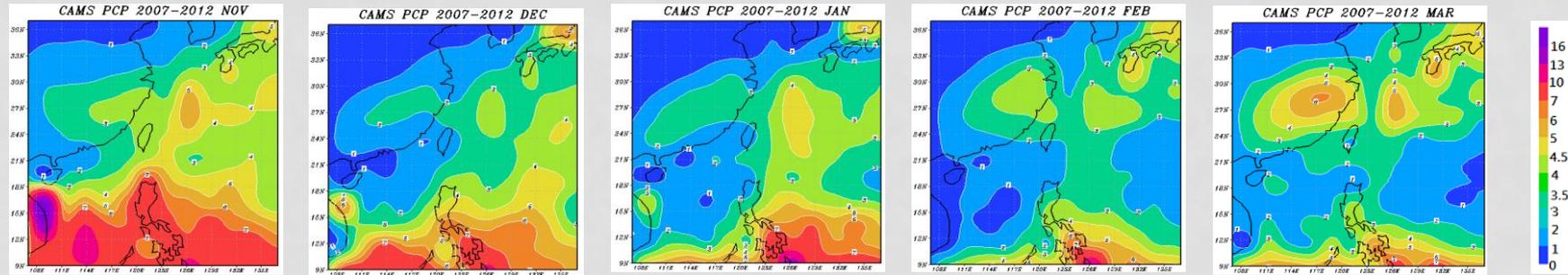
區域氣候模式之動力降尺度季節預報-冬



RA2



CAMS



討論

- 本報告主要是以2007-2012年的預報結果做分析及討論，同時和2007-2011年的統計資料做比較
- 由預報資料可看出增加了一年資料後，統計結果沒有太大的變化
- 2007-2012年區域氣候模式之動力降尺度季節預報結果和再分析資料比較，可看出二米溫度夏季除了低緯度洋面最高溫區域(302K)較少之外，整體結果很相似。冬季亦除了菲律賓附近海域溫度較高之外，大致上溫度分布都很相近。降水方面，降水的極值區分布狀況相似，但值大小有差異
- 以整體檢出率來看，降水部分預報結果大多已接近正常值及低於正常值為主。二米溫度則比較偏高於正常值及接近正常值，溫度預報能力優於降水，其中又以南部高於正常及接近正常檢出率較高

THANKS FOR YOUR ATTENTION