



# ICTs and Weather Forecasting

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# Outline

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- **Introduction**
- **Role of Malaysian Meteorological Dept**
- **Weather Forecasting System**
- **Summary**



# Introduction

- Increase in extreme weather events due to climate change
- Extreme weather events/hazards can escalate into disasters and cause huge losses
- Need to have efficient and effective forecasting system



## **Weather-related Hazards Affecting Malaysia**

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- **Wind storms e.g. typhoons, hurricanes, tornadoes, thunderstorms/squall lines**
- **Floods/La Nina & Land Slides**
- **Droughts/El Nino**
- **Storm Surges**
- **Forest/Grassland Fires/Haze**



# Role of MMD

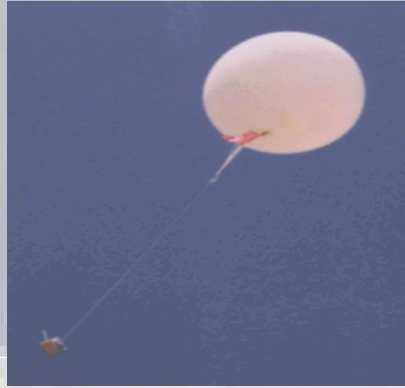
- Monitoring weather and sea condition
- Issuance of forecasts and warnings



# Forecasting System Components

- Observation/Monitoring
- Communication
- Modelling and Evaluation
- Dissemination

# WEATHER MONITORING SYSTEM



Upper air observation



Aircraft report



Weather Satellite

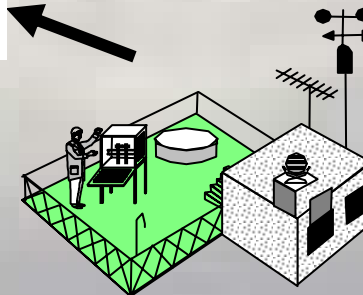


**Meteorological Officer**

Marine Observation



Weather Radar



Meteorological station

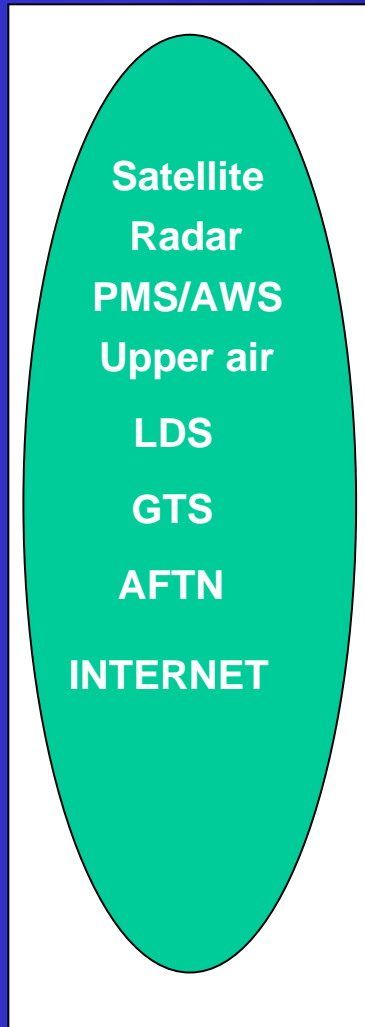




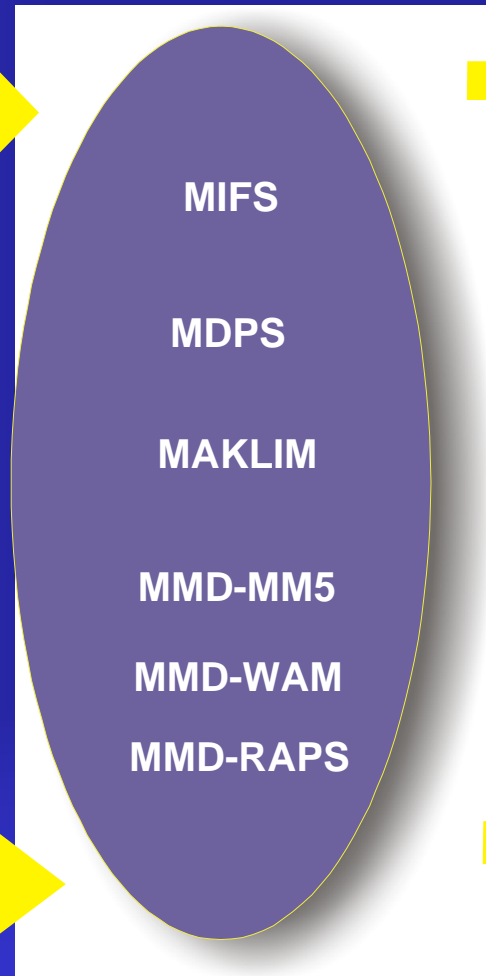
# WEATHER MONITORING, FORECASTING & DISSEMINATION



## MONITORING/ OBSERVATION



## COMPUTER PROCESSING, MODELLING & ASSESSMENT



## DISSEMINATION



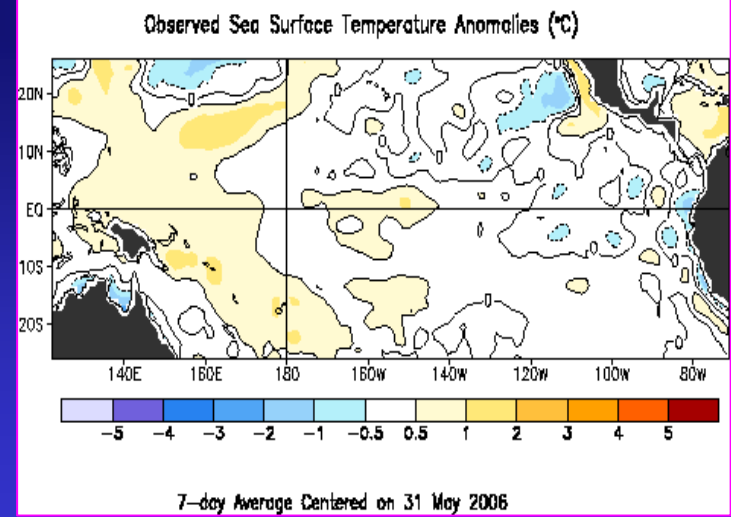
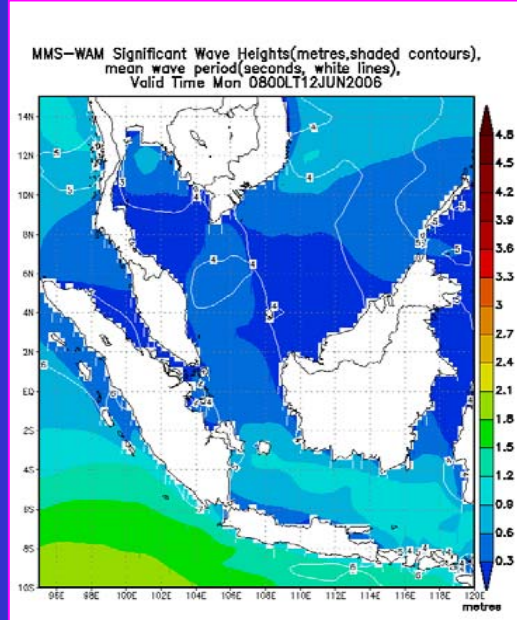
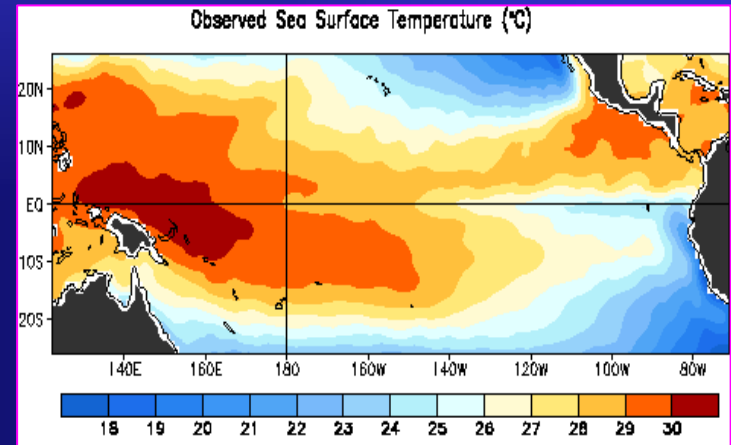
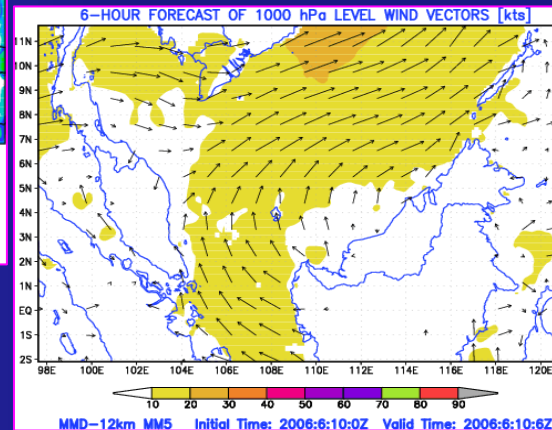
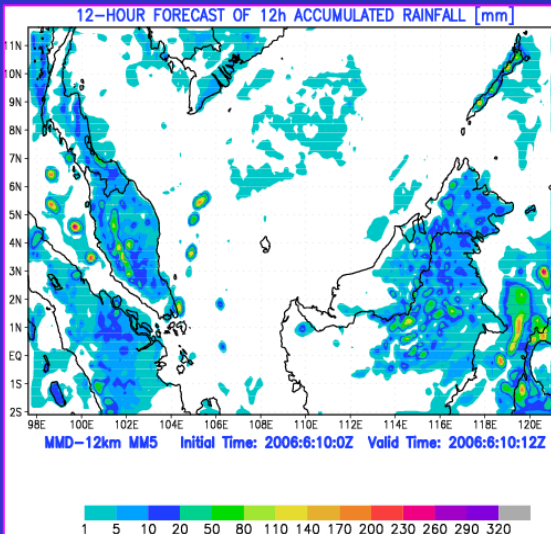
## CLIENTS







# Weather Maps





# Summary



- **Promotion of ICT such as SMS and web-based applications**
- **Forecasting system MUST be an Integrated system**
- **Build on the existing capacity in the use of ICT**
- **Conduct awareness program**