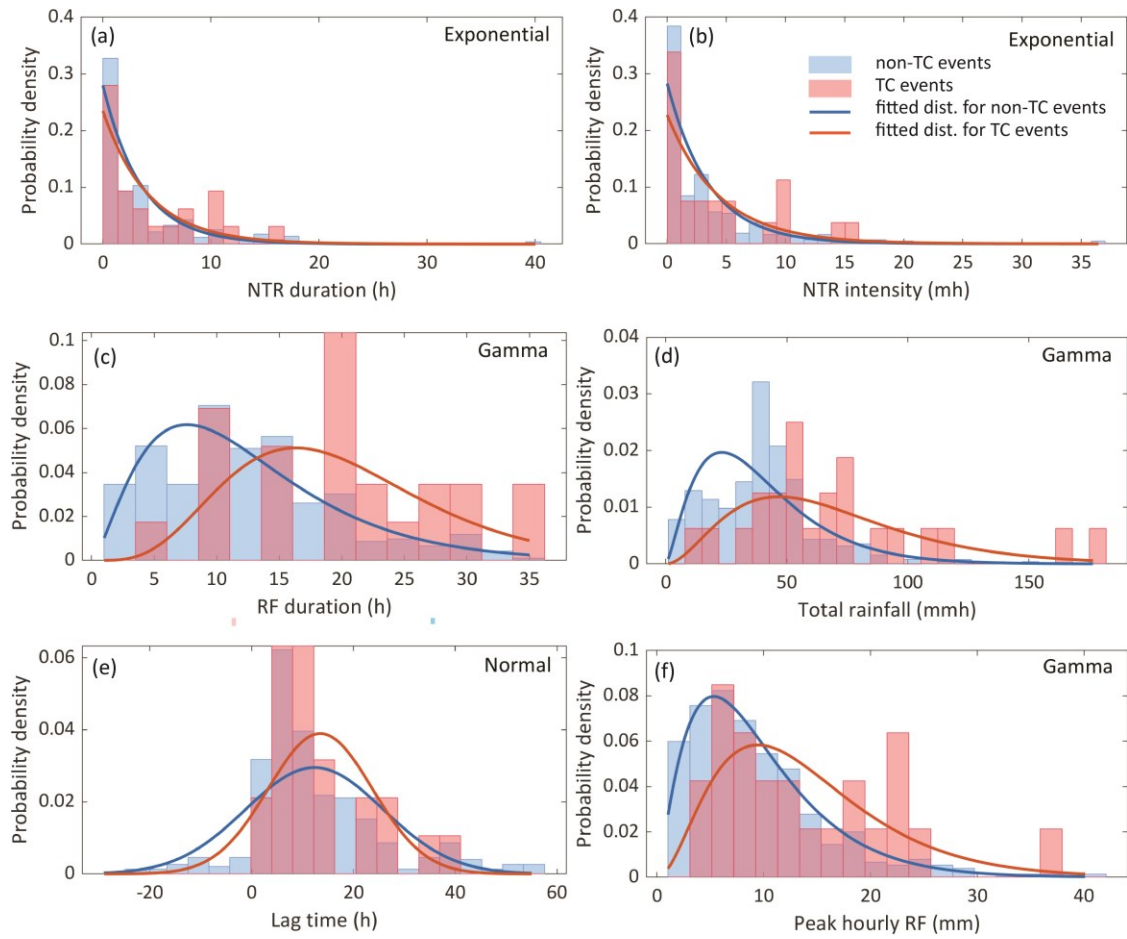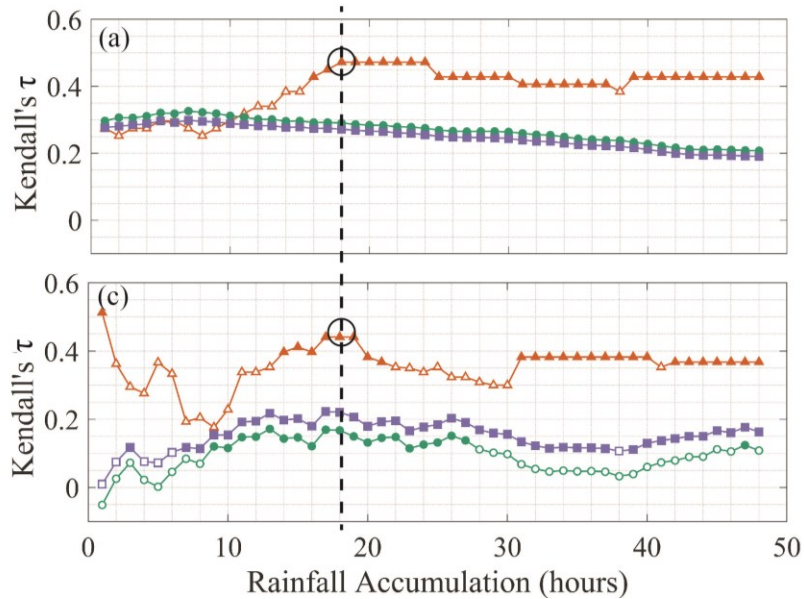**Figure S1:** Q-Q plots for selected parametric distributions compared to the empirical distributions of Gloucester City, for TC events (left) and non-TC events (right). (a), (b) NTR POT events when conditioned on NTR. (c), (d) Maximum RF events corresponding to NTR POT events when conditioned on NTR. (e), (f) Maximum NTR events corresponding to RF POT events when conditioned on RF; (g), (h) RF POT events when conditioned on RF. The black line indicates the x=y line in each panel.

Figure S2: Histogram and the fitted parametric distributions for TC events (red) and non-TC events (blue). (a) NTR duration, (b) NTR intensity, (c) RF duration, (d) total RF, (e) lag time, (f) Peak hourly RF. The selected parametric distribution is shown in each panel.

Figure S3: Kendall's τ between NTR and RF for different RF accumulation times for all events (purple), TCs (orange), and non-TCs (green) for samples conditioned on NTR (a and b) and RF (c and d). Filled markers indicate values that are significant at the 5% level. The black circles with vertical dashed lines show the selected RF accumulation for each location (Adapted from Maduwantha et al., 2024).