

# 午後雷暴之結構分析：以嘉義機場8月6日及7日做比較

## Analysis of the Structure of Afternoon Thunderstorm: A Comparison of Chiayi Airport on August 6 and 7.

陳智羿<sup>1</sup> (Chen C.-Y.) 宋偉國<sup>2</sup> (Soong W.-K.) 朱宗良<sup>1</sup> (Chu T.-L.)

<sup>1</sup>航空技術學院 戰航管氣象組 <sup>2</sup>航空技術學院 軍事氣象系

<sup>1</sup> Department of Tactical Control, Air traffic Control & Meteorology, Air Force Institute of Technology

<sup>2</sup> Department of Military Meteorology Engineering, Air Force Institute of Technology

### 摘 要

2022年8月6日至7日，台灣處於太平洋高壓弱綜觀環境，8月6日1400時，台南地區風場輻合引發對流胞。隨著雷暴持續發展，受3至10公里的北風影響，雷雨胞停滯於嘉義機場東南8至16公里處。8月7日的對流胞則受3至6公里南風影響，向北移動並進入嘉義機場，造成短時強降雨。對比兩日天氣情況發現，地表至3公里的風場有助於判斷南北風輻合現象，預測對流胞生成，而雷雨胞的走向則主要受3至6公里高空風場變化影響。

關鍵字：嘉義機場、午後雷暴、中層風場

### Abstract

From August 6 to 7, 2022, under weak synoptic environment of the Pacific High, a convergence of north and south winds in Tainan, which, combined with thermal effects, led to strong afternoon thunderstorm (AT). On August 6, AT was stagnated away 8 to 16 km from southeast of Chiayi Airport, influenced by north winds from 3 to 10 km. On August 7, north winds from the surface to 2 km (800 hPa) caused AT to move south. As these ATs matured, south winds from 3 to 6 km (450 hPa) pushed them north, resulting in heavy rainfall at Chiayi Airport. In conclusion, the wind field from the surface to 3 km helps predict AT formation, while the movement of the ATs is influenced by the wind field at altitudes from 3 to 6 km.

Key words : Chiayi Airport, afternoon thunderstorms (ATs), X-band radar, precipitation structure.