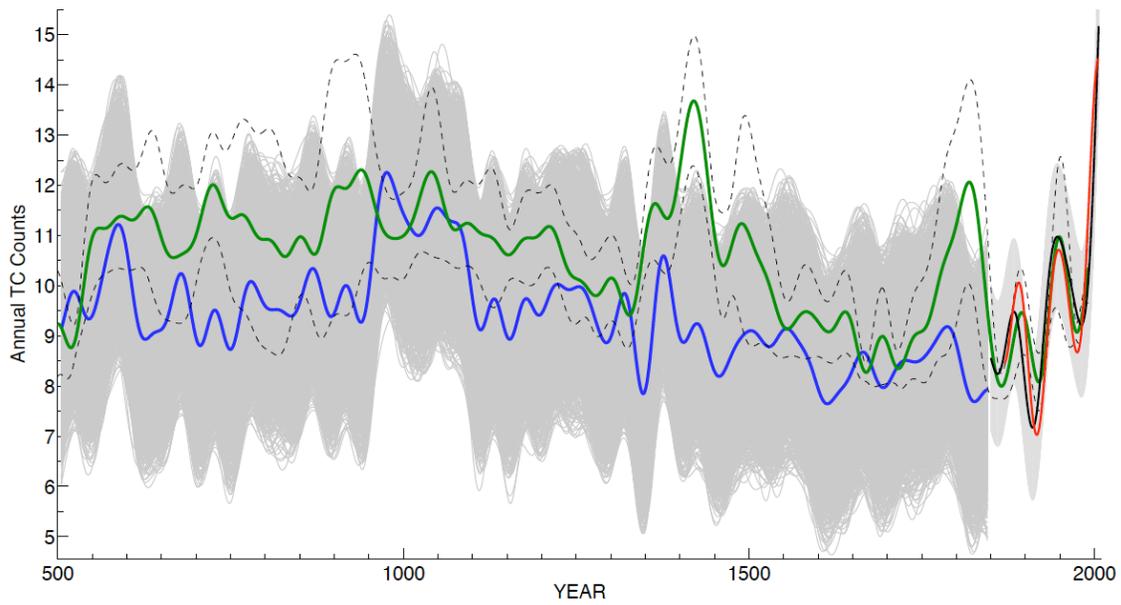
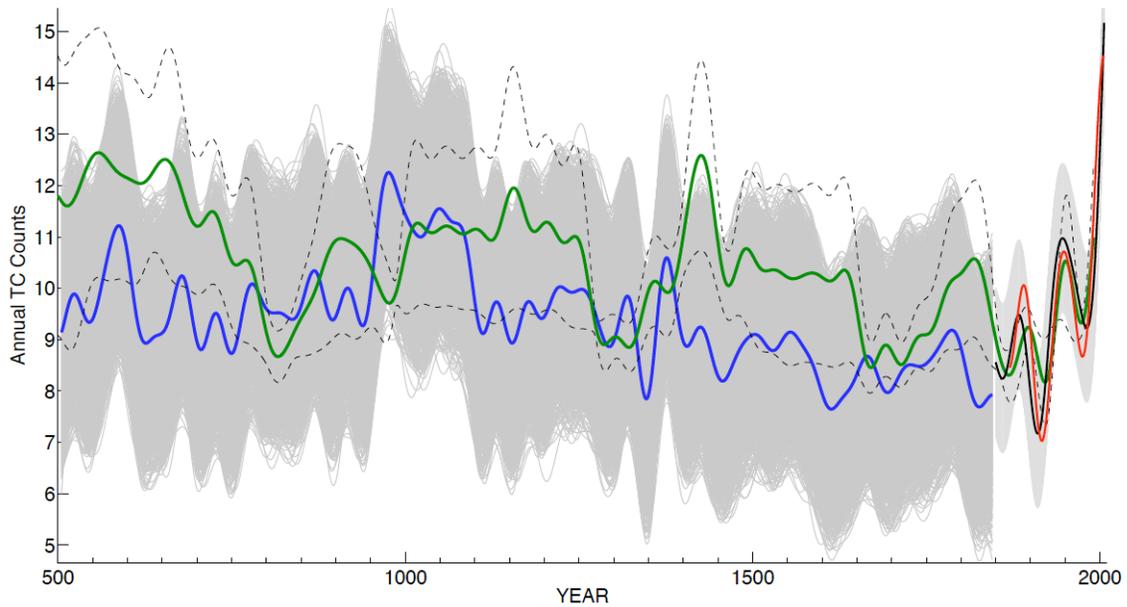


SUPPLEMENTARY INFORMATION

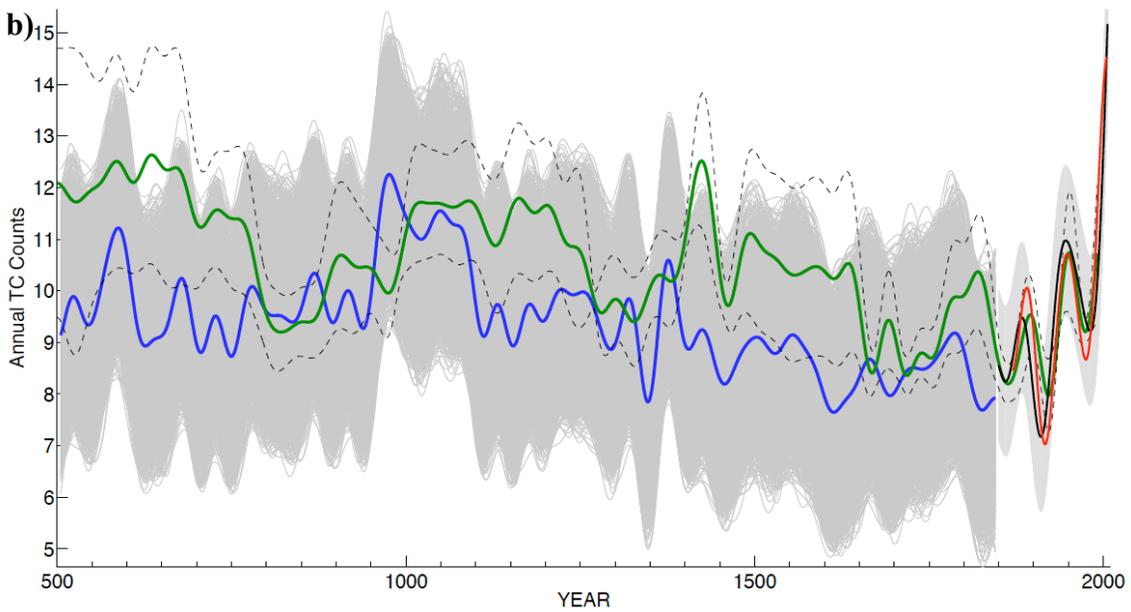


Supplementary Figure 1. As in Figure 3 of article, but without normalizing regional series/composites by number of events in forming basin-wide composite.

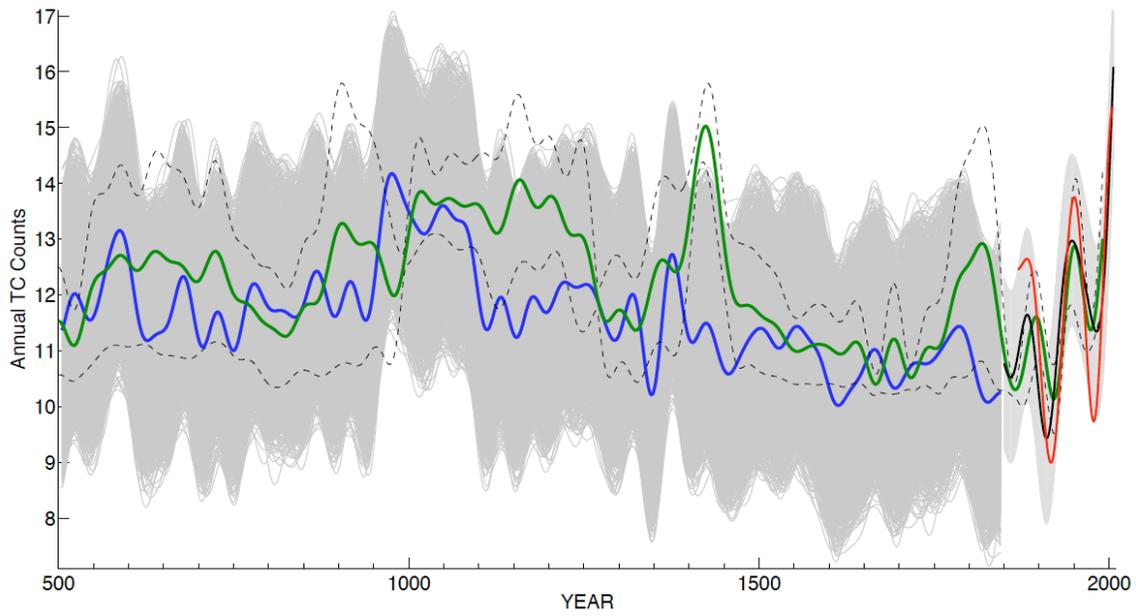
a)



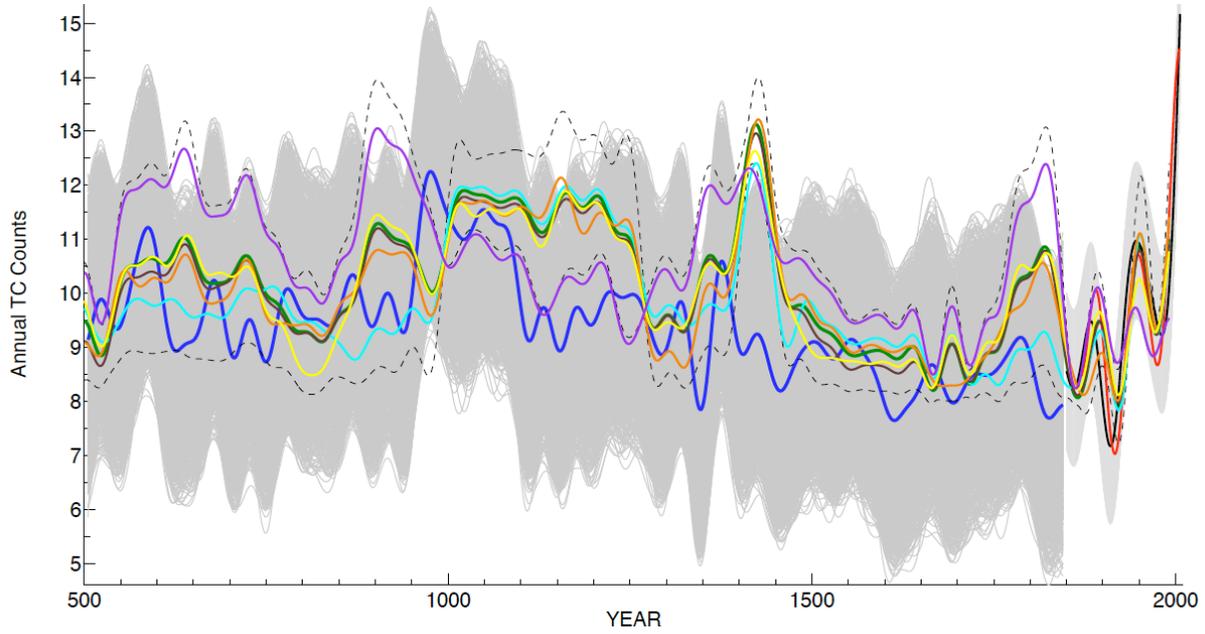
b)



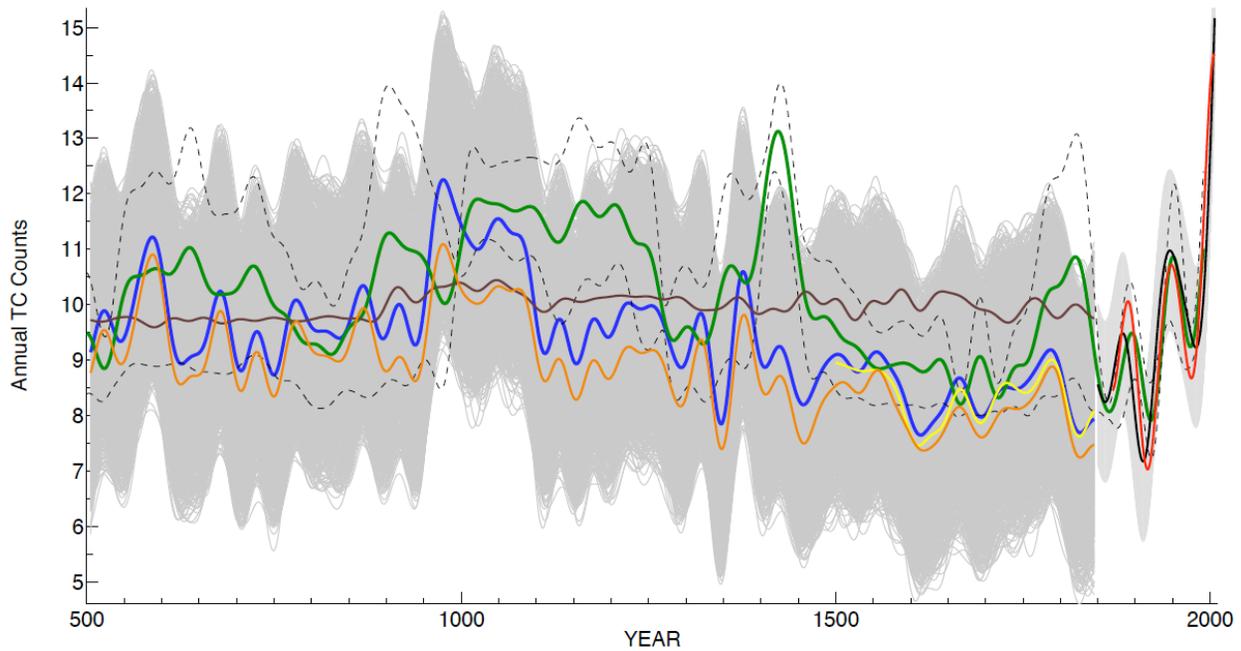
Supplementary Figure 2. As in Figure 3 of article, but using alternative weighting of regional series/composites in forming a basin-wide composite including (a) assuming uniform (cat 3) sensitivity for regional sites/composites, and (b) using a uniform weighting of regional sites/regional composites.



Supplementary Figure 3. As in Figure 3 of article, but using adjustment of modern TC record based on the larger undercount bias estimate of Landsea *et al*^{2,23}.



Supplementary Figure 4. As in Figure 3 of article, but showing in addition each of the five jackknife surrogates, which includes composites without the Caribbean record Vieques, PR (cyan), the Gulf Coast record Western Lake, FL (brown), the Southeastern U.S. Coast record Singleton Swash, SC (purple), the mid-Atlantic composite (orange), and the New England composite (yellow).



Supplementary Figure 5. As in Figure 3 of article, but showing statistical model results keeping NAO (yellow), Nino3 (orange), and MDR SST (brown) fixed at their climatological mean modern values. Note that impact of predictors is multiplicative in the context of Poisson regression, so that the modest peak in Nino3 during AD 900-1100 substantially elevates the prominence of the overall peak (i.e. the original blue curve) relative to the case where Nino3 impacts are not included (orange curve), even though the influence of this peak is subtle in the case where MDR SST is omitted (brown curve).