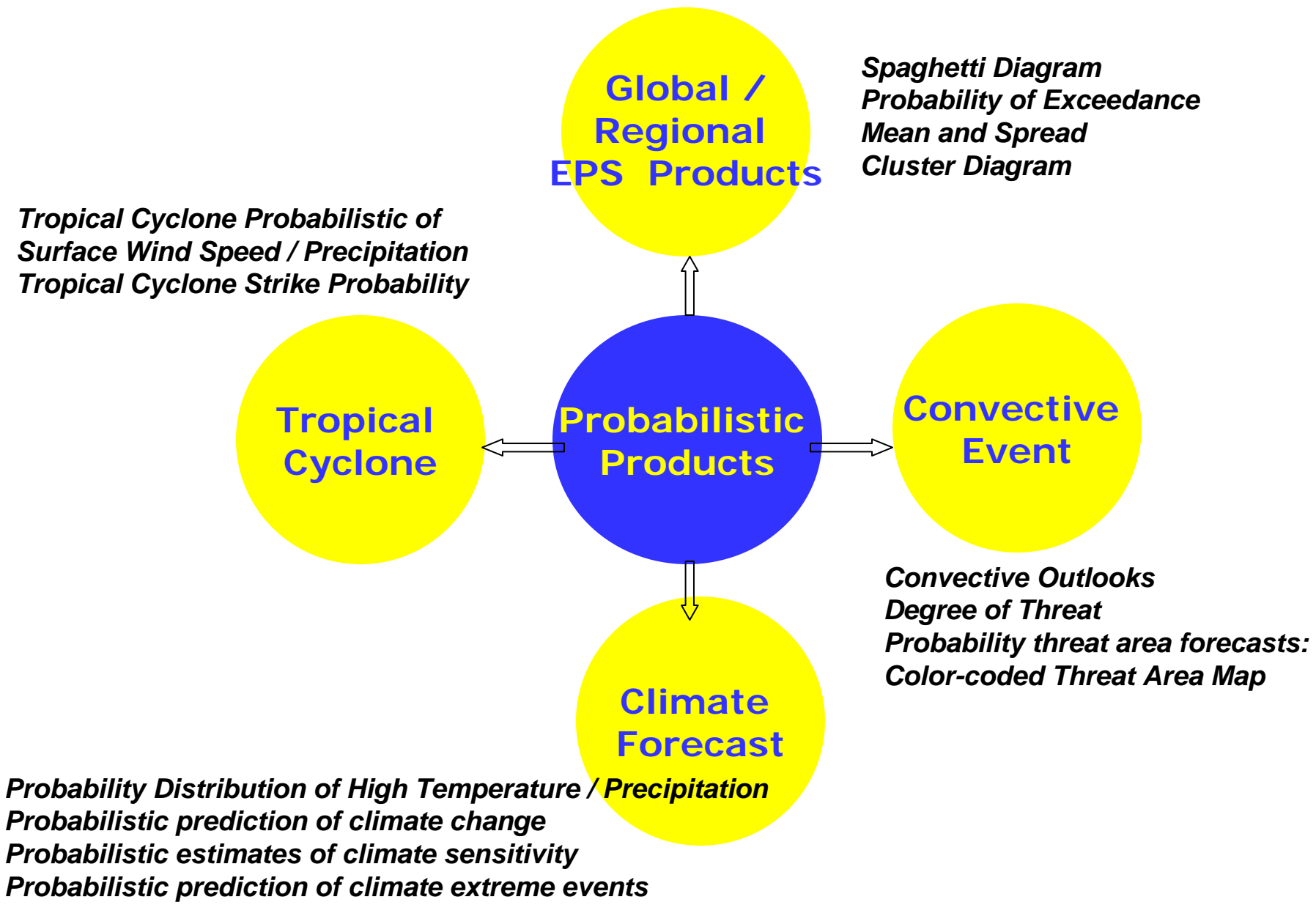
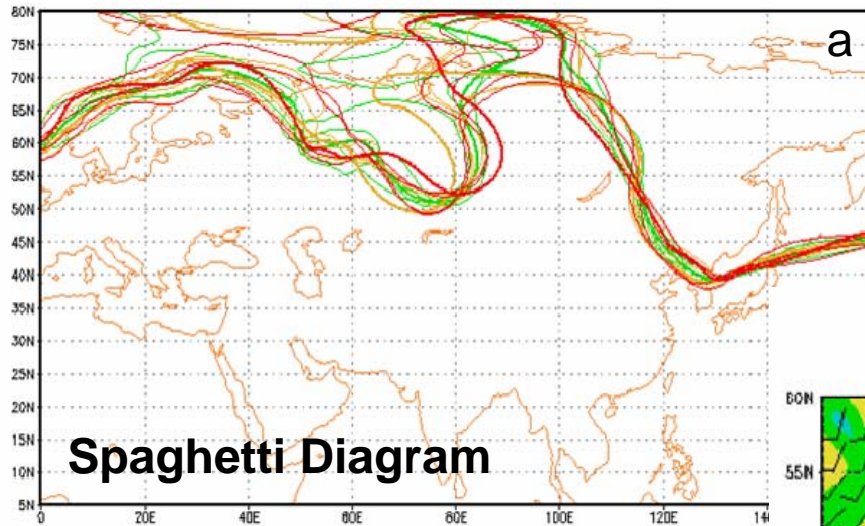


Communication of Probabilistic Forecast Products

- Probabilistic Products
- Communication Chain
- Future Plan



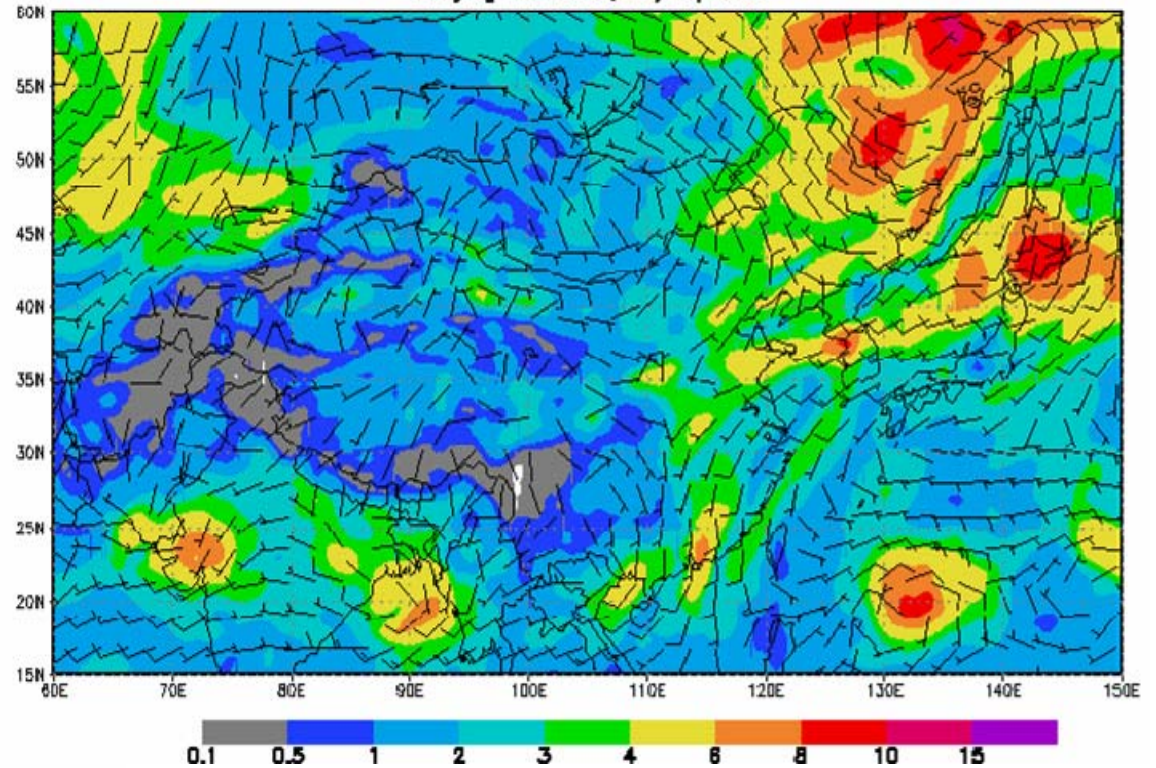
EPS-T213 500mb ht(m) 5280m Spgt 36H fcst from 12Z 30 NOV 2006



Spaghetti Diagram

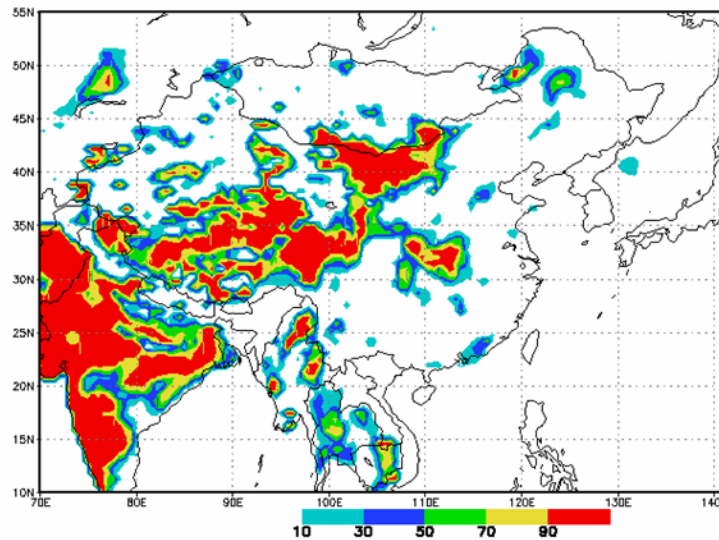
T213L31 Global EPS products

T213 850MB WIND (m/s) 120H fcst from 06Z 22 AUG 2003
mean: short barb=5 m/s, long barb=10 m/s, flag=50 m/s
color represents spread in m/s
verifying time: 06z, 08/27/2003



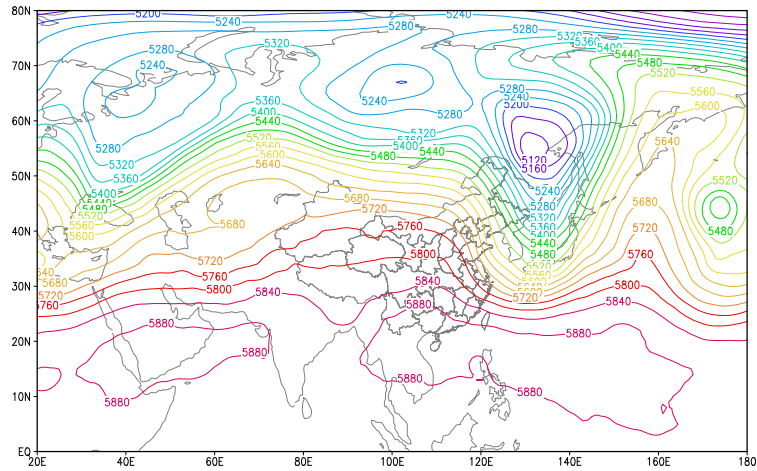
Mean and Spread

EPS-T213 prob of 2m-mnt<=-6C, 12H fcst from 12Z 30 NOV 2006

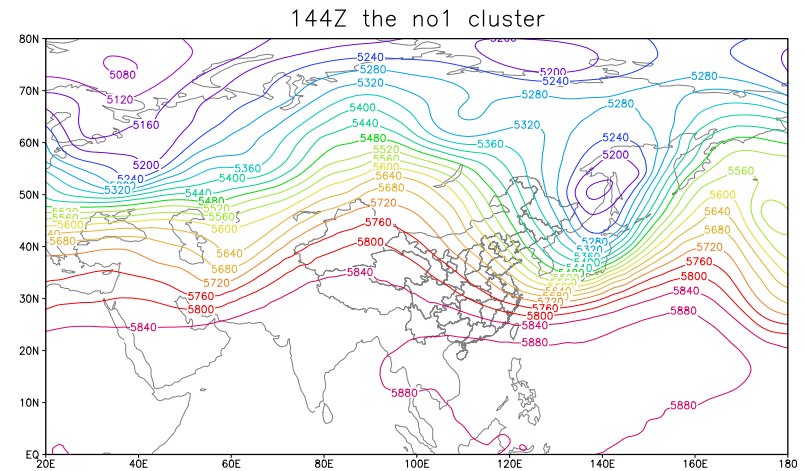


Probability of Exceedance

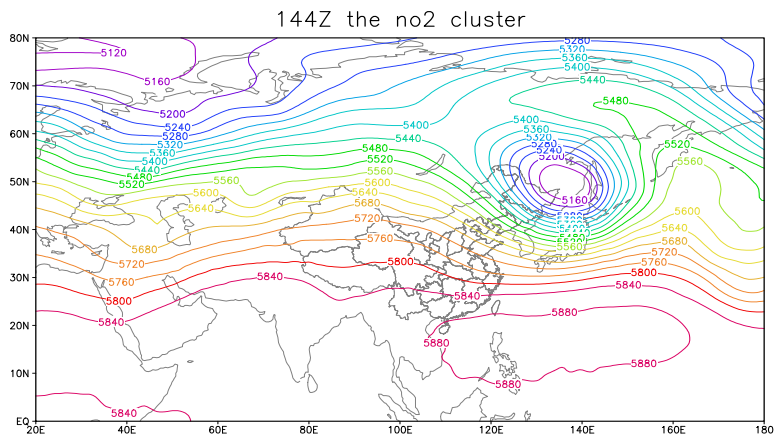
Products--Cluster Diagram



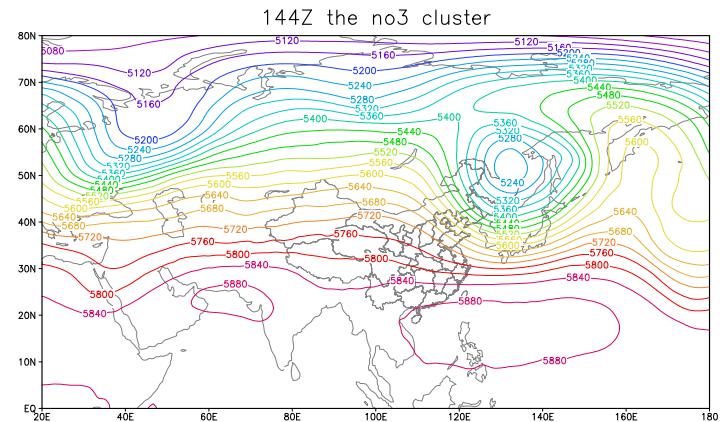
061121Z UTC



The probability is 20.0%.



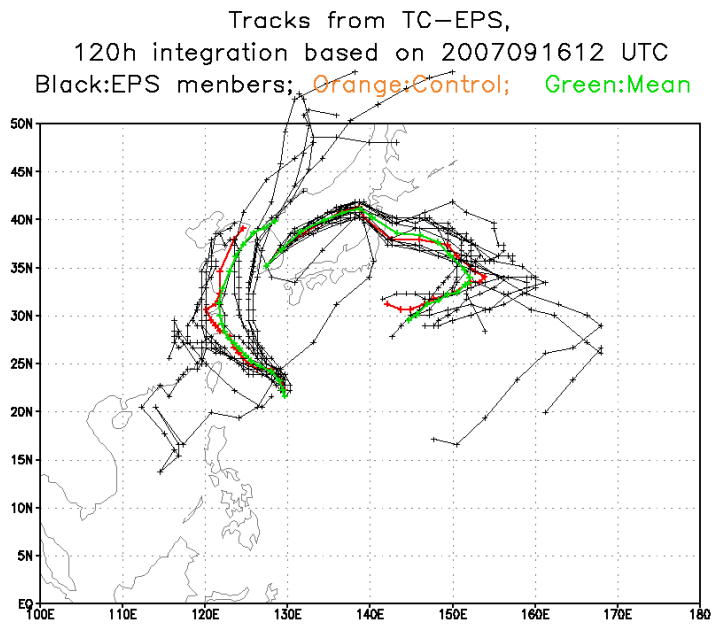
The probability is 33.3%.



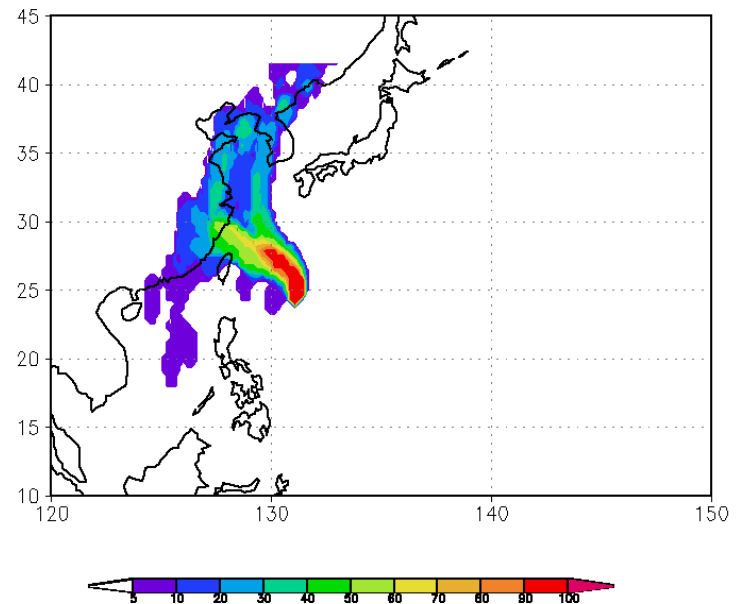
The probability is 46.7%.

TC-EPS Products

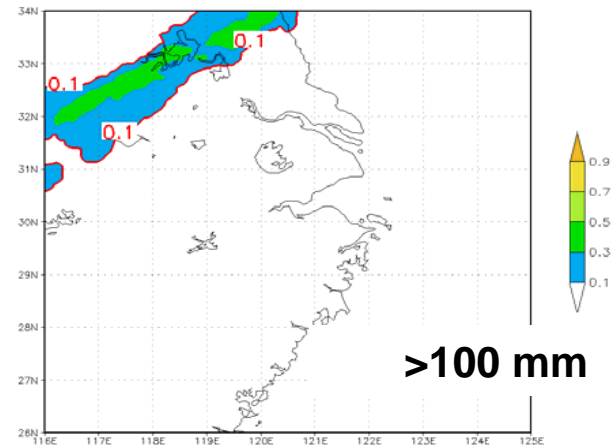
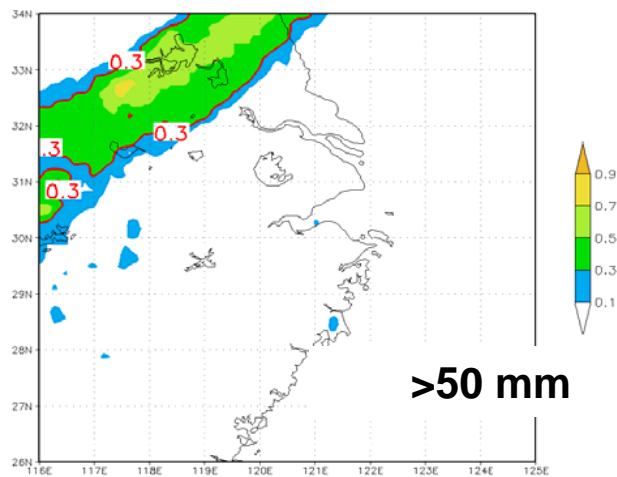
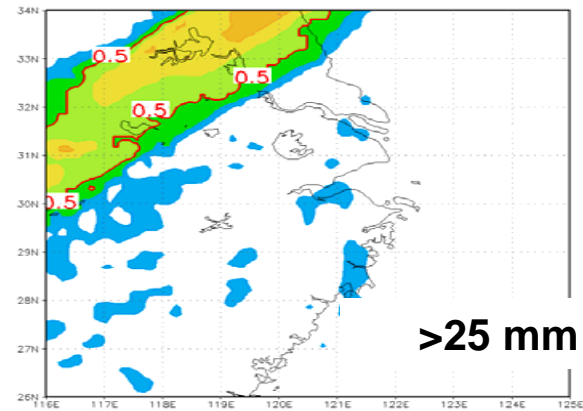
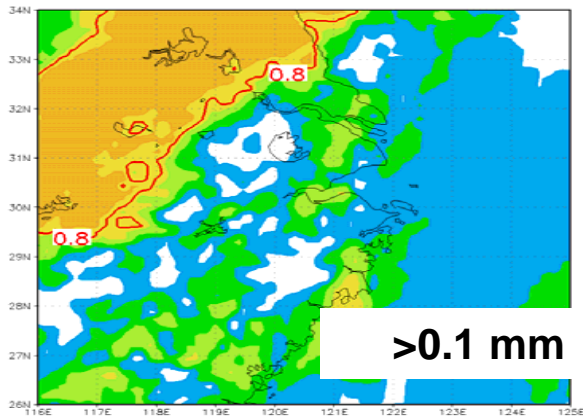
Typhoon (0713) WHIPA



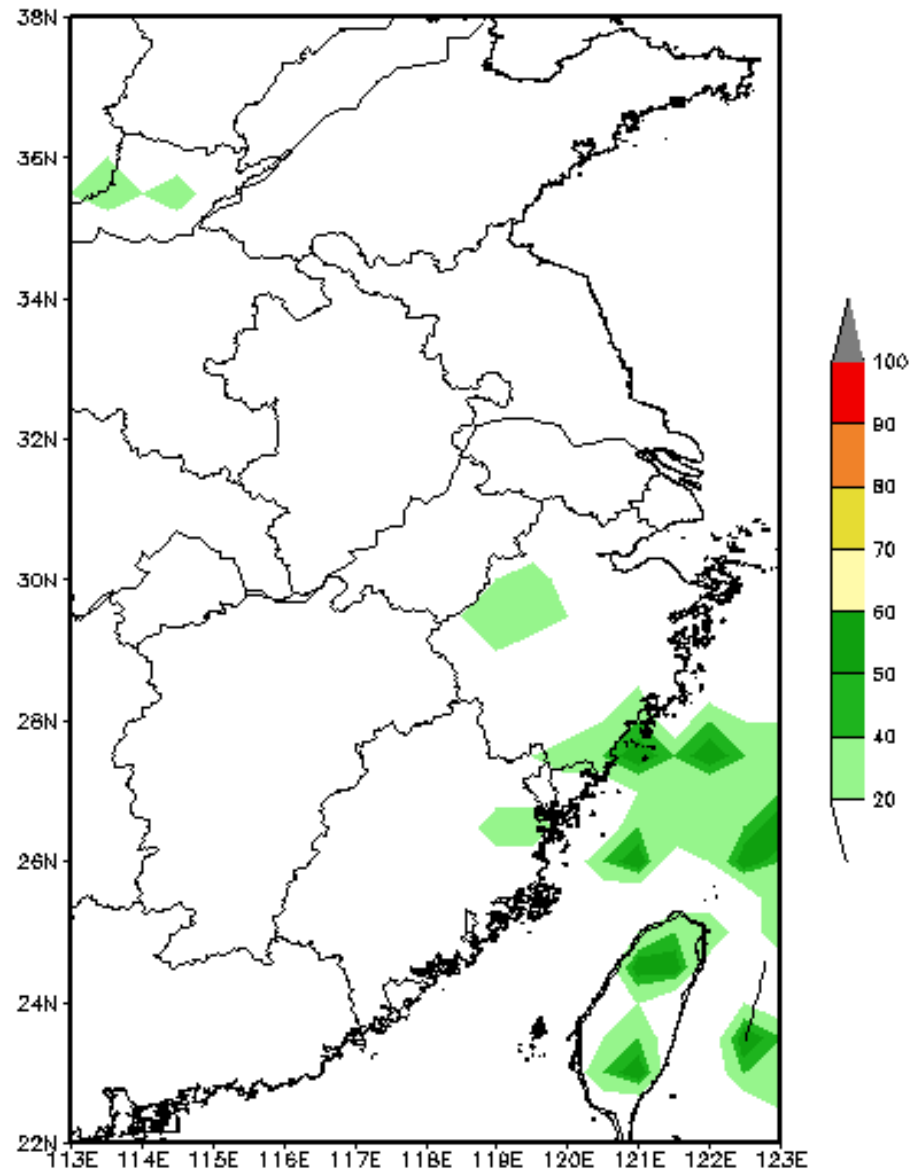
Probability that TC(713) will pass within 120km radius
During 120h integration based 2007091612 UTC



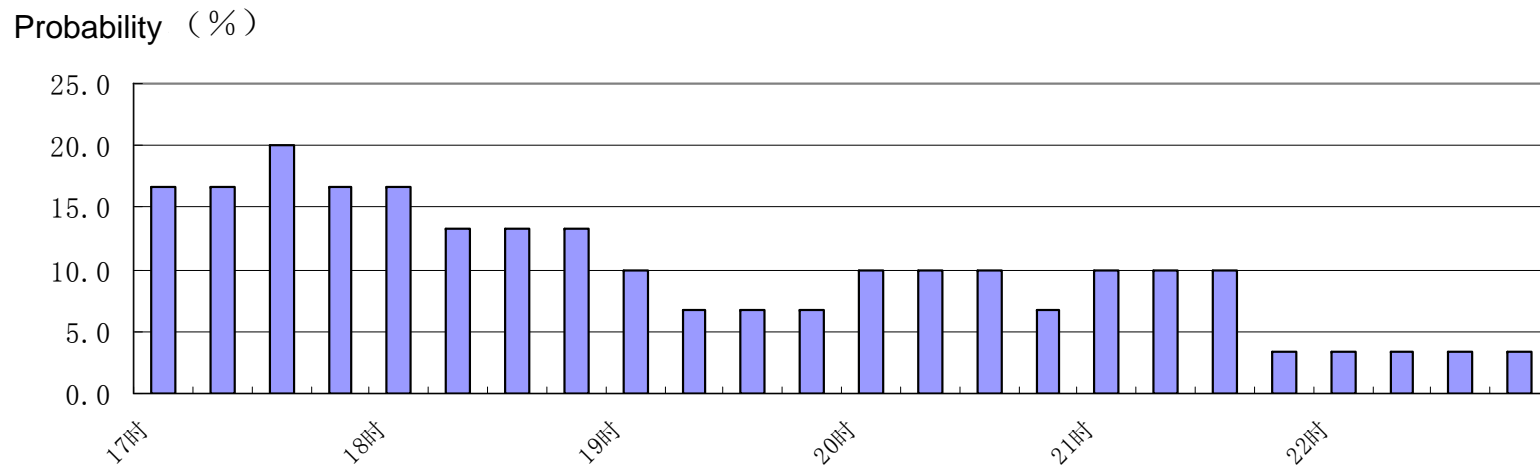
Probability of precipitation in 24 hours prediction from regional model



The probability of severe convection in East China every 6 hours in two days outlook

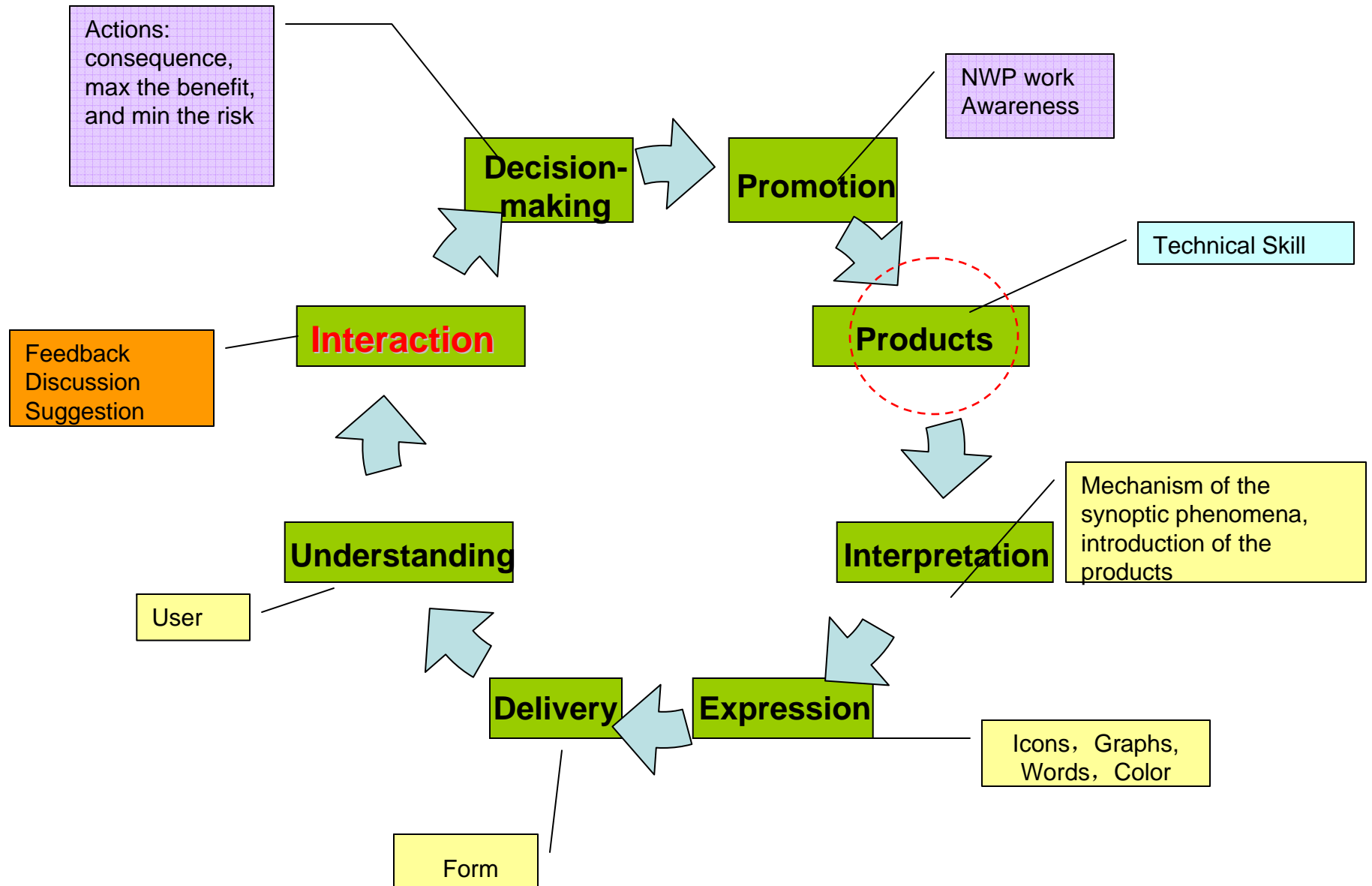


Climate Probability Products



The probability of precipitation for 30 years at interval of 15 minutes.

Communication Chain



Interpretation

- Use well-defined terminology and clear language
- Use appropriate likelihood scale to describe the terminology about uncertainty

Expression

- Uncertainty can be expressed in spatial and temporal depiction , so it is suggested to combine the two aspects
- Different expression for different user

Understanding

- Enhance the awareness of the user for forecast uncertainty
- User Fostering

Interaction -- Most important

- For decision-making service, choosing the threshold of the extreme situation carefully (e.g. alternative and worst-case scenarios considered)
- For special users, suggesting them to participate in the procedure of information providing and decision making
- Giving the corresponding suggestion when probabilistic forecast products provided
- Combined action in different fields (e.g. partnership built between meteorology and other fields)

Future Plan

- **Improving the forecast skill of NWP model**
- **More forecast products conveying uncertainty information**
- **Investigating user requirement for probabilistic products**



Thanks for your attention !

Welcome to Shanghai !