

**Thesis Title** Forecasting Tropical Cyclone Movement by  
Statistical and Dynamical Techniques

**Name** Wattana Kanbua

**Degree** Master of Science (Applied Mathematics)

**Thesis Supervisory Committee**

I. Ming Tang, Ph.D.  
Yongwimon Lenbury, Ph.D.  
Julian Poulter, Ph.D.

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### **ABSTRACT**

Based on the fact that tropical cyclone movement is highly correlated with the parameters related to the climatology and persistency of tropical cyclone movement, a statistical model for forecasting tropical cyclone movement has been developed. This method employs the stepwise screening procedure and Dynamical Techniques. Thai Meteorological Department uses this method in the routine on-line system, when it is necessary. This method was computed from the tropical cyclone data, 1945-1989 and tested using the tropical cyclone forecast verification data from 1983-1987. This model in conjunction with use of satellite and GTS studies has been very successful for predicting cyclone movement in the Thailand area of responsibility.