5th HEFS workshop, 02/26/2014

Seminar E: review results from Exercise 3

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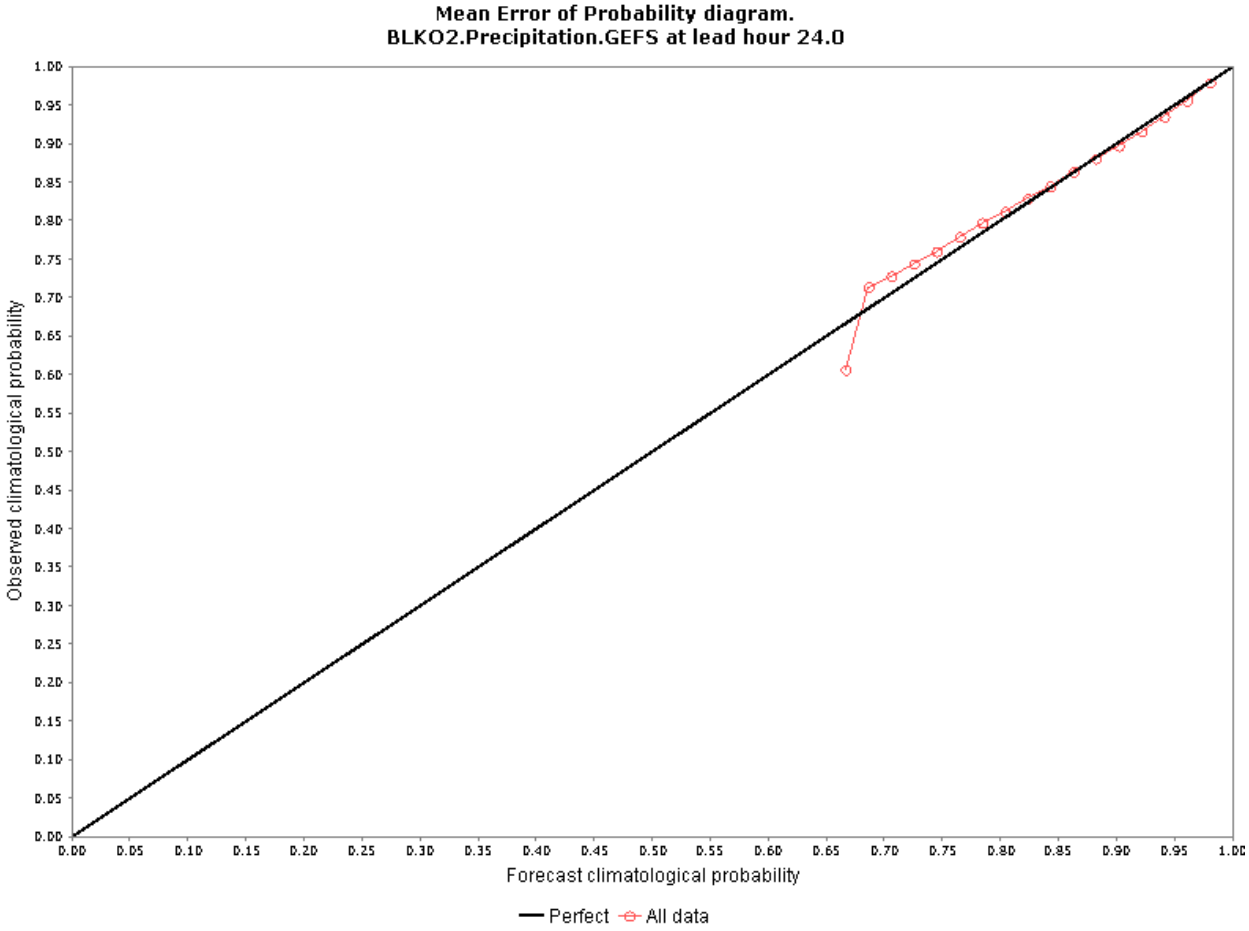
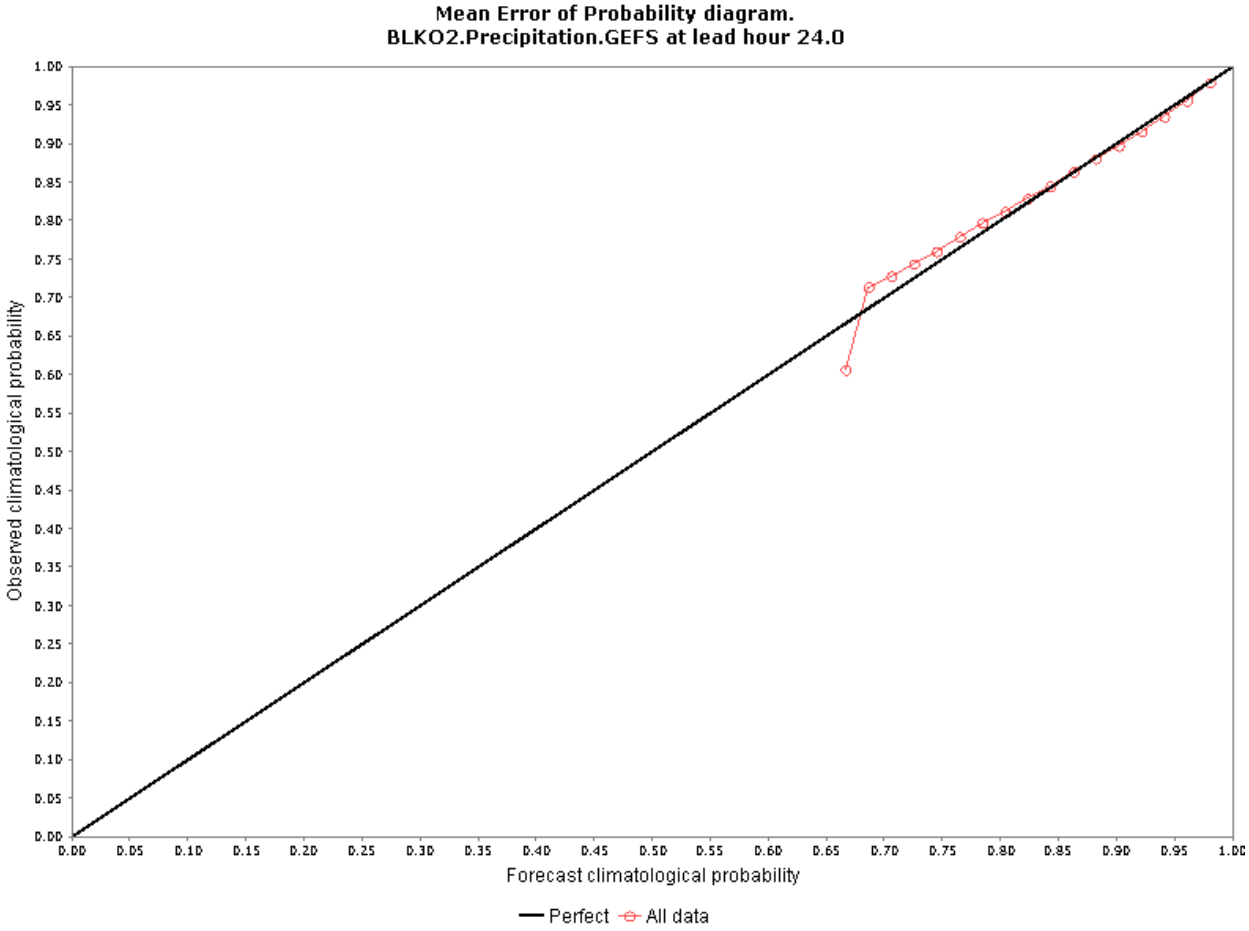
Exercise 3: Q1 (BLKO2)



Q1: Why is the origin of the line at probability ~0.65 rather than 0.0?

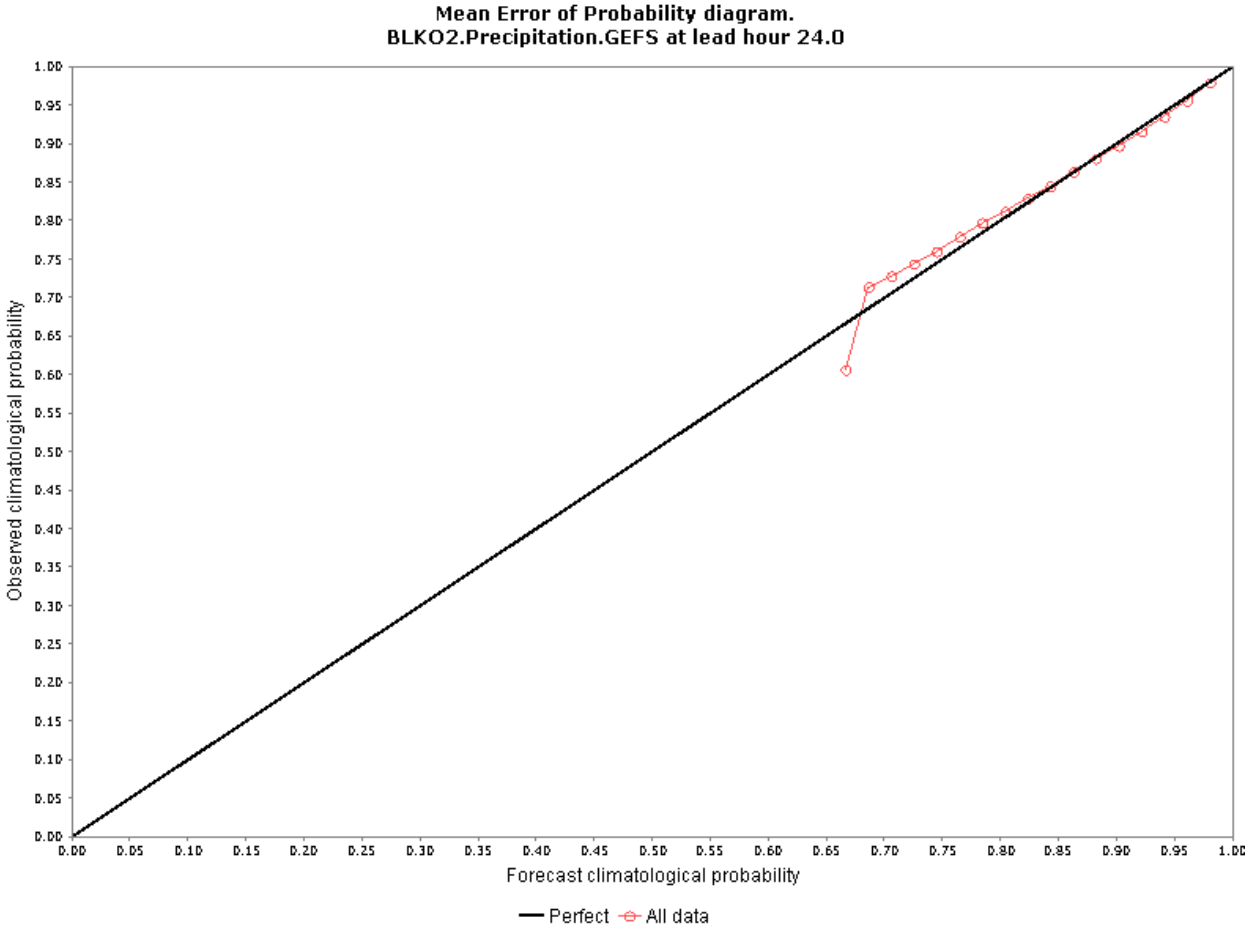
Exercise 3: Q1 (BLKO2) answer



Q1: Why is the origin of the line at probability ~0.65 rather than 0.0?

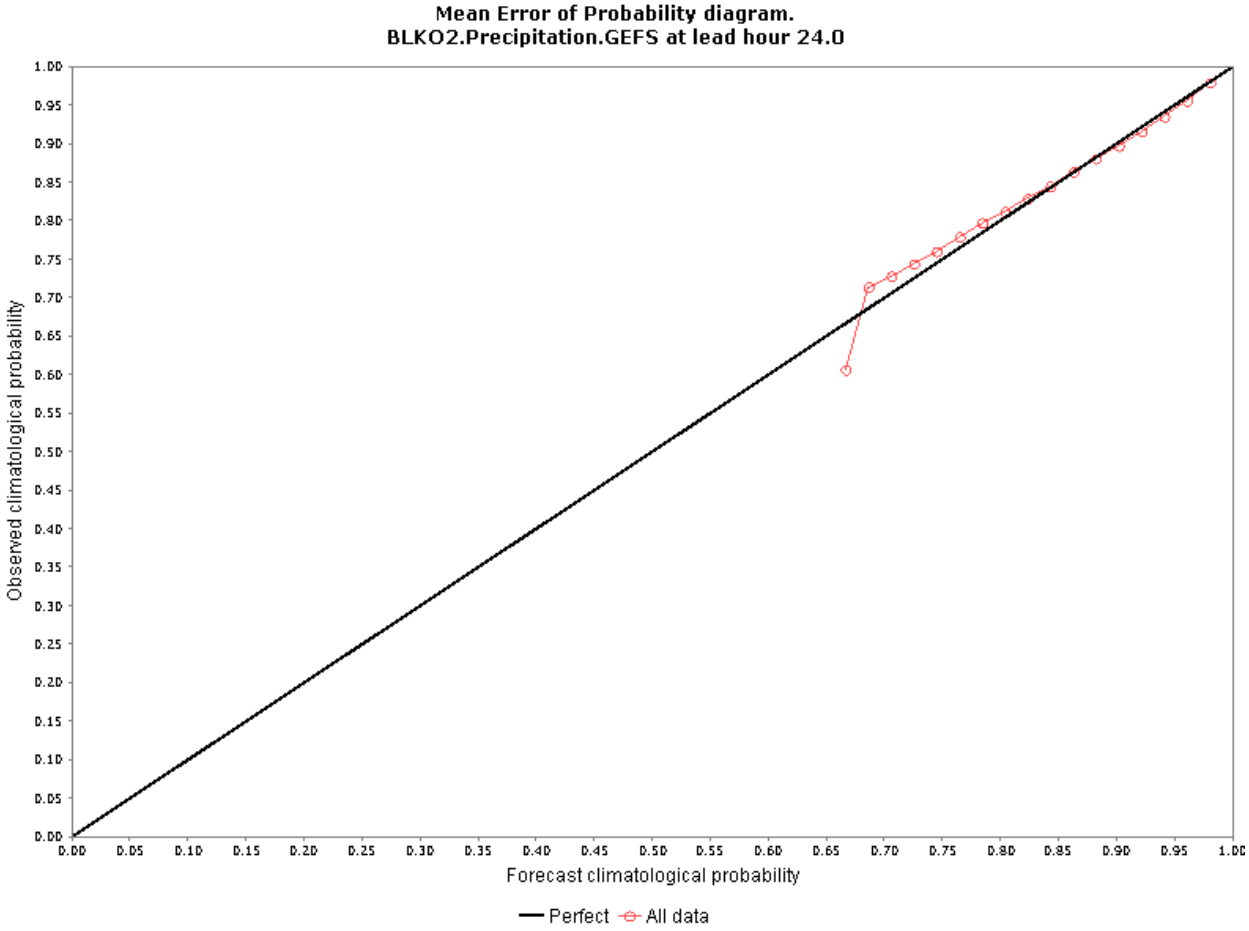
A1: Because the PoP is ~0.65 (all probabilities less than ~0.65 are dry)

Exercise 3: Q2 (BLKO2)



Q2: Are the average forecast probabilities biased? How? All ranges?

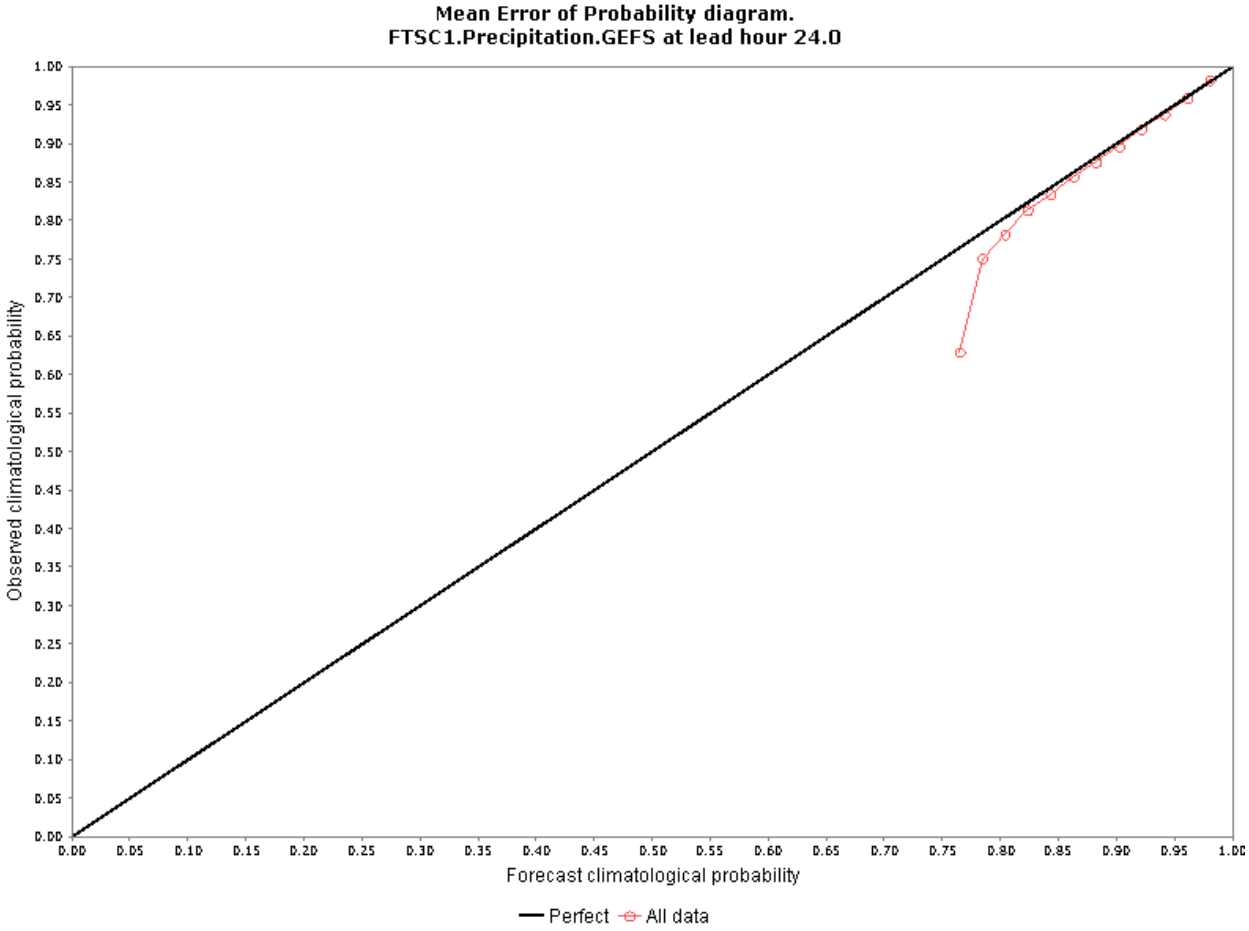
Exercise 3: Q2 (BLKO2) answer



Q2: Are the average forecast probabilities biased? How? All ranges?

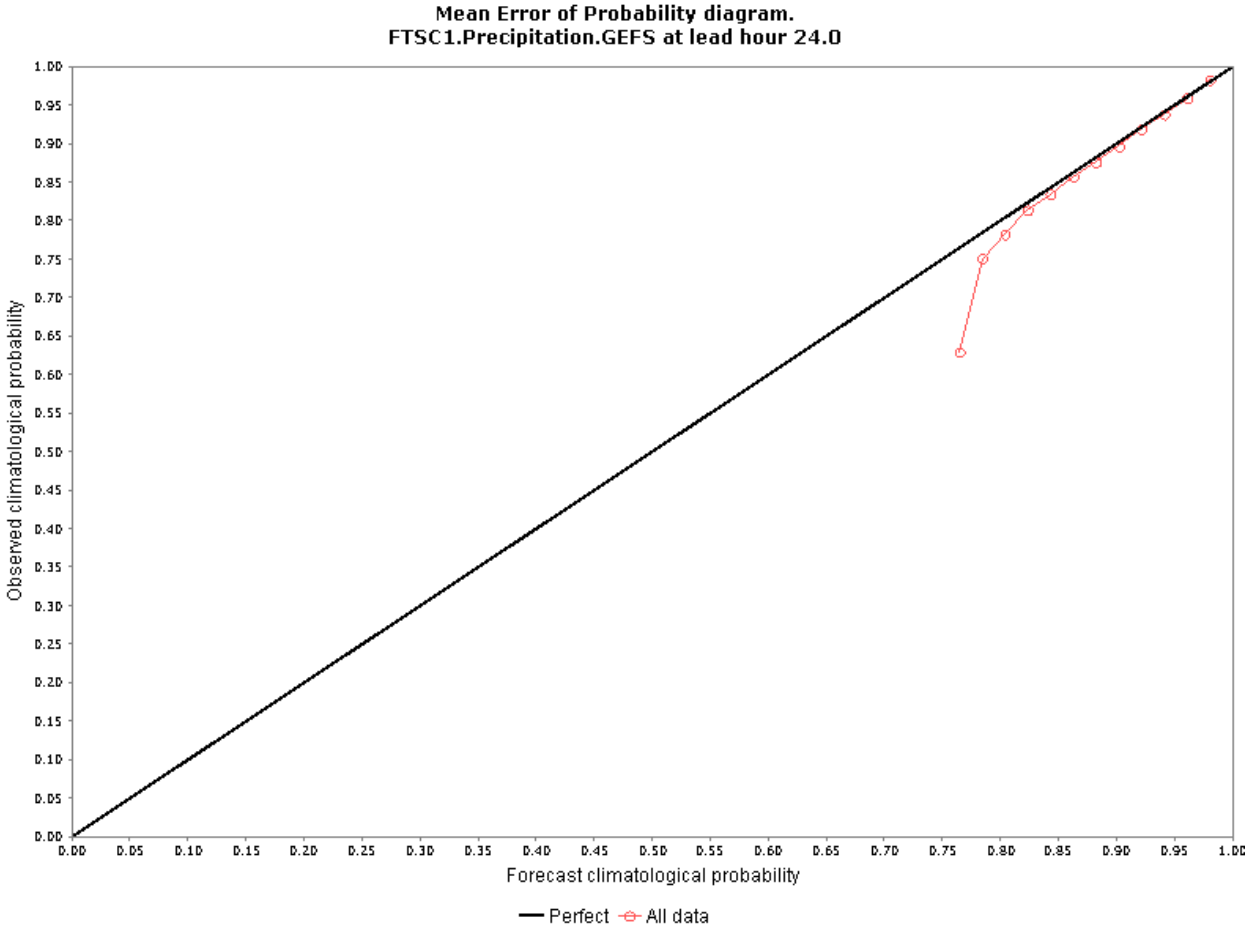
A2: Forecast PoP is biased low (i.e. too dry). Other amounts, reasonable

Exercise 3: Q3 (FTSC1)



Q3: What might these results indicate about PoP from MEFP-GEFS?

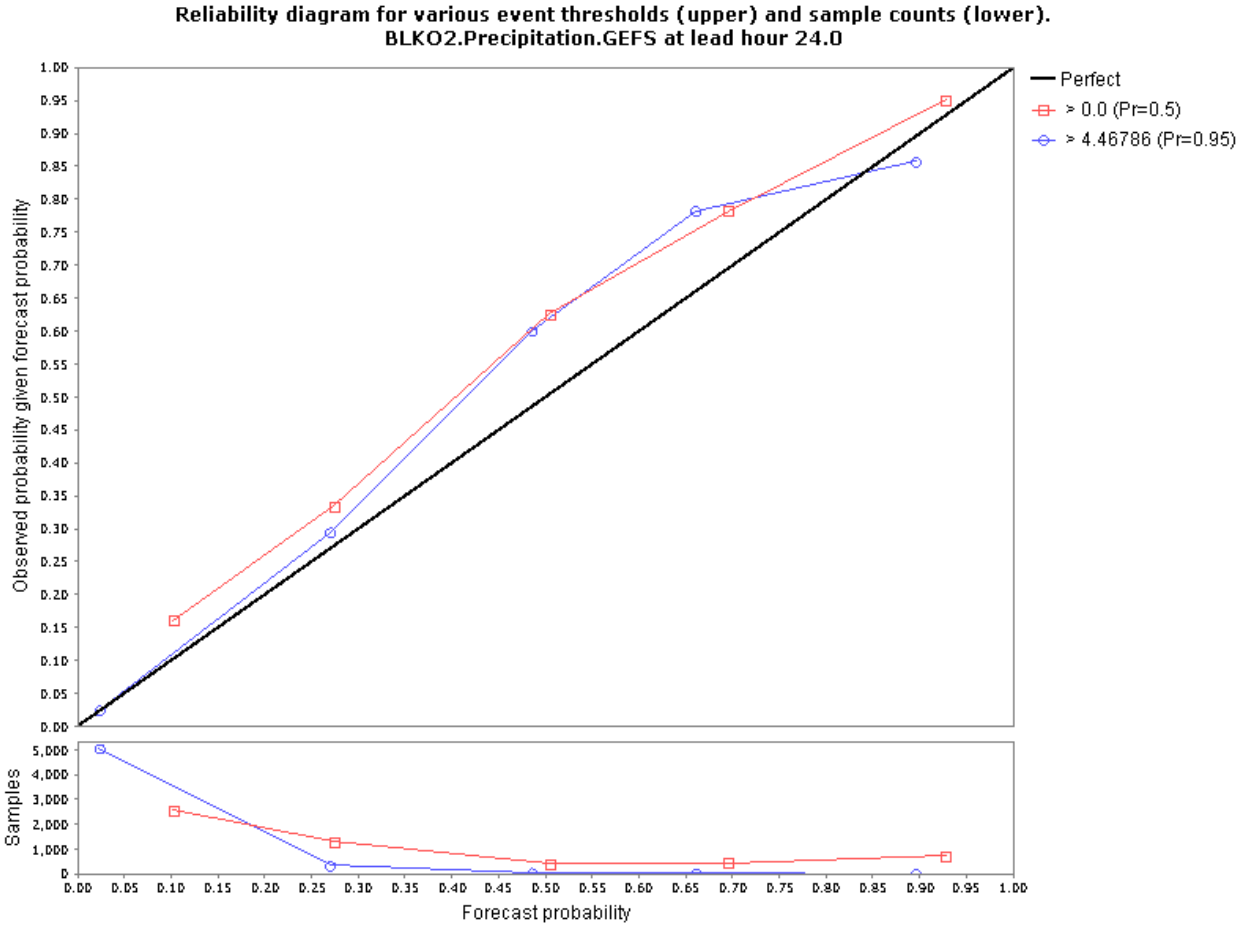
Exercise 3: Q3 (FTSC1) answer



Q3: What might these results indicate about PoP from MEFP-GEFS?

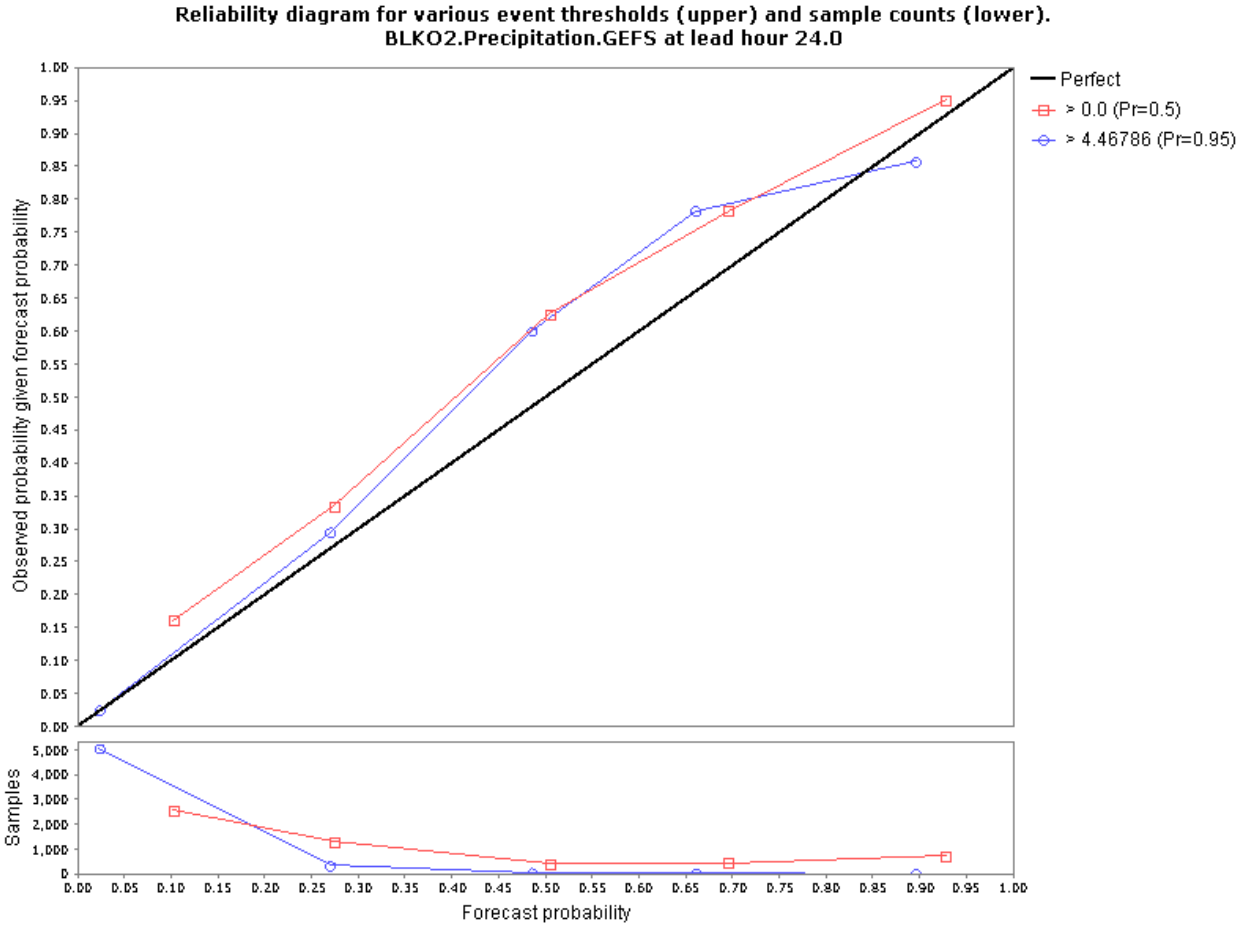
A3: Consistent tendency to forecast PoP too low (e.g. FogBugz #979)

Exercise 3: Q4 (BLKO2)



Q4: What two events are considered in the reliability diagram?

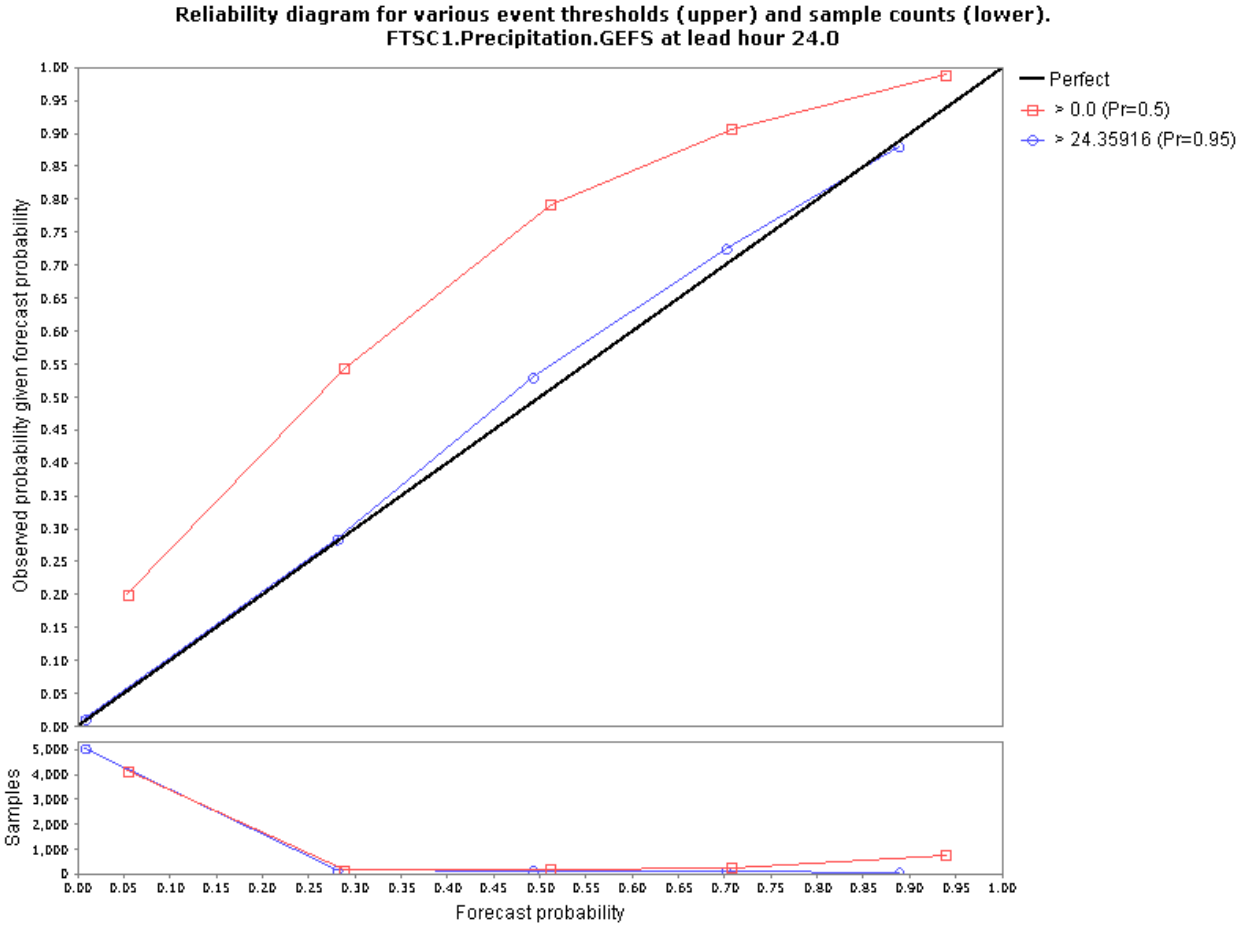
Exercise 3: Q4 (BLKO2) answer



Q4: What two events are considered in the reliability diagram?

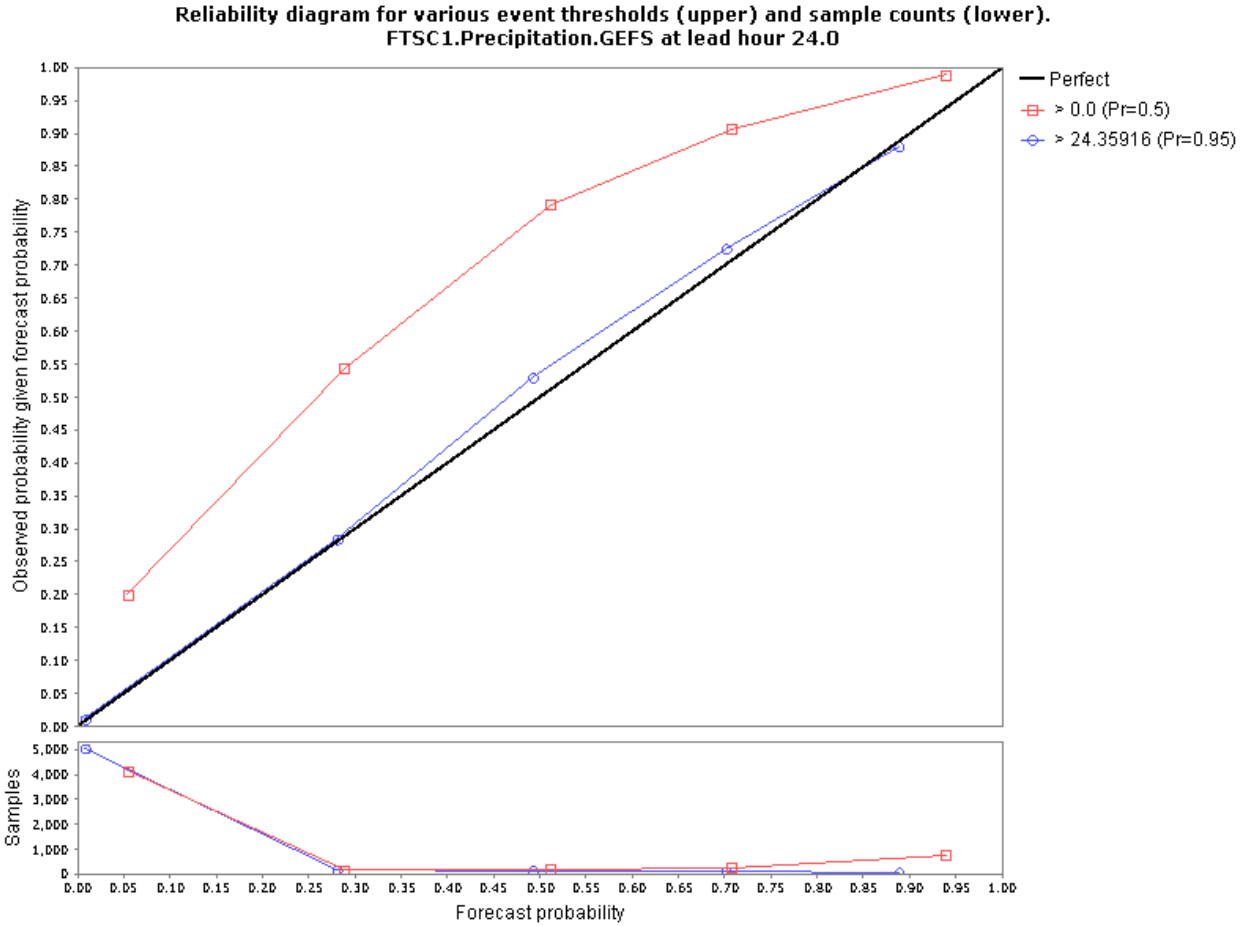
A4: Probability of Precipitation (0mm, 50%) and 5% precipitation amount

Exercise 3: Q5 (FTSC1)



Q5: Are the forecasts broadly reliable or unreliable?

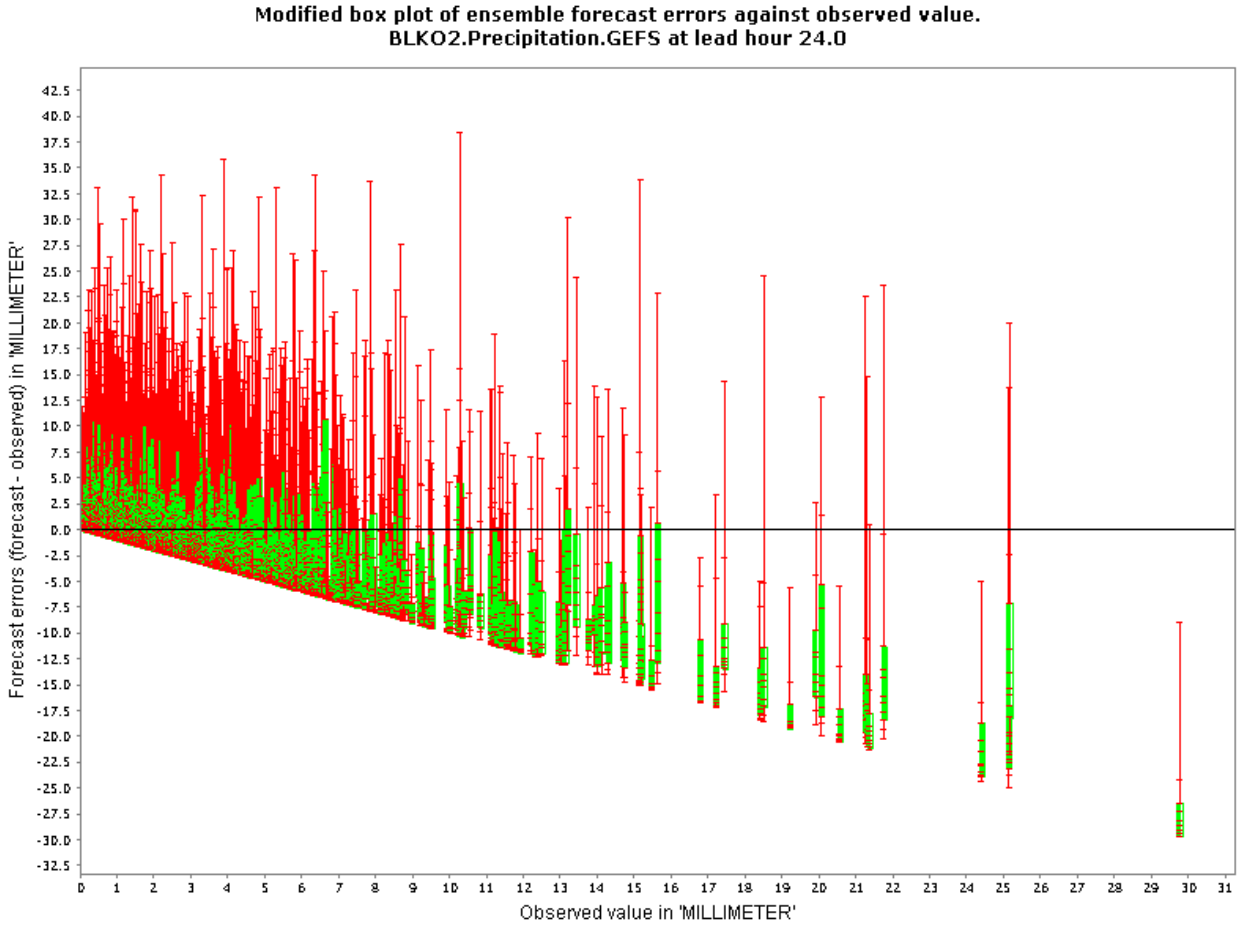
Exercise 3: Q5 (FTSC1) answer



Q5: Are the forecasts broadly reliable or unreliable?

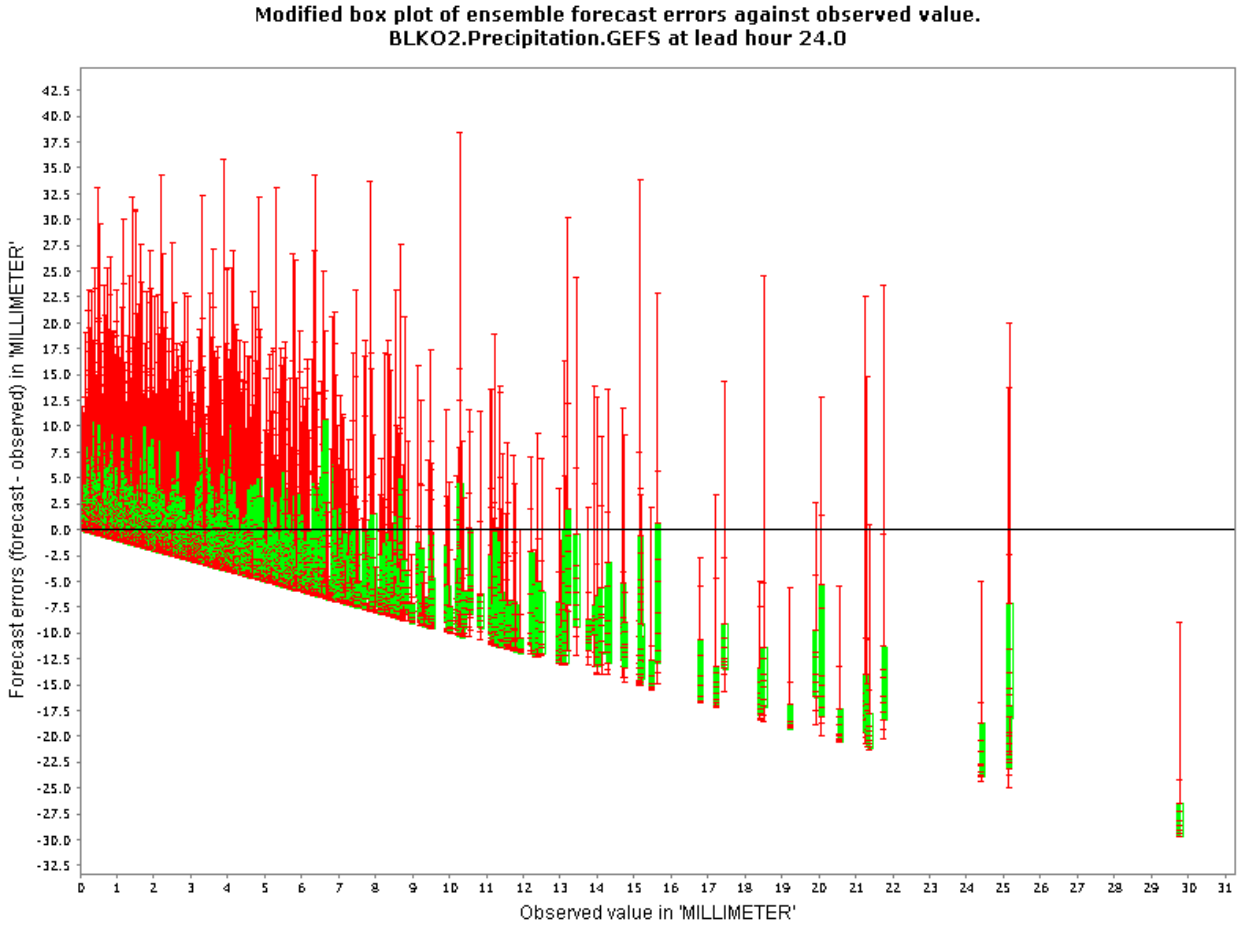
A5: Strongly Underestimate PoP, but reliable for top 5% (>24.35 mm/day)

Exercise 3: Q6 (BLKO2)



Q6: Do the forecasts show any systematic biases?

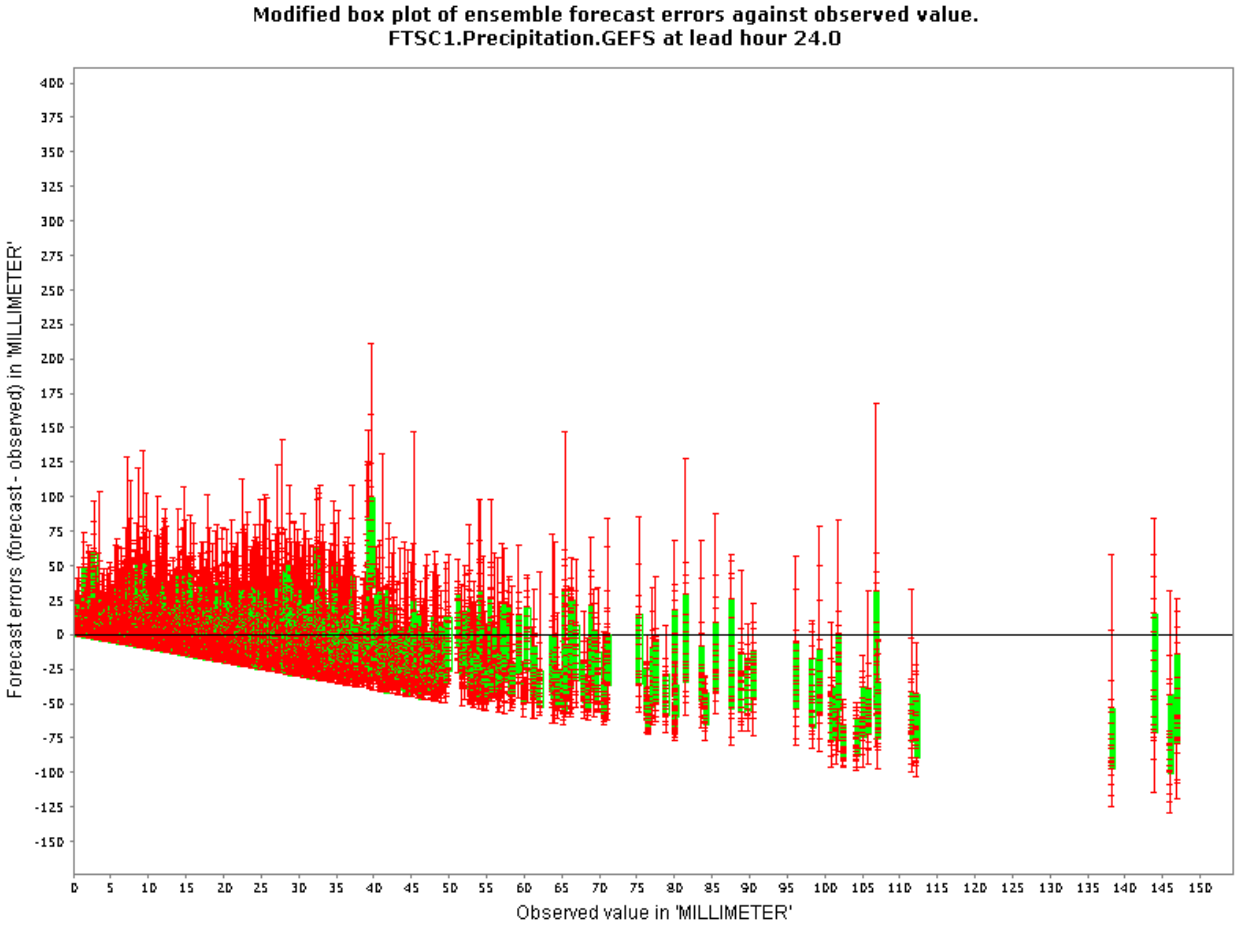
Exercise 3: Q6 (BLKO2) answer



Q6: Do the forecasts show any systematic biases?

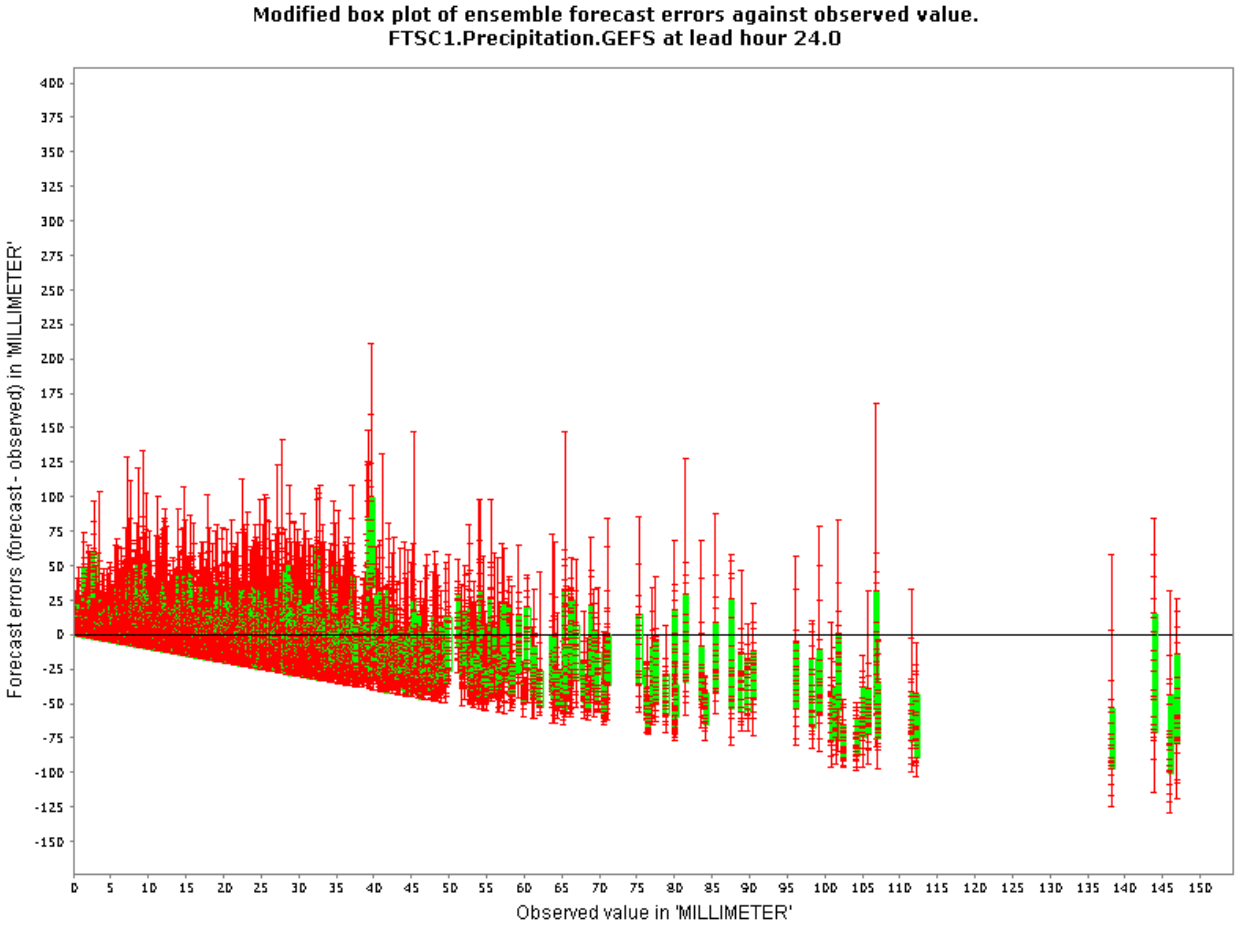
A6: Yes, they underestimate the highest observed precipitation amounts

Exercise 3: Q7 (FTSC1)



Q7: What, if any, differences are noticeable when compared to BLKO2?

Exercise 3: Q7 (FTSC1) answer

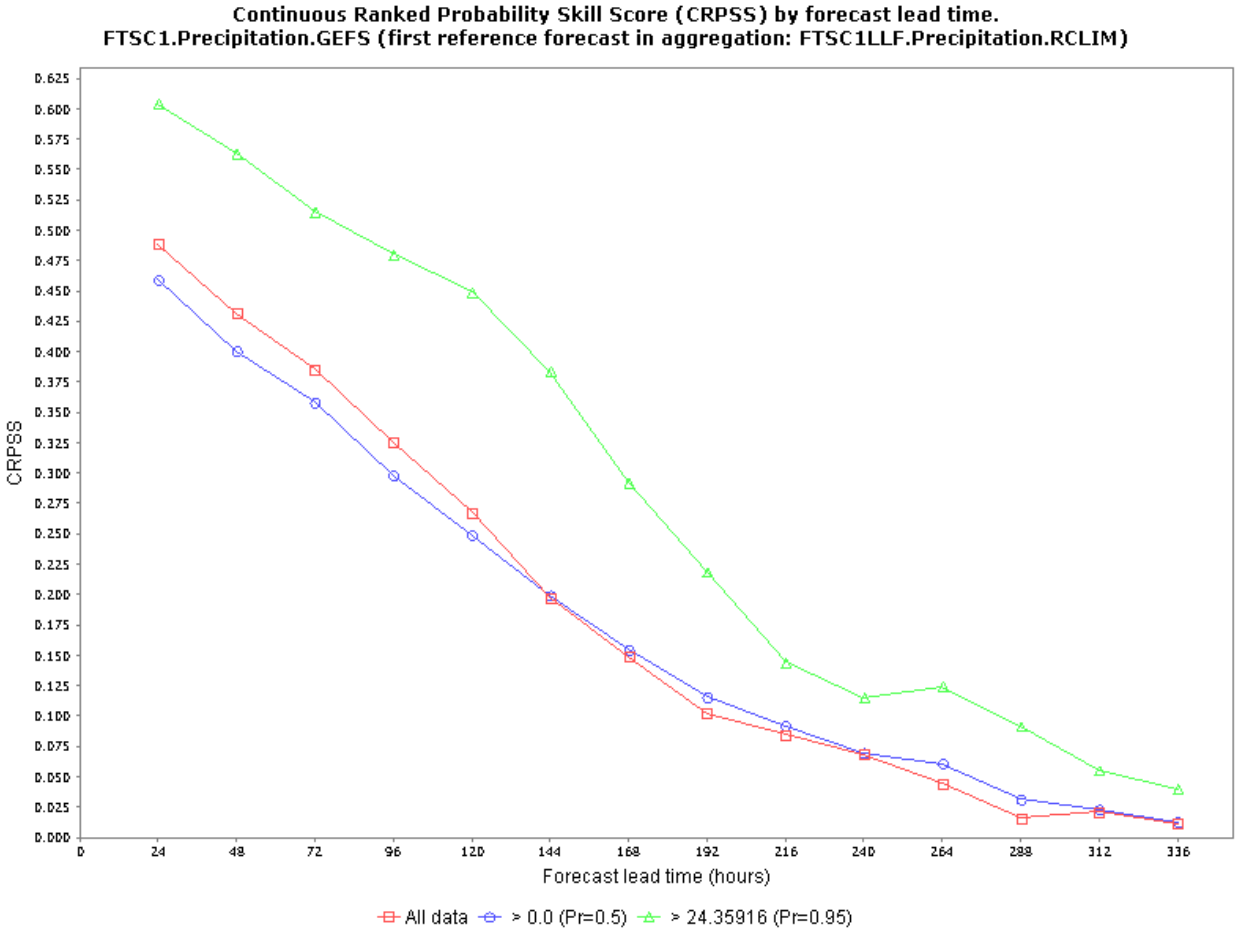


Q7: What, if any, differences are noticeable when compared to BLKO2?

A7: Biases at high precipitation are lower. Good predictability in FTSC1.

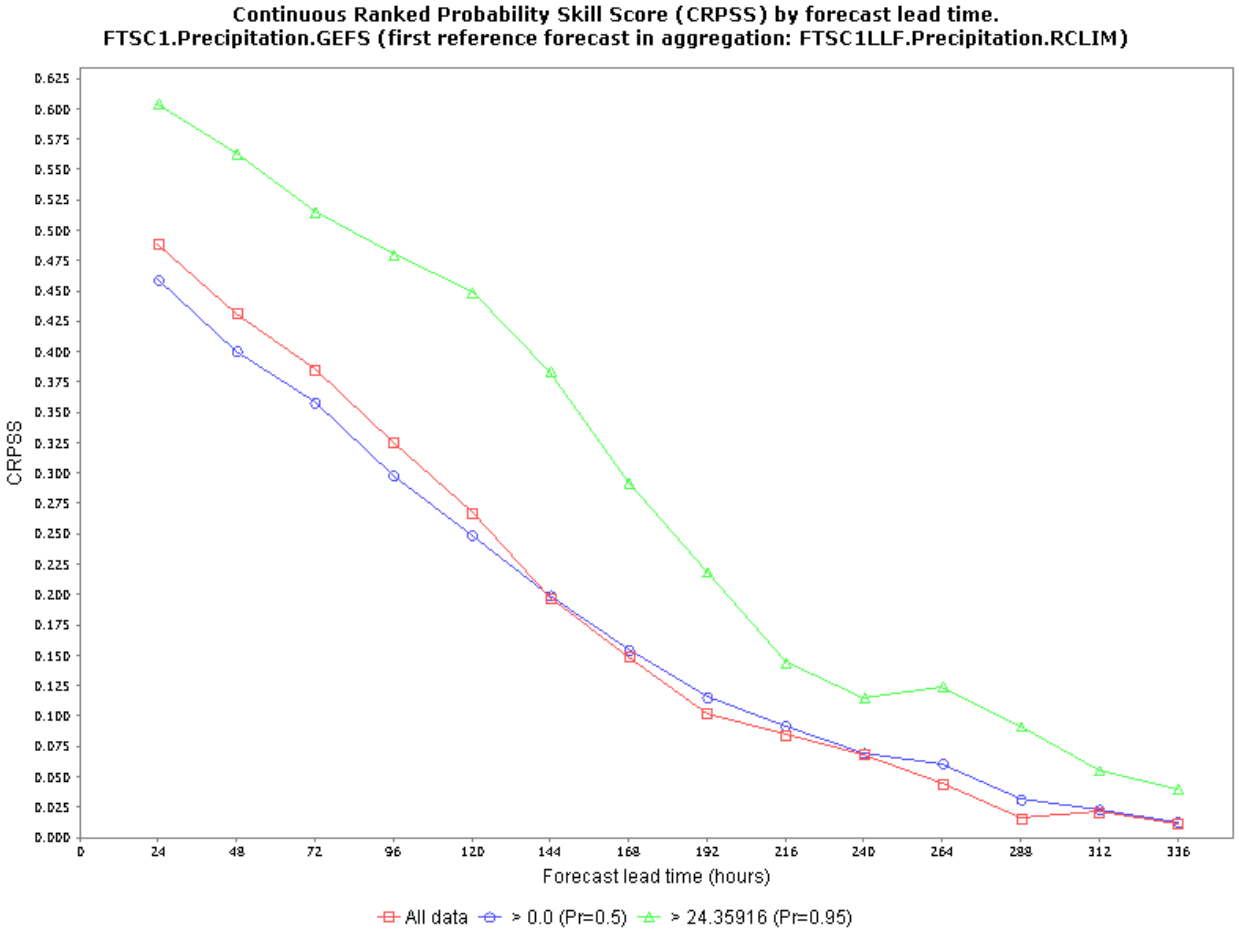
Additional questions

Exercise 3: Q8 (FTSC1)



Q8: Are the forecasts much more skillful than climatology? How?

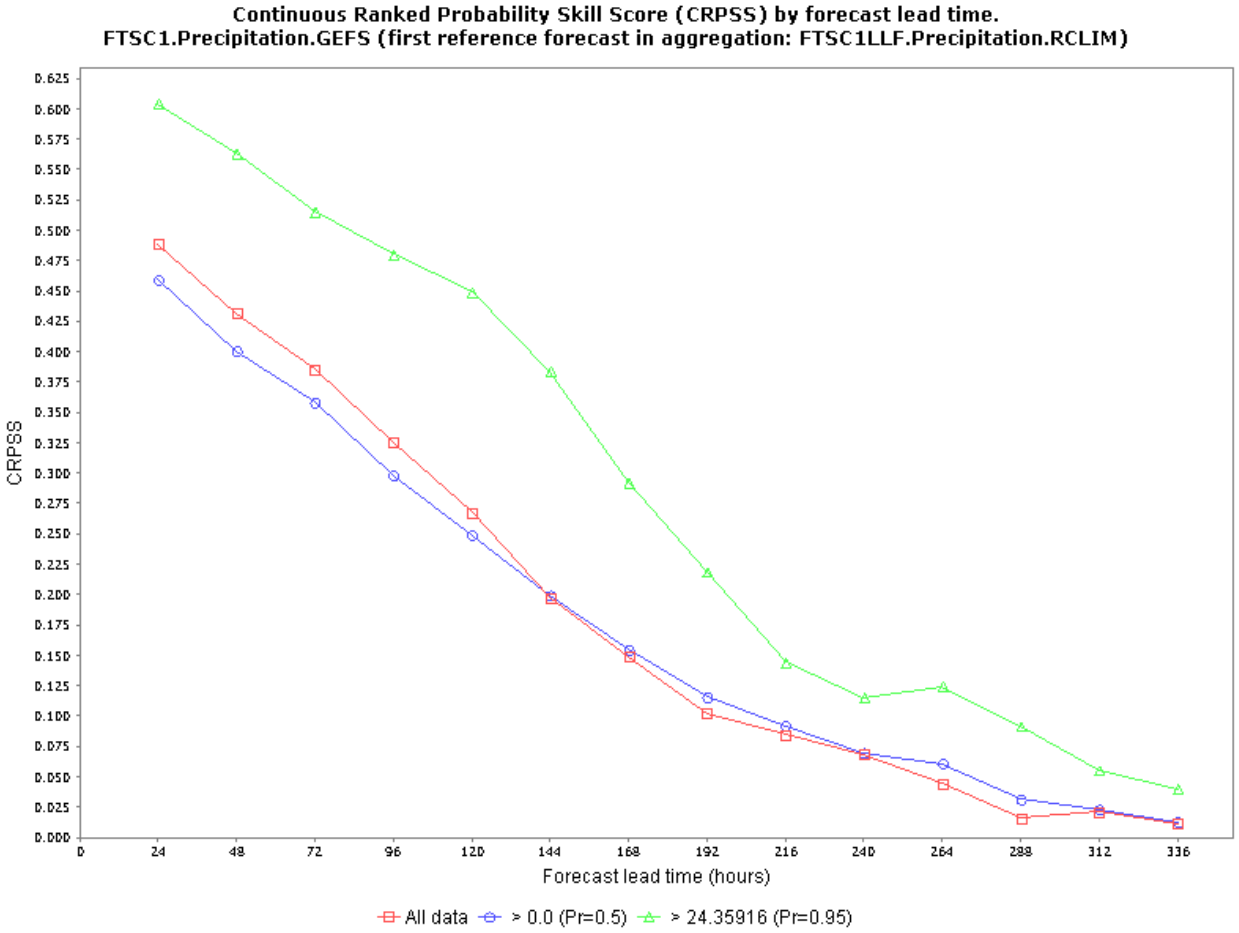
Exercise 3: Q8 (FTSC1) answer



Q8: Are the forecasts much more skillful than climatology? How?

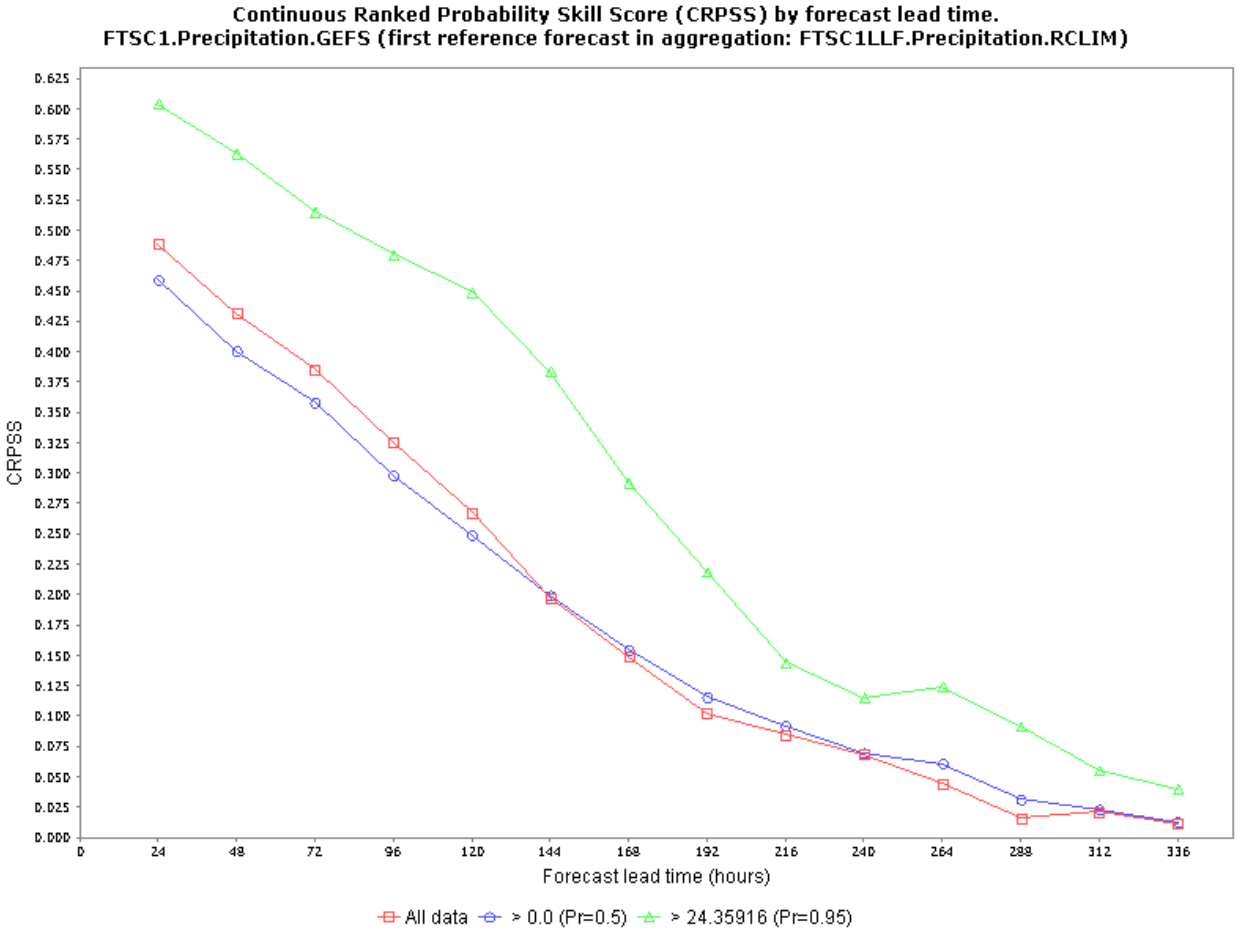
A8: Yes, particularly at early forecast lead times and for high precipitation

Exercise 3: Q9 (FTSC1)



Q9: Why is the skill higher for higher precipitation amounts?

Exercise 3: Q9 (FTSC1) answer



Q9: Why is the skill higher for higher precipitation amounts?

A9: Predictability in FTSC1 (winter). Climatology poor at high amounts.