# Team Challenge

**Team Challenge:**

- How did the model development teams (global and regional) address the initialization problem discussed since last year?

  ① What data sets or approaches did the different teams take to address the initialization issue?

  ② What worked and how were the teams able to assess the impacts of the steps taken?

  ③ How much coordination was there between the model development teams with the DA, Diagnostics, and Observation teams?

  ④ HFIP held Observation and Satellite DA workshops last year - did they help? What can we do in FY12 to further address the initialization issues?

  ⑤ What should be the priorities?

# Team Challenge (continued)

**Team Challenge:**

- Different models have different physics (model performance -vs- physics options). We had a HFIP physics workshop in August - how do we utilize the results of the workshop to improve and evaluate physics impacts on model performance and initialization?
  - ① What data sets or approaches are needed to evaluate the impacts of different physics packages on model performance?
  - ② Do we need to develop new physics options or diagnose and improve the current physics options in each model?
  - ③ How much coordination is needed between the model development teams and the Observation, Diagnostics, and DA teams to make more rapid progress?
  - ④ What can we do in FY12 to further address the physics issues?
  - ⑤ What should be the priorities?

# Discussion (continued)

**Discussion:**

1. Representativeness of model intensity estimates - NHC raised this fundamental issue in the past year and asked for higher temporal resolution model output to evaluate this critical issue. Have we resolved this issue?
2. Development of a joint track/intensity verification procedure is needed in order to evaluate the model performance in a more consistent way. What do we need to do to develop such a verification approach? I would like the Verification and Diagnostic teams to provide some guidance.
3. Impact of inner core processes on track - what do regional models add to intensity forecast guidance and why does that impact track guidance? Regional model performance on sheared storms (primarily with weak storms) is inconsistent with that of global models - why? What data sets and approaches can we bring to bear to resolve this fundamental issue?

# Discussion (continued)

**Discussion:**

1. **Need to address regional spinup issues. Impacts on DA and forecasts. What are the differences in behavior and why does the vortex evolution differ from strong to weak systems? How can we diagnose these differences and their impact? Are there data sets or techniques available to address this issue? Should we do a workshop or set up a working group to address this issue?**
   - **Regional model, observation and ADD teams will put a plan together to address the spin up issues in FY12**
   - **What is the value of the Doppler radar data to the forecasts?**
   - **Need to pick a case with data at high resolution in time**

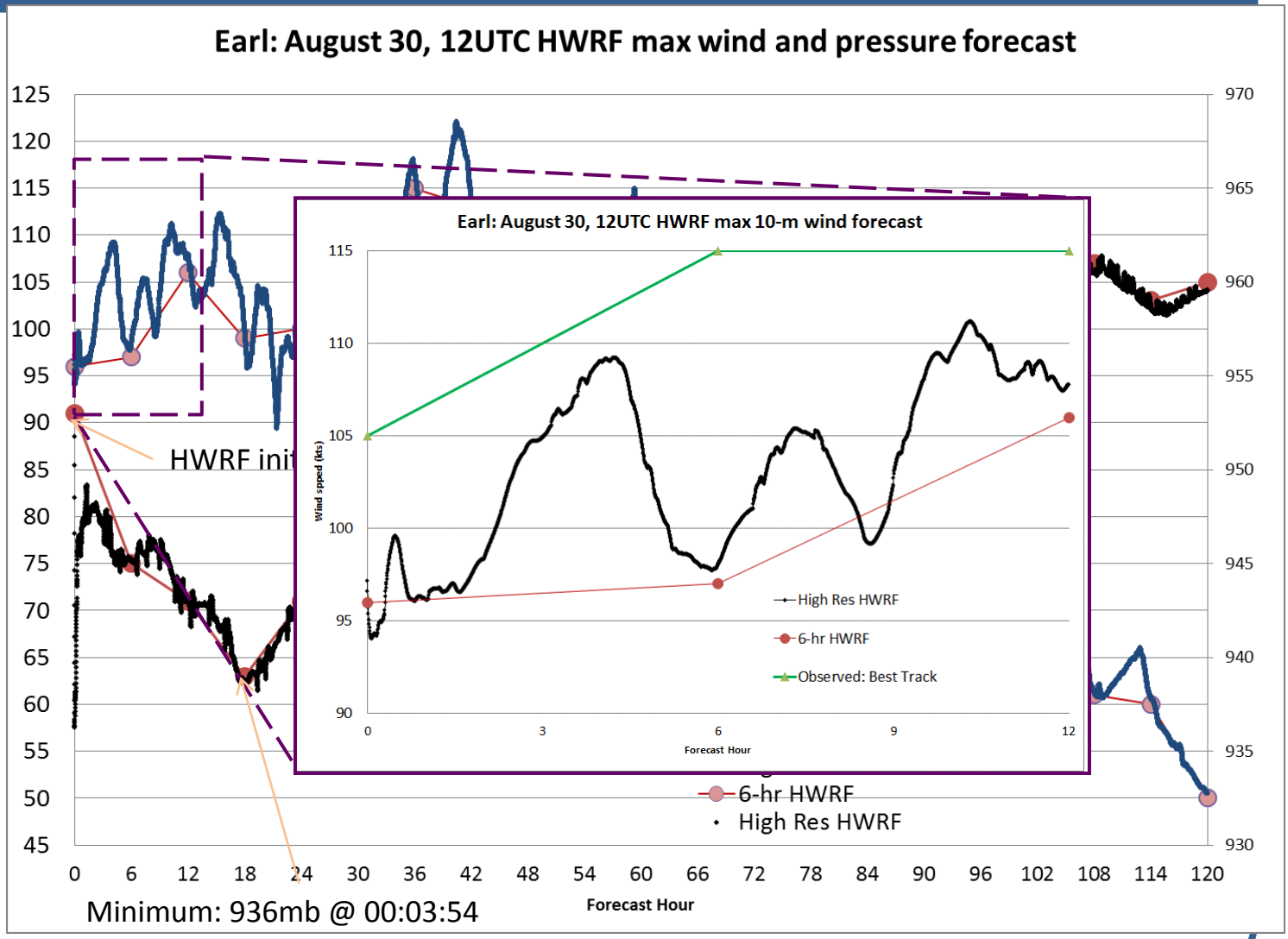
# Intensity evaluation:
## Sampling issues

### The good

- Model pressure & wind tracks best track intensity

### The not so good

- Model peak wind much noisier than best track & pressure. Why?

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