

Next Global Ensemble Forecast System

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Acknowledgements:

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Ensemble Team

http://wwwt.emc.ncep.noaa.gov/gmb/yzhu/html/imp/201109_imp.html 1

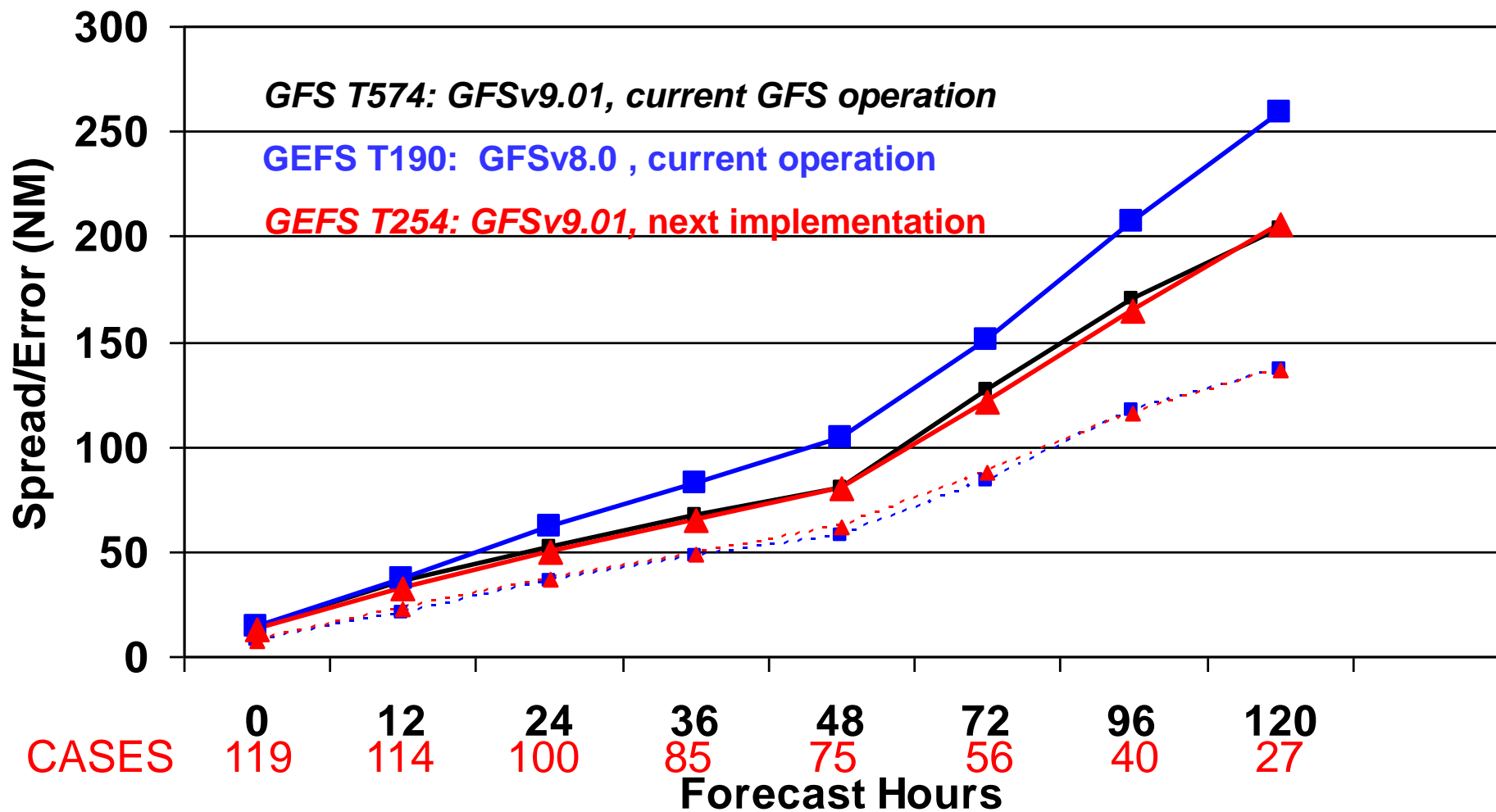
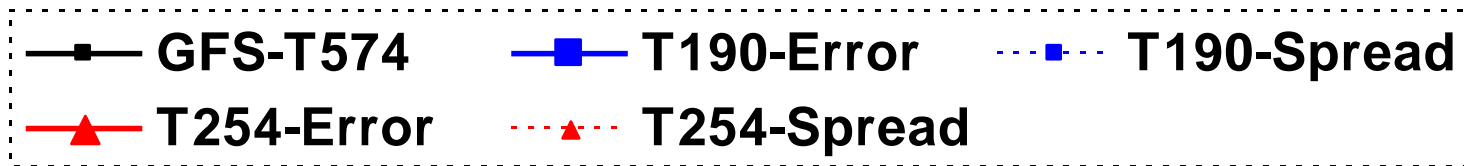
Proposal Changes

- Model and initialization
 - Using GFS V9.01 (current operational GFS) instead of GFS V8.00
 - Improved Ensemble Transform with Rescaling (ETR) initialization
 - Improved Stochastic Total Tendency Perturbation (STTP)
- Configurations
 - T254 (55km) horizontal resolution for 0-192 hours (from T190 – 70km)
 - T190 (70km horizontal resolution for 192-384 hours (same as current opr)
 - L42 vertical levels for 0-384 hours (from L28)
- Add Sunshine duration for TIGGE data exchange
- Part of products will be delayed by approximately 20 minutes
 - Due to limit CCS resources
 - 40-42 nodes for 70 minutes (start +4:35 end: +5:45)
- Unchanged:
 - 20+1 members per cycle, 4 cycles per day
 - pgrb file output at 1*1 degree every 6 hours
 - GEFS and NAEFS post process output data format
- Why do we make this configurations?
 - Considering the limited resources
 - Resolution makes difference (example of T126 .vs T190)
- What do we expect from this implementation?
 - Preliminary results (NH 500hPa and SH 500hPa height and tracks)

Retrospective runs for 2010 hurricane season

Jiayi Peng

GEFS-T254 next implementation



CASES

119

114

100

85

75

56

40

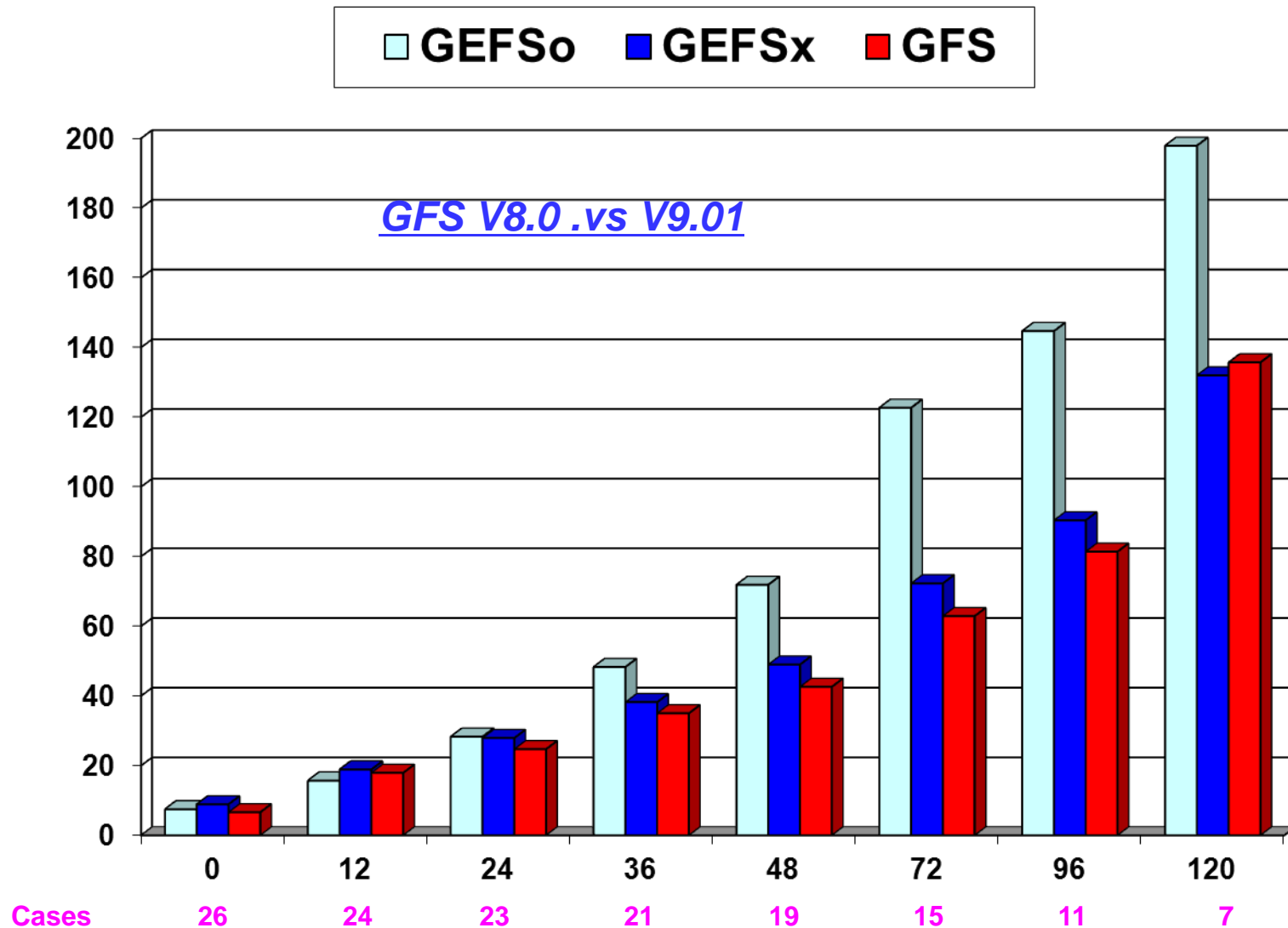
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Tropical Storm Tracks (Aug. – Sep. 2010, for AL, EP and WP)

Latest statistics for 2011 hurricane season

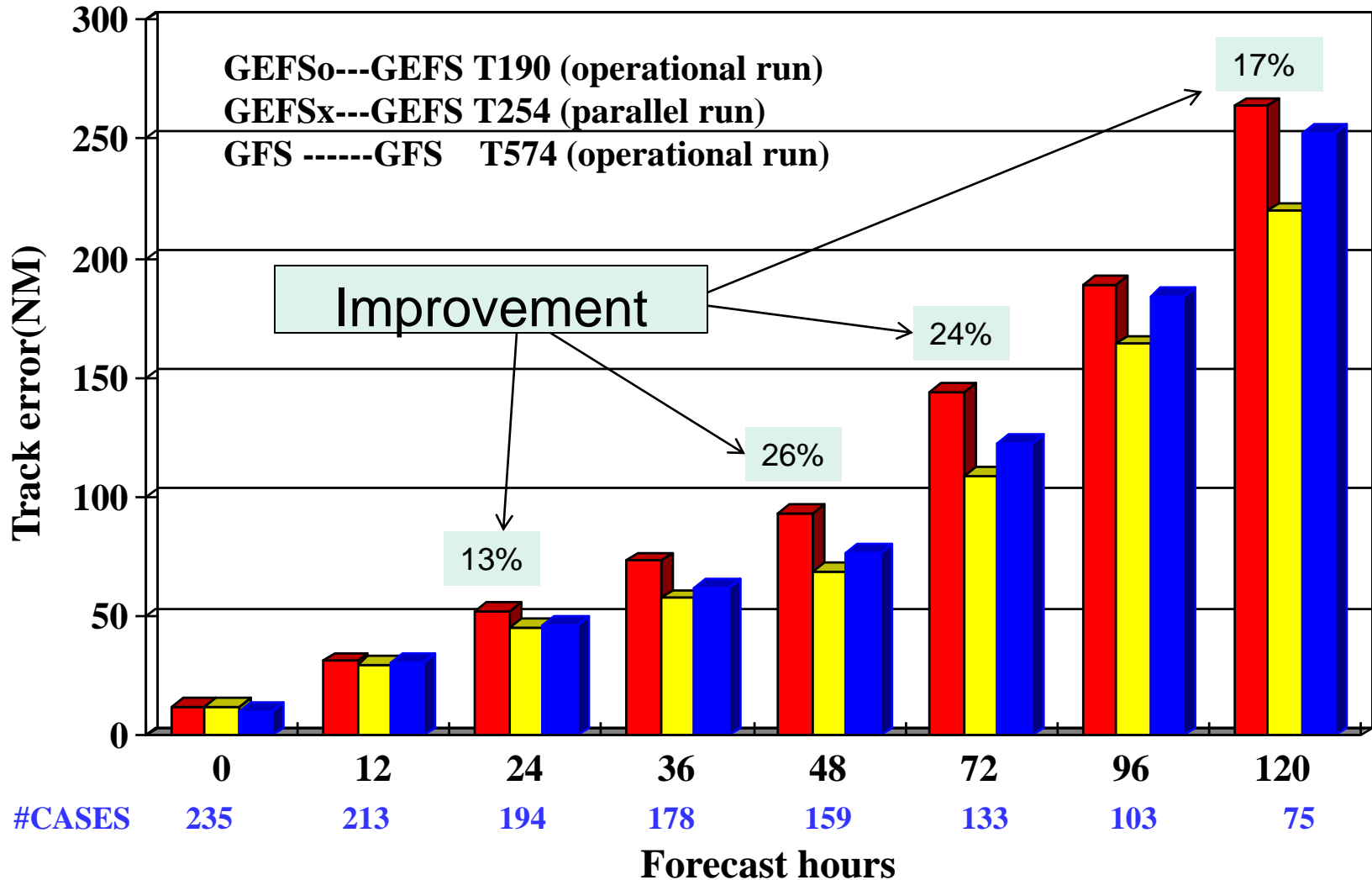
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Track forecast error for Hurricane Irene (2011)

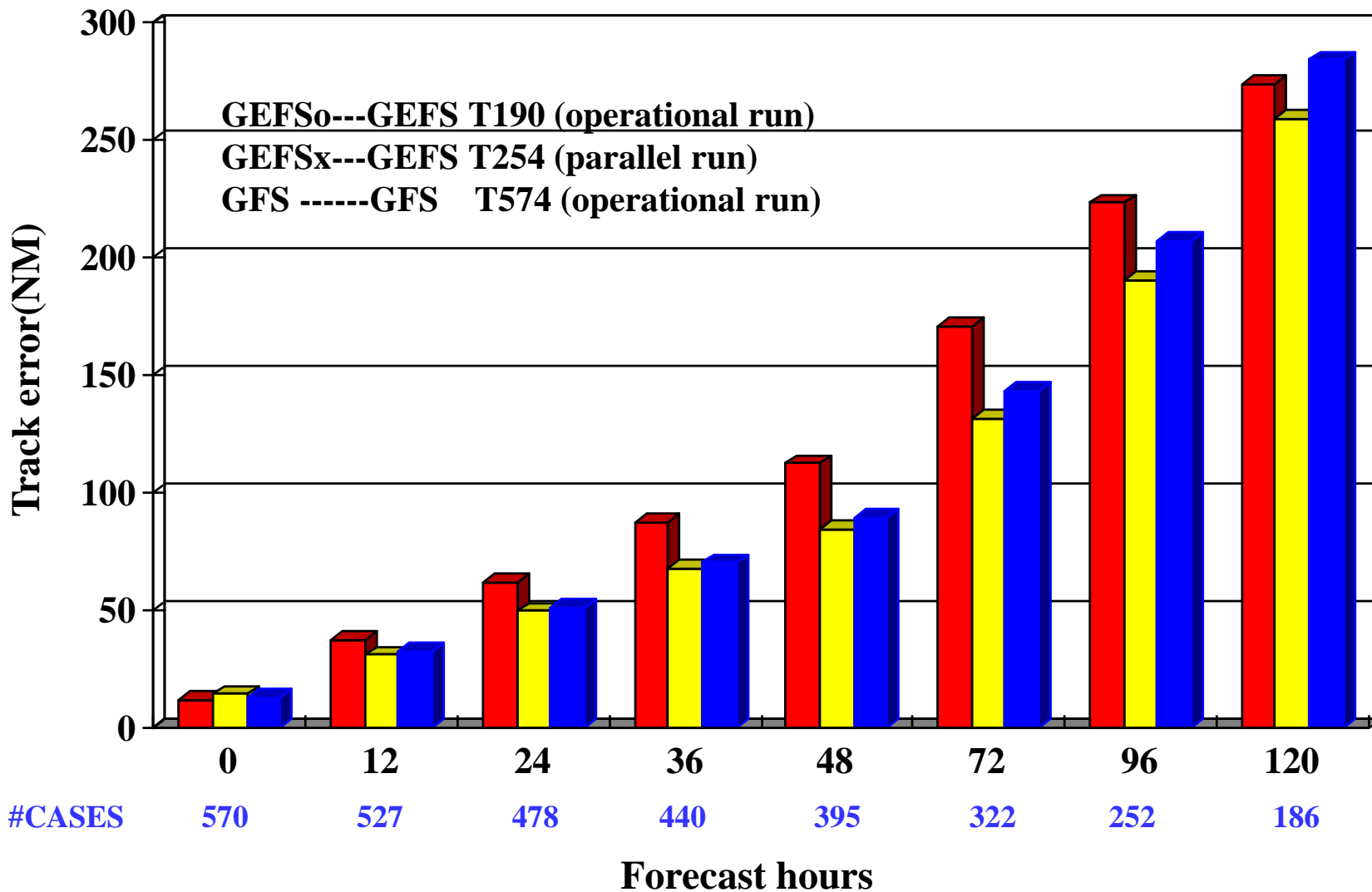


Period: 08/20 – 08/27/2011

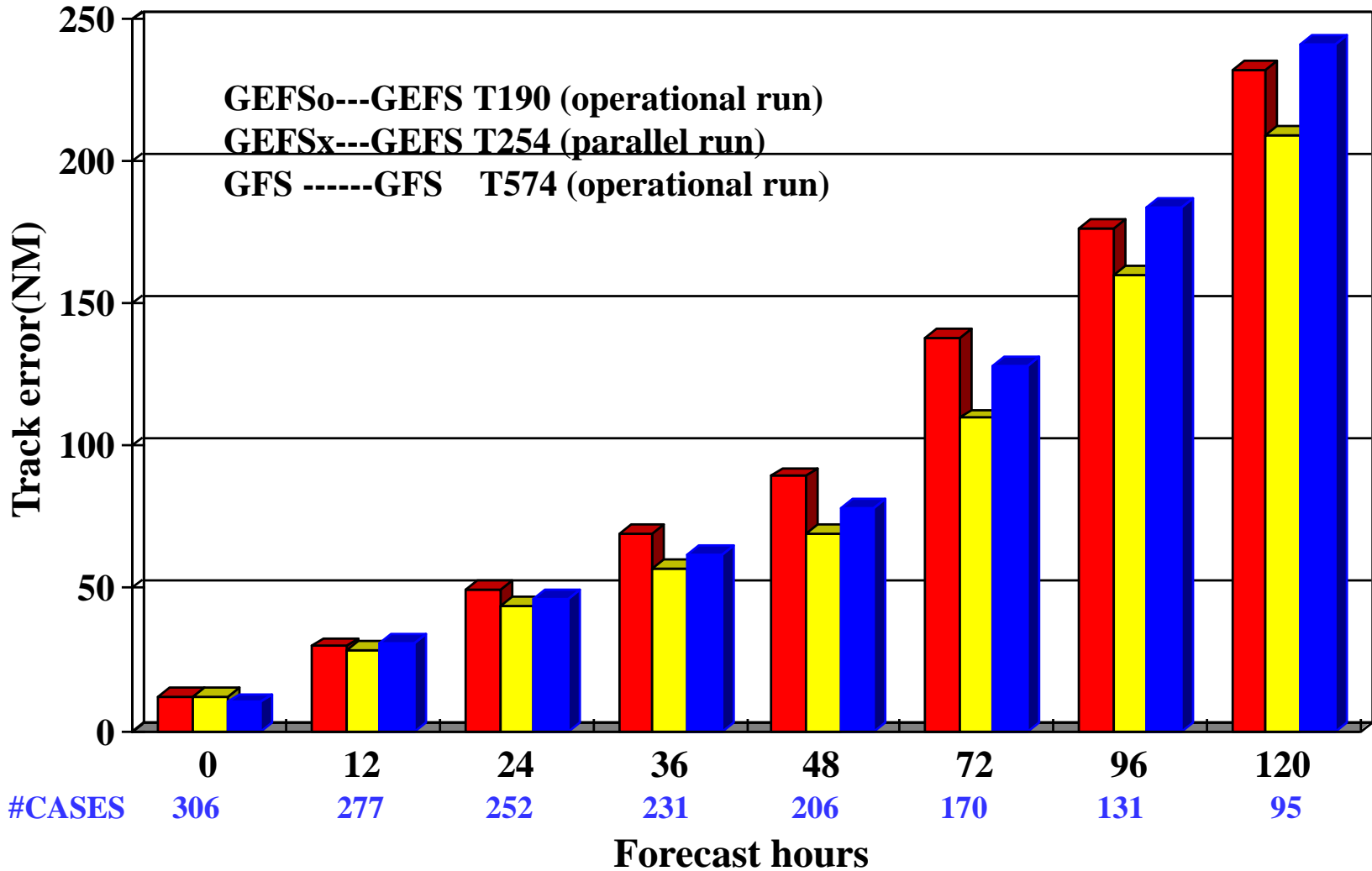
Atlantic, AL01~17 (06/01~09/30/2011)



Atlantic, East and West Pacific, AL01~17, EP01~09, WP05~22 (06/01~09/30/2011)

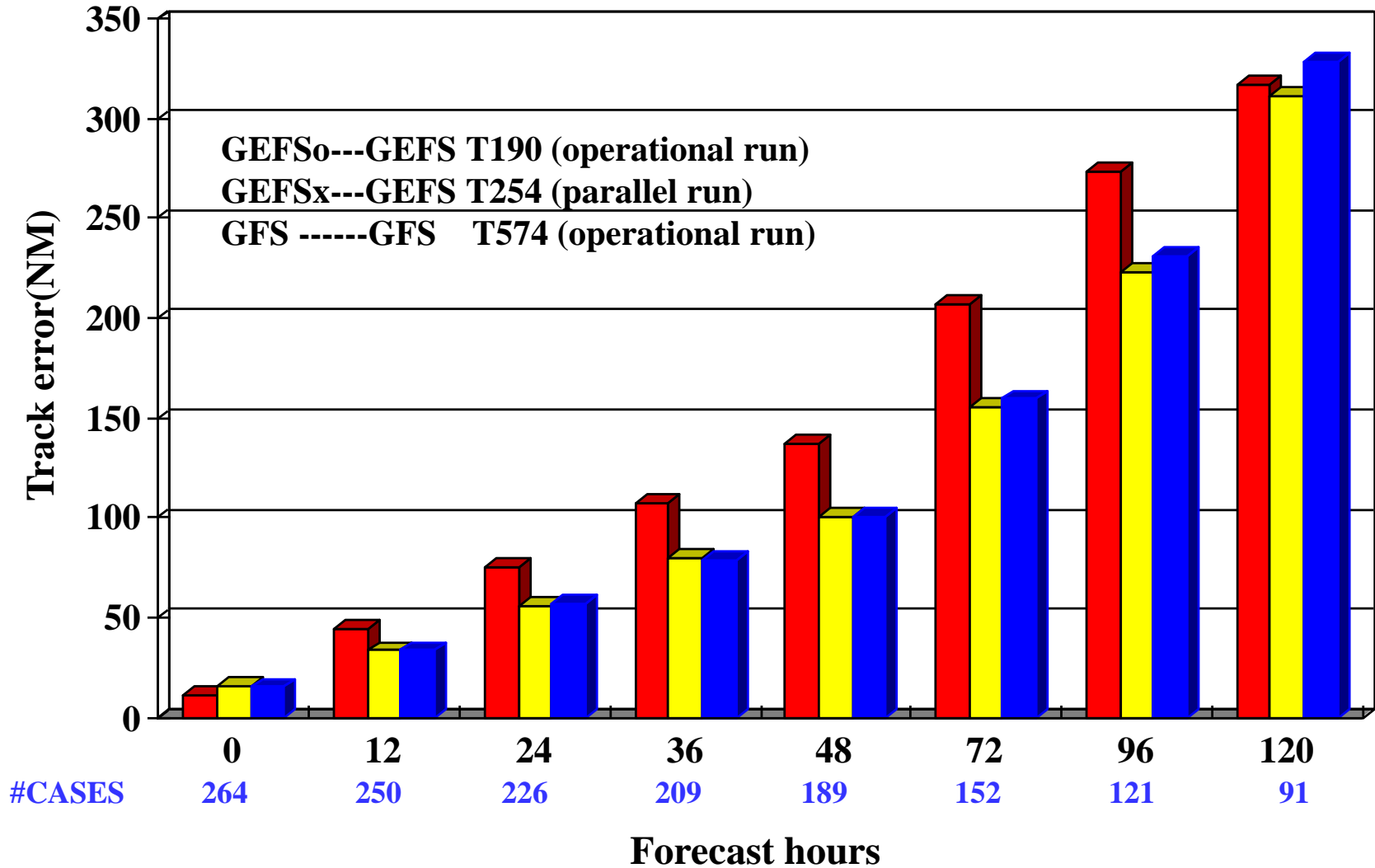


Atlantic and East Pacific, AL01~17, EP01~09(06/01~09/30/2011)



West Pacific, WP05~22 (06/01~09/30/2011)

■ GEFS_o ■ GEFS_x ■ GFS



East Pacific, EP01~09 (06/01~09/30/2011)

