

AWIPS-II NSHARP 在臺灣地區特殊天氣過程中的實務應用

Practical Application of AWIPS-II NSHARP during Special Weather in Taiwan Area

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摘 要

NSHARP 是美國風暴預報中心 (SPC) 和航空氣象中心 (AWC) 預報員用來顯示 Skew-T 圖、風徑圖和各種穩定性指數的工具，由 NCEP 開發人員轉移到 AWIPS-II 的「插件軟體」，成為 AWIPS 可視化環境 (CAVE) 的組成部分。本報告之重點是聚焦其在天氣分析作業上之應用，內容包括臺灣地區特殊天氣個案研究，以驗證 NSHARP 在地化之適用性。研究結果大致符合預期，對於本地實際作業面，具有良好的天氣診斷分析價值，未來若能加強建置本土自身的物理量參數統計資料庫，將更能符合臺灣特殊天氣變化特性，而使 AWIPS-II NSHARP 功能發揮至更極致。

關鍵字：AWIPS-II NSHARP, Skew-T, Hodograph

Abstract

NSHARP, a tool used by the U.S. Storm Prediction Center (SPC) and the Aviation Weather Center (AWC) forecasters for displaying Skew-T plots, Hodograph, and various stability indices, was transferred from the NCEP developers to the AWIPS-II “plug-in software”, which is an integral part of the AWIPS Visualization Environment (CAVE). This report focuses on the application of NSHARP in weather analysis, including a case study of special weather in Taiwan to verify the applicability of NSHARP in localization. The research results are generally in line with expectations, and have good value for local actual operations in weather diagnosis and analysis. In the future, if we can strengthen the establishment of a local statistical database of physical parameters, it will be more in line with the characteristics of the special weather changes in Taiwan, and the function of AWIPS-II NSHARP will be utilized to the fullest extent.

Key words: AWIPS-II NSHARP, Skew-T, Hodograph