



### Supplement of

### **Global meteorological drought – Part 1: Probabilistic monitoring**

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### Supplementary material

# Global meteorological drought: Part I - probabilistic monitoring

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#### List of figures

| Figure S1. As Figure 4 but for a different group of 6 regions                              |
|--|
| Figure S2. As Figure 5 but for the SPI-6   |
| Figure S3. As Figure 5 but for the SPI-125   |
| Figure S4. SPI-3 spread about the ensemble mean of ENS4 (top right) and root mean square   |
| error of the ensemble mean of ENS4 (top left), TRMM (middle left), ERAI (middle right) and |
| <u>GPCC_FG (bottom left)6</u>  |
| Figure S5. As Figure S4 but for the SPI-12   |
| Figure S6. As Figure 6 but for the SPI-12  |
| Figure S7. Fraction of grid-points in each region (top panel) with correlation coeficients |
| significantly different from zero with 95% confidence. The correlation coeficients are     |
| calculated as the grid-point temporal correlation (botom panel) of the GPCC SPI-3 versus   |
| ERAI, GPCC_FG, ENS4 (ensemble mean) and TRMM. The error bars in both pannels               |

| represent 95% confidence intervals of the spatial mean computed from a 1000 bootstrap re-    |
|--|
| sampling procedure   |
| Figure S8. As Figure S7 but for the SPI-12   |
| Figure S9. As Figure 7 but for the SPI-311   |
| Figure S10. Spatial mean of the grid-point temporal correlation of the FAPAR versue SPI-3    |
| of GPCC, TRMM and ERAI (1999-2012) in the bottom pannel and the top pannel displays          |
| the fraction of grid-points with correlations significantly different from zero with 95%     |
| confidence. The error bars in both pannels represent 95% confidence intervals of the spatial |
| mean computed from a 1000 bootstrap re-sampling procedure                                    |
| Figure S11. Figure S10 but for the SPI-12  |
| Figure S12. As figure 7 but for the monthly grid-point temporal correlations of GPCC versus  |
| the remaining products. The correlation were calculated for the overlap period 2009-2012     |
| and the mean annual cycle of the period was removed, in each dataset, prior do the           |
| correlations calculation   |
| Figure S13. Root mean square error of the monthly precipitation (mm/month) of (a) TRMM,      |
| (b) ERAI, (c) GPCC_FG, and (d) ENS4 in respect to GPCC. The RMSE were calculated for         |
| the overlap period 2009-2012 and the mean annual cycle of the period was removed, in each    |
| dataset, prior do the RMSE calculations  |
| Figure S14. Regional averages of the root mean square error of the monthly precipitation     |
| (mm/month) of TRMM, ERAI, GPCP_FG and ENS4 in respect to GPCC. The RMSE was                  |
| calculated for the overlap period 2009-2012 and the mean annual cycle of the period was      |
| removed, in each dataset, prior do the RMSE calculations. The error bars represent the 95%   |
| confidence intervals of the spatial mean computed from a 1000 bootstrap re-sampling          |
| procedure17  |
| Figure S15. As Figure 8 but for the U.A Great Plains region (35N-45N, 110W-90W),             |

Figures



Figure S1. As Figure 4 but for a different group of 6 regions.



Figure S2. As Figure 5 but for the SPI-6.



Figure S3. As Figure 5 but for the SPI-12.



Figure S4. SPI-3 spread about the ensemble mean of ENS4 (top right) and root mean square error of the ensemble mean of ENS4 (top left), TRMM (middle left), ERAI (middle right) and GPCC\_FG (bottom left).



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Figure S7. Fraction of grid-points in each region (top panel) with correlation coeficients significantly different from zero with 95% confidence. The correlation coeficients are calculated as the grid-point temporal correlation (botom panel) of the GPCC SPI-3 versus ERAI, GPCC\_FG, ENS4 (ensemble mean) and TRMM. The error bars in both pannels represent 95% confidence intervals of the spatial mean computed from a 1000 bootstrap resampling procedure.



Figure S8. As Figure S7 but for the SPI-12.



Figure S9. As Figure 7 but for the SPI-3.



Figure S10. Spatial mean of the grid-point temporal correlation of the FAPAR versue SPI-3 of GPCC, TRMM and ERAI (1999-2012) in the bottom pannel and the top pannel displays the fraction of grid-points with correlations significantly different from zero with 95% confidence. The error bars in both pannels represent 95% confidence intervals of the spatial mean computed from a 1000 bootstrap re-sampling procedure.



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Figure S14. Regional averages of the root mean square error of the monthly precipitation (mm/month) of TRMM, ERAI, GPCP\_FG and ENS4 in respect to GPCC. The RMSE was calculated for the overlap period 2009-2012 and the mean annual cycle of the period was removed, in each dataset, prior do the RMSE calculations. The error bars represent the 95% confidence intervals of the spatial mean computed from a 1000 bootstrap re-sampling procedure.



Figure S15. As Figure 8 but for the U.A Great Plains region (35N-45N, 110W-90W).