

## 平成26年台風第18号接近に伴う近畿北部での大雨

気象庁  
Japan Meteorological Agency

JMA-1



御川の洪水状況 (京都府福知山市) (近畿地方整備局提供)

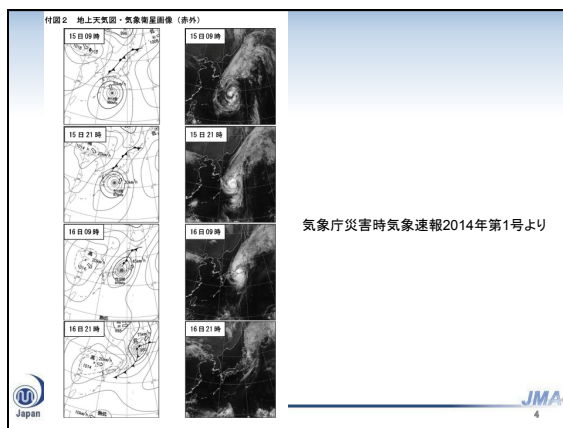
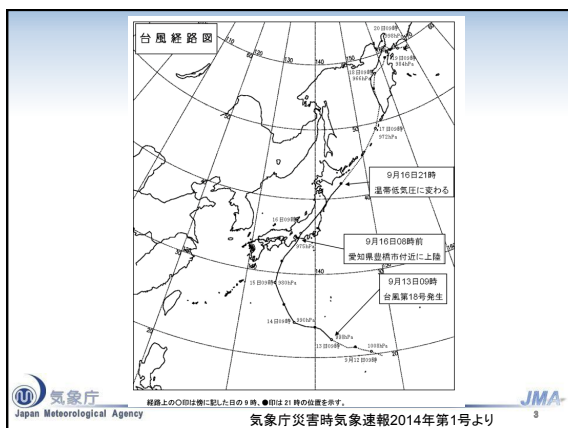
御川の洪水状況 (青森県武蔵市) (青森県川内河川事務所提供)

土砂災害 (福井県小浜市)

土砂災害 (岐阜県美濃市)

気象庁災害時気象速報2014年第1号より

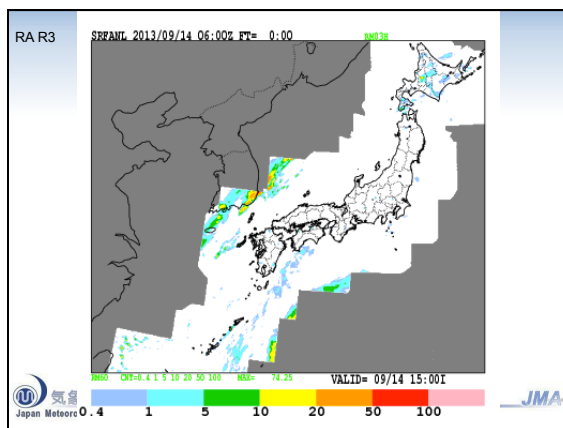
JMA-2

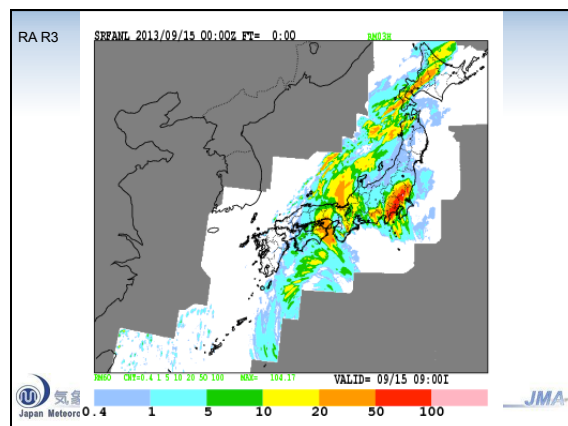
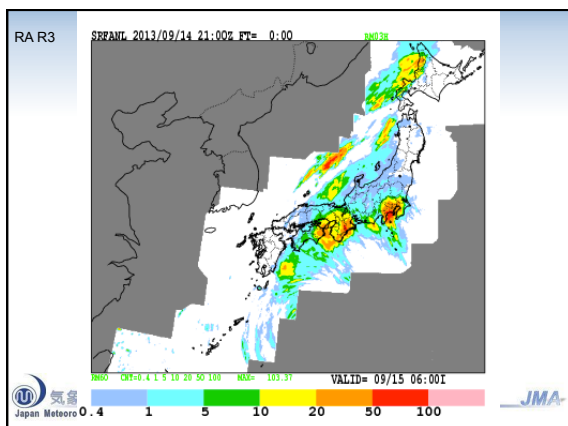
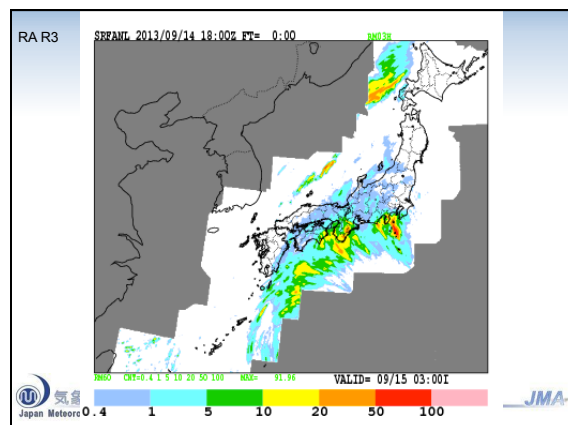
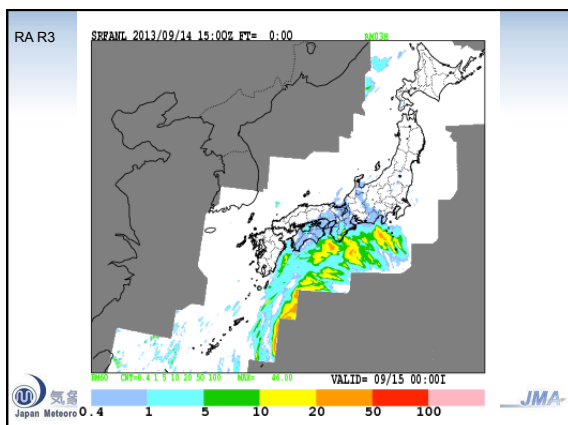
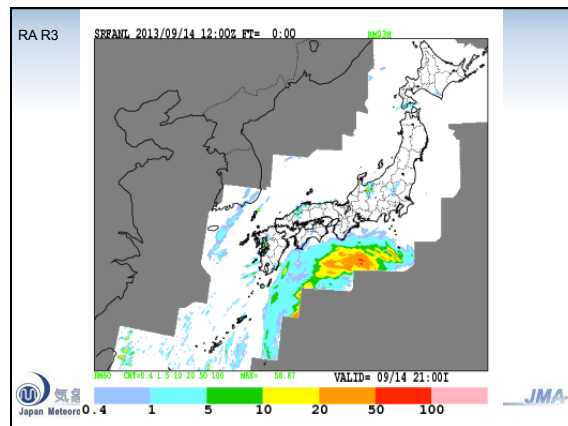
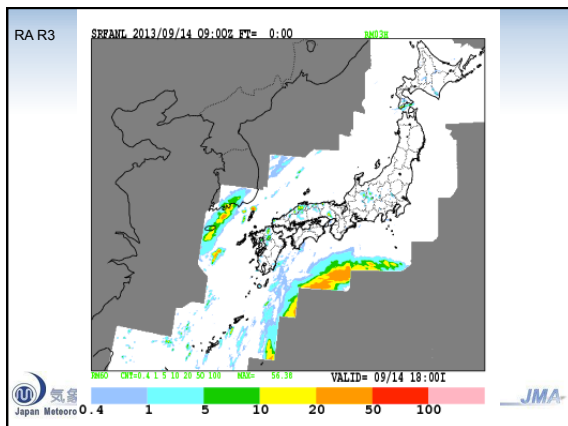


## 降水の実況

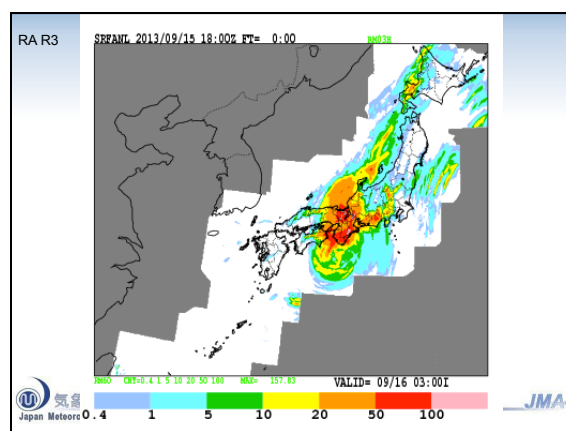
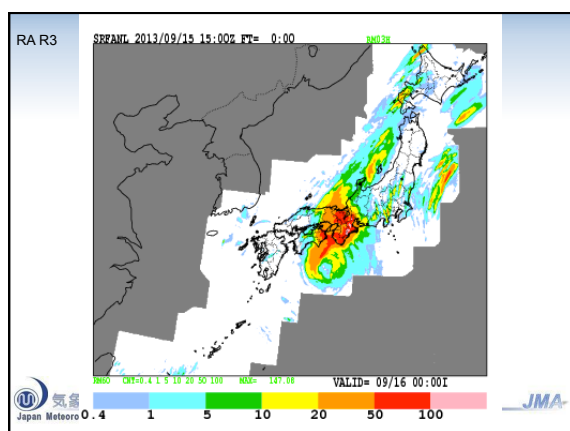
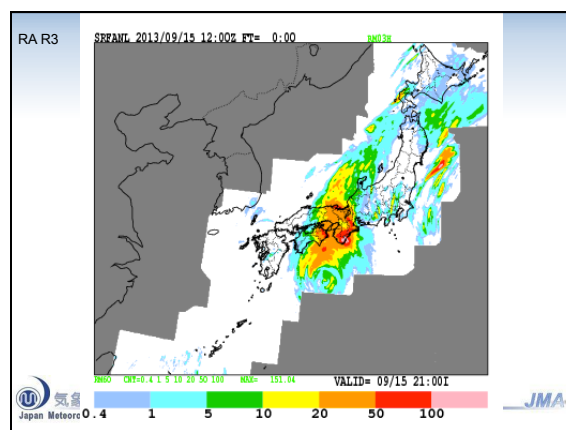
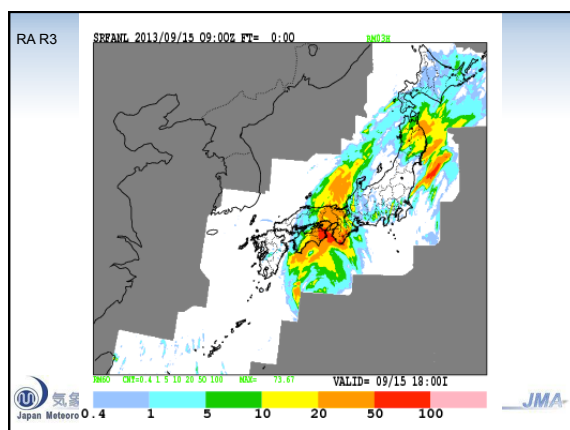
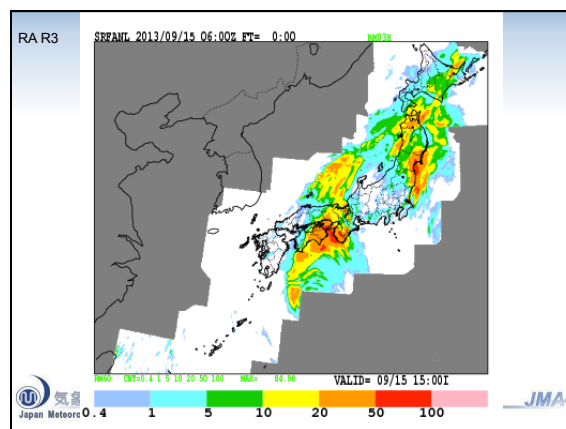
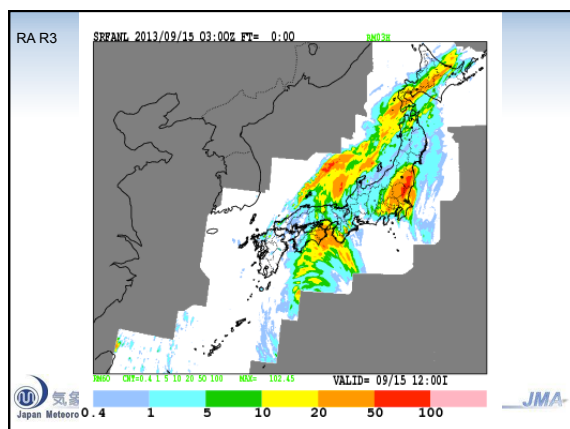
気象庁  
Japan Meteorological Agency

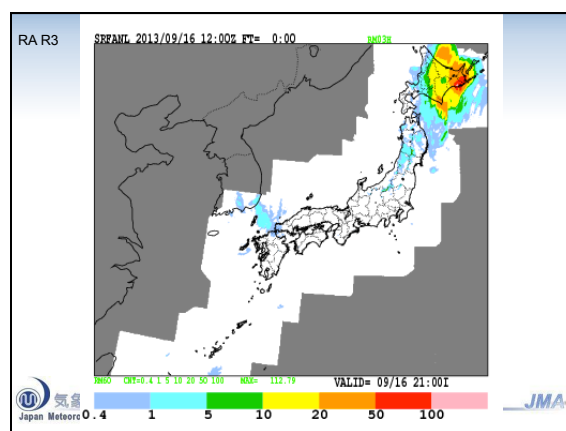
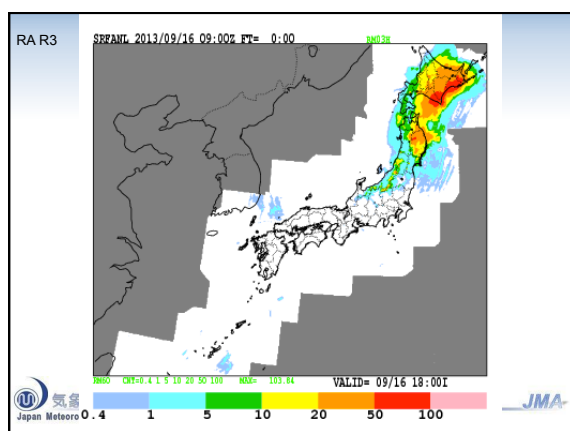
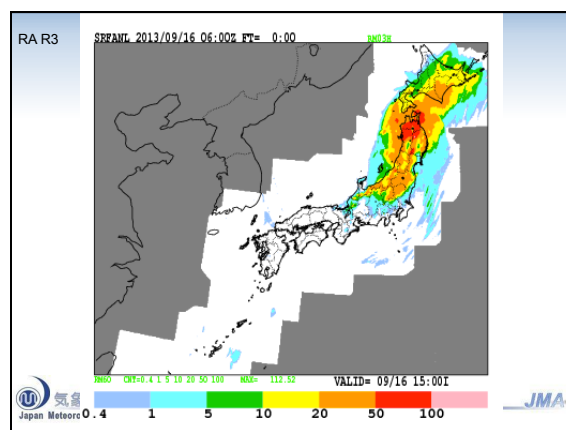
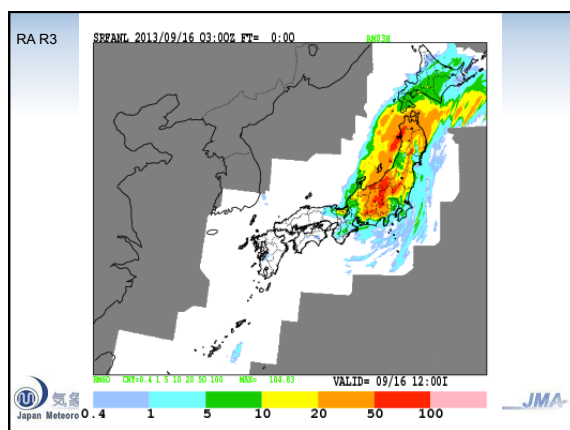
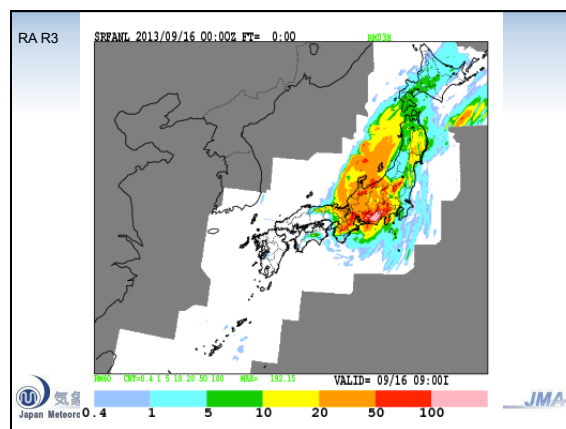
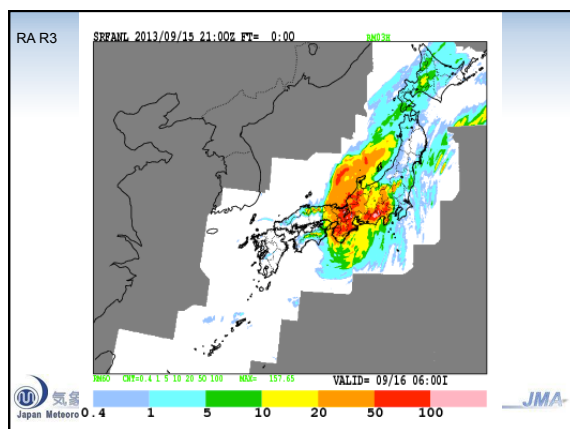
JMA-5

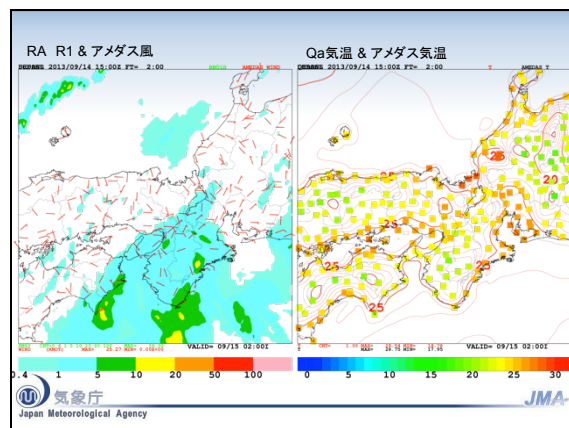
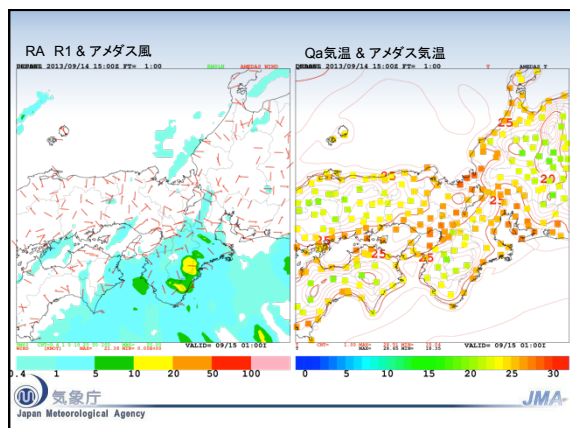
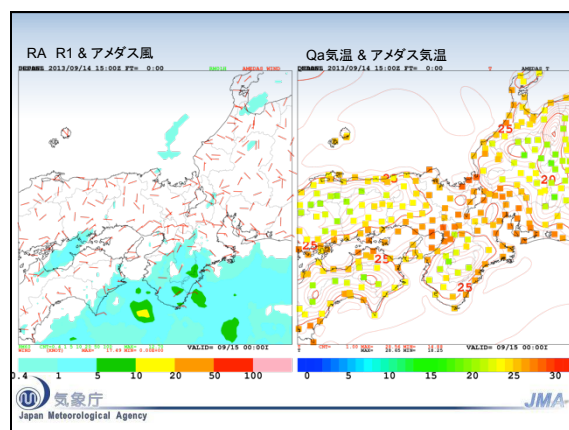
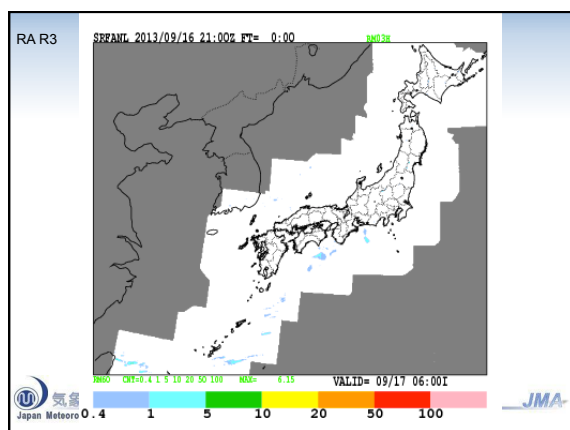
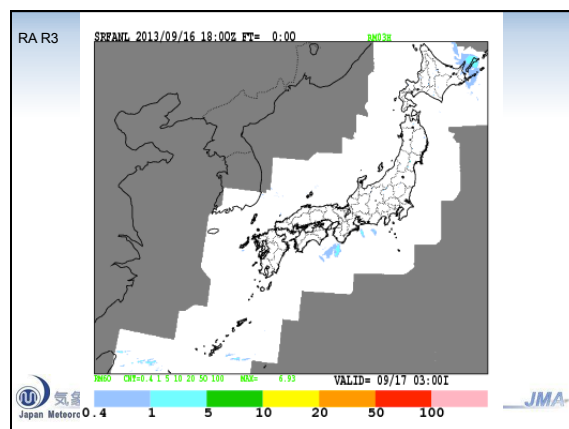
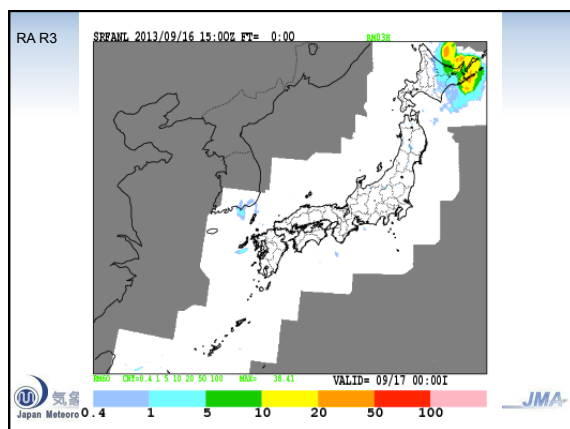


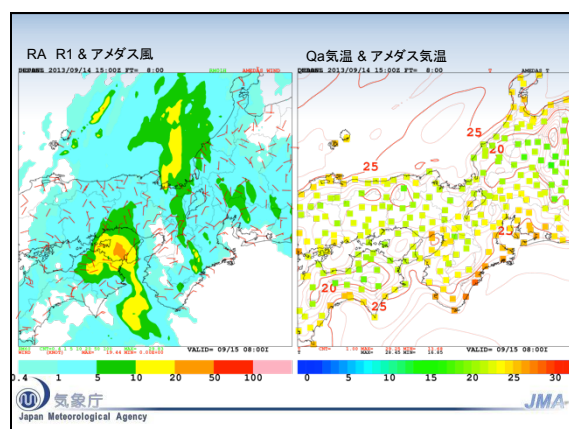
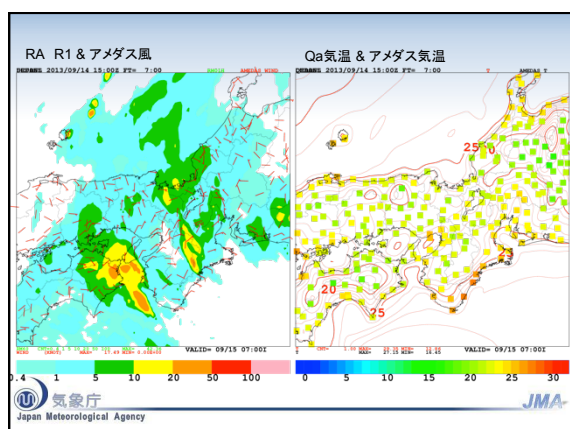
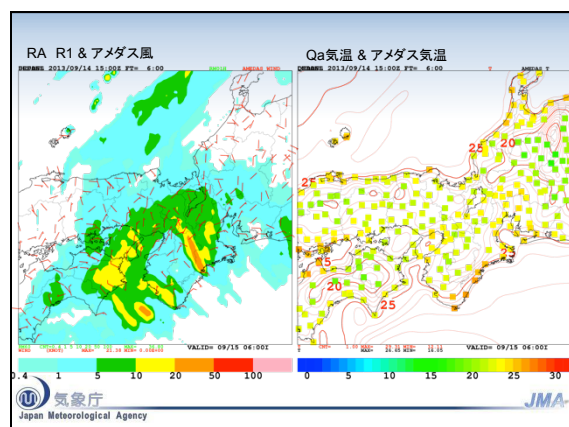
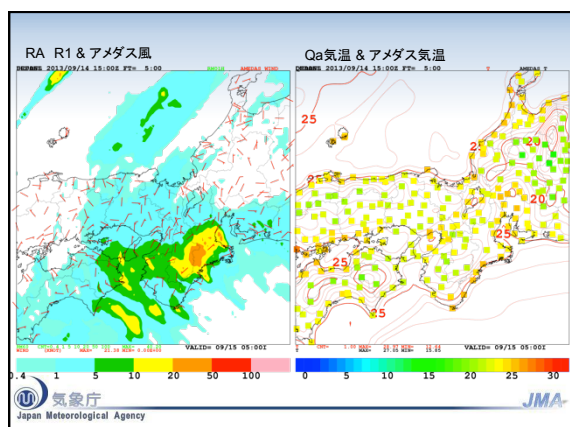
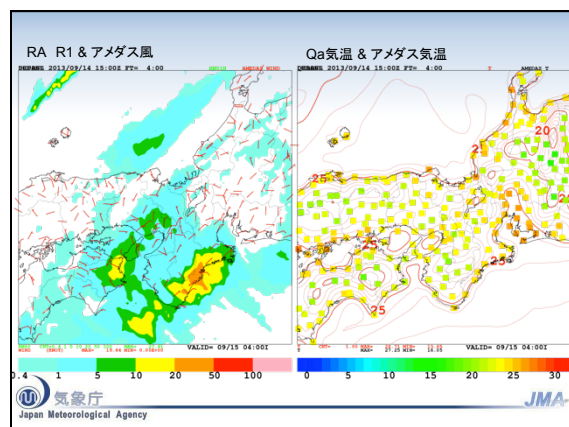
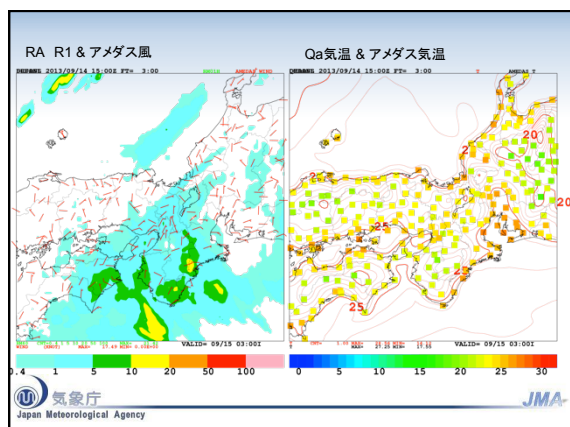




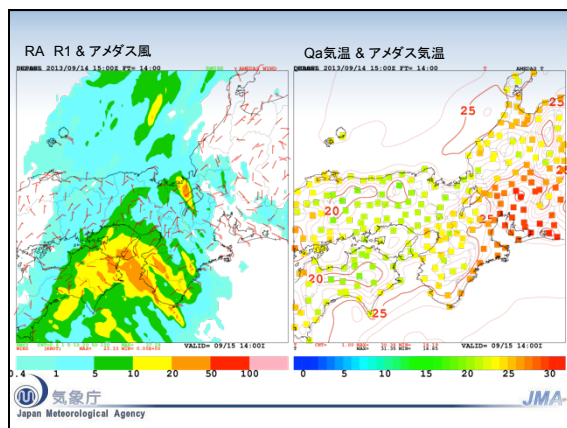
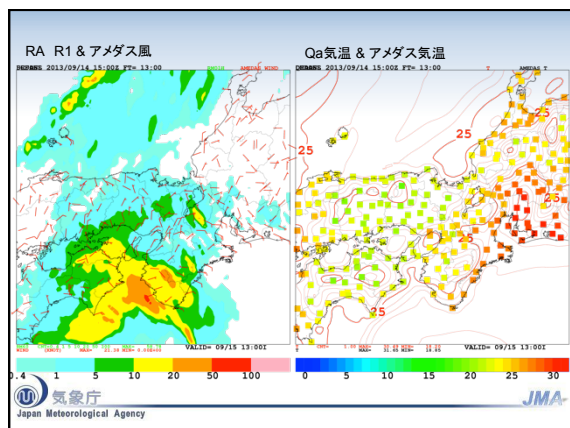
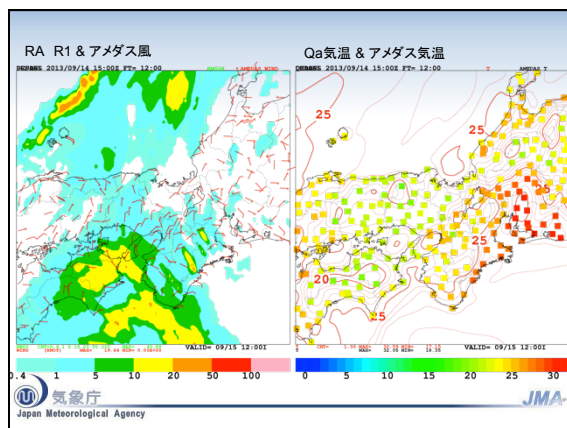
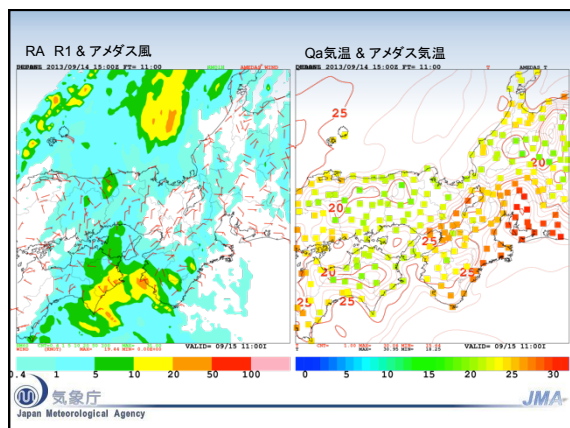
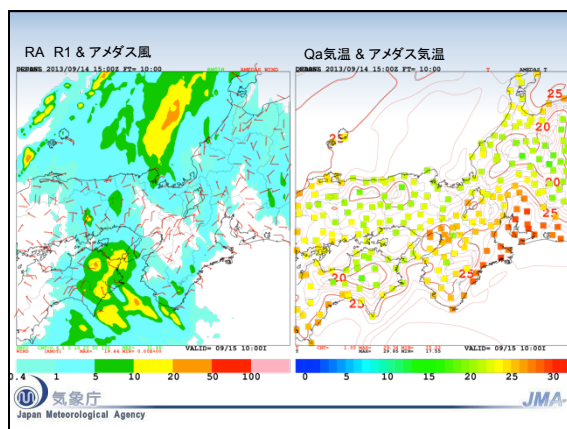
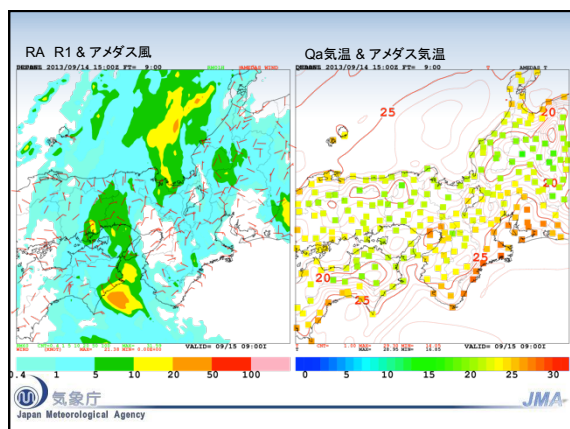


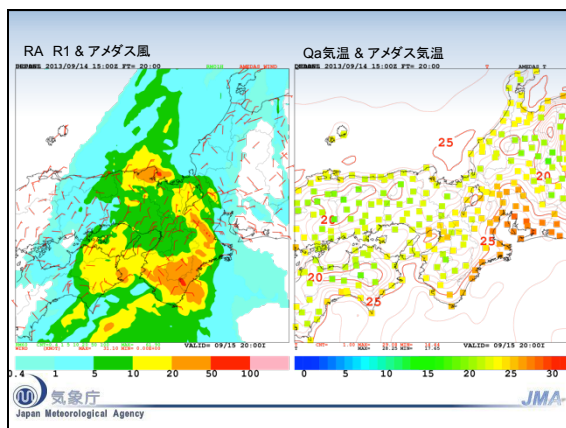
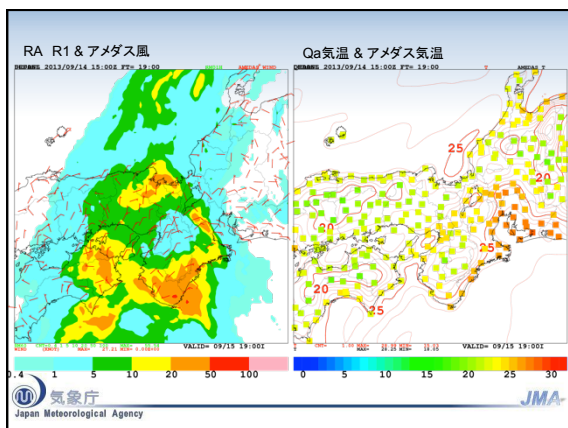
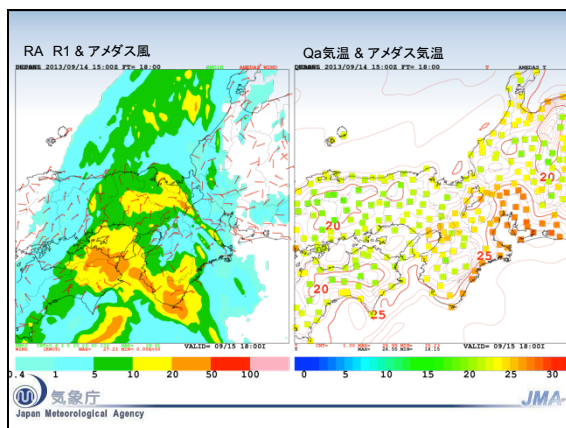
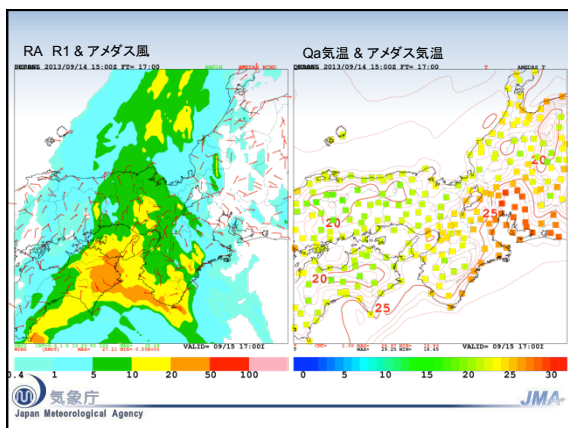
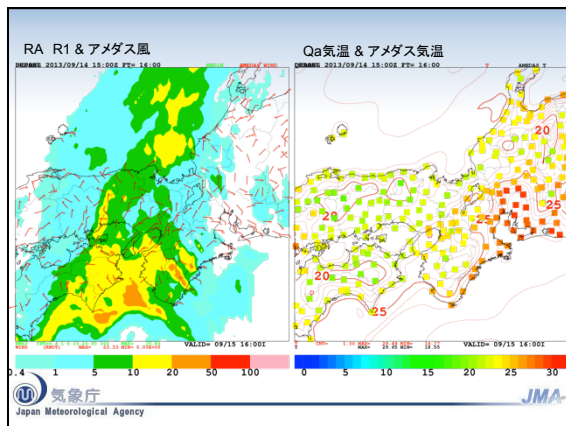
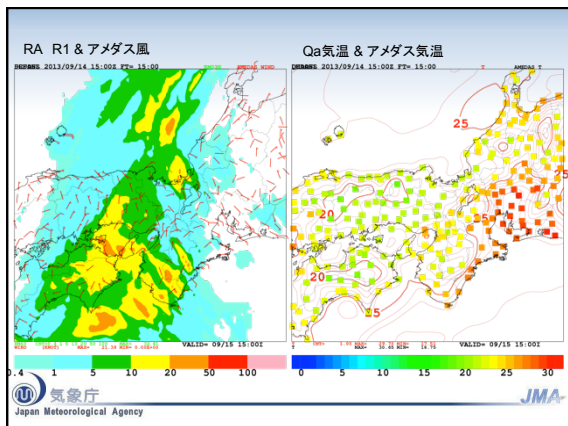




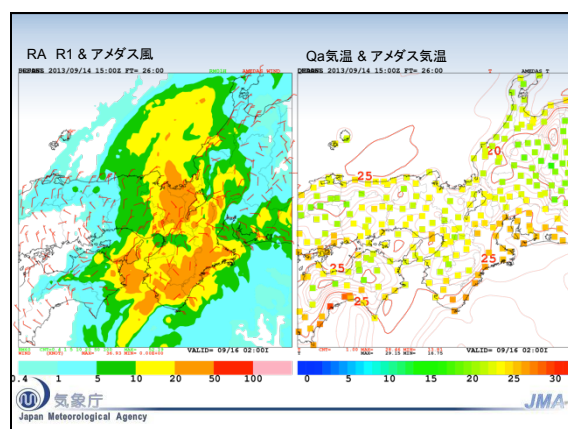
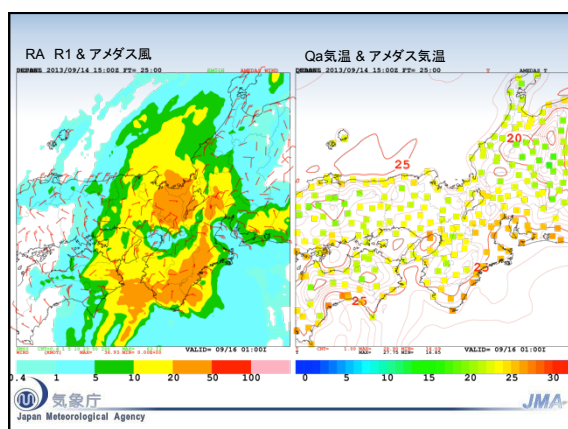
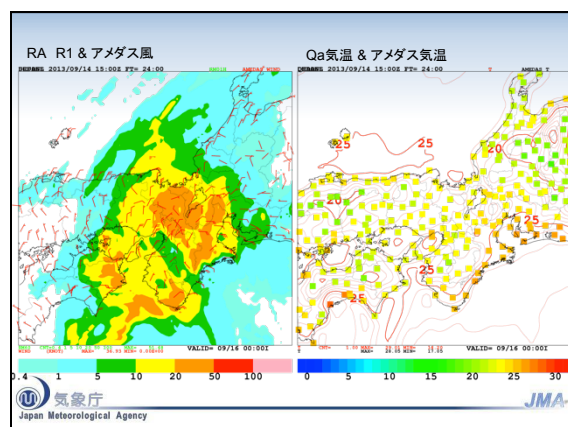
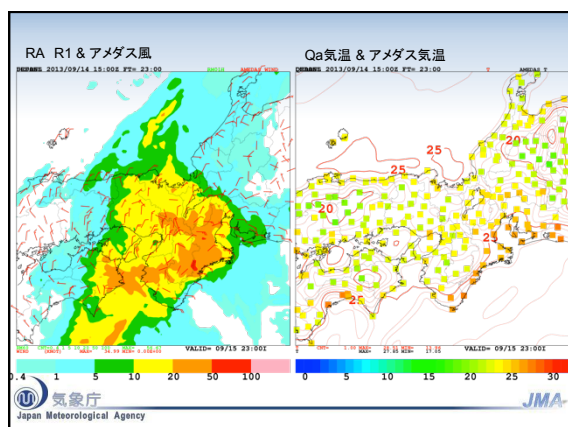
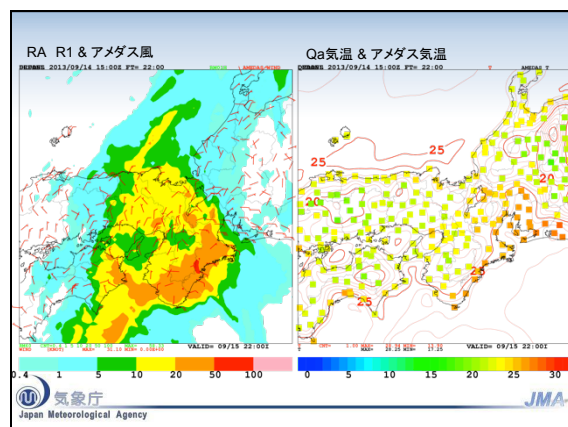
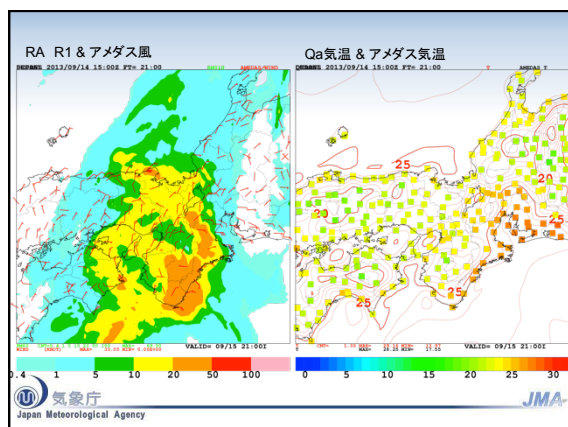


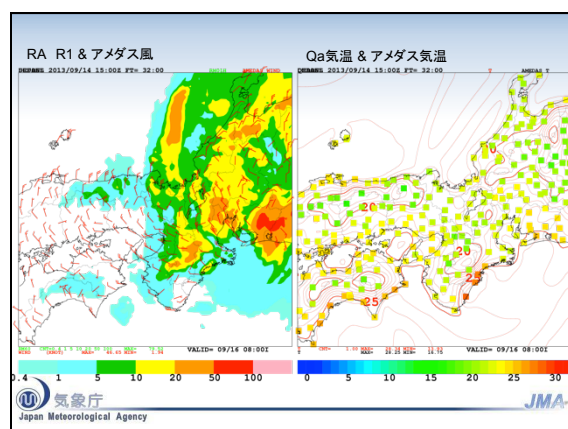
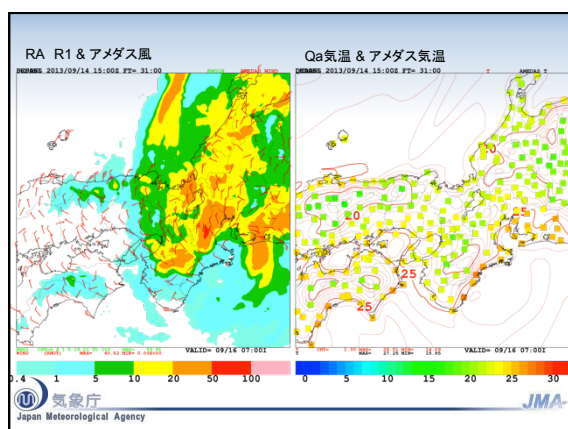
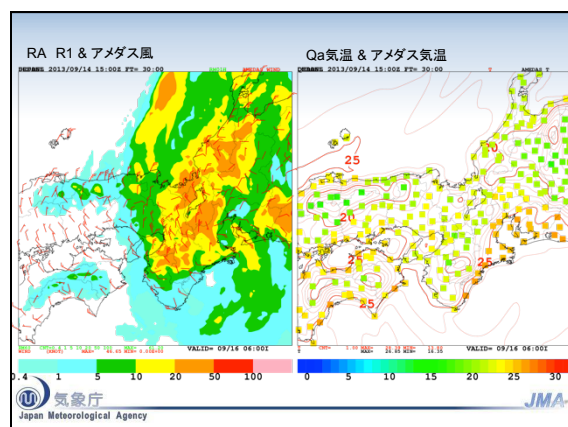
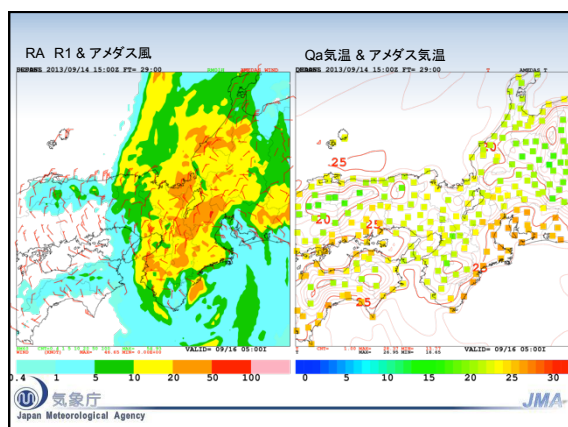
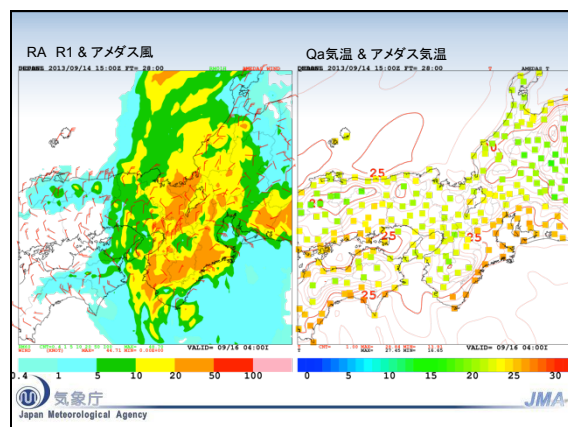
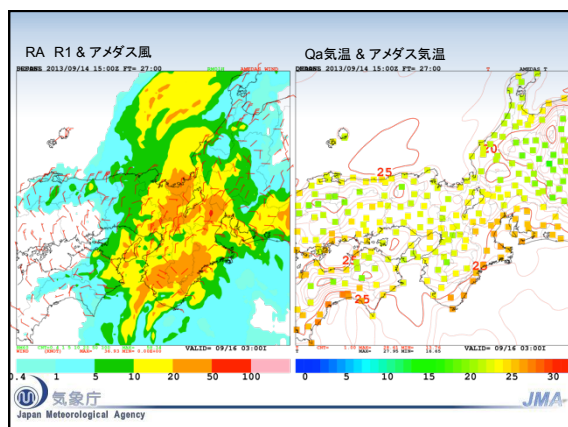


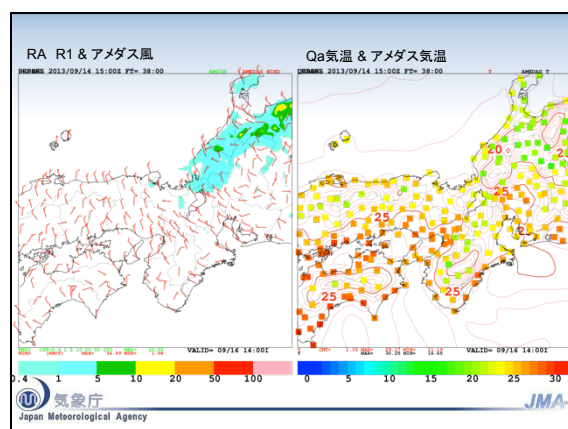
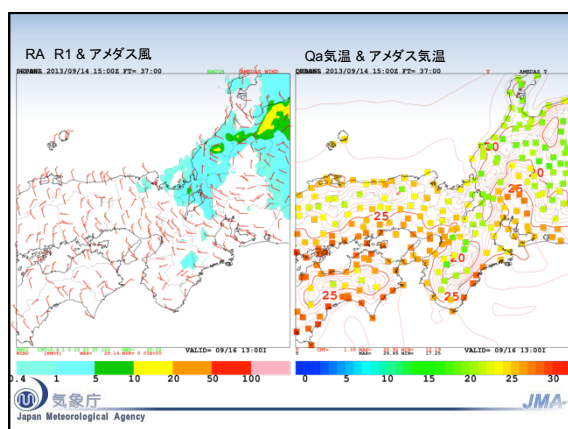
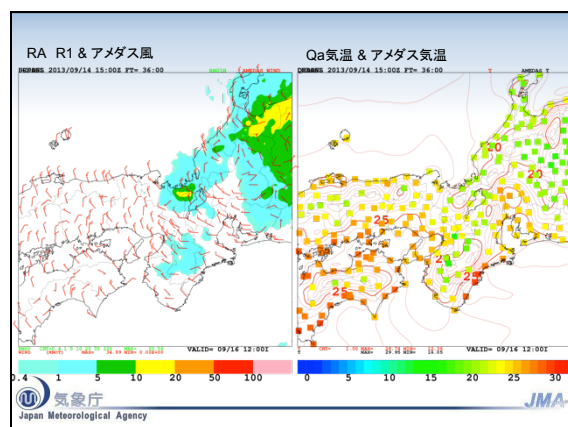
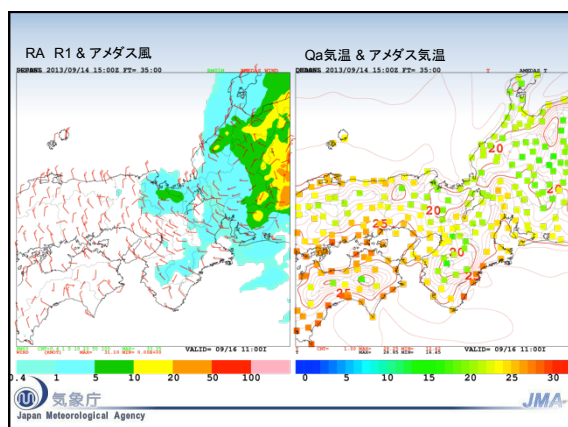
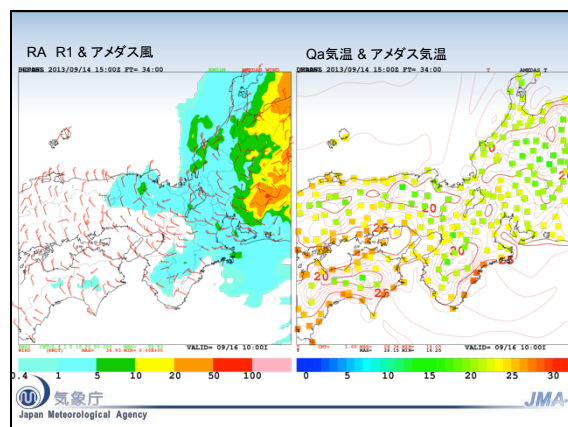
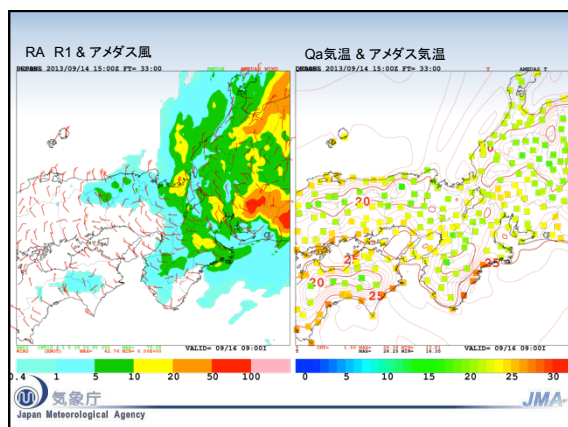








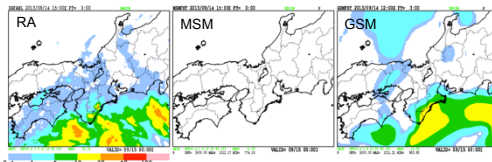




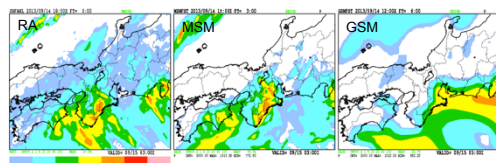


# 降水のモデル間比較

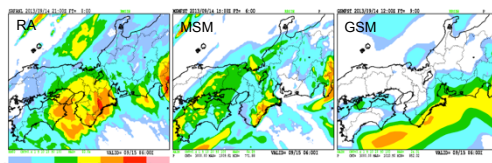
Rtn, Obs, MSM and GSM R3 SameGuess 2013/09/14 15UTC FT00



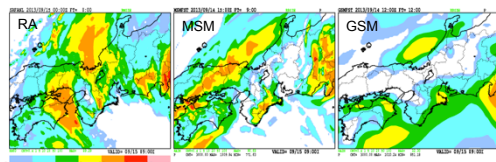
Rtn, Obs, MSM and GSM R3 SameGuess 2013/09/14 15UTC FT03



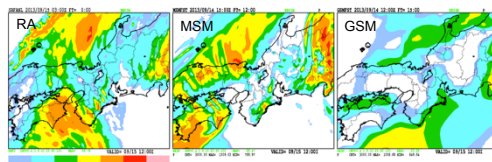
Rtn, Obs, MSM and GSM R3 SameGuess 2013/09/14 15UTC FT06

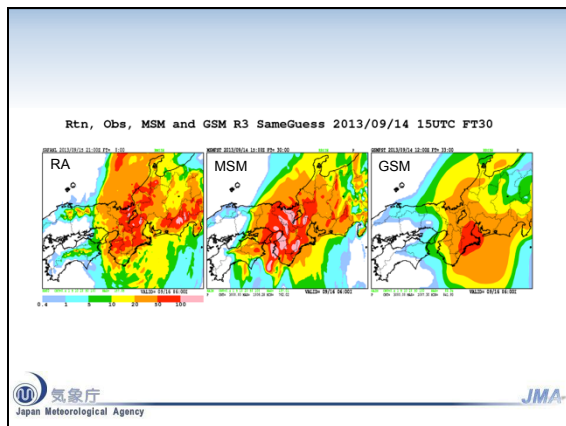
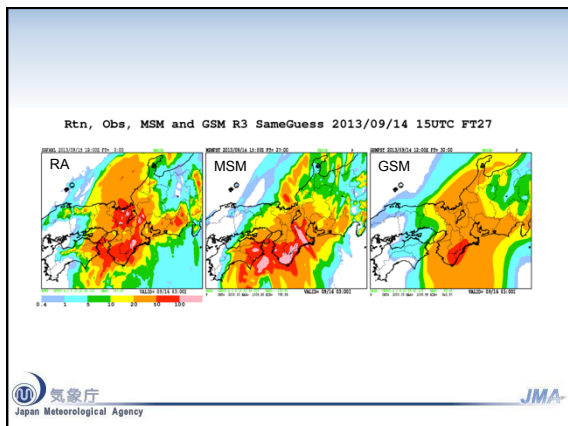
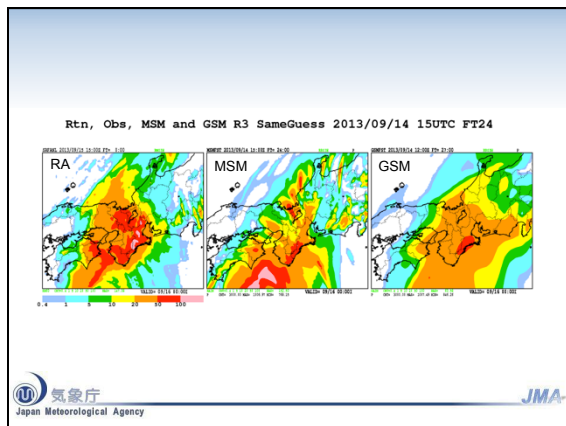
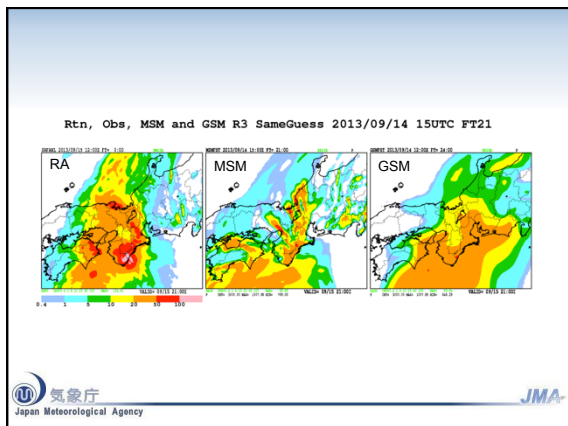
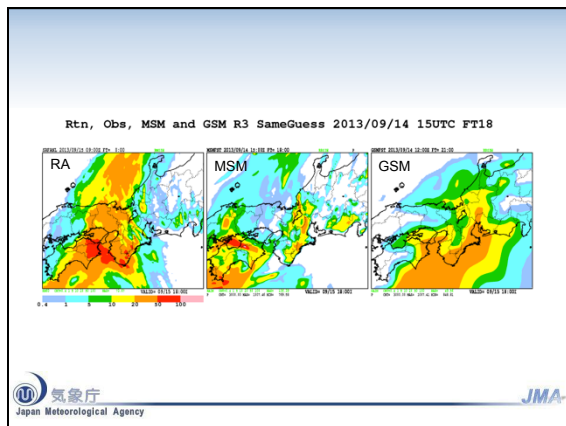
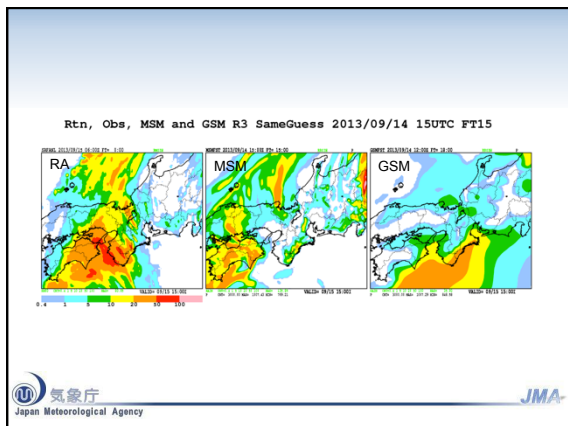


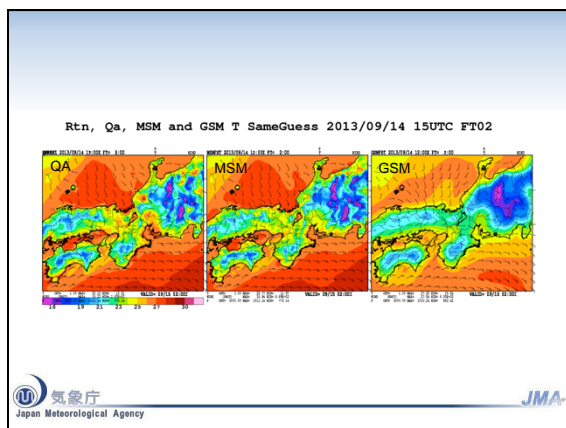
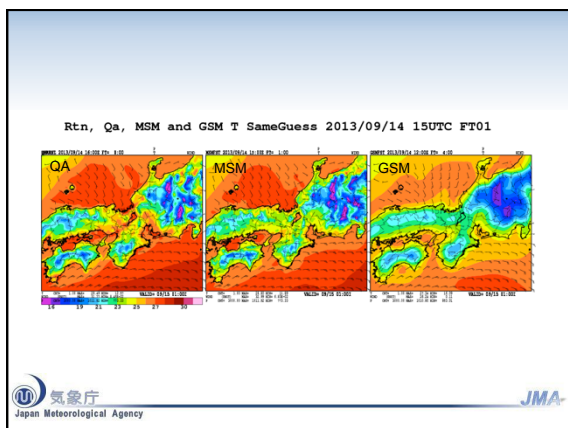
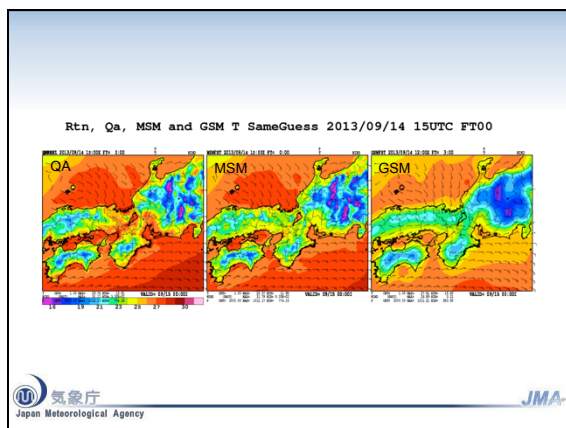
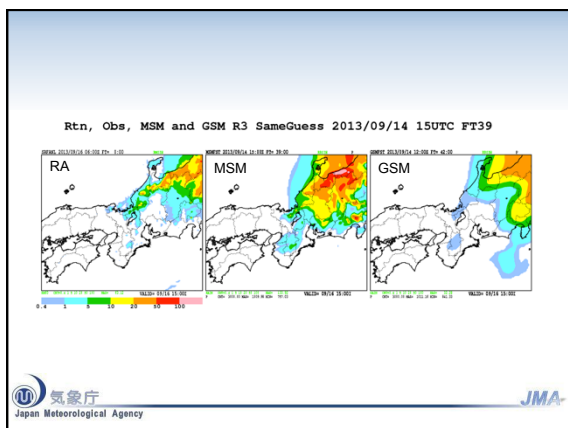
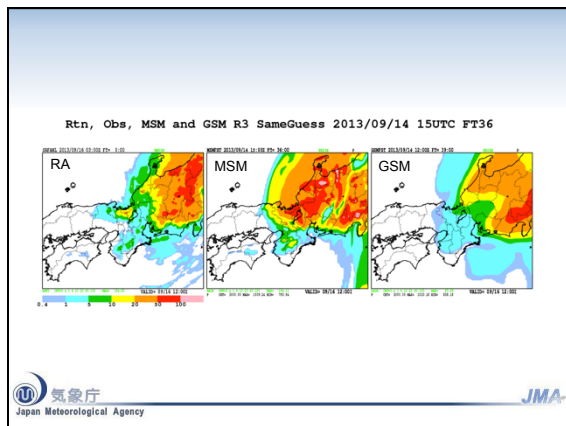
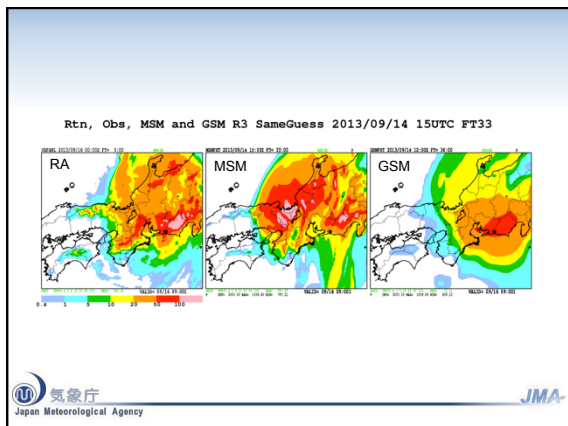
Rtn, Obs, MSM and GSM R3 SameGuess 2013/09/14 15UTC FT09



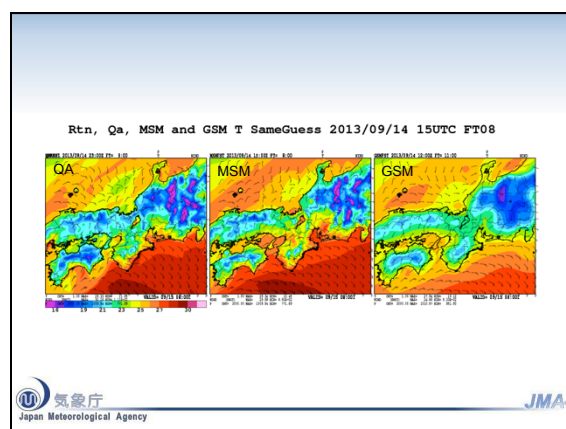
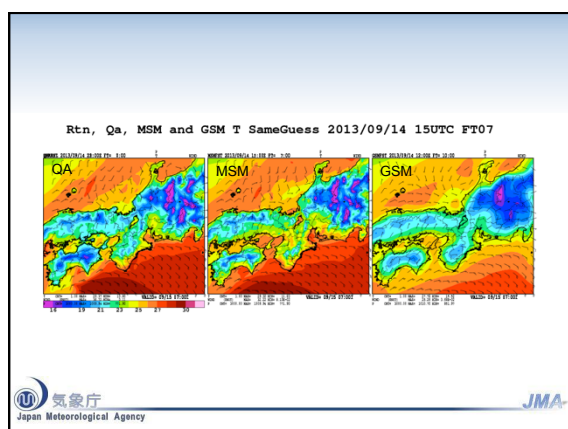
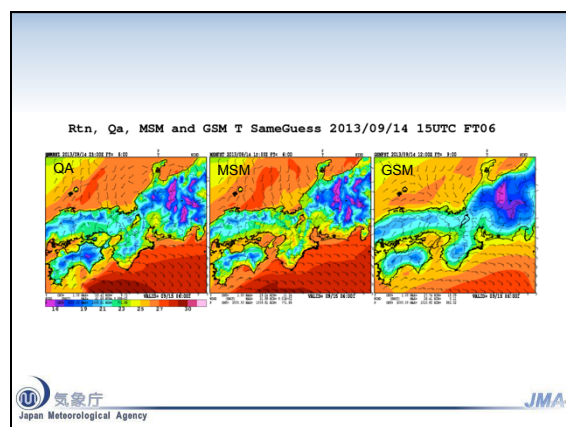
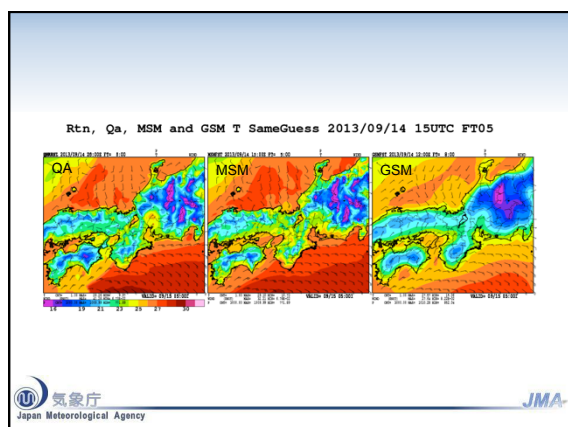
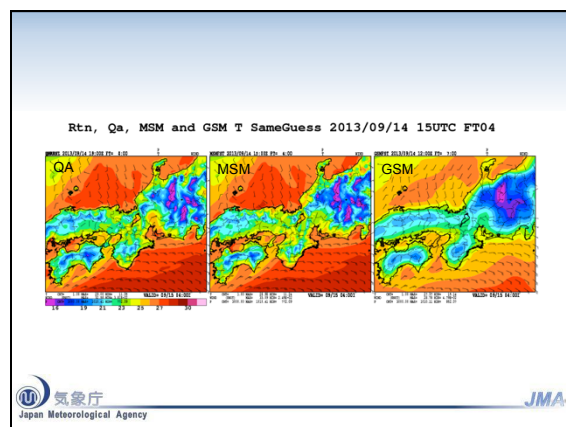
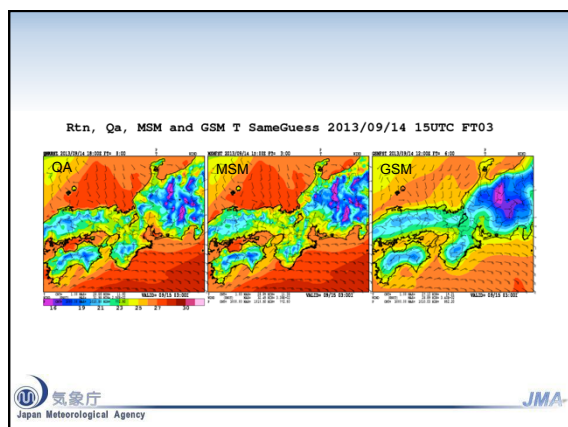
Rtn, Obs, MSM and GSM R3 SameGuess 2013/09/14 15UTC FT12

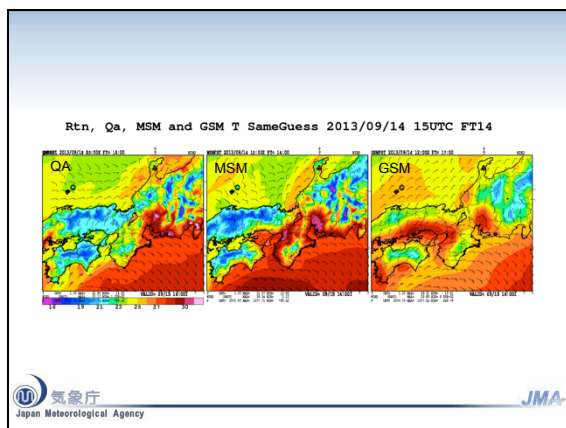
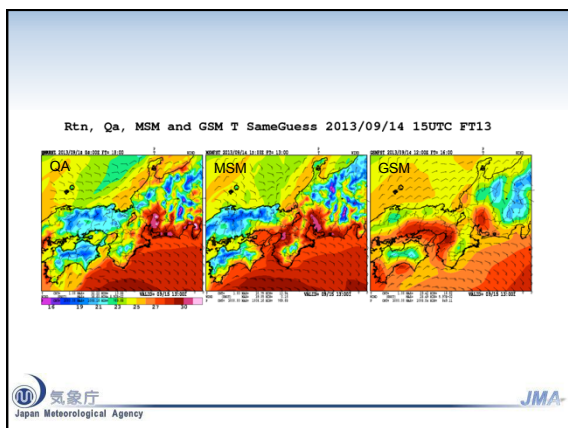
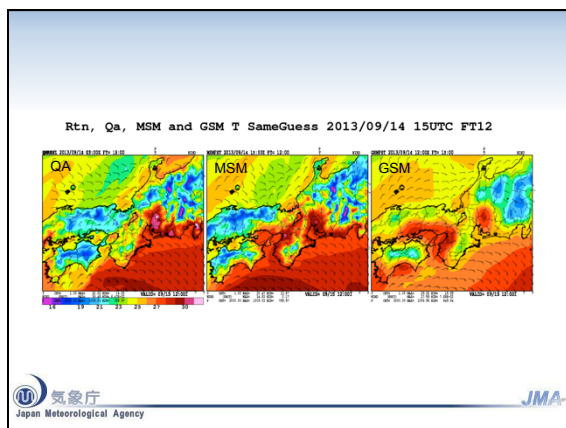
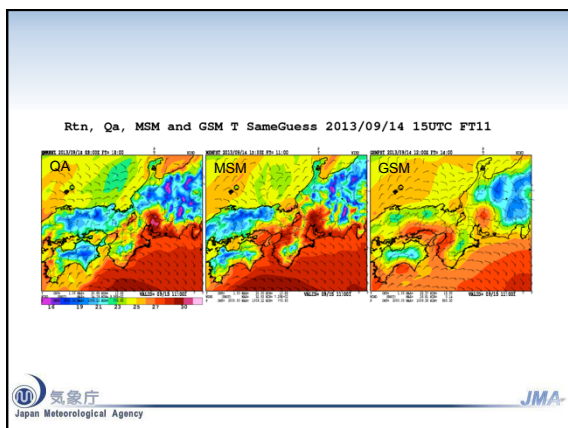
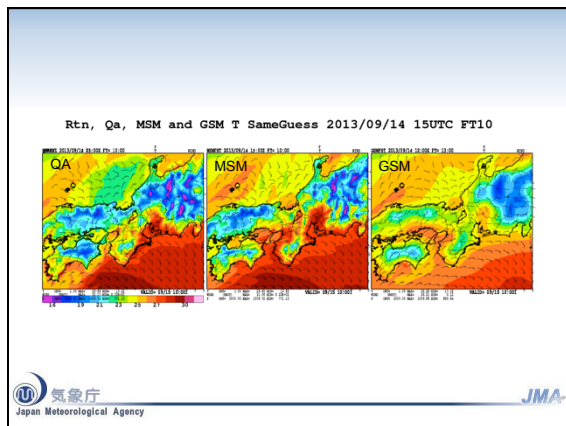
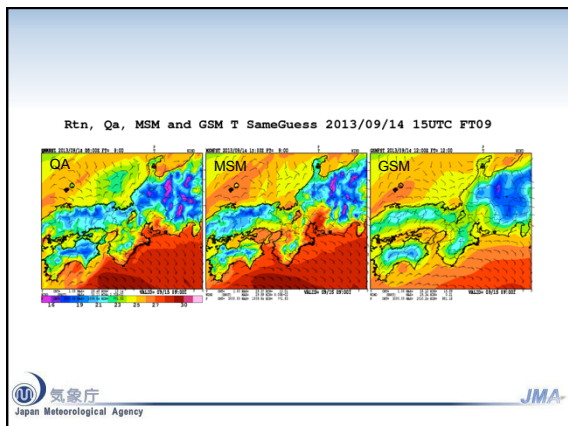


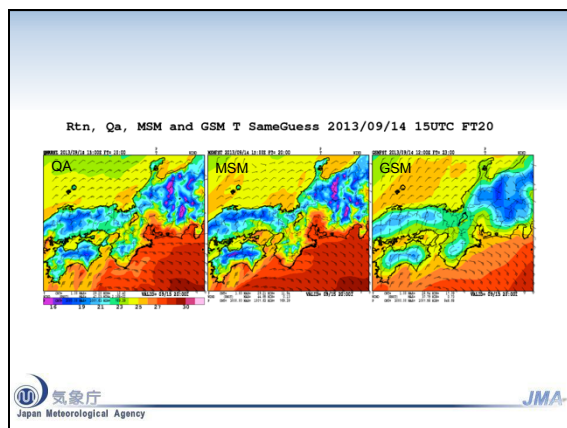
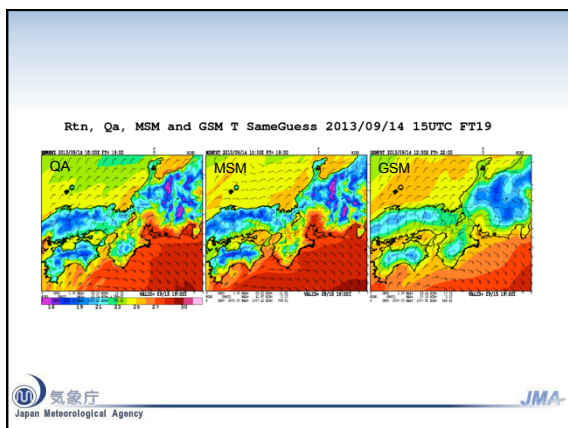
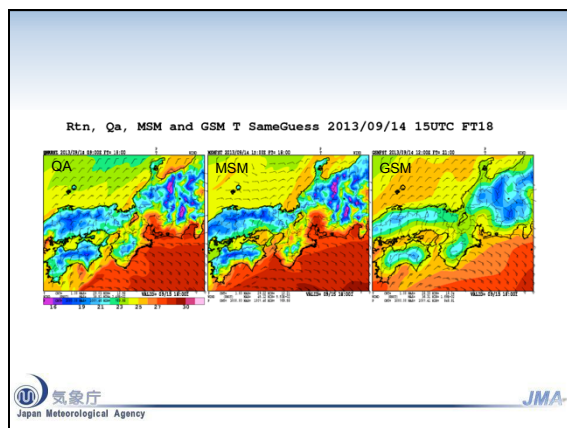
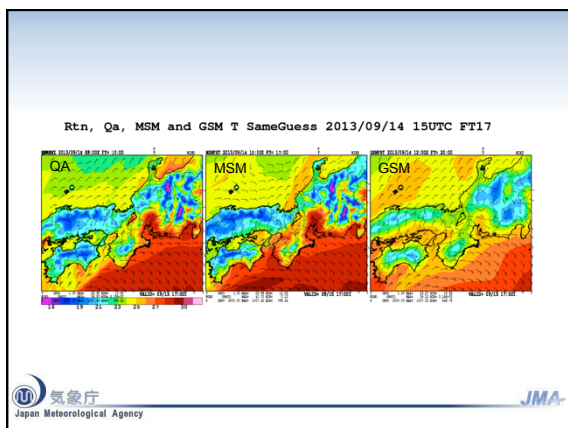
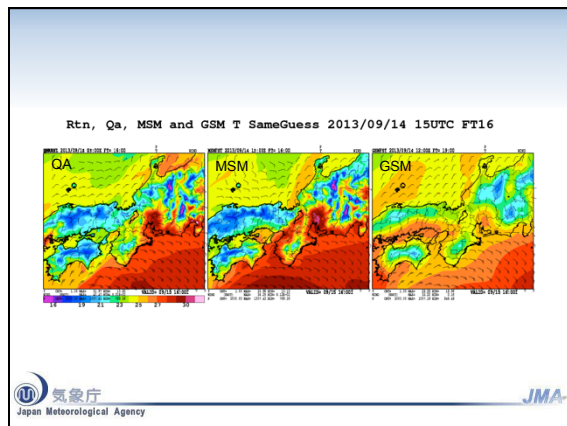
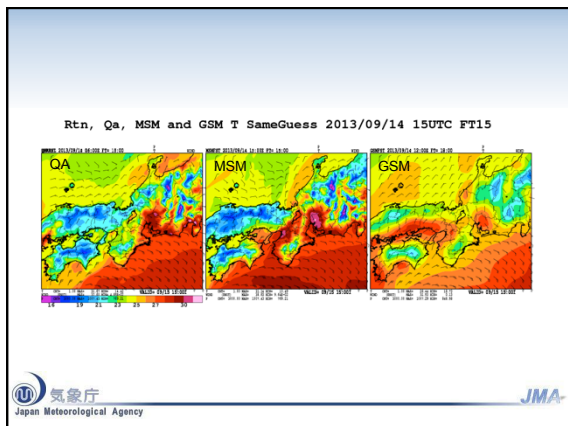


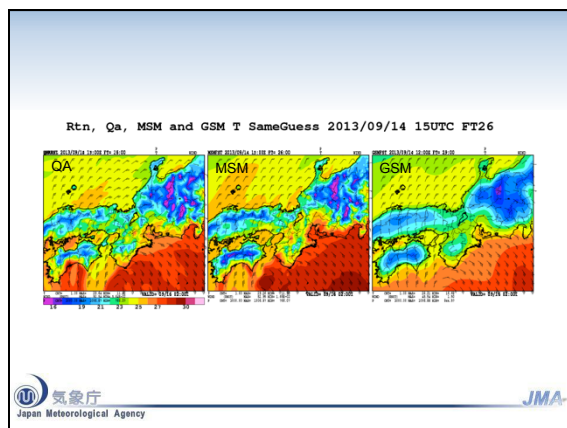
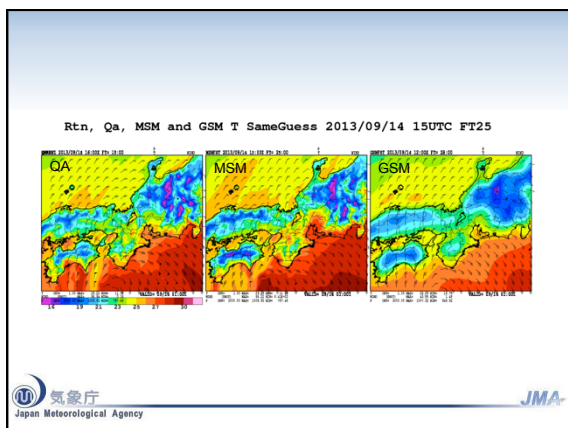
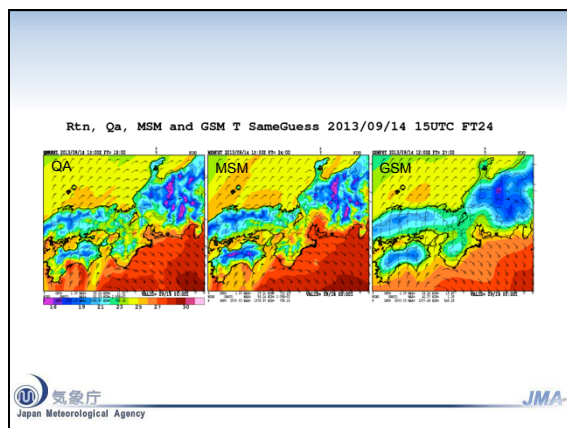
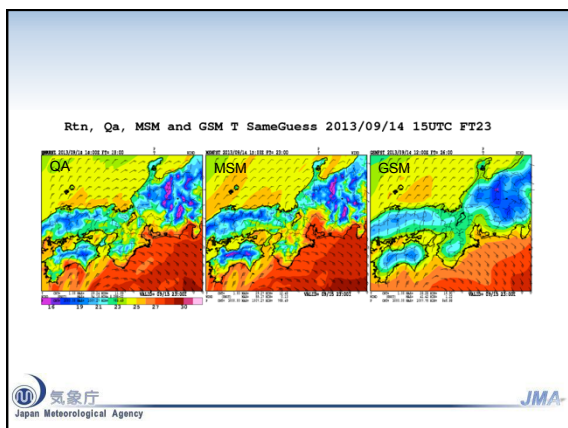
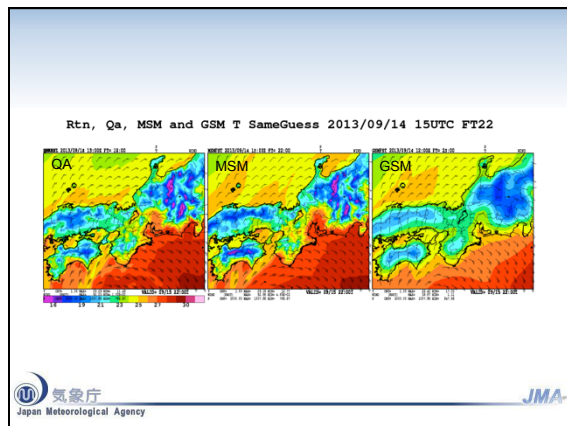
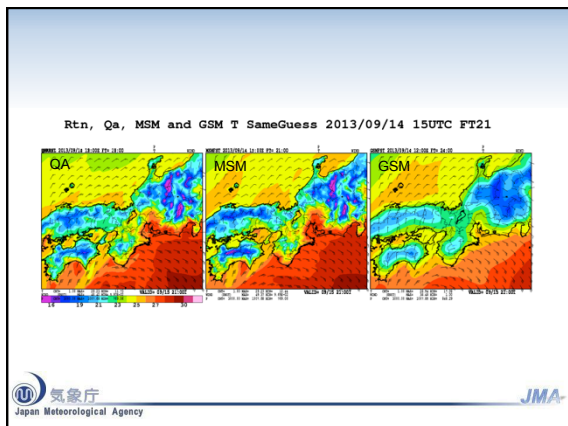




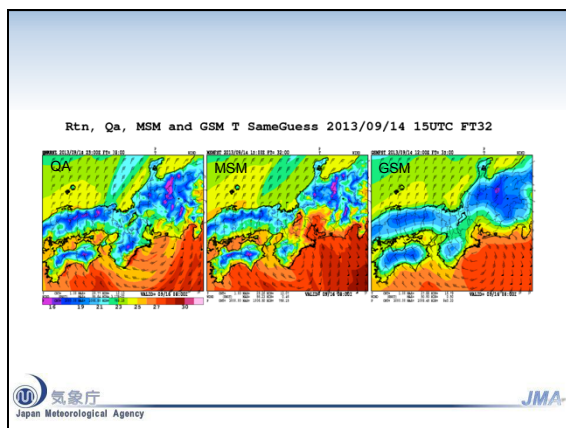
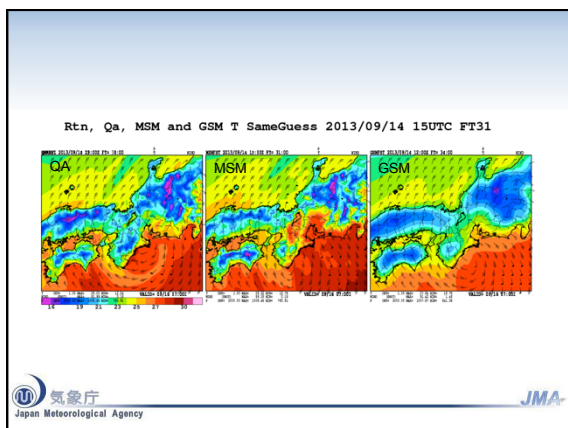
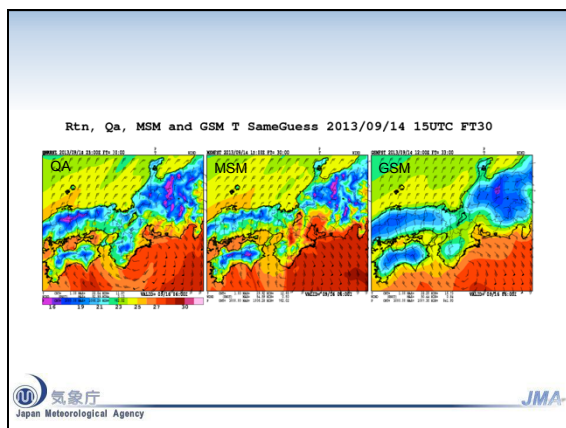
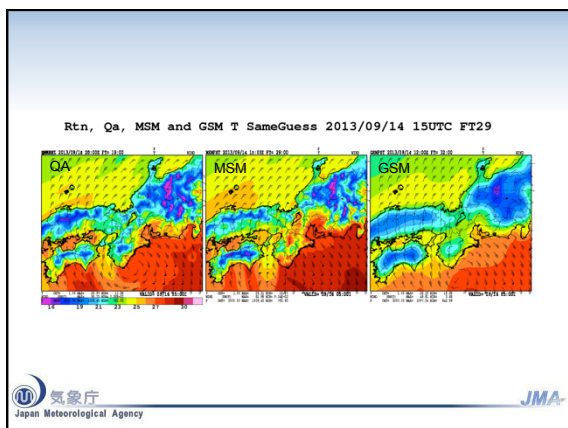
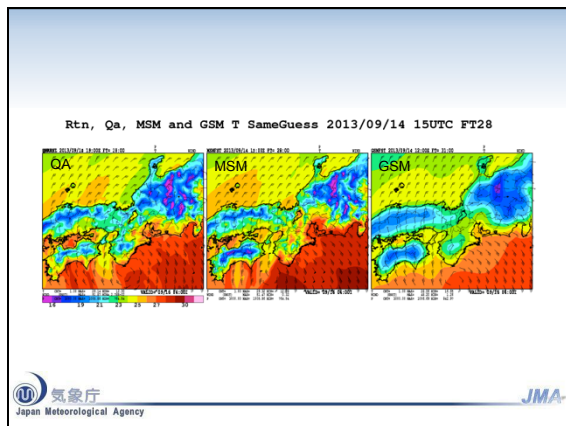
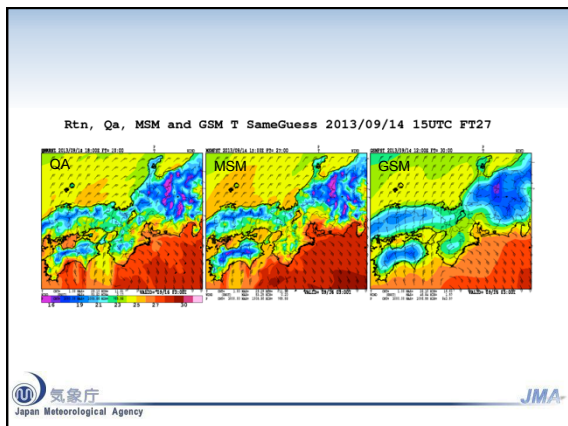


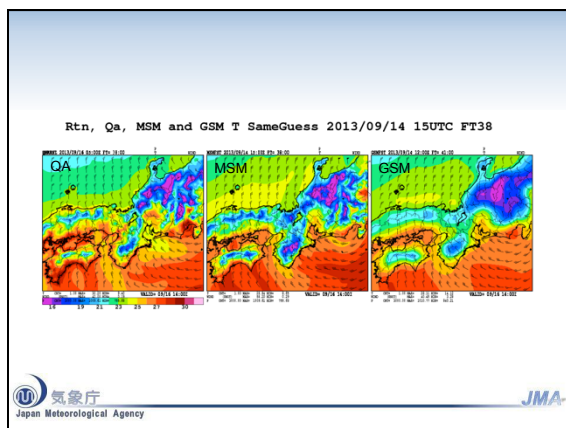
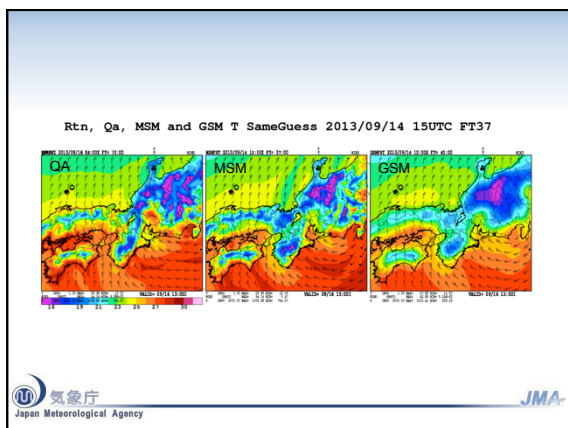
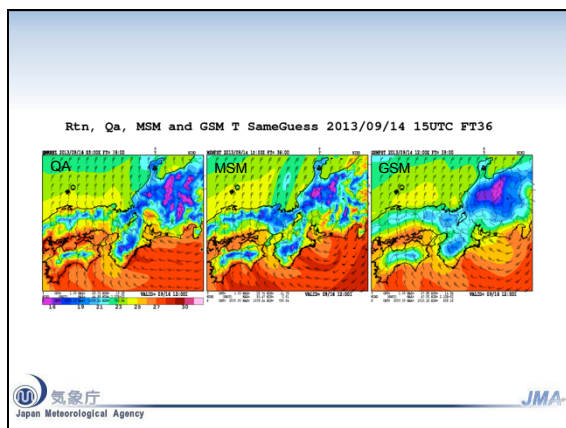
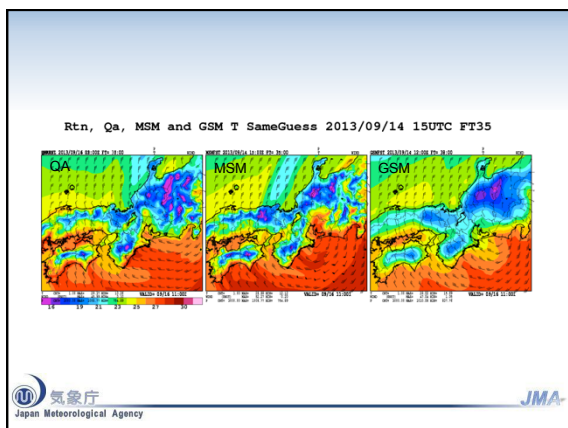
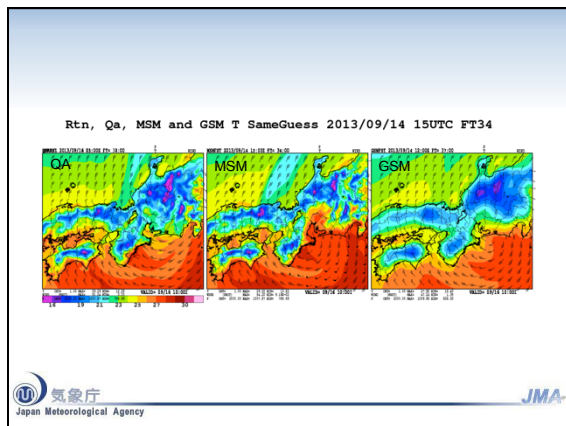
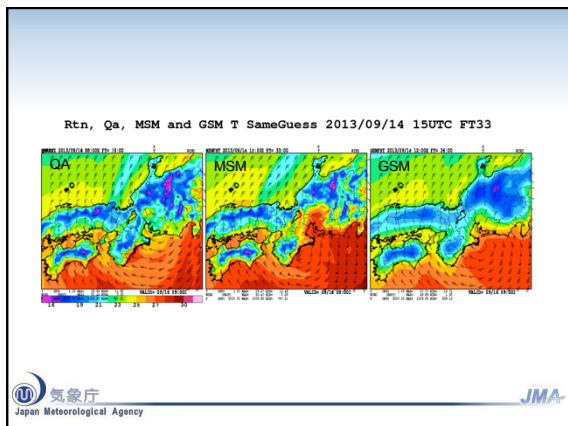




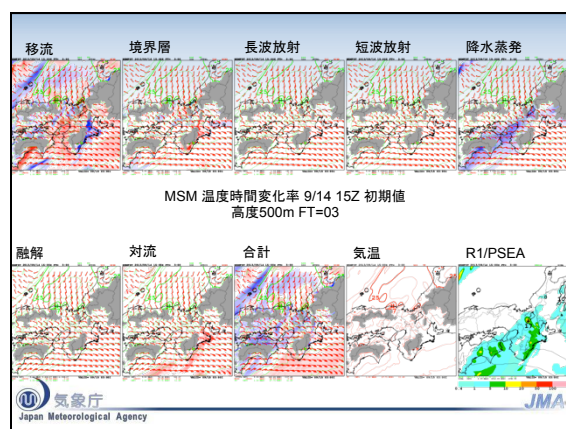
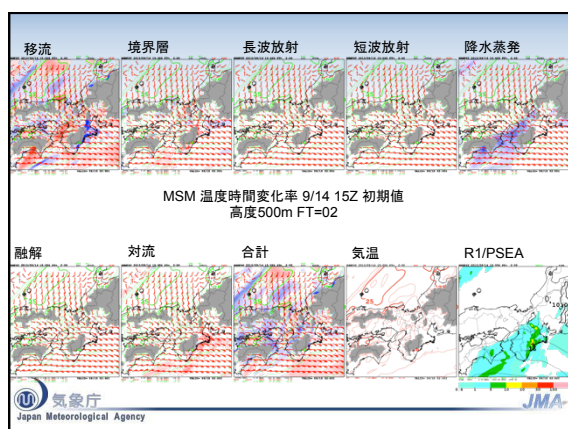
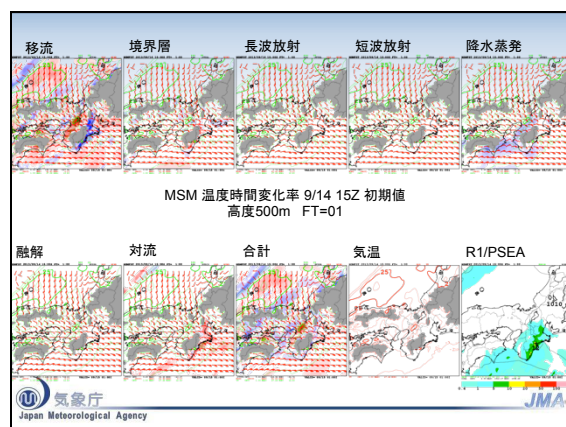
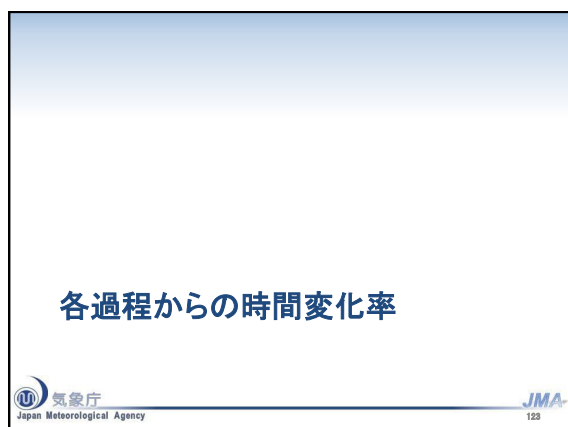
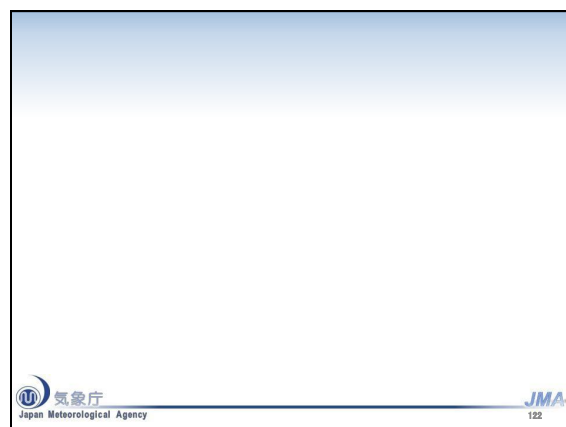
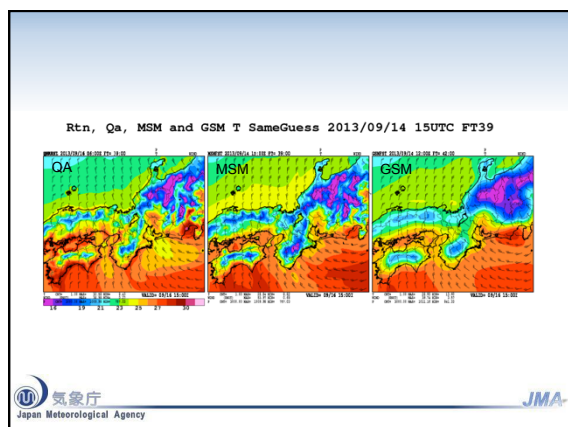


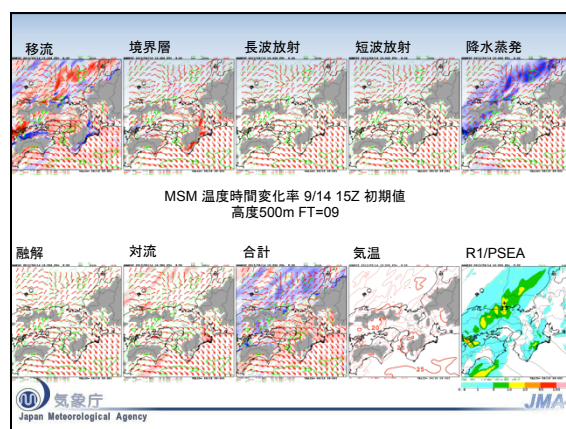
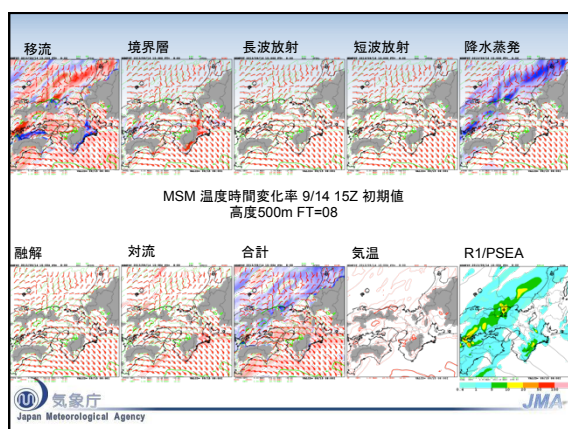
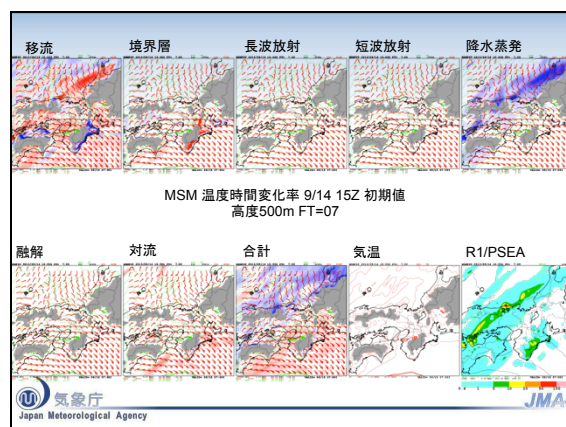
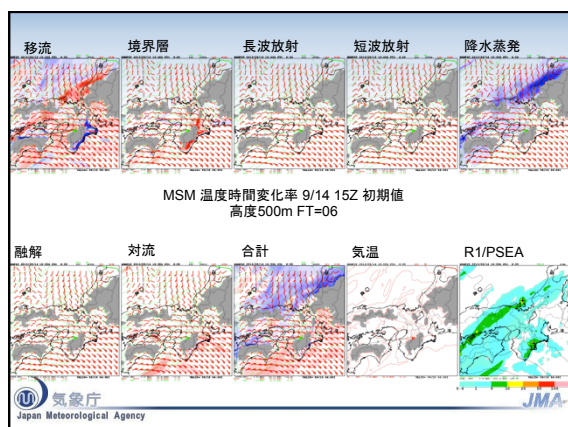
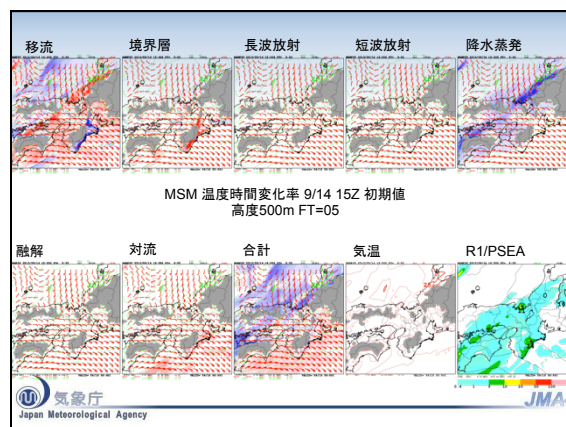
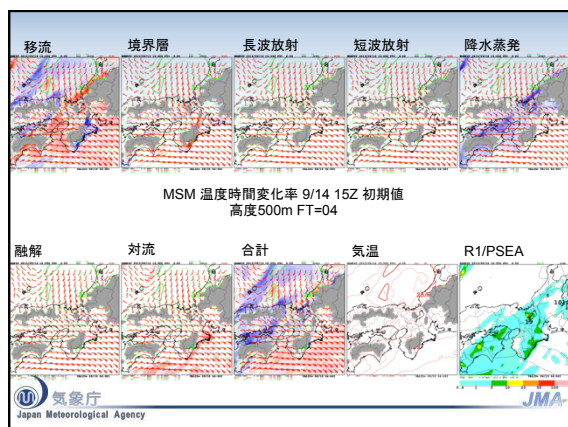




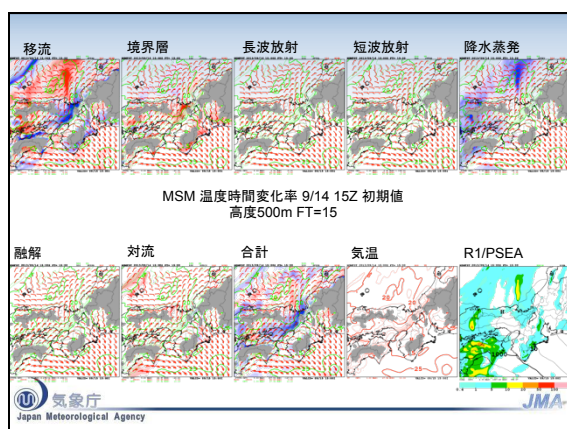
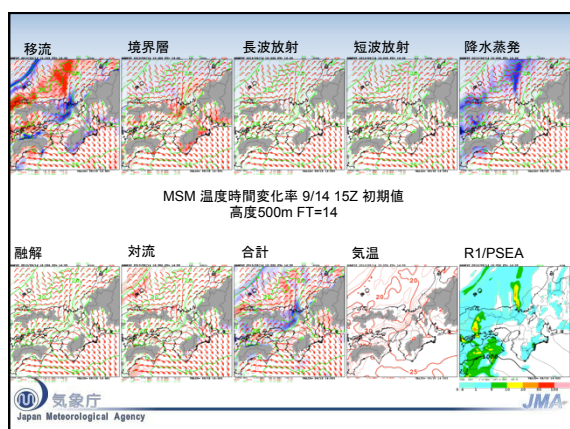
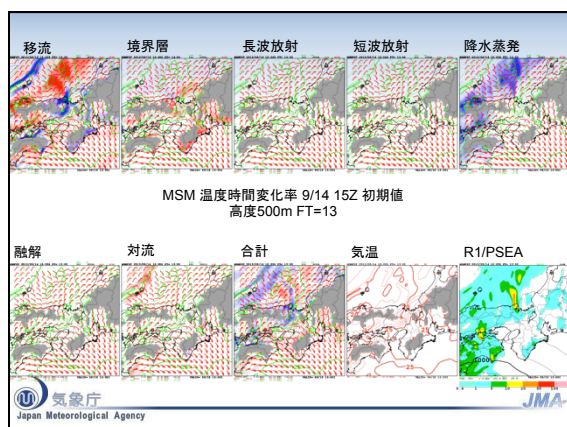
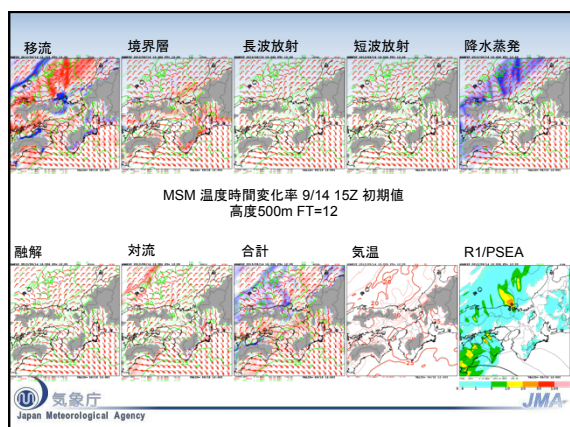
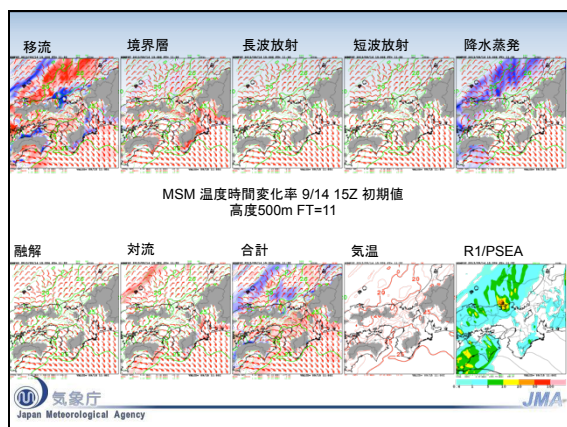
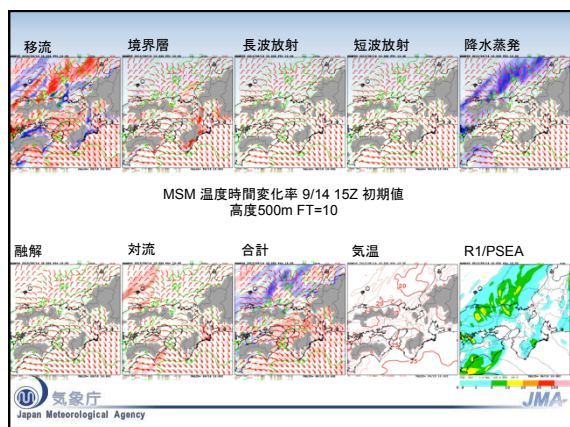


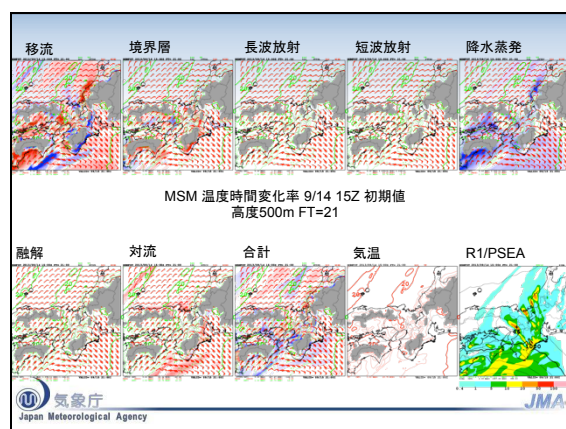
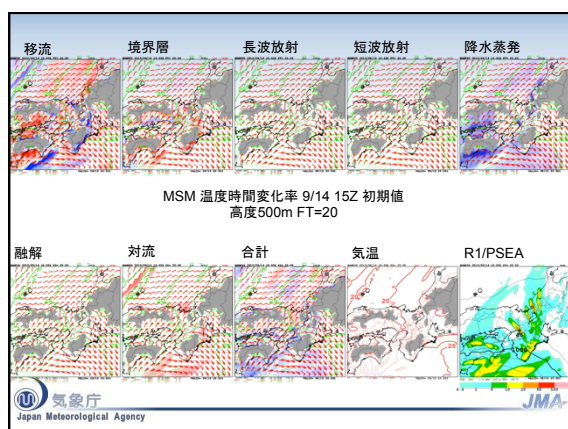
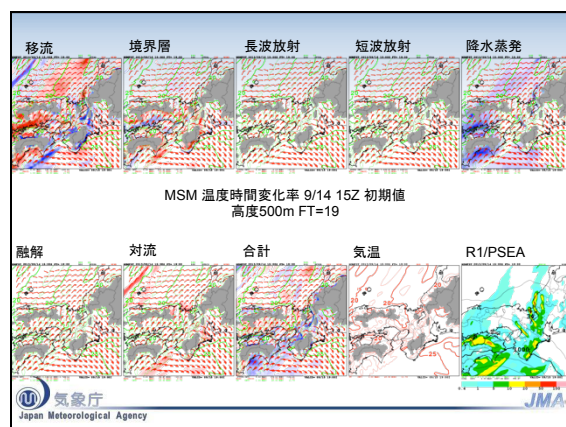
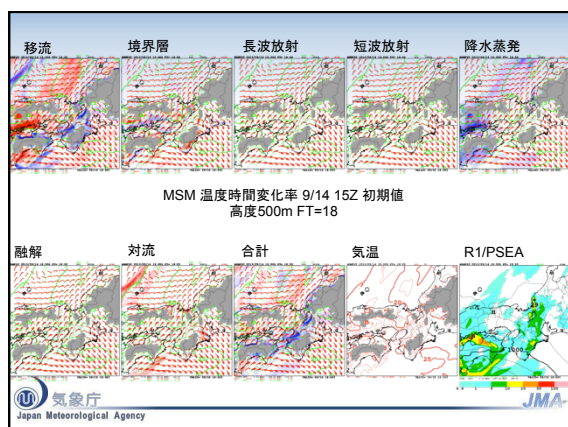
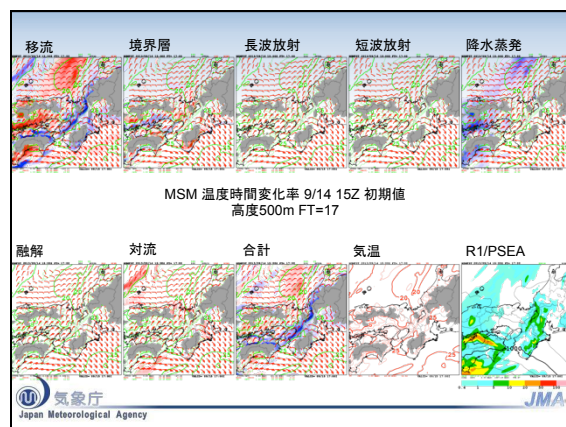
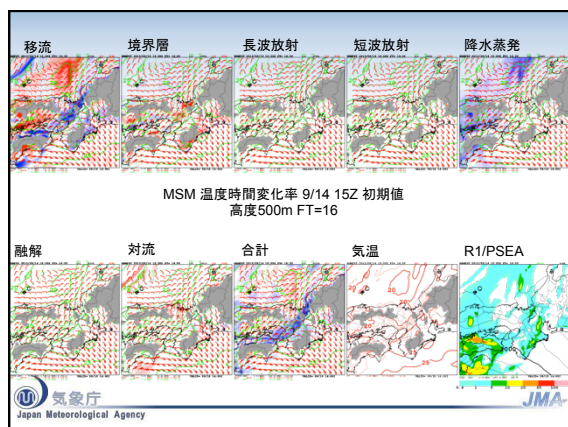




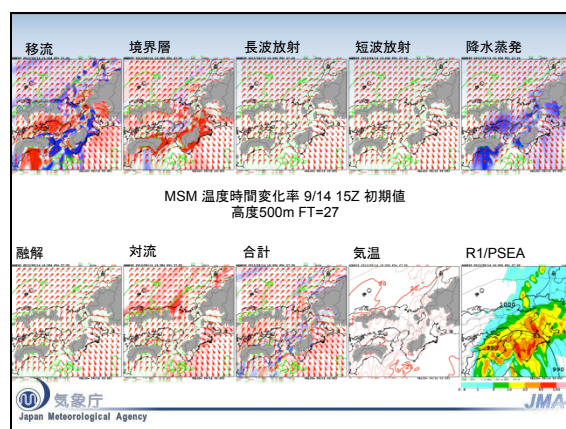
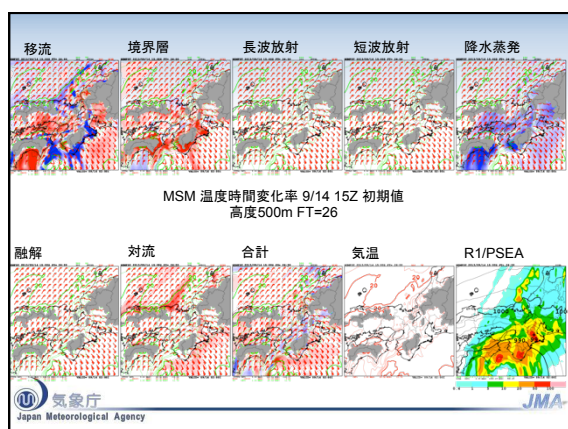
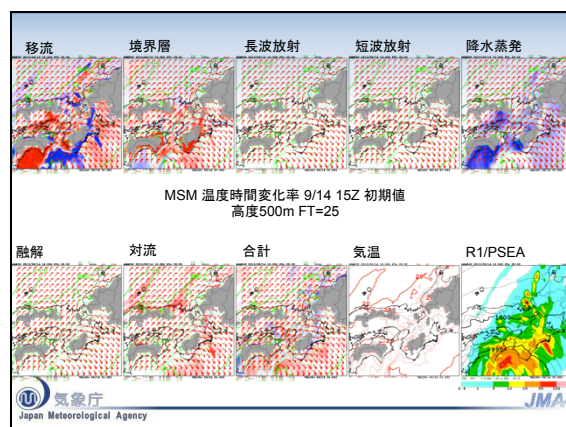
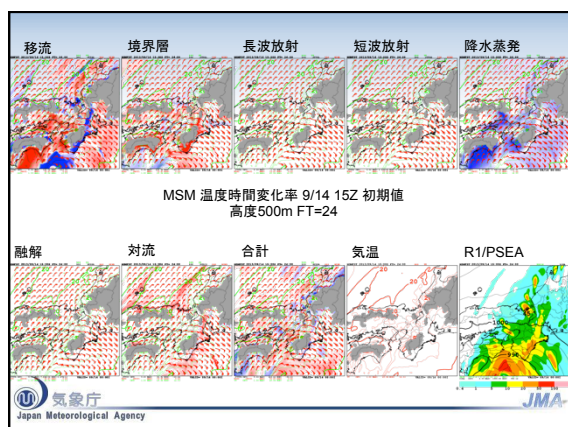
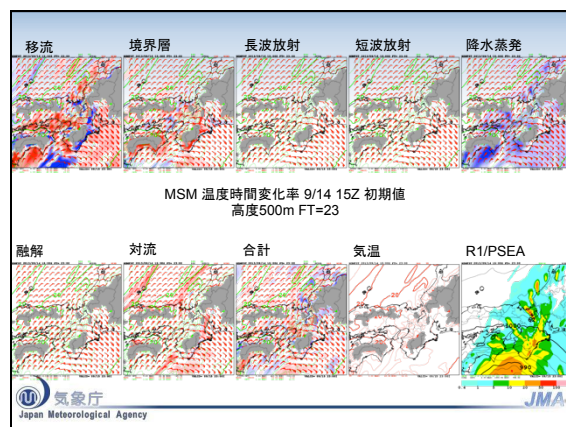
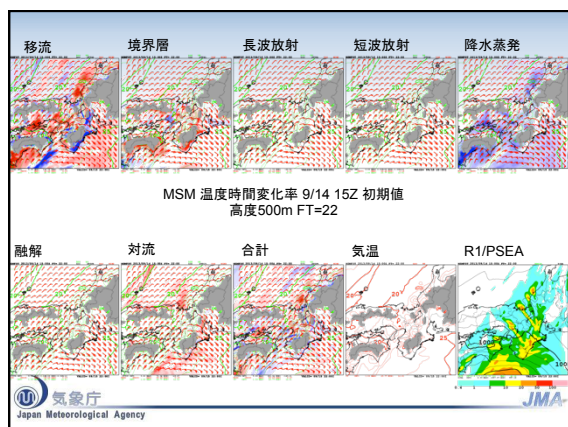


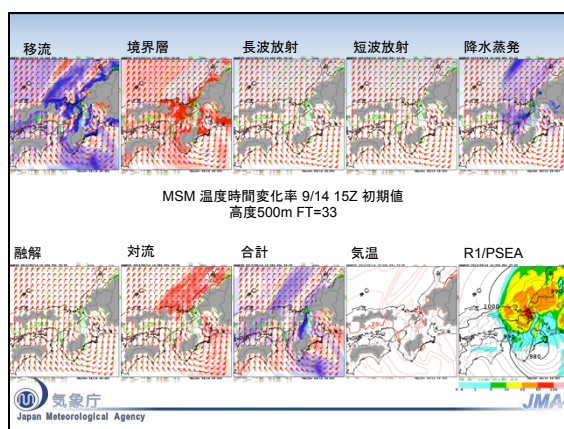
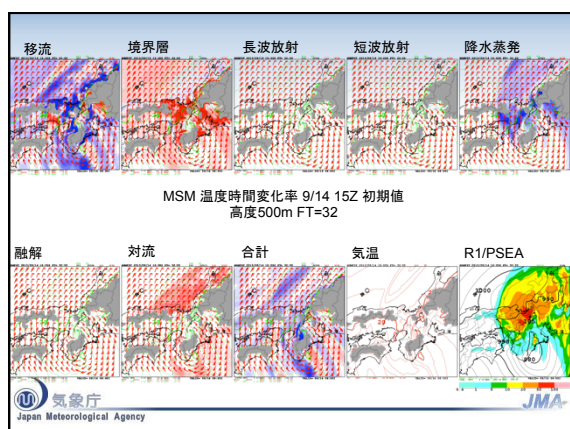
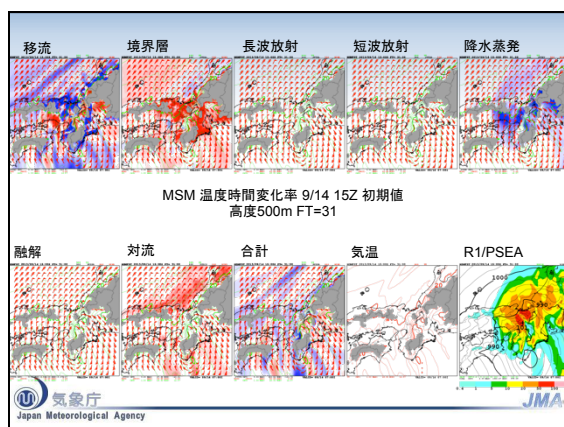
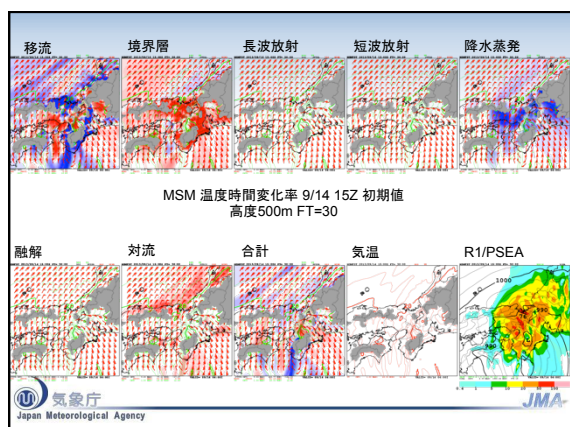
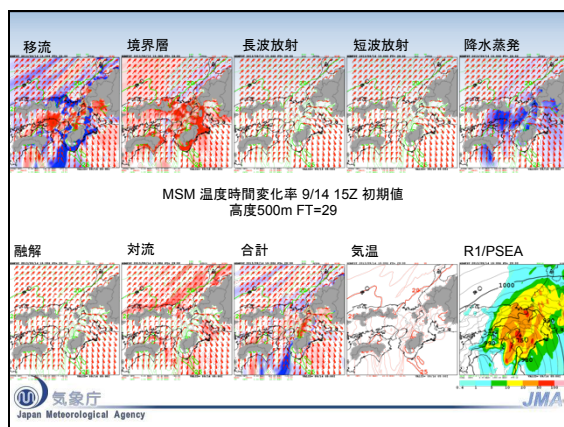
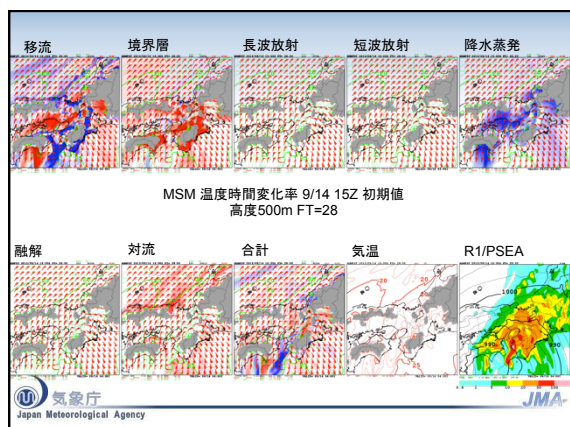




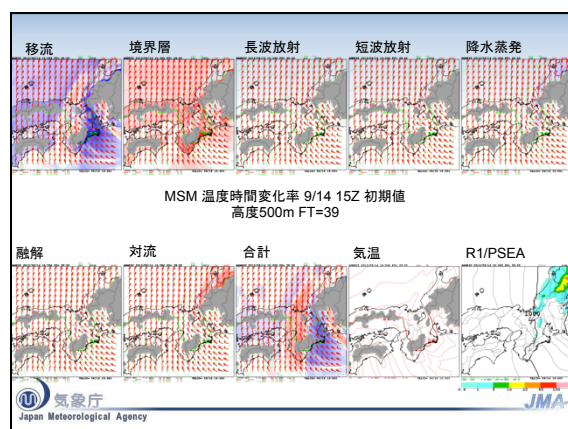
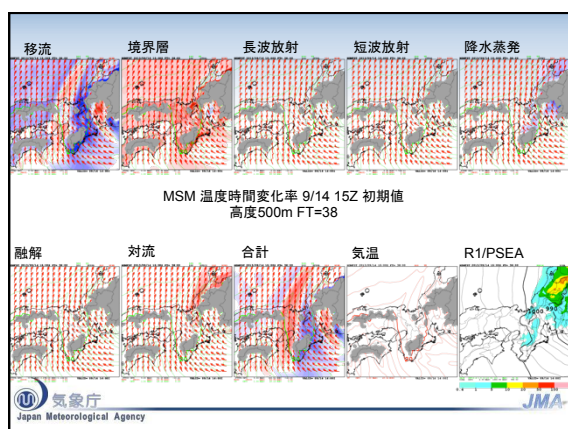
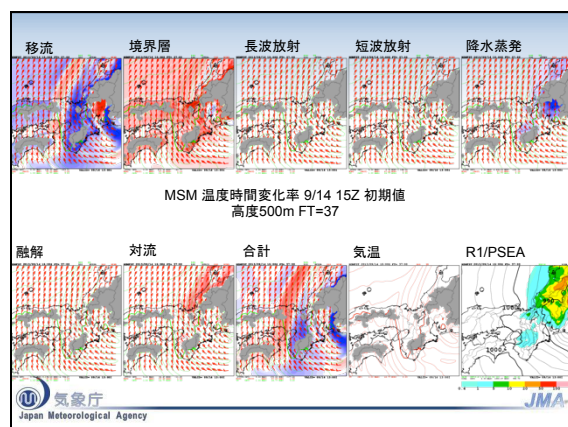
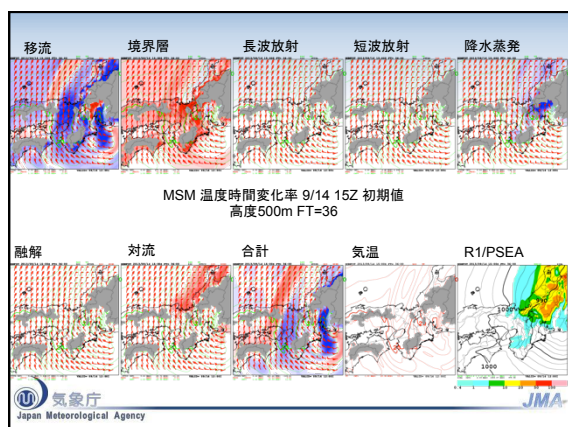
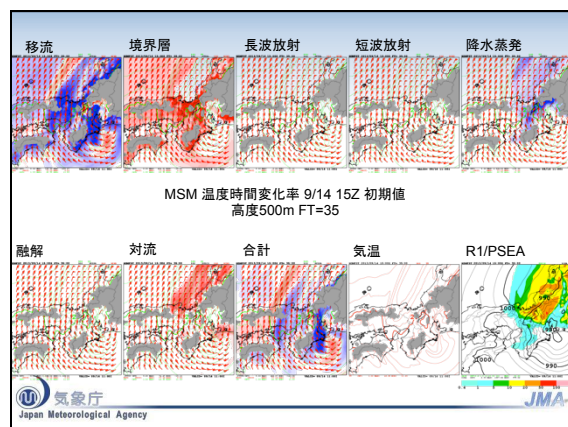
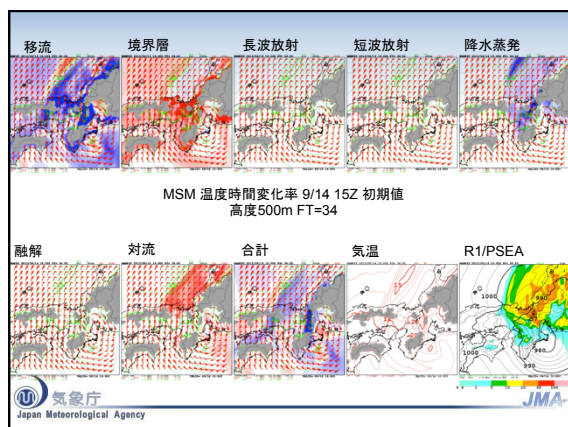


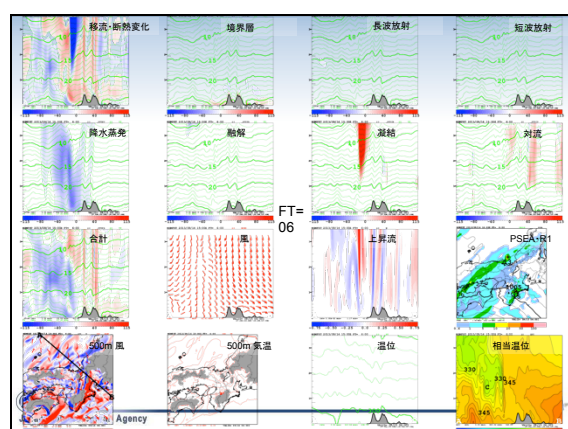
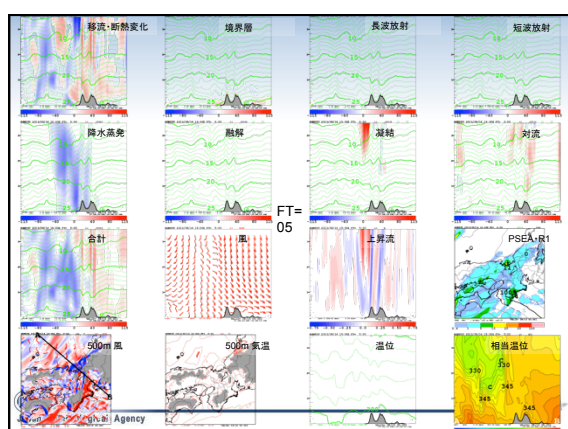
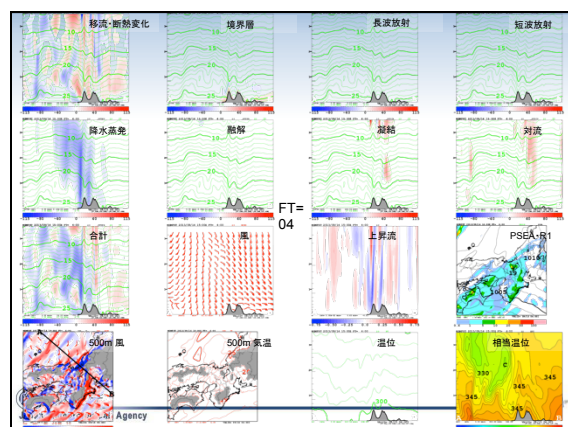
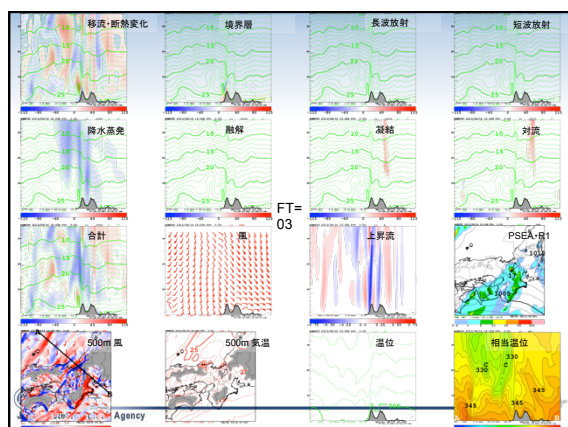
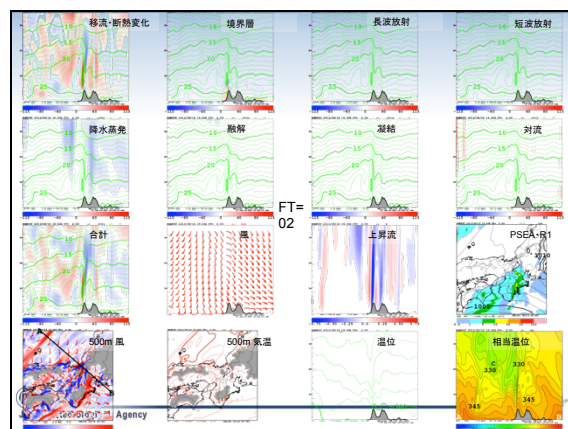
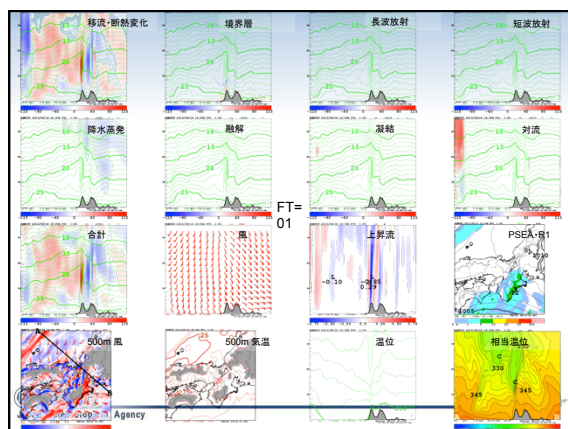




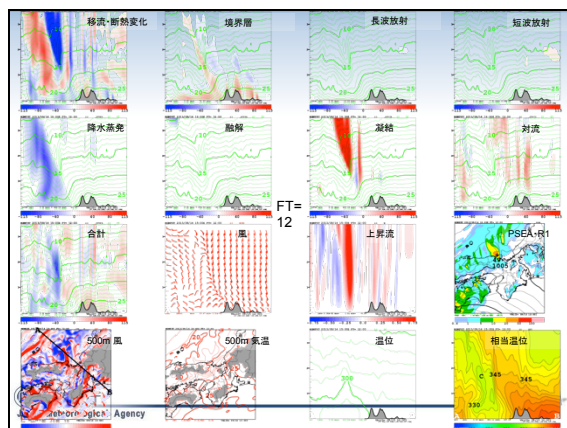
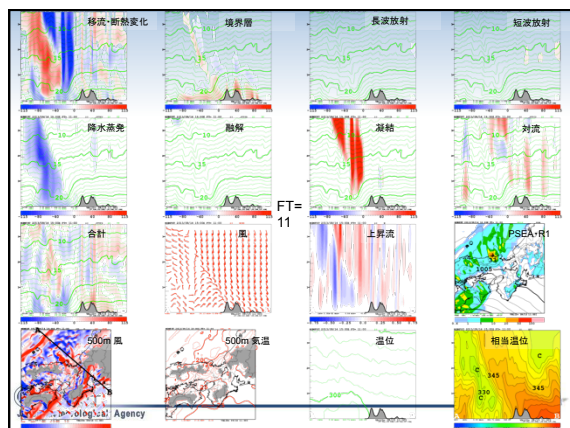
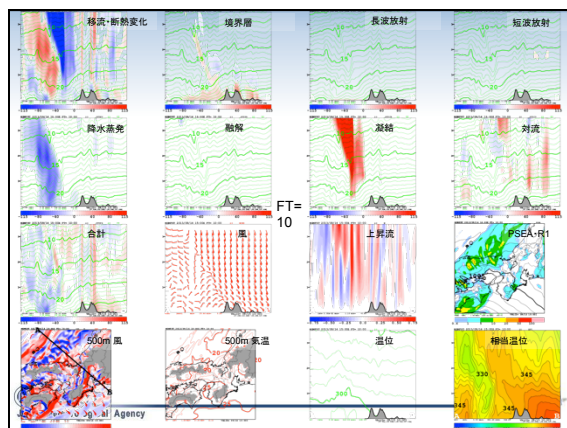
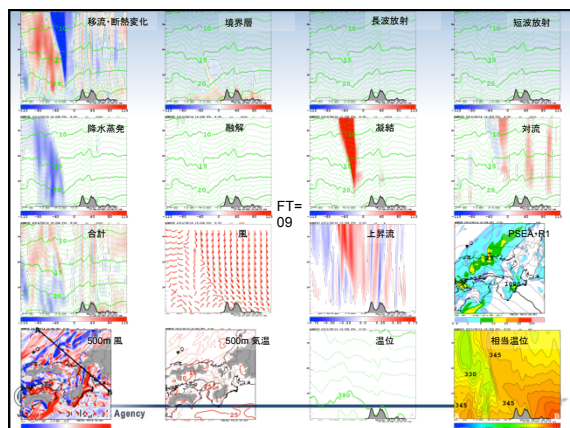
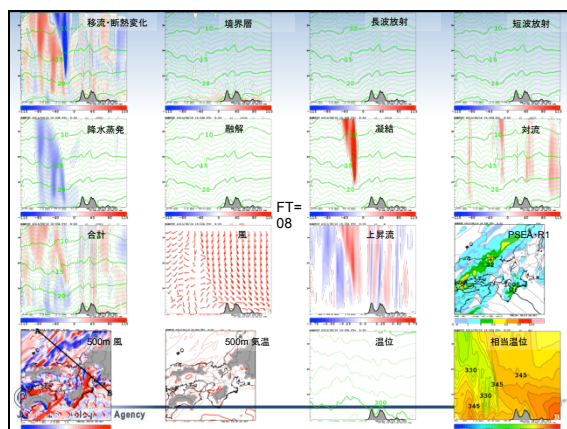
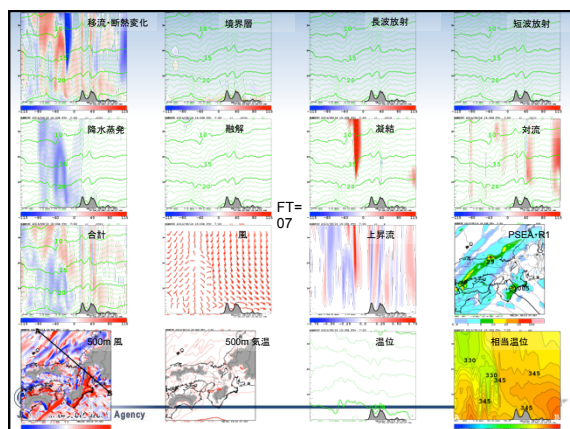




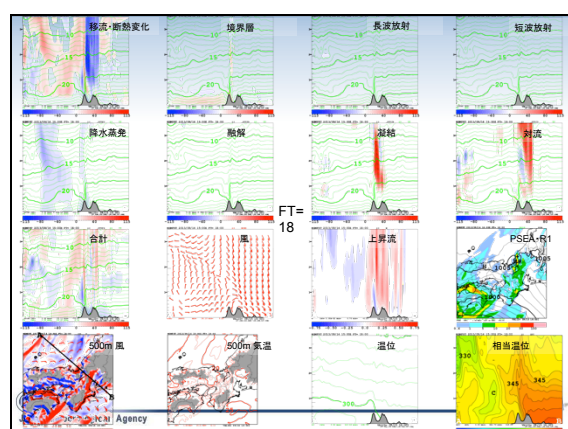
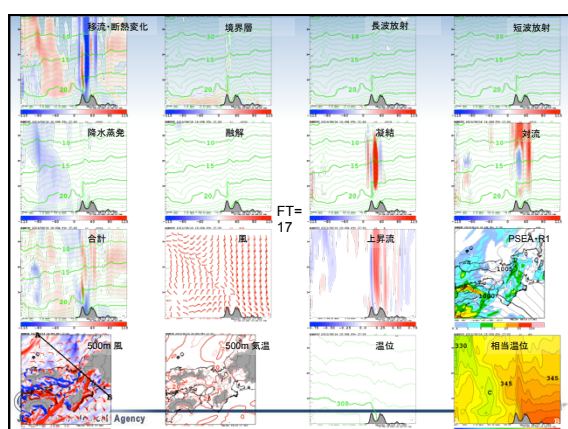
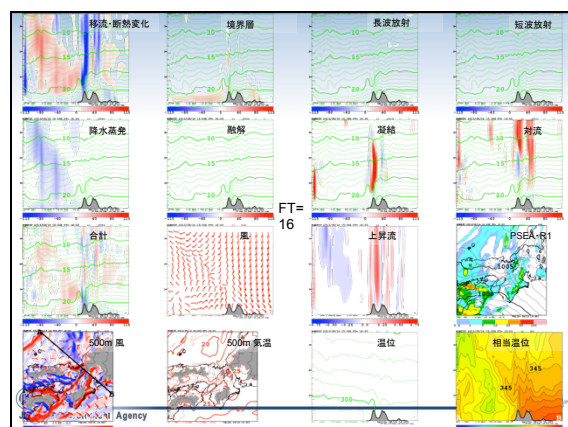
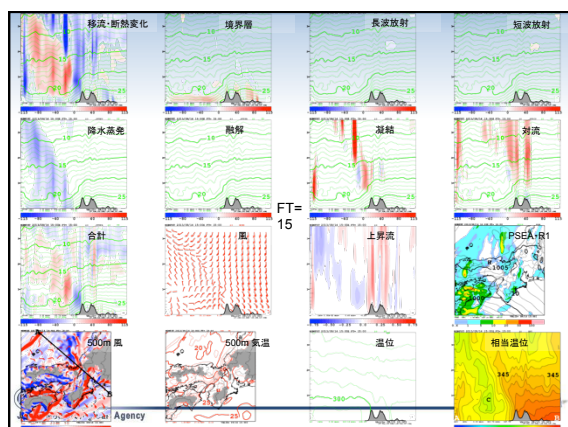
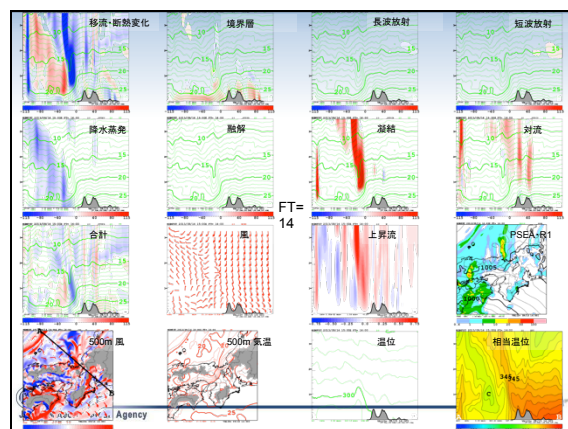
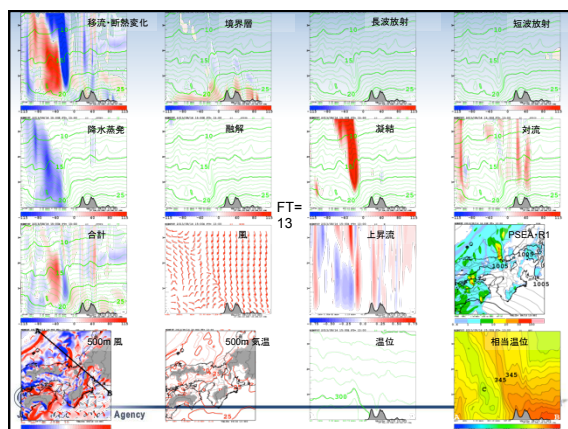


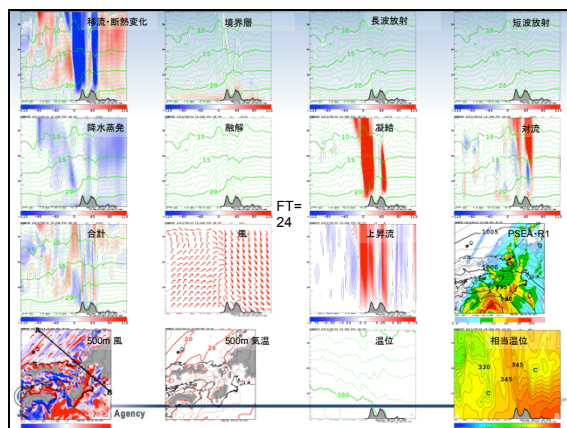
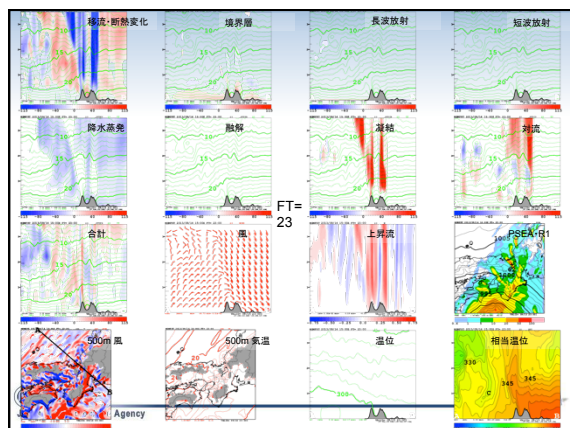
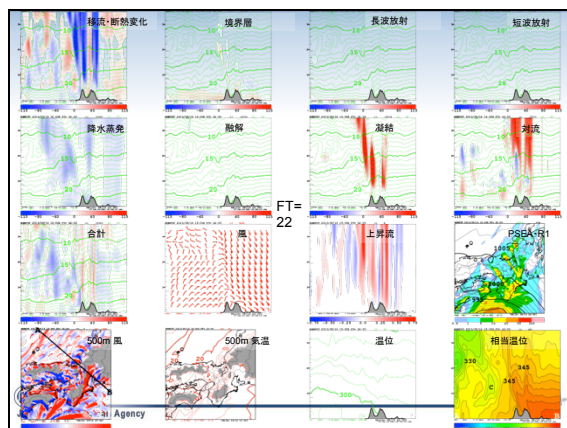
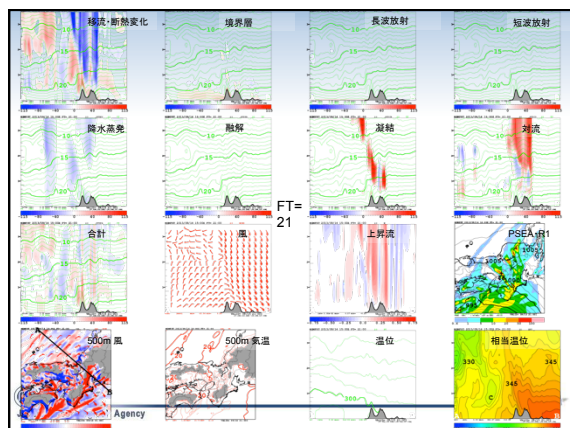
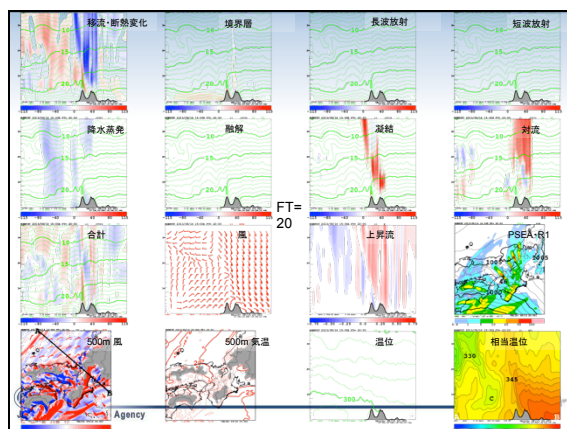
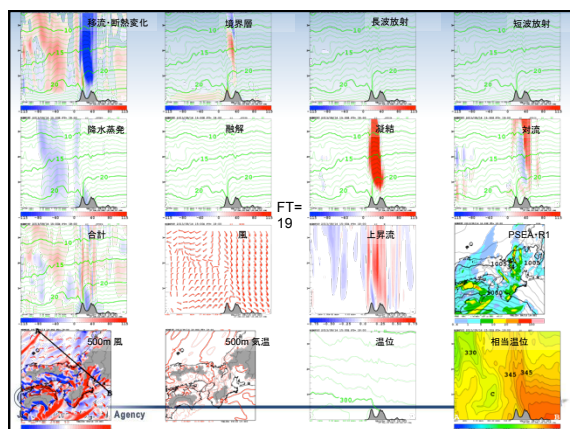




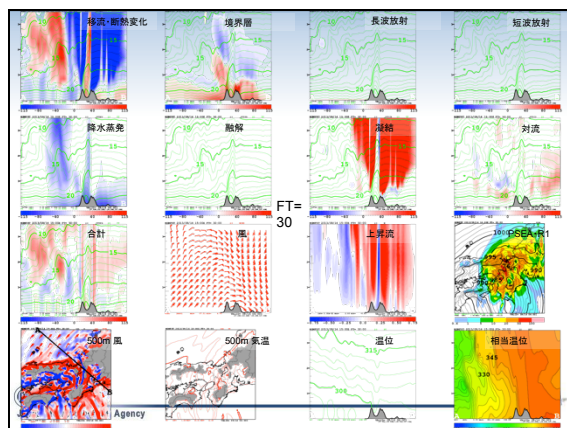
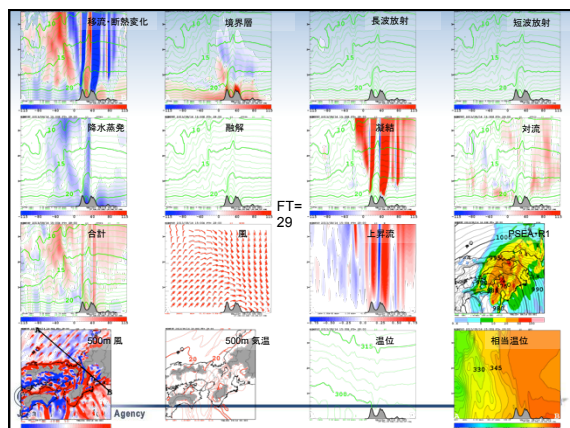
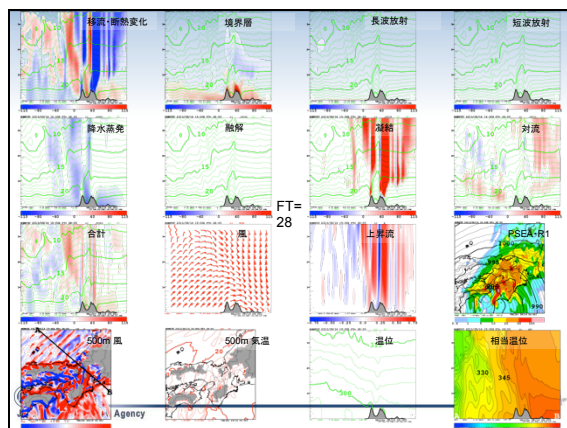
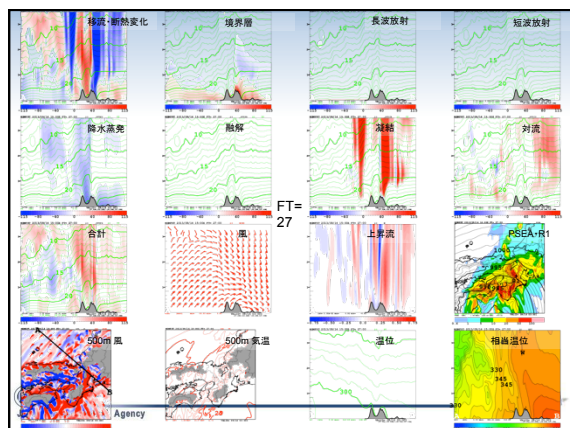
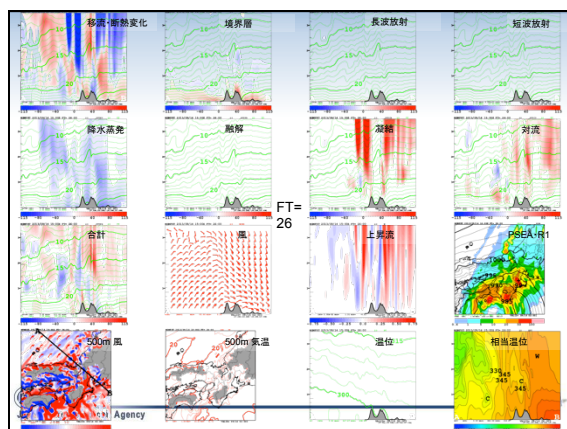
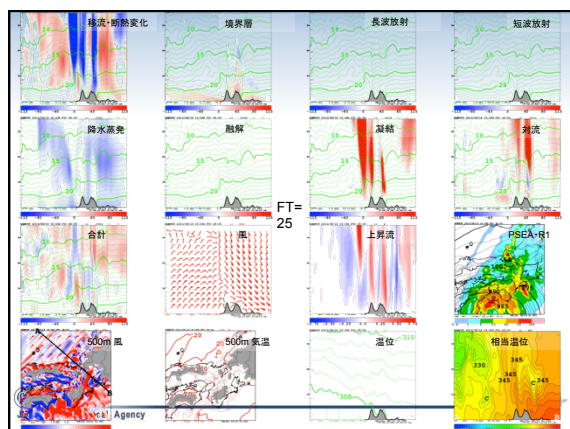




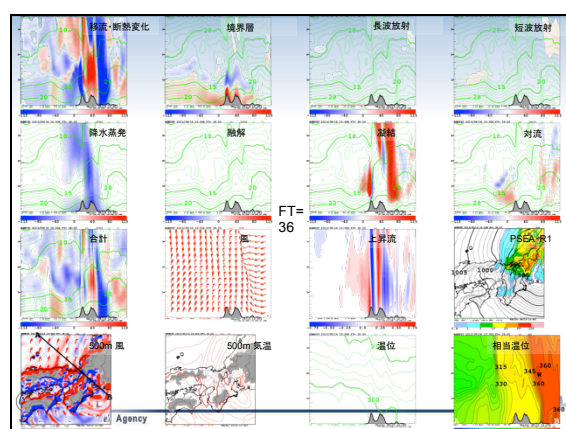
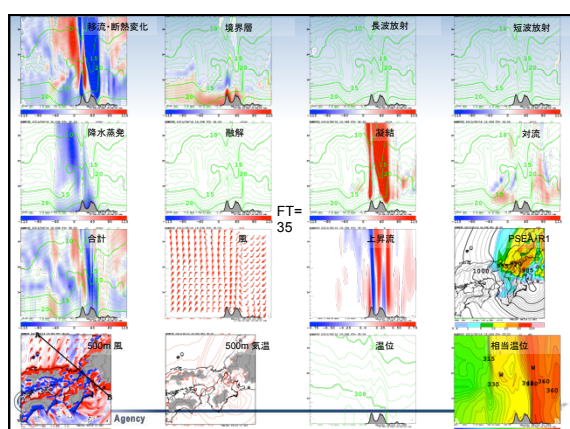
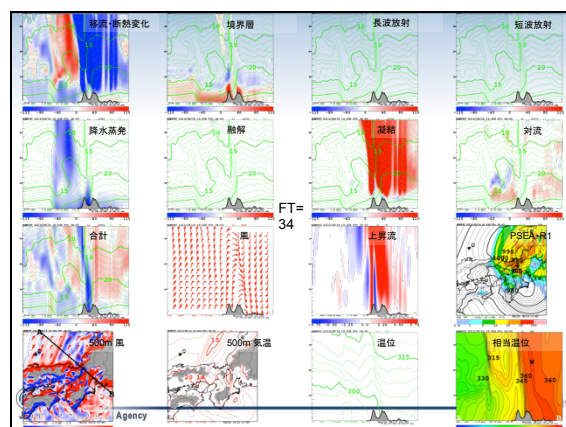
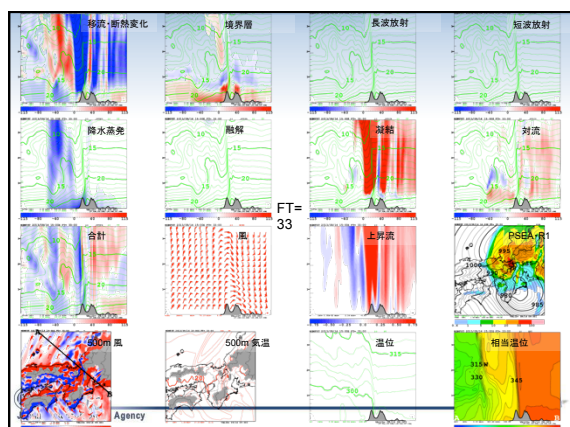
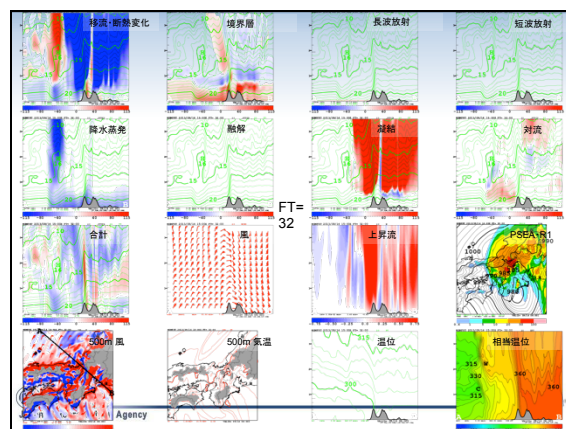
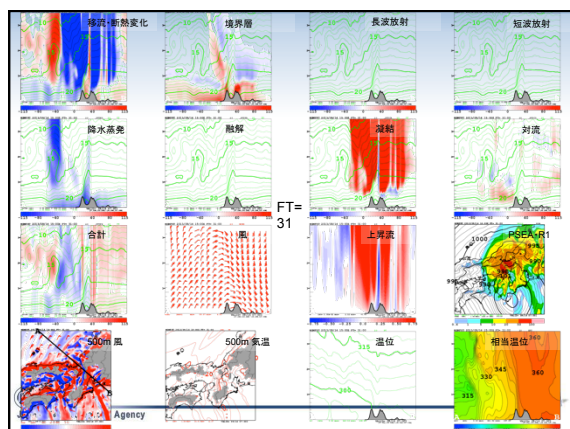


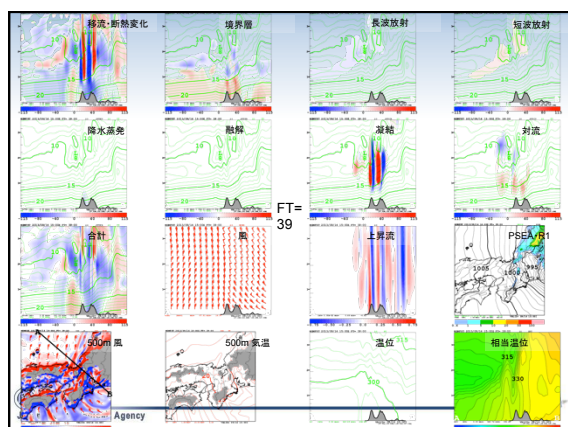
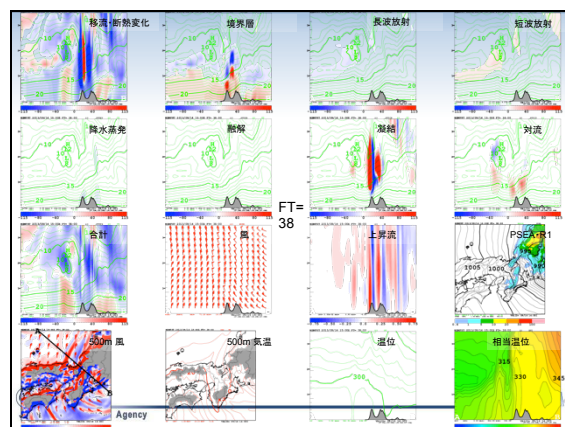
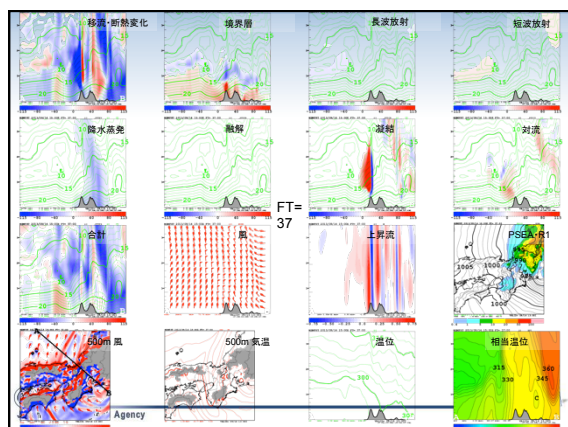












### この事例の特徴

- 台風に先行する降水(アウターバンド)により、北側が冷却、高圧部を形成
  - 北側の下層の風は北風になり、温度傾度の維持と強化に寄与
  - 琵琶湖の南には日中に(日射による?)昇温も見られ、温度傾度を強化
- 台風本体接近時には、地形と温度傾度帯への暖湿の乗り上げによって、自由対流高度に達して対流が発生。温度傾度帯は琵琶湖付近まで押し上げられるものの、寒気側の降水蒸発により冷却で琵琶湖付近で停滞。そこに断続的に台風本体の暖湿流が流れ込み、対流が継続的に発生。風下の若狭湾付近に強い降水をもたらす。

JMA  
203

### モデルの予想

- そもそも、台風の進行位相の問題はあるが
  - 水の相変化が関係するので、GSMでは温度傾度帯の表現が弱く、それに沿った強い降水を表現できていない。
  - MSMでは、その表現がある。ただし、位置のずれもあり。
    - 温度傾度帯の動向を巡る表現には、フィードバックがかかるために、微妙な違いが大きな差になることも。

JMA  
204