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*Geophysical Research Letters*

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Supporting Information for

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**Three western pacific typhoons strengthened fire weather in the recent conflagration in northwest U.S.**

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**Text S1.**

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By following the forecast evaluation based on typhoons as shown in Figure 3, we adopted a reverse approach by evaluating the North American circulation pattern and used the hit-and-miss forecast grouping to examine the preceding typhoon. Here, we applied the spatial correlation analysis to the 250-hPa geopotential height eddy (HGT<sub>250E</sub>, with the zonal mean removed) between forecast and reanalysis within the domain outlined in Figure S1; we also computed the variance of HGT<sub>250E</sub> over this domain. Then, we used correlation coefficients less than 0.3 and the variance ratio smaller than 40% (of the observed) as the threshold to identify forecast that is a “miss” of the North American circulation pattern and associated typhoon. By using correlation coefficients greater than 0.8 and variance smaller than 60% as the threshold, we identified the forecast as a “hit”. The resultant composite circulations are shown in Figures S1-S3.

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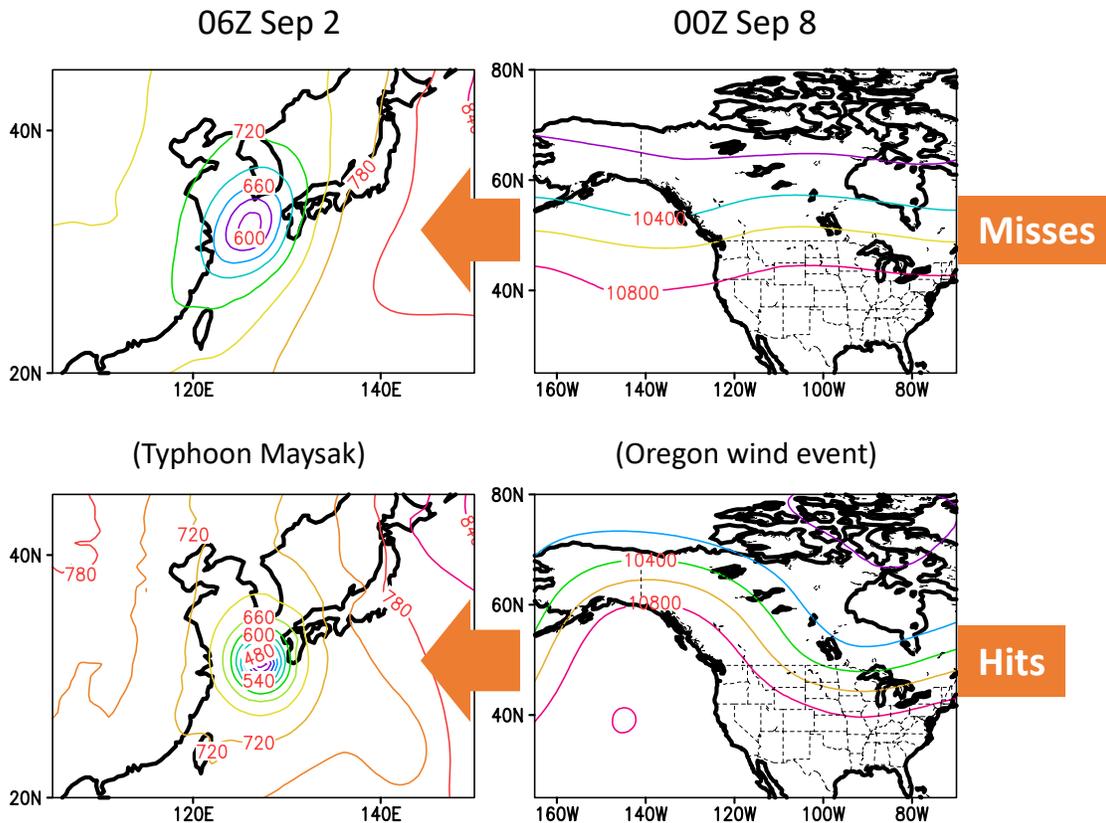
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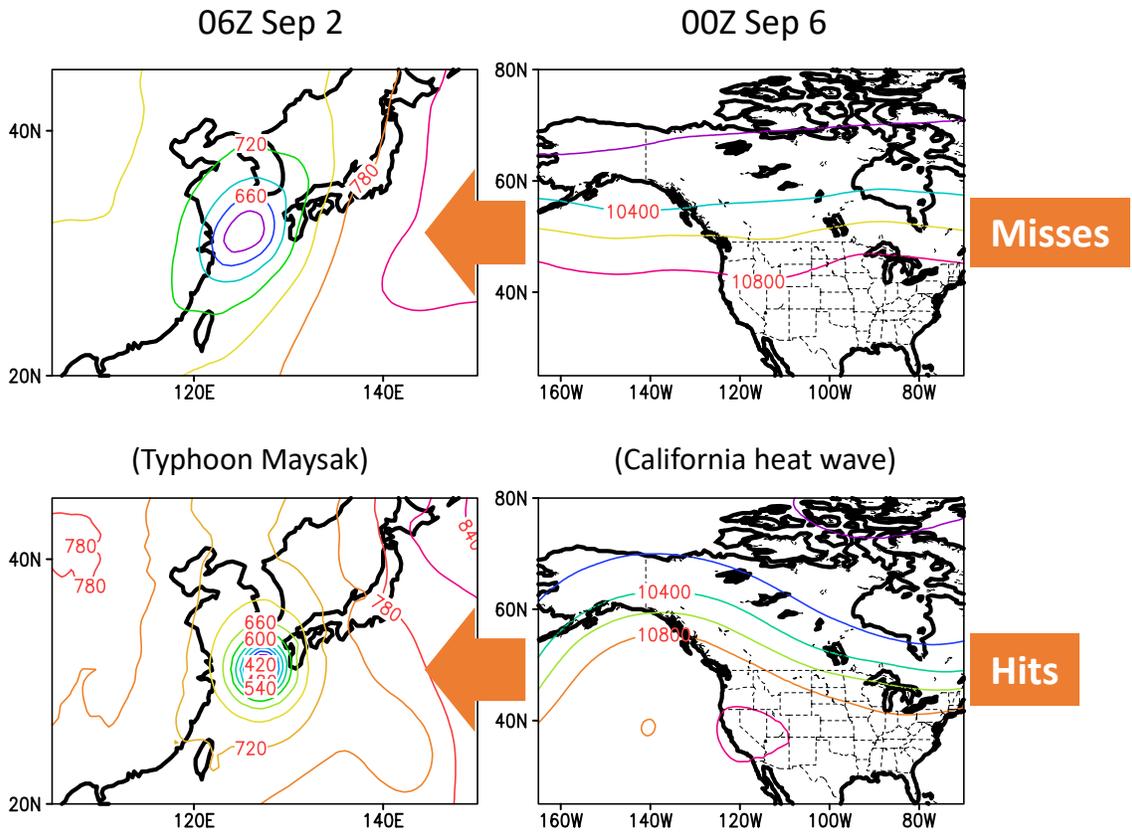
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 31 **Figure S1.** The “missed” September 8 North American wave pattern at 250 hPa and associated  
 32 typhoon on September 2 (Maysak) at 925 hPa in terms of geopotential height (unit: meter).  
 33 The orange arrows indicate the direction of our evaluation that is based on the North  
 34 American circulation. Note the high-amplitude ridge and trough in western and central North  
 35 America, respectively.

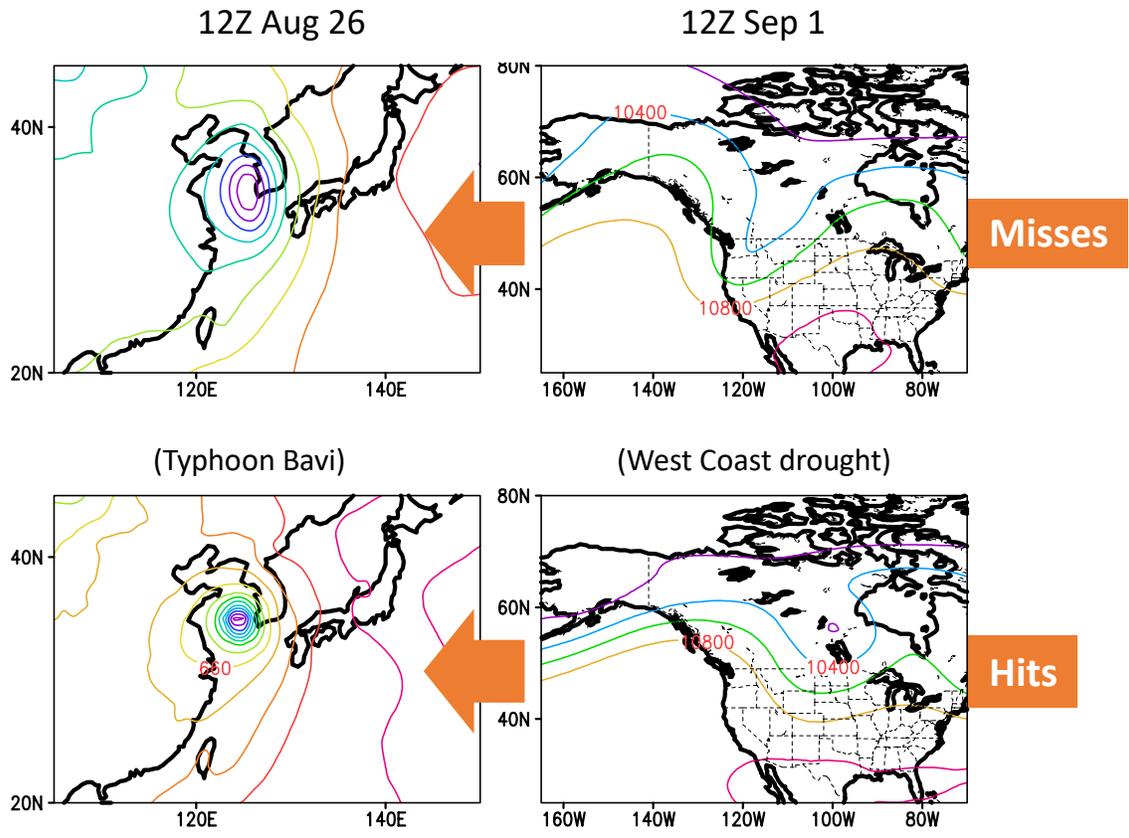
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39 **Figure S2.** Same as Figure S1 but for the September 6 North American circulation pattern, in  
 40 which the California heatwave occurred, and associated forecast difference of Typhoon  
 41 Maysak.

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**Figure S3.** Same as Figure S1 but for September 1's ridge buildup in western North America and associated forecast difference of Typhoon Bavi.