

Supplementary Materials: Using Satellite Error Modeling to Improve GPM-Level 3 Rainfall Estimates over the Central Amazon Region

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S1. Model calibration

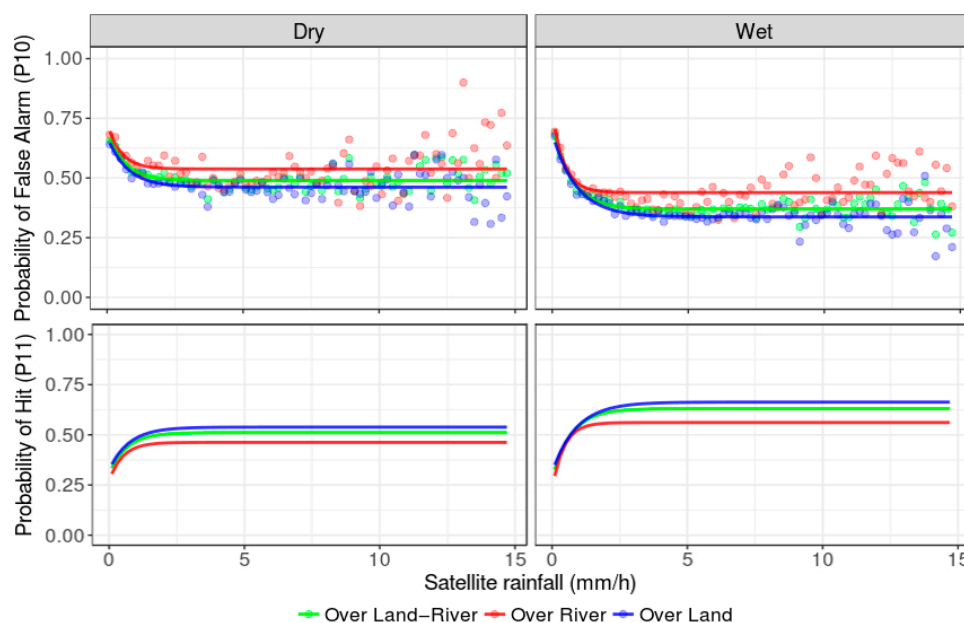


Figure S1. Probability of false alarm (P10) (upper panels) and probability of hit (P11) (lower panels) for a minimum threshold of 0.2 mm h^{-1} over land+river (green), over river only (red), and over land only (blue), during the dry (left panels) and wet (right panels) seasons.

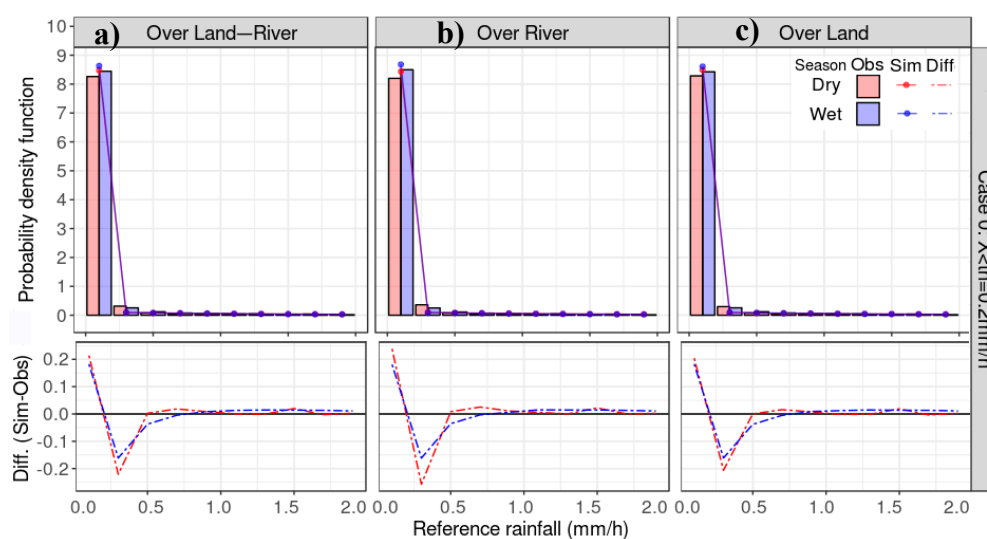


Figure S2. Distributions of correct no-precipitation detection errors (case 0) for the 0.2 mm h^{-1} threshold over land+river (a), over river only (b) and over land only (c), during the dry (red) and wet (blue) seasons (calibration period). Bars indicate the observed PDF, dotted lines represent the simulated PDF and dashed lines show the PDF differences (simulated – observed).

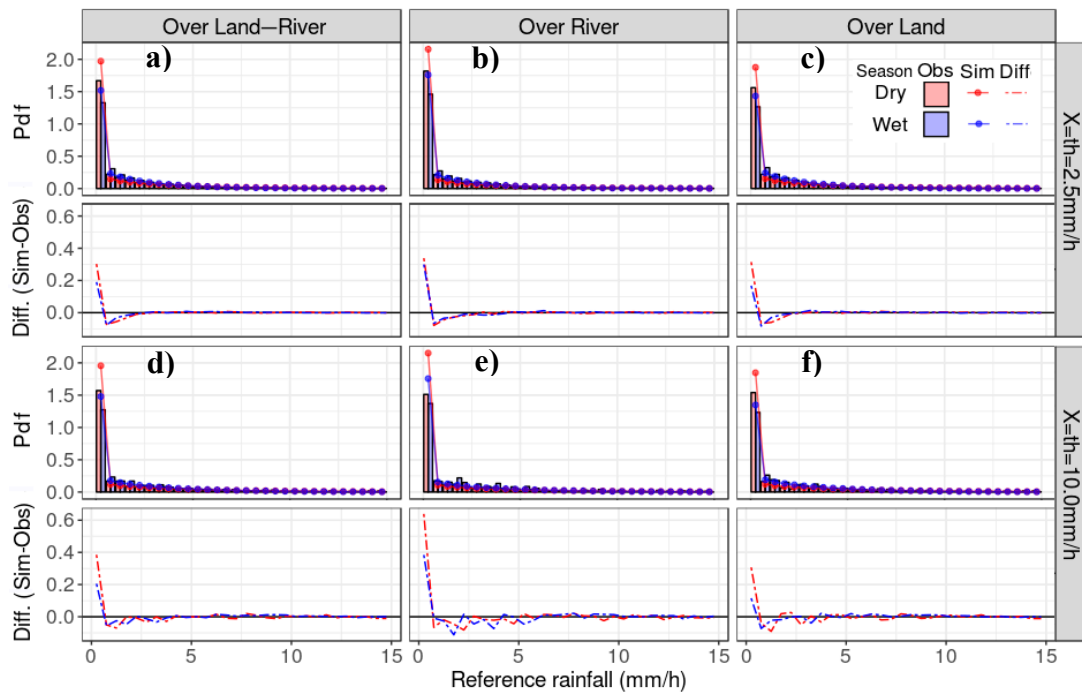


Figure S3. PDF from observations (bars) and simulated by the error model (black lines) and their differences (estimated minus observed probability densities) for the dry (in red) and wet (in blue) calibration periods and over land+river (a, d), over river only (b, e), and over land only (c, f). Examples for threshold values of satellite rain rates of 2.5 and 10.0 mm h⁻¹.