

PRELIMINARY STUDY OF ASTER DATA APPLICATIONS IN THAILAND

Ms. Thanwarat Anan

Geo-Informatics and Space Technology Development Agency (Public Organization)

196 Phahonyothin Road, Chatuchak Bangkok 10900

THAILAND E-mail : twarat@gistda.or.th

Telephone : (662) 940-6420-9 Fax : (662) 561-3035, 562-0429,579-5618

Abstract : The purpose of this study is to evaluate the potential application of TERRA-ASTER data in Thailand. ASTER VNIR, SWIR and TIR data covering greater Bangkok and Chiangmai province were processed with various techniques in the spatial domain to study the applicability to various disciplines. ASTER data was also combined with other satellite data in order to utilize multi-sensor methods. It was found that VNIR data can clearly identify urban pattern including road network and vegetation index. While SWIR and TIR data can well separate between urban and non urban area and TIR data can differentiate among thermal surfaces. Furthermore, dense urban areas such as central business area could be highlighted. Land utilization, vegetable distribution and differences of temperature distribution were investigated.