

1 **Supplementary Material for The Importance of Radiative Heating for the Prediction of**
2 **Tropical Cyclone Intensification in Numerical Models**

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11 **1. Supplementary figures**

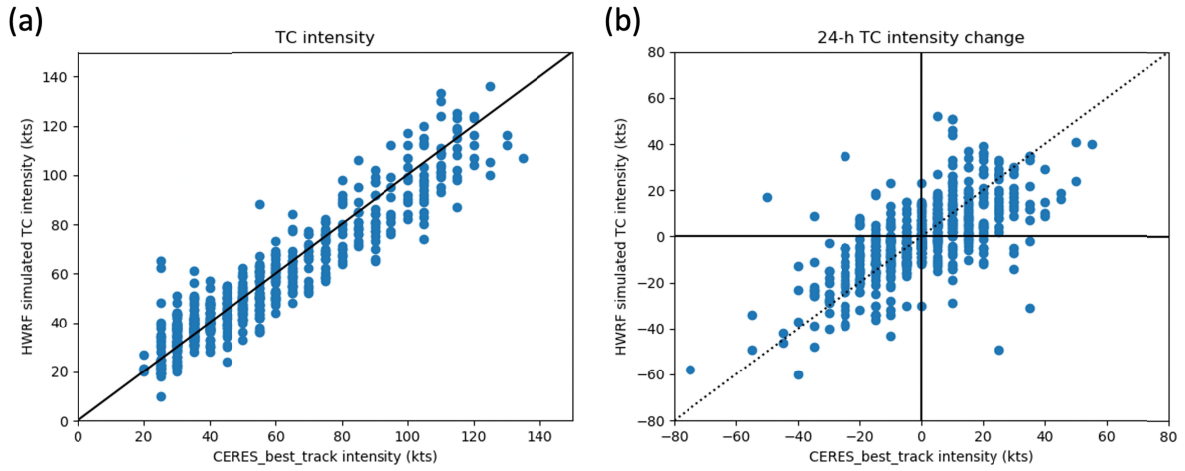
12 Figure S1-S3

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14 **2. Supplementary table**

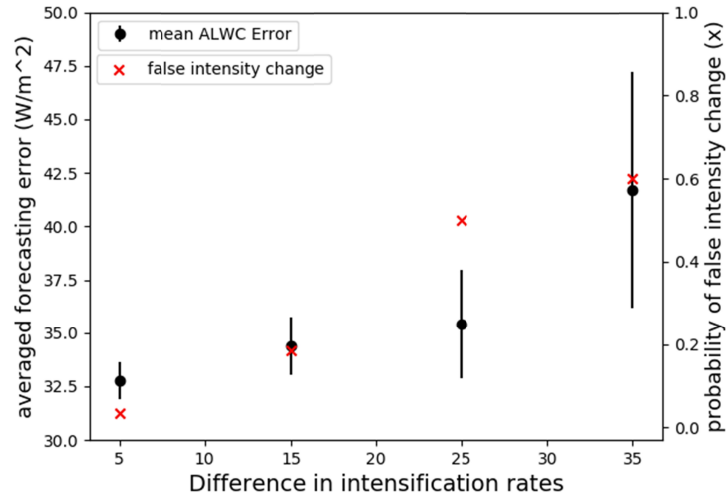
15 Table S1

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Figure 1. (a) Current TC intensity (kt) and (b) future 24-h intensity change (kt) for IBTrACS (x-axis) and 6-h HWRf forecasts (y-axis).



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Figure 2. ΔV_t versus Mean $\Delta ALWC$ within 500 km of the TC center and the probability that the HWRF intensity change forecast is the wrong sign. Black dots are mean $\Delta ALWC$ and the error bars are standard error. Red crosses represent the probability of false intensity change, and the scale is from 0 (all correct) to 1 (all false).

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TC name	Period of lifetime	Maximum intensity (kts)
North Atlantic		
Alberto	Ma. 25 – May. 31	56
Beryl	Jul. 4 – Jul. 15	70
Chris	Jul. 6 – Jul. 12	91
Debby	Aug. 7 – Aug. 9	43
Ernesto	Aug. 15 – Aug. 17	39
Florence	Aug. 31 – Sep. 17	130
Gordon	Sep. 3 – Sep. 6	61
Helene	Sep. 7 – Sep. 16	96
Isaac	Sep. 7 – Sep. 15	65
Joyce	Sep. 12 – Sep. 18	43
Kirk	Sep. 22 – Sep. 28	56
Leslie	Sep. 23 – Oct. 13	78
Michael	Oct. 7 – Oct. 11	139
Nadine	Oct. 9 – Oct. 12	56
Oscar	Oct. 26 – Oct. 31	96
eastern North Pacific		
Aletta	Jun. 6 – Jun. 11	122
Bud	Jun. 9 – Jun. 15	122
Carlotta	Jun. 14 – Jun. 18	56
Daniel	Jun. 24 – Jun. 26	39
Emilia	Jun. 27 – Jul. 1	52
Fabio	Jun. 30 – Jul. 6	96
Gilma	Jul. 26 – Jul. 29	39
Hector	Jul. 31 – Aug. 13	135

Ileana	Aug. 4 – Aug. 7	56
John	Aug. 5 – Aug. 10	96
Kristy	Aug. 6 – Aug. 12	61
Lane	Aug. 15 – Aug 28	139
Miriam	Aug. 26 – Sep. 2	87
Norman	Aug. 28 – Sep. 8	130
Olivia	Sep. 1 – Sep. 14	113
Paul	Sep. 8 – Sep. 11	39
Rosa	Sep. 25 – Oct. 2	130
Sergio	Sep. 29 – Oct. 13	122
Walaka	Sep 29 – Oct 6	139
Tara	Oct. 14 – Oct. 17	56
Vicente	Oct. 19 – Oct. 23	43
Willa	Oct. 20 – Oct. 24	139
Xavier	Nov. 2 – Nov. 5	56

32 Table 1. 2018 TCs in eastern North Pacific and North Atlantic that are selected in our analysis.