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2025年竹節草颱風及西南氣流豪雨事件之大氣觀測資料分析

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摘 要

於2025年7月28日至8月4日期間，因竹節草颱風及西南氣流，在臺灣造成大規模豪雨事件，本研究分析在此期間閃電、雨量、風速風向等大氣觀測資料，探討資料之間的相關性特徵，以及臺灣地形效應及場址效應所造成的大氣觀測特徵，尤其是閃電資料特徵。本研究所使用的資料係經檢核品管，避免異常資料影響分析結果。閃電資料可應用於監測短期劇烈天氣，協助監測雷暴的發展狀態，包括強烈大氣對流和活躍冰粒降水過程。

關鍵字：竹節草颱風、閃電、地形效應

Analyses of atmospheric observations of torrential rainfall of Typhoon Co-May and southwest monsoon flow in 2025

Abstract

From July 28 to August 4, 2025, Typhoon Co-May and the southwest monsoon caused a large-scale torrential rain event in Taiwan. This study analyzes atmospheric observation data on lightning, rainfall, wind speed, and wind direction during this period, exploring the correlation characteristics between data, as well as the atmospheric observation characteristics caused by Taiwan's topographic and site effects, especially the characteristics of lightning data. The data used in this study have undergone quality control and inspection to avoid abnormal data affecting the analysis results. Lightning data can be used to monitor short-term severe weather and assist in monitoring the development of thunderstorms, including strong atmospheric convection and active granular precipitation processes.

Key words : Typhoon Co-May, Lightning, Topographic Effect