

台灣地區長期天氣預報之研究

A Study of the Long-Range Weather Forecasting
in Taiwan

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一 前 言

本文係利用高度等值線追蹤法之觀念，將民國五十年至六十年每日北半球 500 毫巴高度圖上，計算東經 0 度至 180 度每隔 10 個經度上北緯 35 度至 55 度之緯流指數值，繪製成時間連續圖，以分析此緯流指數變化與台灣地區一週以上天氣演變之關係，求其類型並加以若干實例分析，以探究緯流指數與氣溫及降水量之關係，俾供長期預報作業之參考。

依照「長期天候變化主要受大氣大循環之變動而變」之觀念為根本。歸納研究一地區長期預報之分析方法有 1 類似法 2 相關法 3 繪製預報天氣圖 4 天候大規模變化之追蹤，如果利用表示大氣大循環之緯流指數 (Zonal index, 以下簡稱為指數) 予以綜合上述方法加以處理時，則以東

Abstract

The intensity of the zonal westerlies is one important control factor in geographical locations and behavior of weather patterns over the entire hemisphere . The simplest measure of westerly intensity is the zonal index, which is the difference of average pressures, or the corresponding geostrophic west-wind speed between two fixed latitudes, 35° and 55° . In this research report 10 years (1961-1970) of weather data are used to compute the regional zonal indexes between 0° E through 180° E for every month . A number of conclusions are presented in this paper.