Pattraporn Mutchachum 2012: Riding Quality Model of Asphalt Airport-Pavement by Using Microwave Remote Sensing Satellite. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Mr. Weerakaset Suanpaga, D.Eng. 100 pages.

Suvarnabhumi Airport has committed to improving the aviation hub of Asia and increasing air traffic the need for airport ability to safety of service users. The problem on the runway of the airport a cracks, Surface collapsed. Roughness surface, and glide cracks to surface runway and taxiways of the airport. If the Aircraft used to area could too dangerous. This present study to develop models to assess the quality of the airport runway and service of the airport runway. The responsibility of the Airports of Thailand Public Company Limited, has surveyed the four routes: TXL T6, TXL T11, Runway 19L, Runway 19R.

This model was study of the relationship between backscattering values from and the international roughness index (IRI) airport by a statistical. To determine the backscattering value of the 390 values could be identify the level of service of running on the airport pavement .The analysis showed that the backscattering values in the HH polarization has the highest correlation is increasing with the highest coefficients (r = 0.9088) was used to develop the model. Presentation could be identifying the level of service of running on the airport pavement. The analysis showed that the backscattering values in the HH polarization have the correlation with IRI. If the backscattering value in HH polarization is increased, the roughness will be increased. The analysis of data predicted. The accuracy of the model to 82.50 percent, which is used in the assessment to assess the quality of the airport runway and timely to pavement maintenance

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