HEFS workshop, 03/12/2015

Seminar D: review results from Exercise 3

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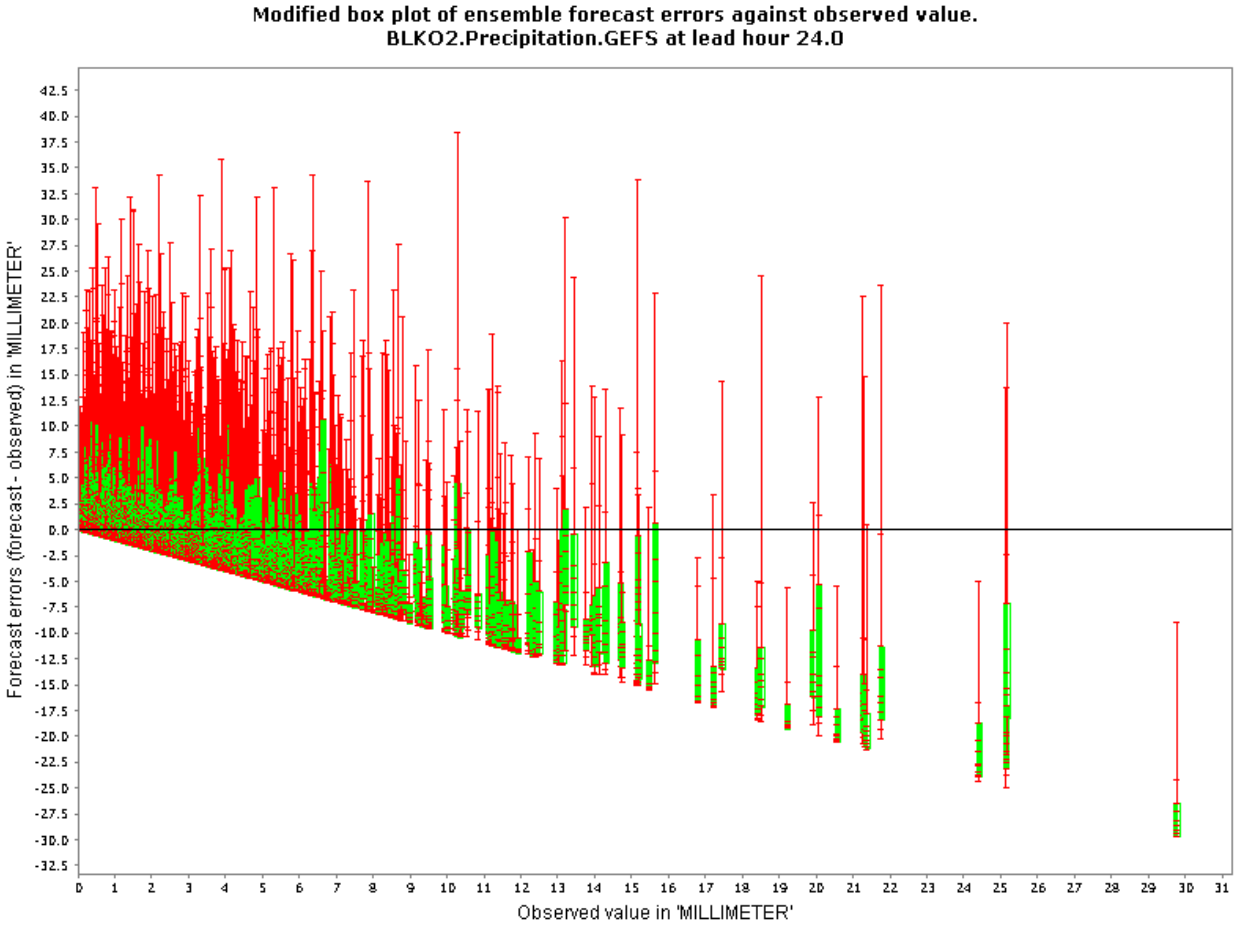
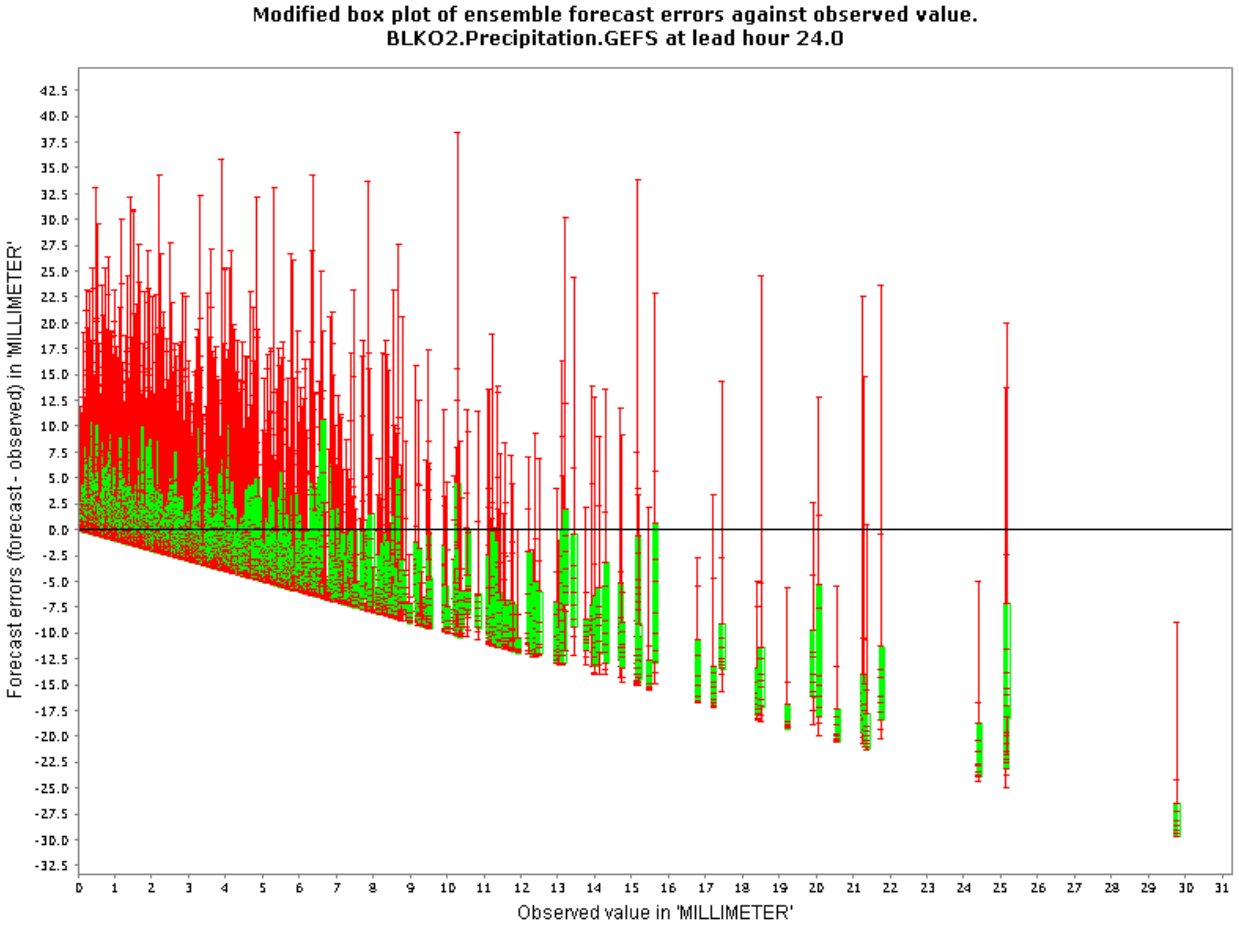
Exercise 3: Q1 (BLKO2)



Q1: Do the forecasts show any systematic biases?

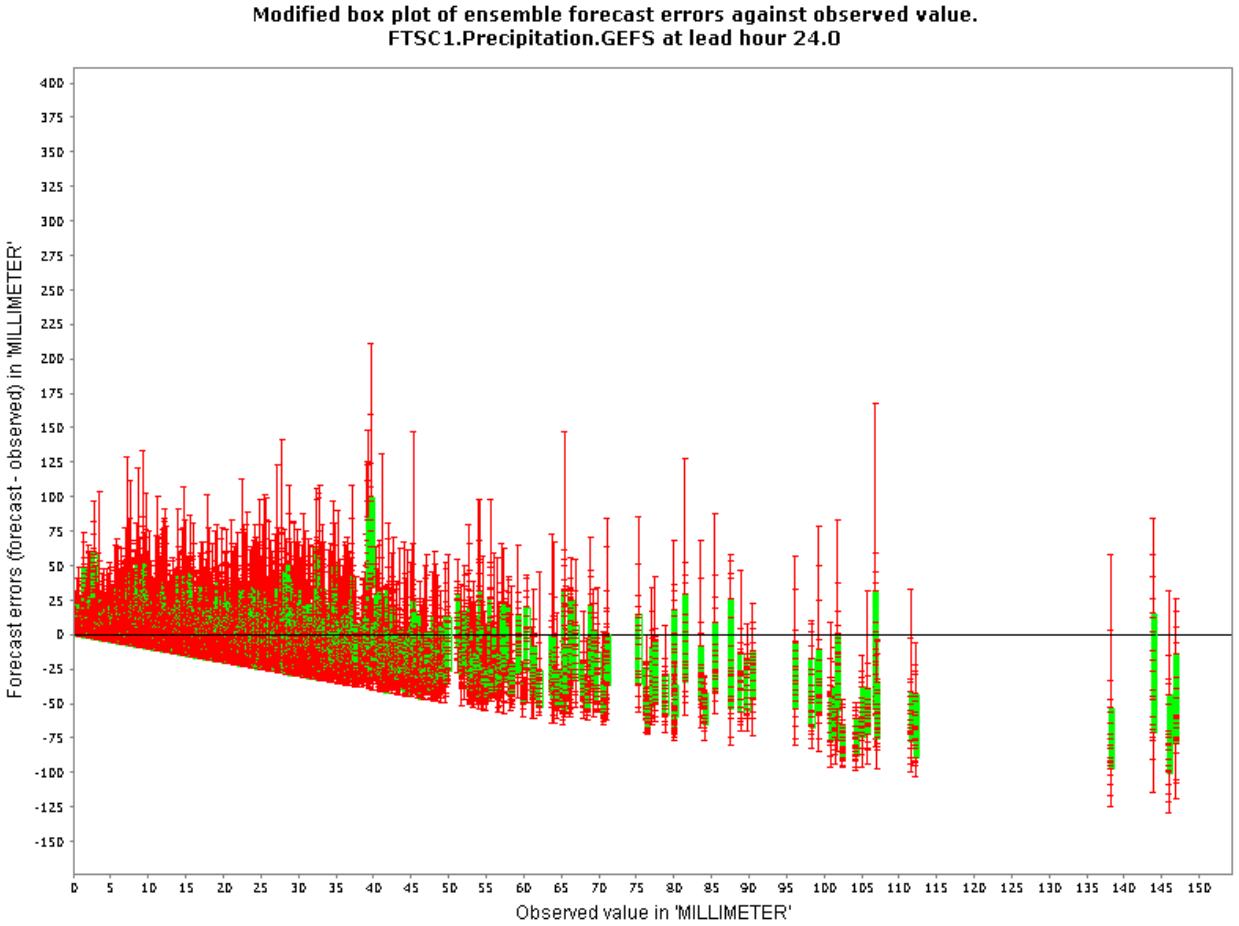
Exercise 3: Q1 (BLKO2) answer



Q1: Do the forecasts show any systematic biases?

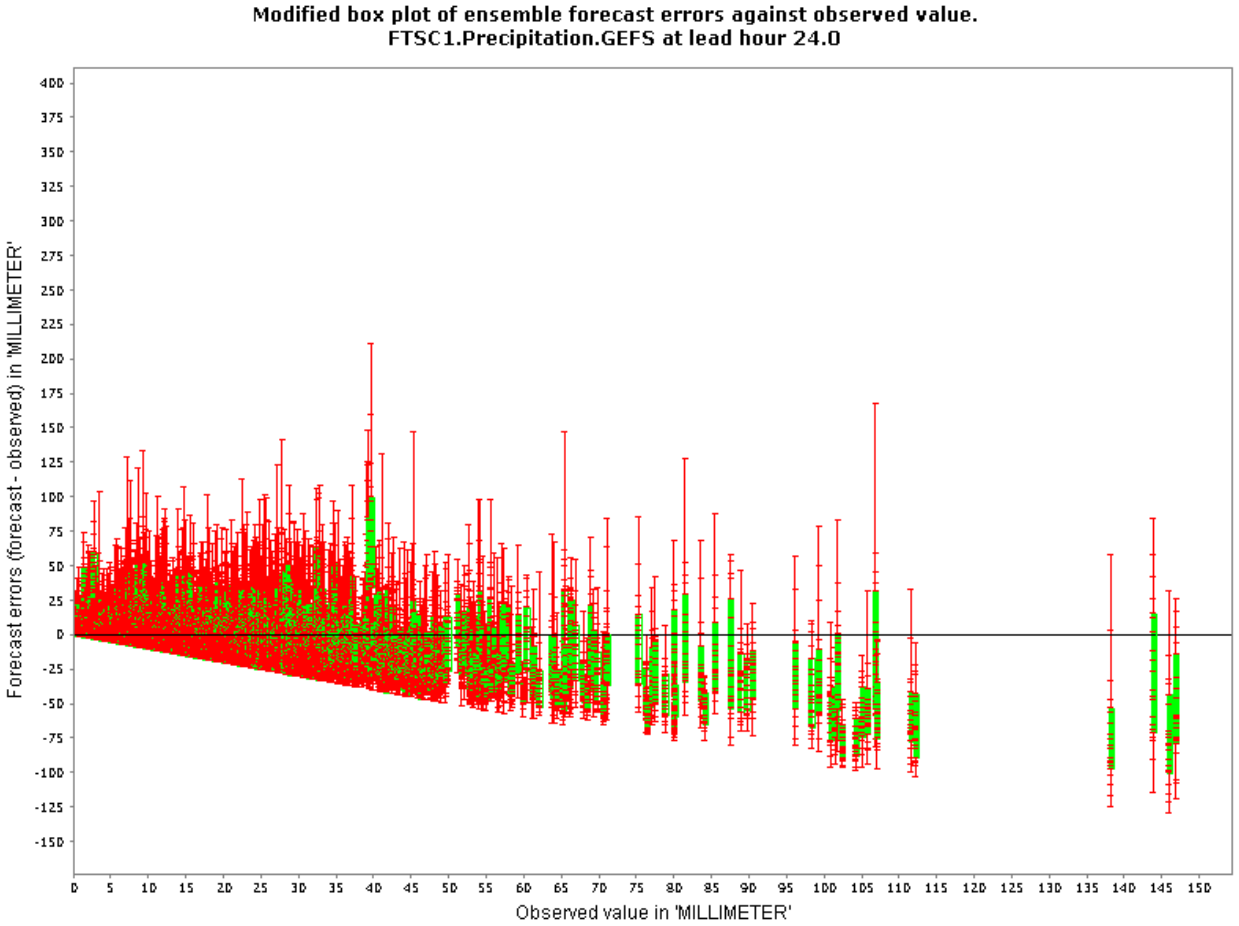
A1: Yes, they underestimate the highest observed precipitation amounts

Exercise 3: Q2 (FTSC1)



Q2: What differences are noticeable when compared to BLKO2?

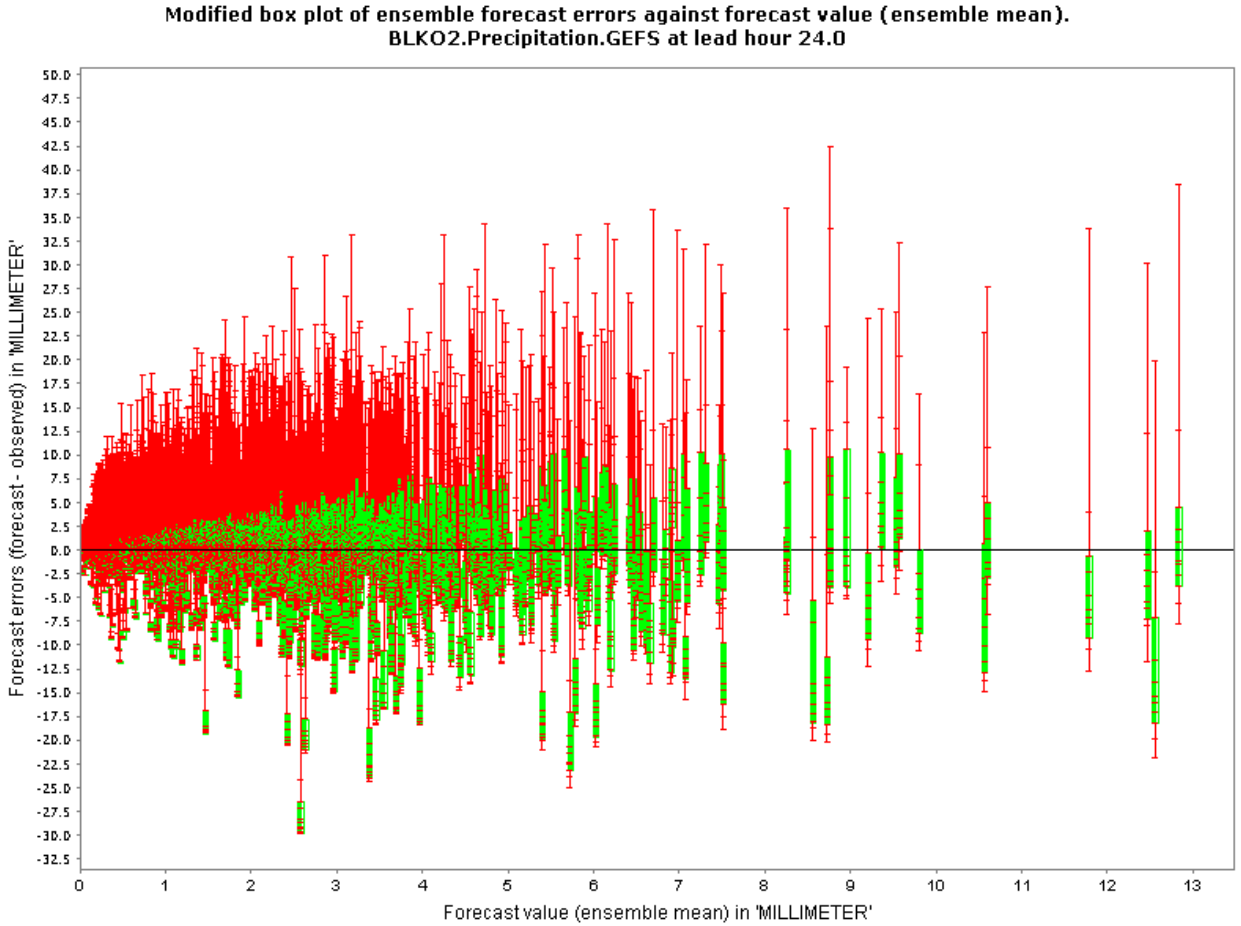
Exercise 3: Q2 (FTSC1) answer



Q2: What differences are noticeable when compared to BLKO2?

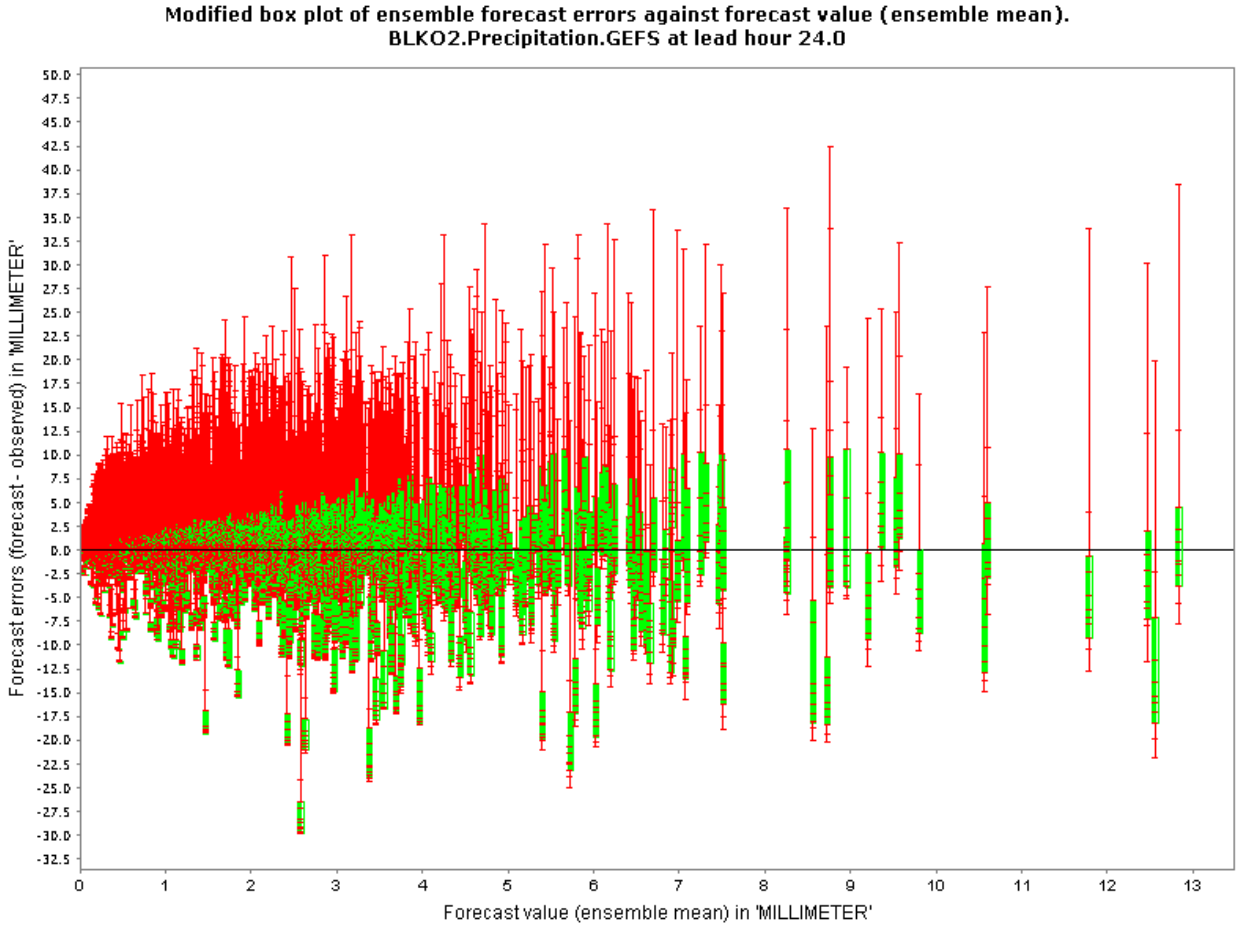
A2: Biases at high precipitation are lower. Good predictability in FTSC1.

Exercise 3: Q3 (BLKO2)



Q3: What differences are noticeable when arranged by forecast value?

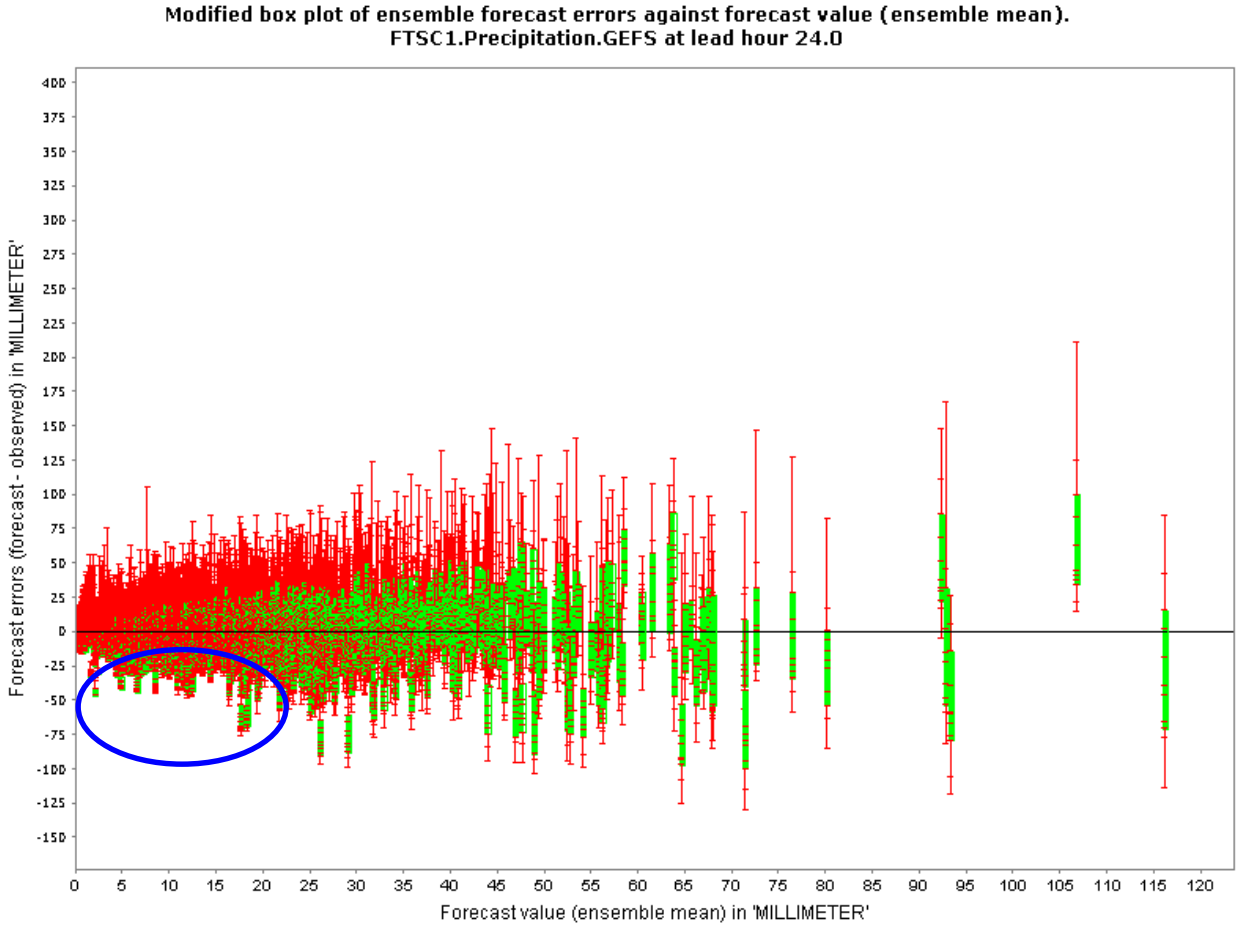
Exercise 3: Q3 (BLKO2) answer



Q3: What differences are noticeable when arranged by forecast value?

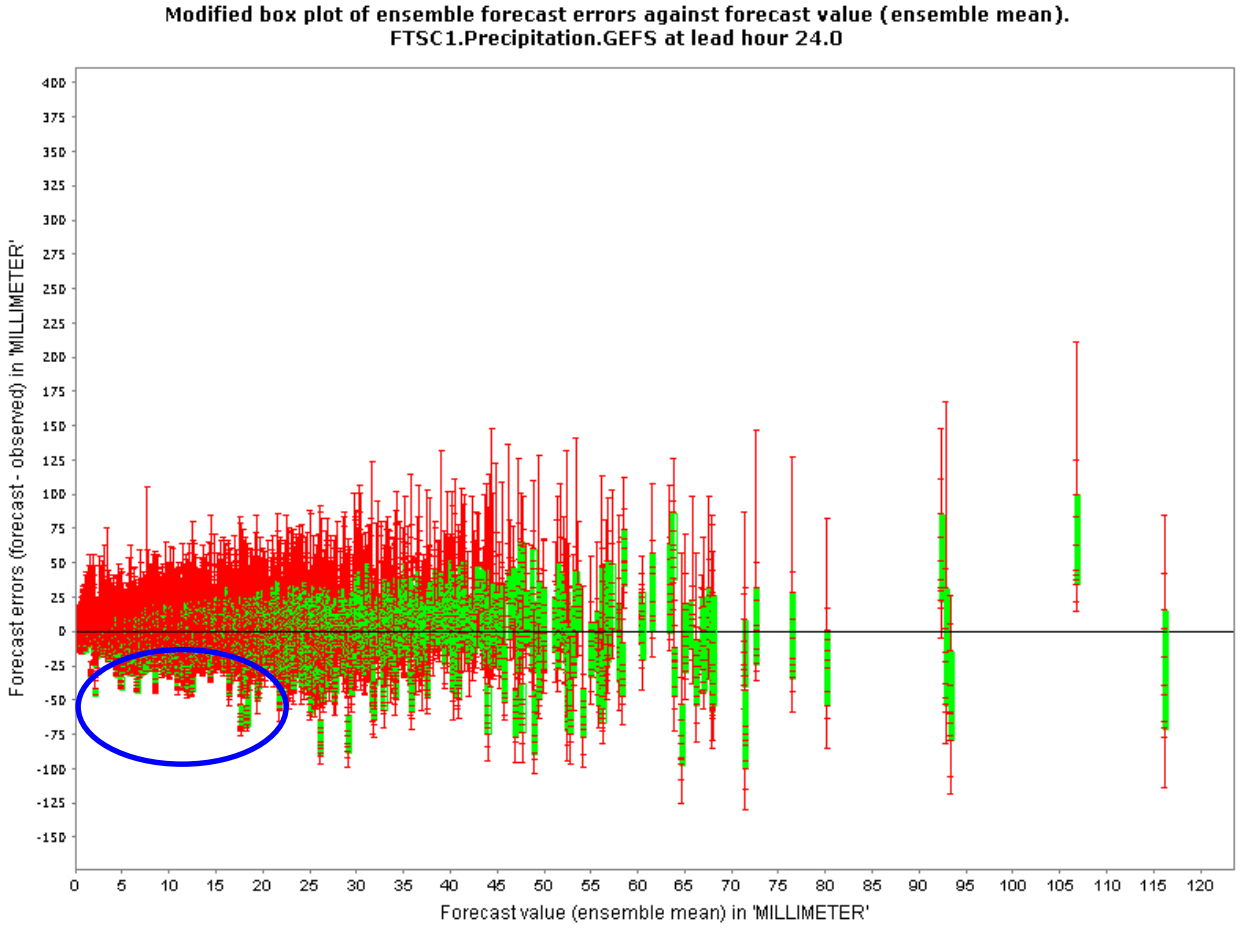
A3: No systematic biases for high forecast amounts (but these are lower).

Exercise 3: Q4 (FTSC1)



Q4: What explains the “blown” forecasts at light/moderate amounts?

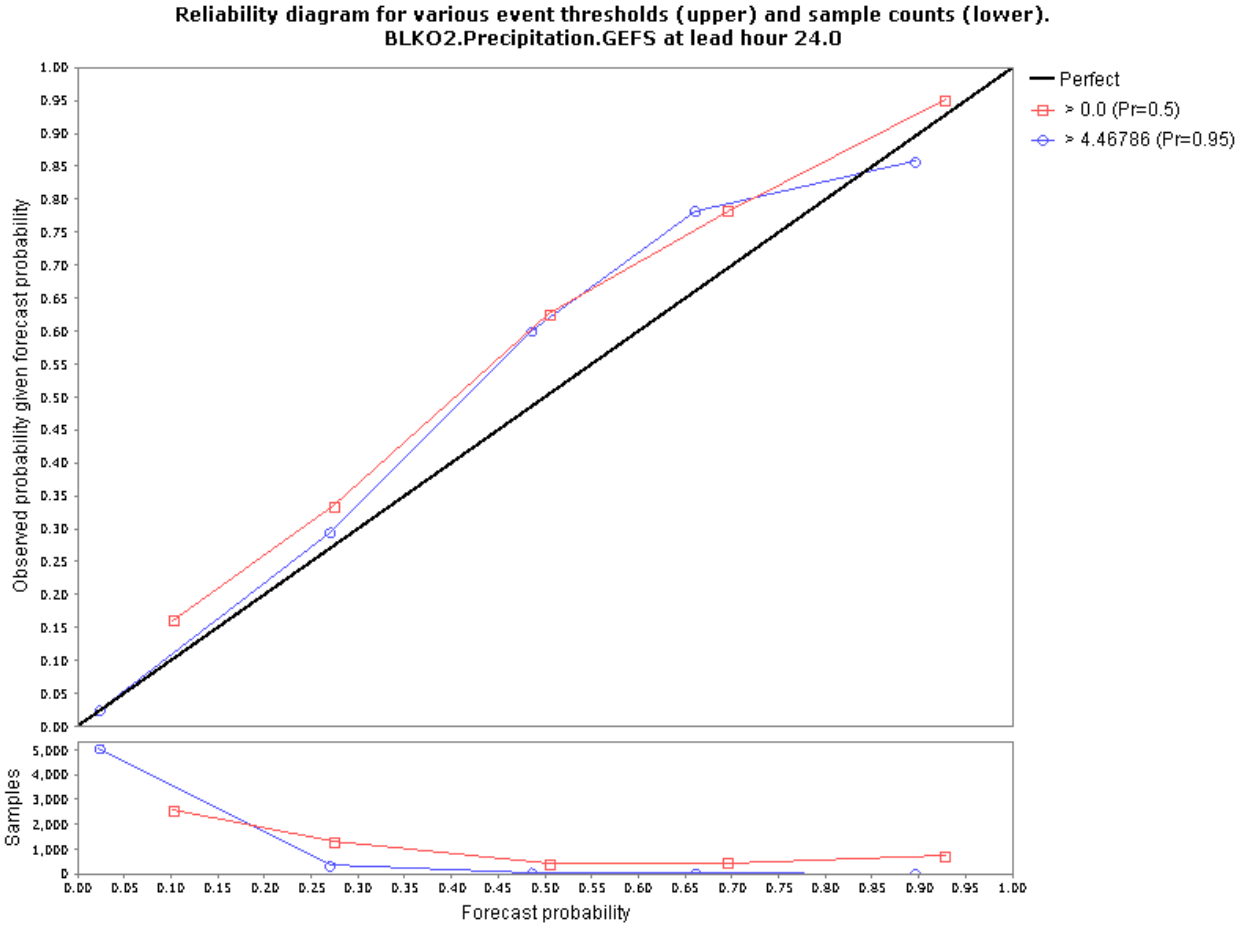
Exercise 3: Q4 (FTSC1) answer



Q4: What explains the “blown” forecasts at small/moderate amounts?

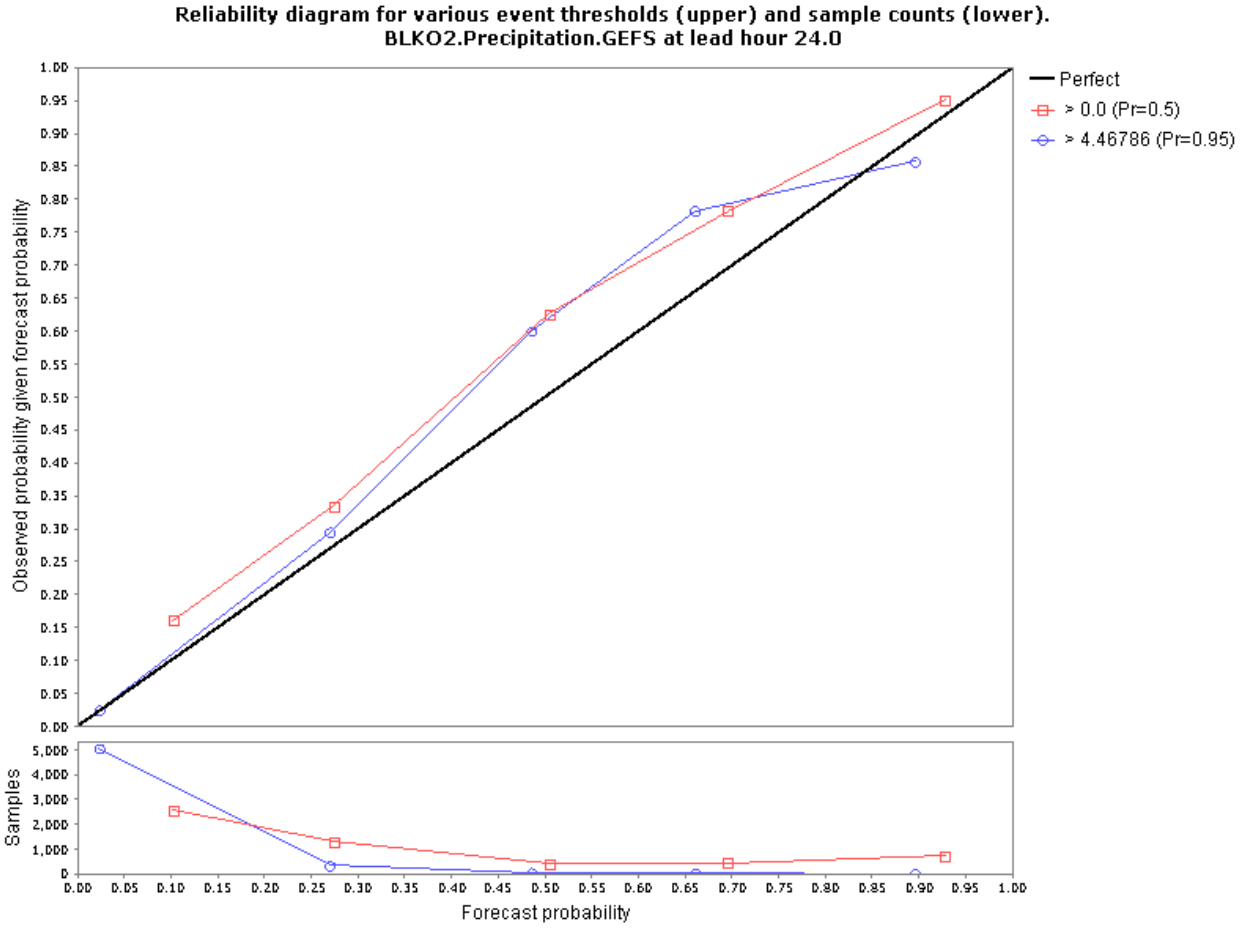
A4: Large observed events that were forecast as light/moderate.

Exercise 3: Q5 (BLKO2)



Q5: What two events are considered in the reliability diagram?

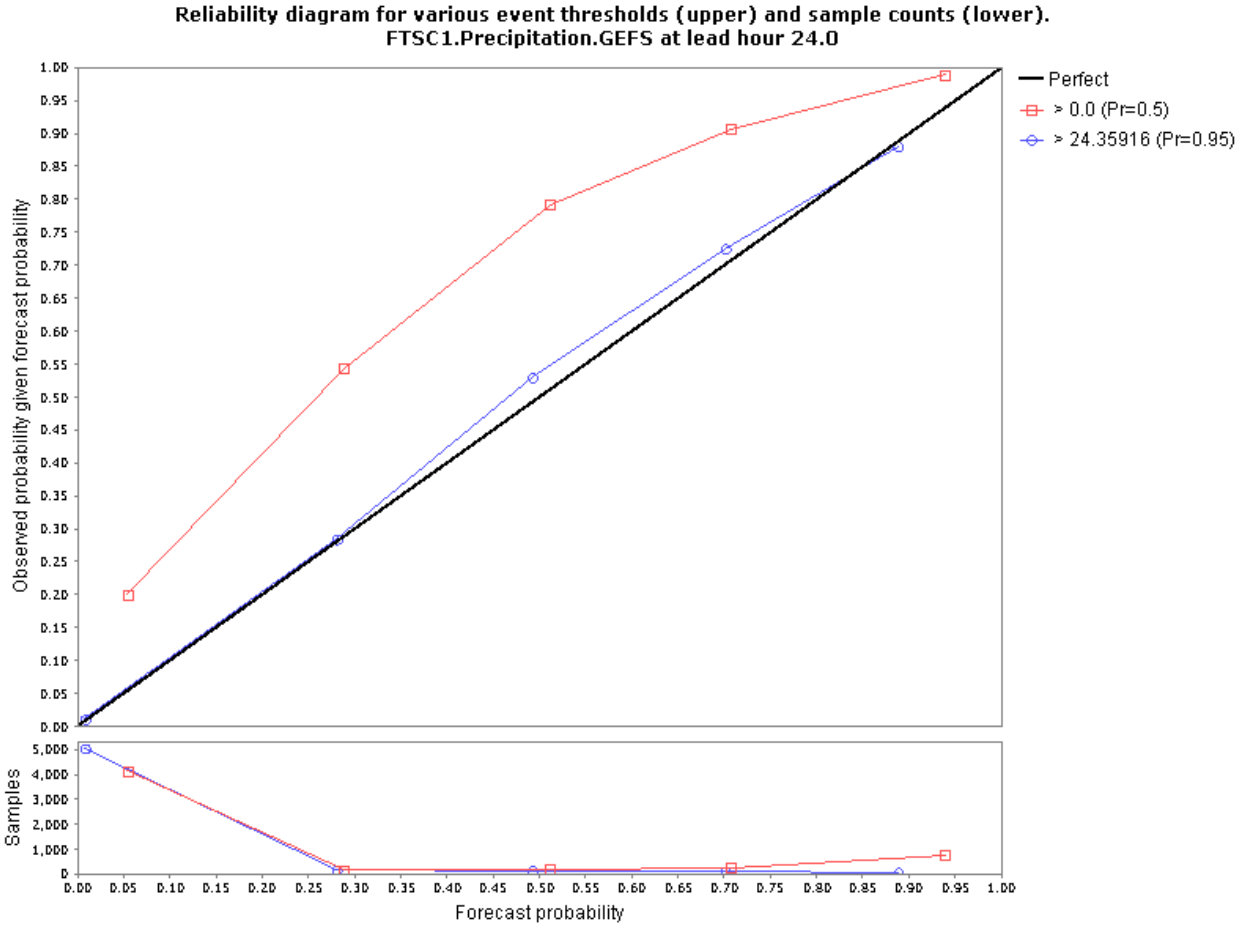
Exercise 3: Q5 (BLKO2) answer



Q5: What two events are considered in the reliability diagram?

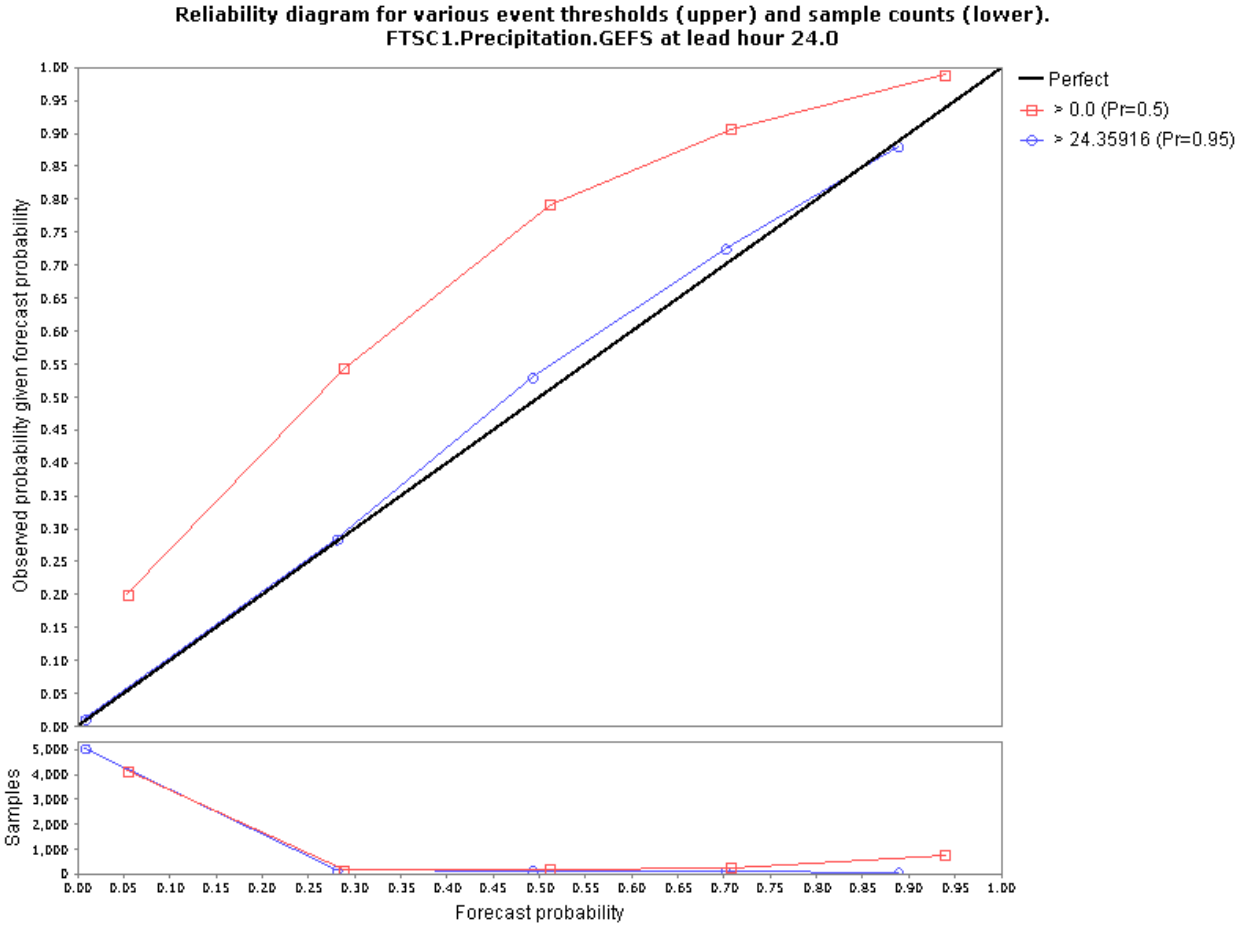
A5: Probability of Precipitation (0mm, 50%) and 5% precipitation amount

Exercise 3: Q6 (FTSC1)



Q6: Are the forecasts broadly reliable or unreliable?

Exercise 3: Q6 (FTSC1) answer

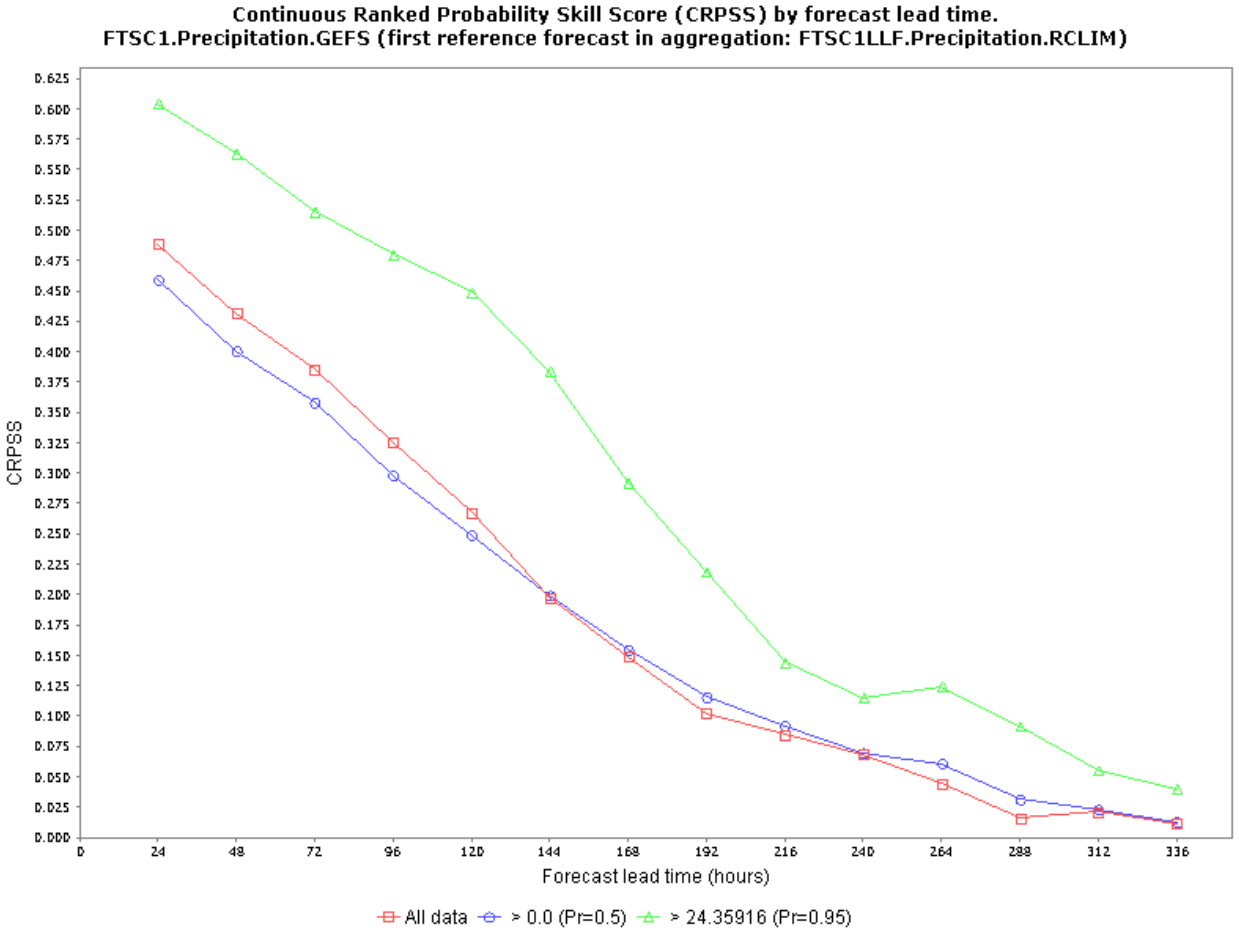


Q6 Are the forecasts broadly reliable or unreliable?

A6: Strongly Underestimate PoP, but reliable for top 5% (>24.35 mm/day)

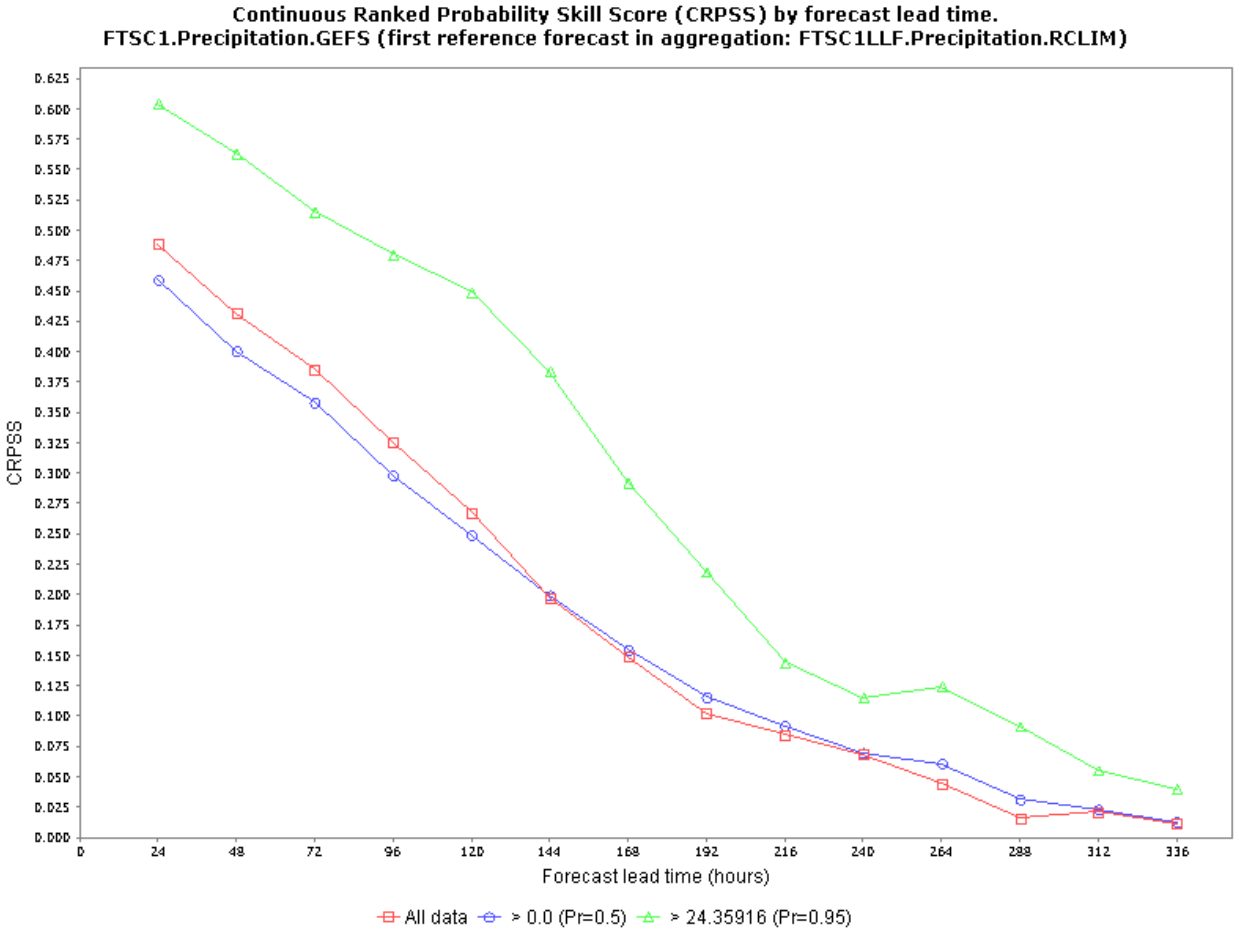
Additional questions

Exercise 3: Q7 (FTSC1)



Q7: Are the forecasts much more skillful than climatology? How?

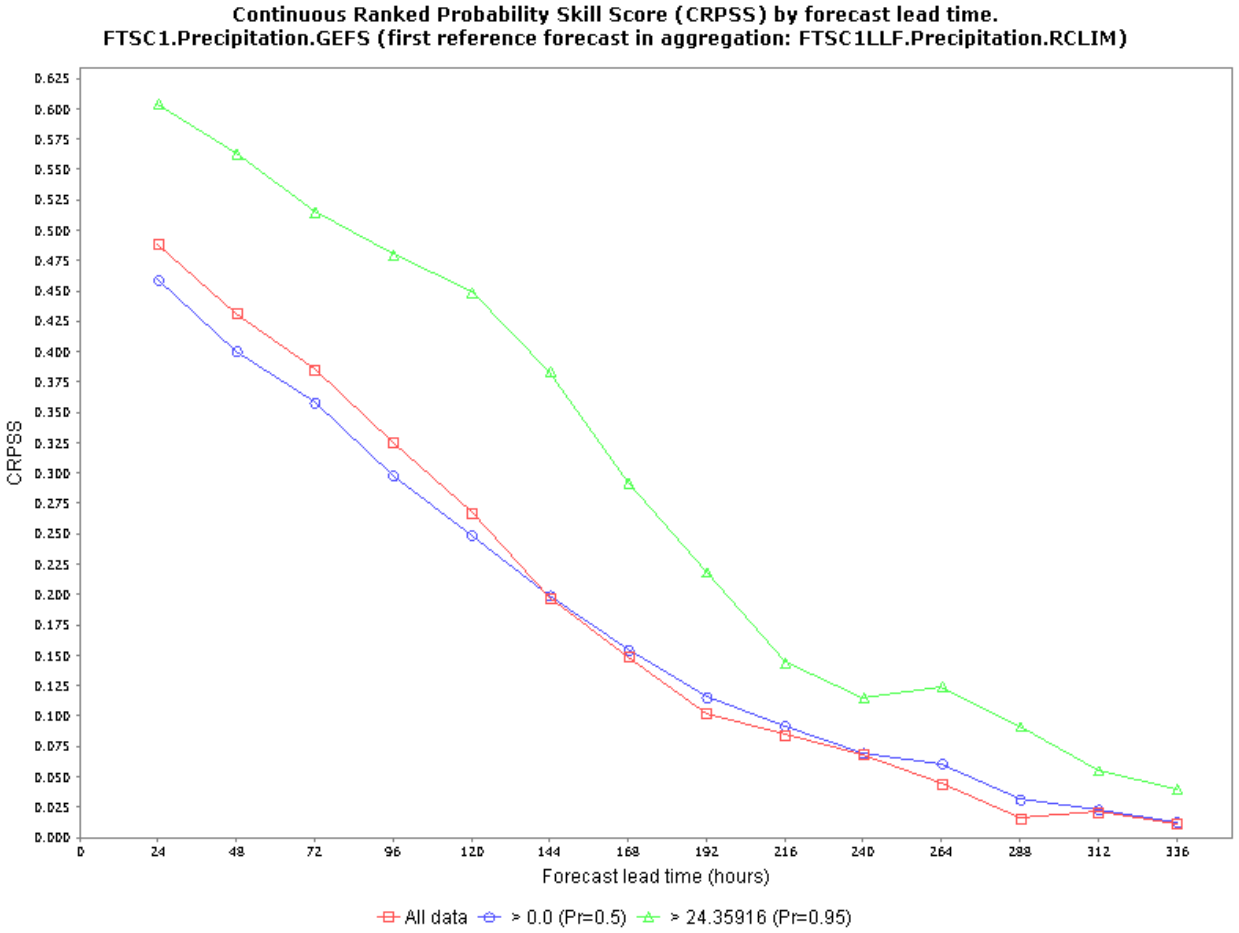
Exercise 3: Q7 (FTSC1) answer



Q7: Are the forecasts much more skillful than climatology? How?

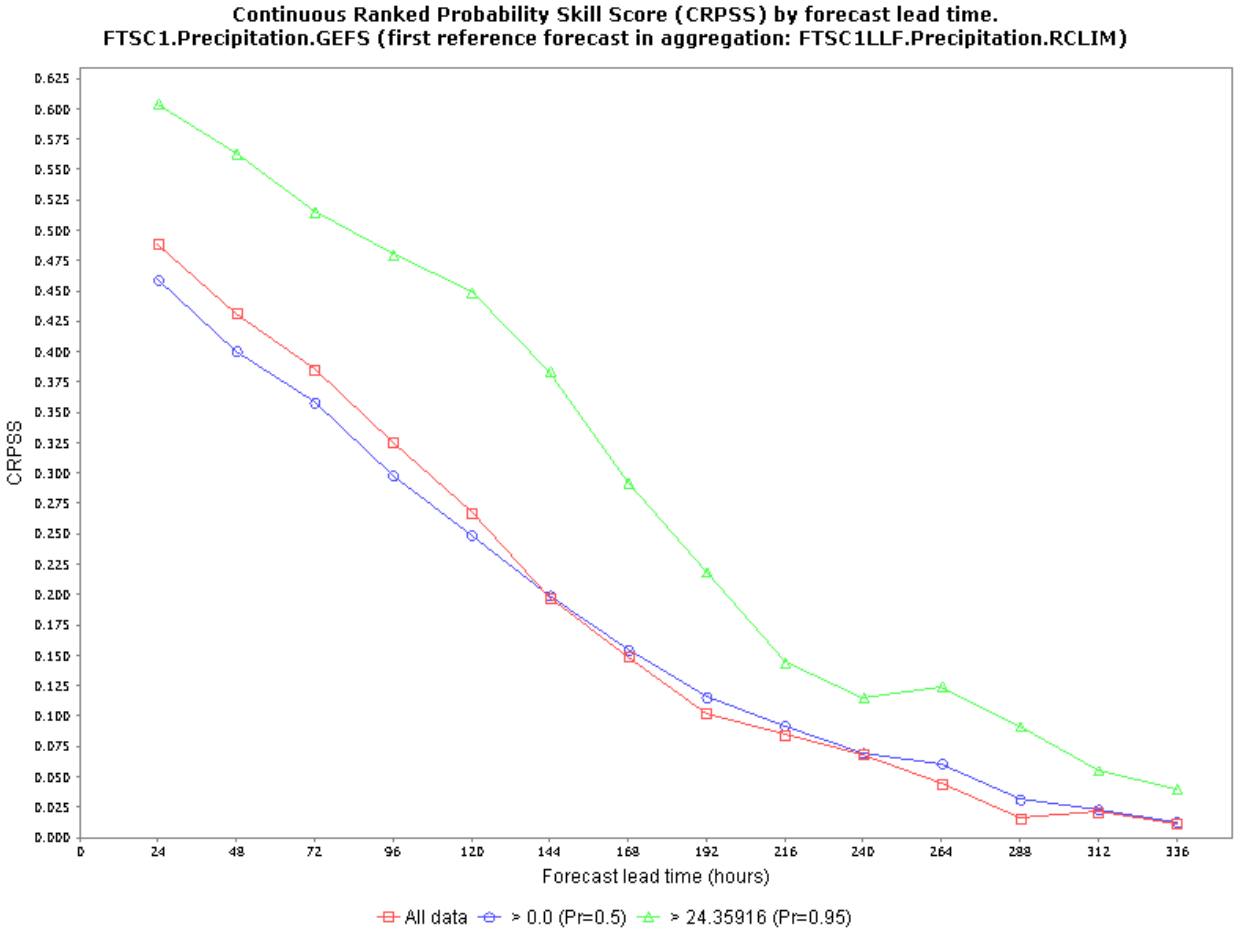
A7: Yes, particularly at early forecast lead times and for high precipitation

Exercise 3: Q8 (FTSC1)



Q8: Why is the skill higher for higher precipitation amounts?

Exercise 3: Q8 (FTSC1) answer



Q8: Why is the skill higher for higher precipitation amounts?

A8: Predictability in FTSC1 (winter). Climatology poor at high amounts.