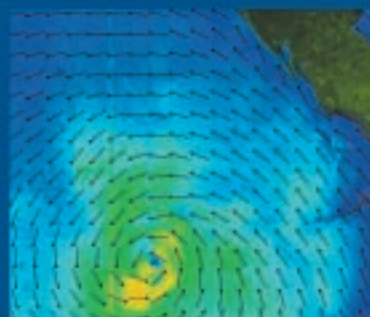


PREDICTING TROPICAL CYCLONES IMPACT ON EUROPE

Extreme destruction caused
by hurricane



Wind map Hurricane Katrina
27 August 2005-10-11



Tropical cyclones are extremely destructive. Prediction of wind velocities and paths is essential to save human life and protect the world's economy. Europe is situated "down wind" thus not directly threatened by tropical cyclones but "fall out" on the economy is world wide from delayed transportation, cut-off from supplies, increase in insurance rates and decline in tourism.



48-hour forecast (red) and observed track (black) of Hurricane Katrina at 5-hour intervals (diamonds); forecast is the mean of statistically-chosen track assemblage (green lines)

RESEARCH NEEDS

- ▶ to improve active and passive remote sensing
- ▶ to develop better forecast models
- ▶ to improve model validation
- ▶ to establish capacity building

3-D visualization of wind
and humidity inside
Hurricane Floyd, 1999

