利用VRS-RTK在圖根點新建、補建之探討

VRS-RTK Technique for Traverse points Surveying

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摘　要

內政部土地測量局自 93 年度起整合國內現有基準站，規劃建置全國性 e-GPS 衛星定位基準站即時動態定位系統，本研究係利用此系統西區服務部網，以虛擬參考站（Virtual Reference Station, VRS）即時動態定位技術（Real-Time Kinematic, RTK）（ 簡稱 VRS-RTK）檢核實驗區內控制點與圖根點，分析成果發現，縱坐標（N）較差絕對值之平均值小於 2 公分，橫坐標（E）較差平均值達 10 多公分，本研究試以實驗區內控制點為坐標轉換之共同點，透過參數轉換後，其坐標較差值均能符合測量精度規範。

關鍵詞：虛擬參考站、即時動態定位。

Abstract

Since 2004, the Land Survey Bureau (LSB) MOI, has been integrating the existing base stations around the nation to build up national e-GPS positioning system network. The study site is located within the west service net of the national e-GPS real time kinematic network. The 4th and the higher order control points and the traverse points were examined with the VRS-RTK. Compared with the original data, the results have shown that the average of the absolute value of errors is less than 2 cm at the N-axis while larger than 10 cm at the E-axis. After transformations either by 4-parameters or 6-parameters, the errors accord with the demands for traverse layout.

Keyword：Virtual Reference Station, Real-Time Kinematic

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