

1 **An anomalous atmospheric river linked to the late June**  
2 **2021 western North America heatwave:**  
3 **Supplementary Information**

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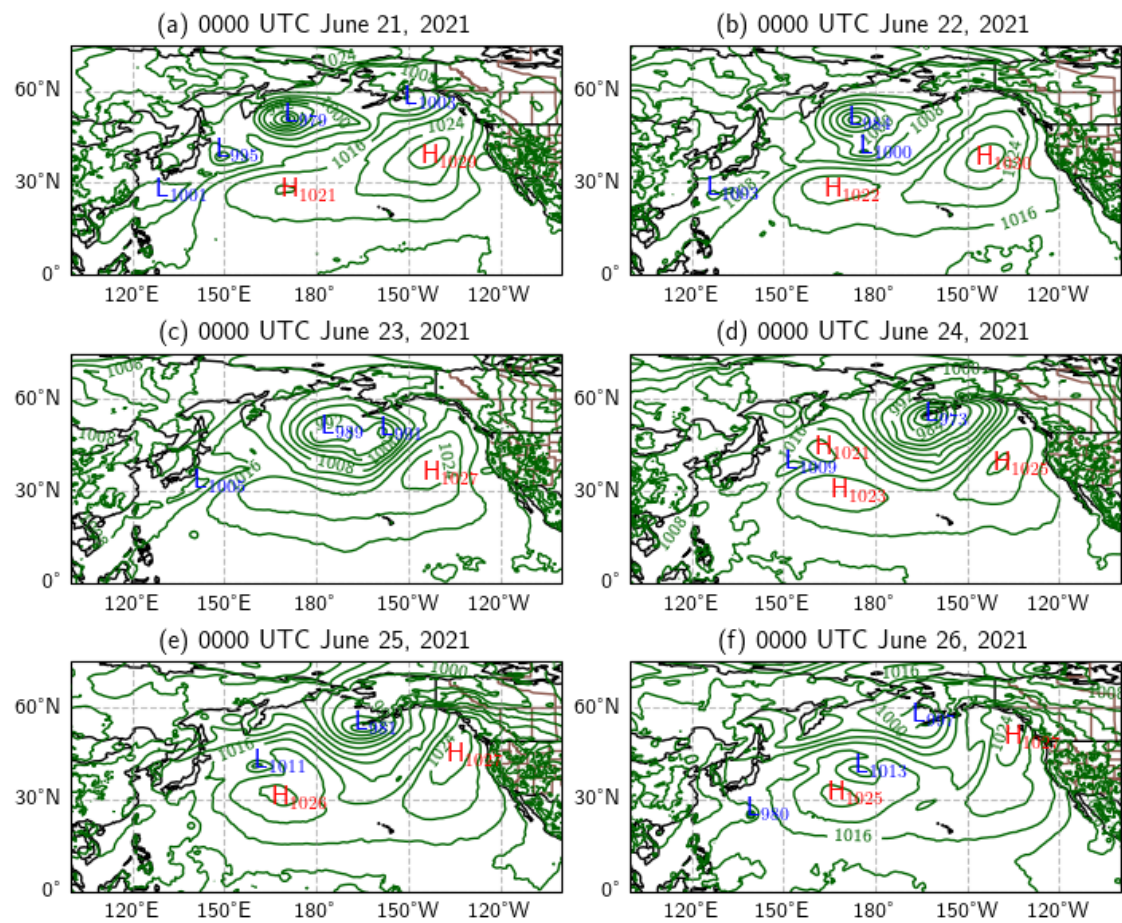
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6 <sup>2</sup>*Environment and Climate Change Canada, Montreal, Canada*

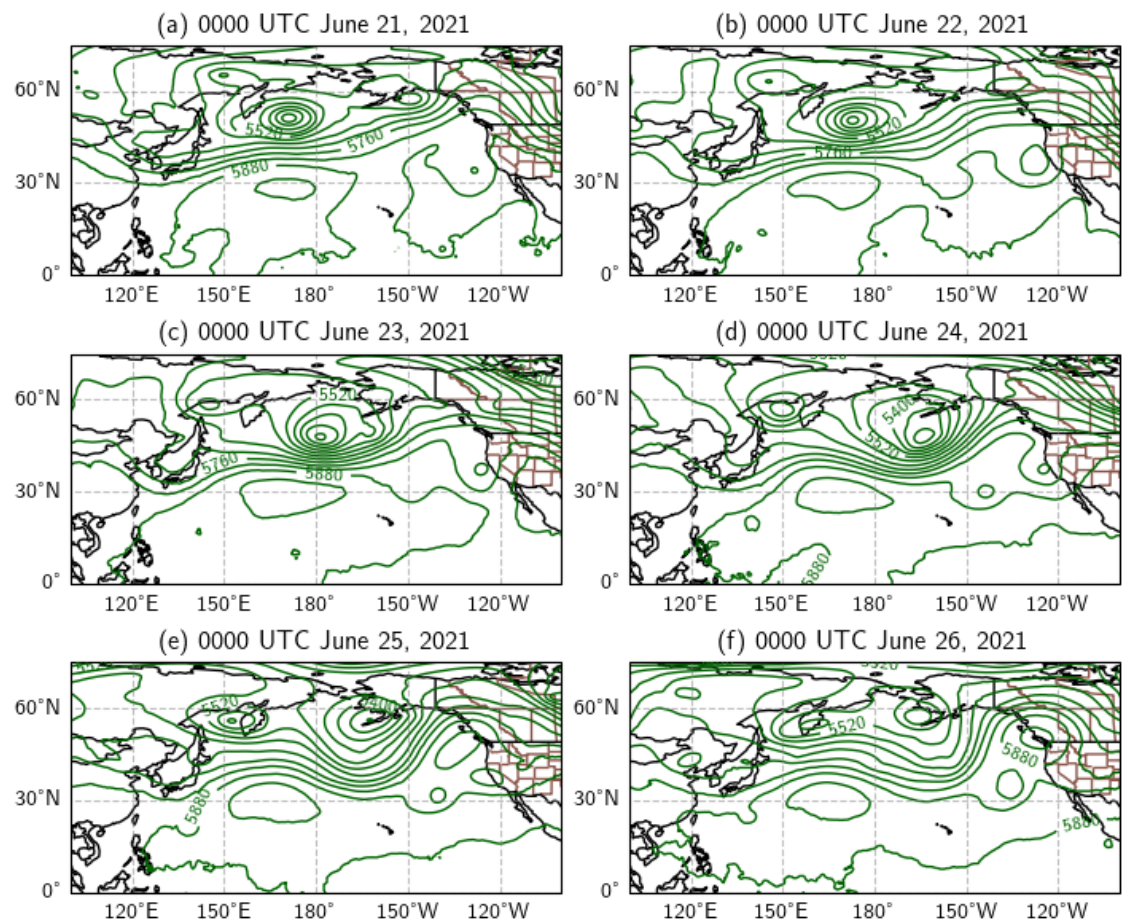
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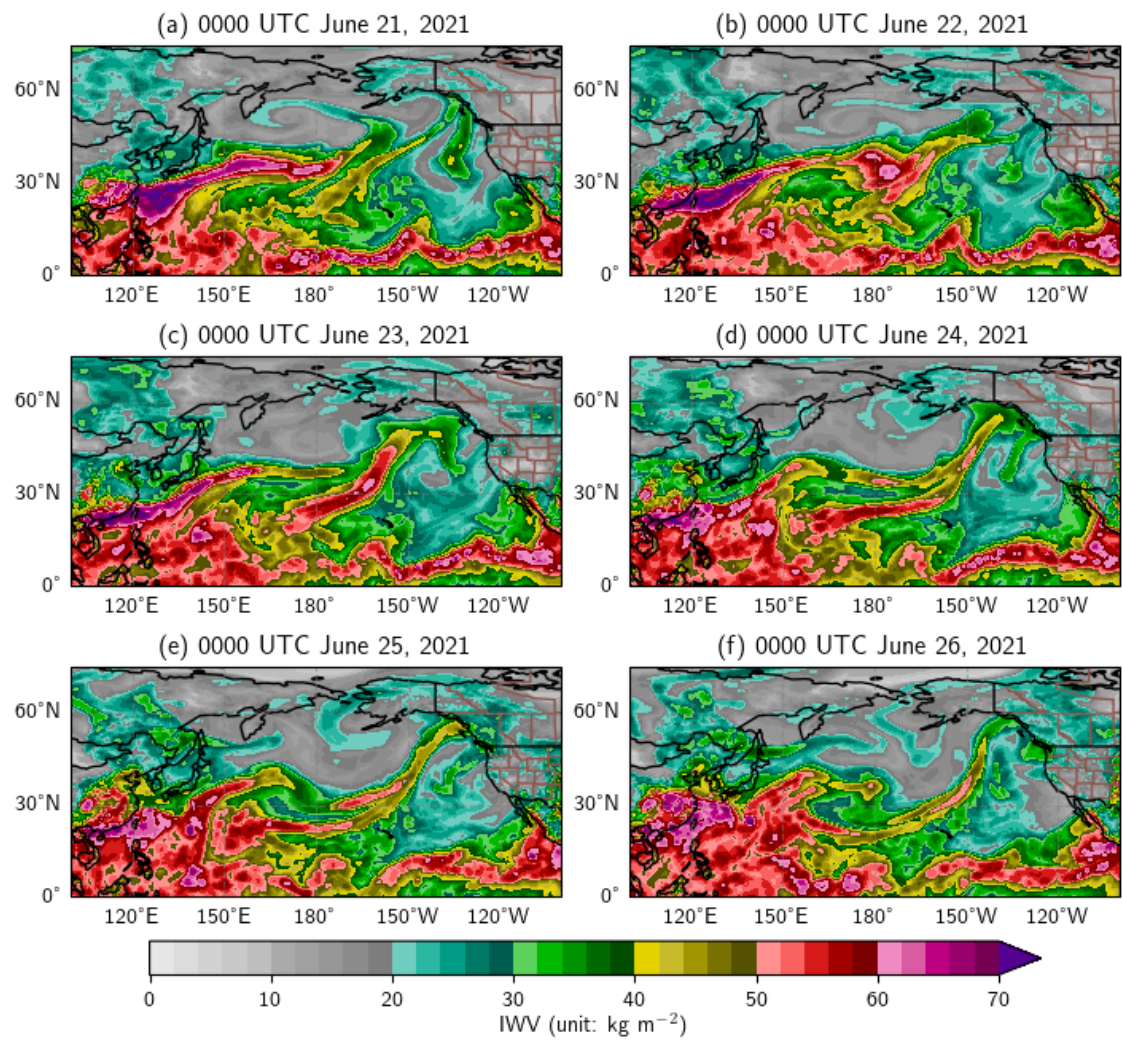
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10 Six figures are provided in this document as supplementary information to support the  
11 main findings of our article entitled “An anomalous atmospheric river linked to the late  
12 June 2021 western North America heatwave”. They are needed to properly understand  
13 and replicate the study.



**Fig. S1 | The distributions of sea level pressure (SLP) from the ERA5 reanalysis, valid at 0000 UTC June 21-26, 2021. The SLP unit is hPa, and the contour interval is 4 hPa. The high and low centres of SLP in the Pacific Ocean are marked by letters “H” and “L” with the corresponding maximum/minimum SLP values.**

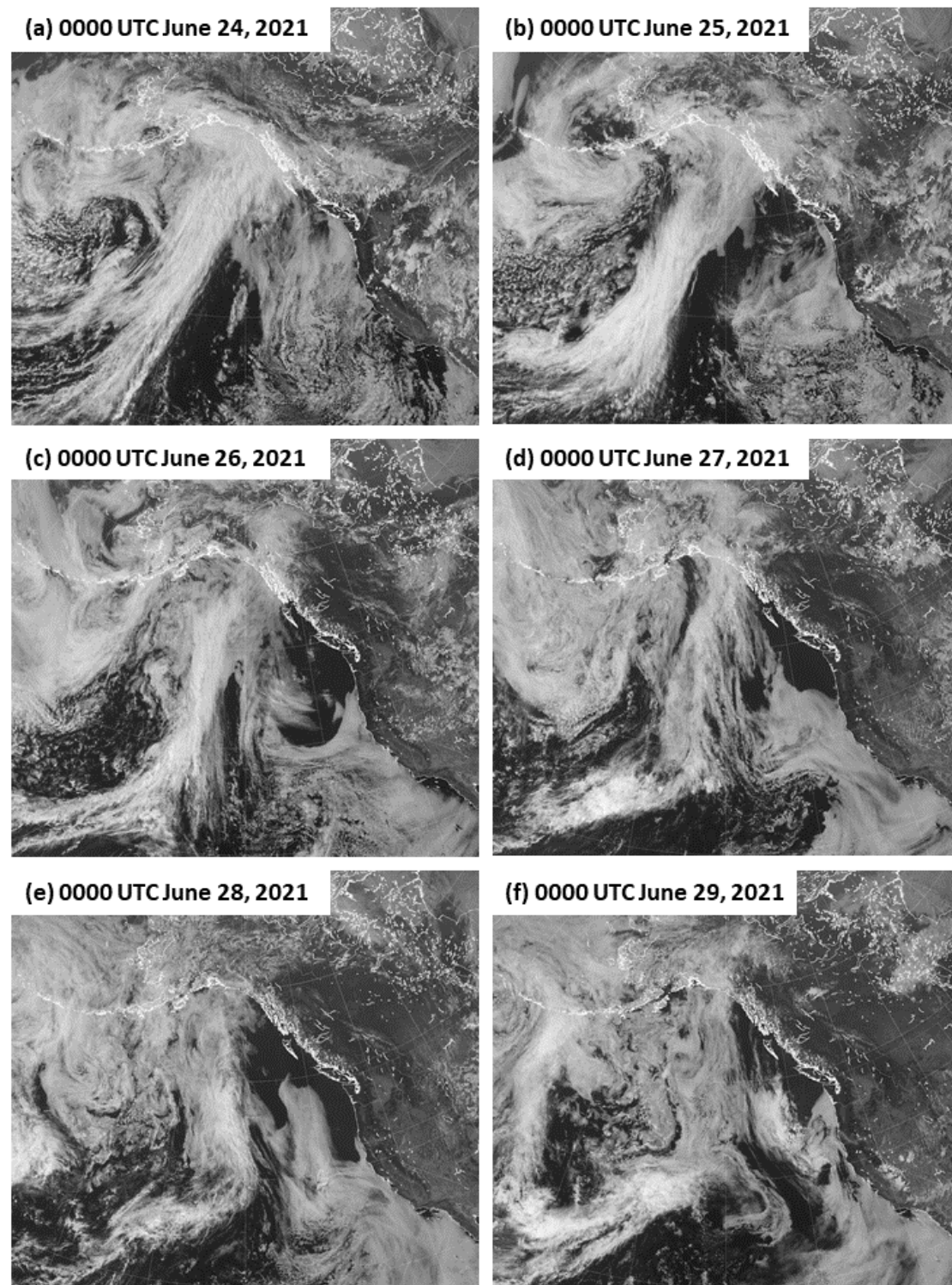


**Fig. S2 | The distributions of 500-hPa geopotential height (Z500) from the ERA5 reanalysis, valid at 0000 UTC June 21-26, 2021. The Z500 unit is m, and the contour interval is 60 m.**

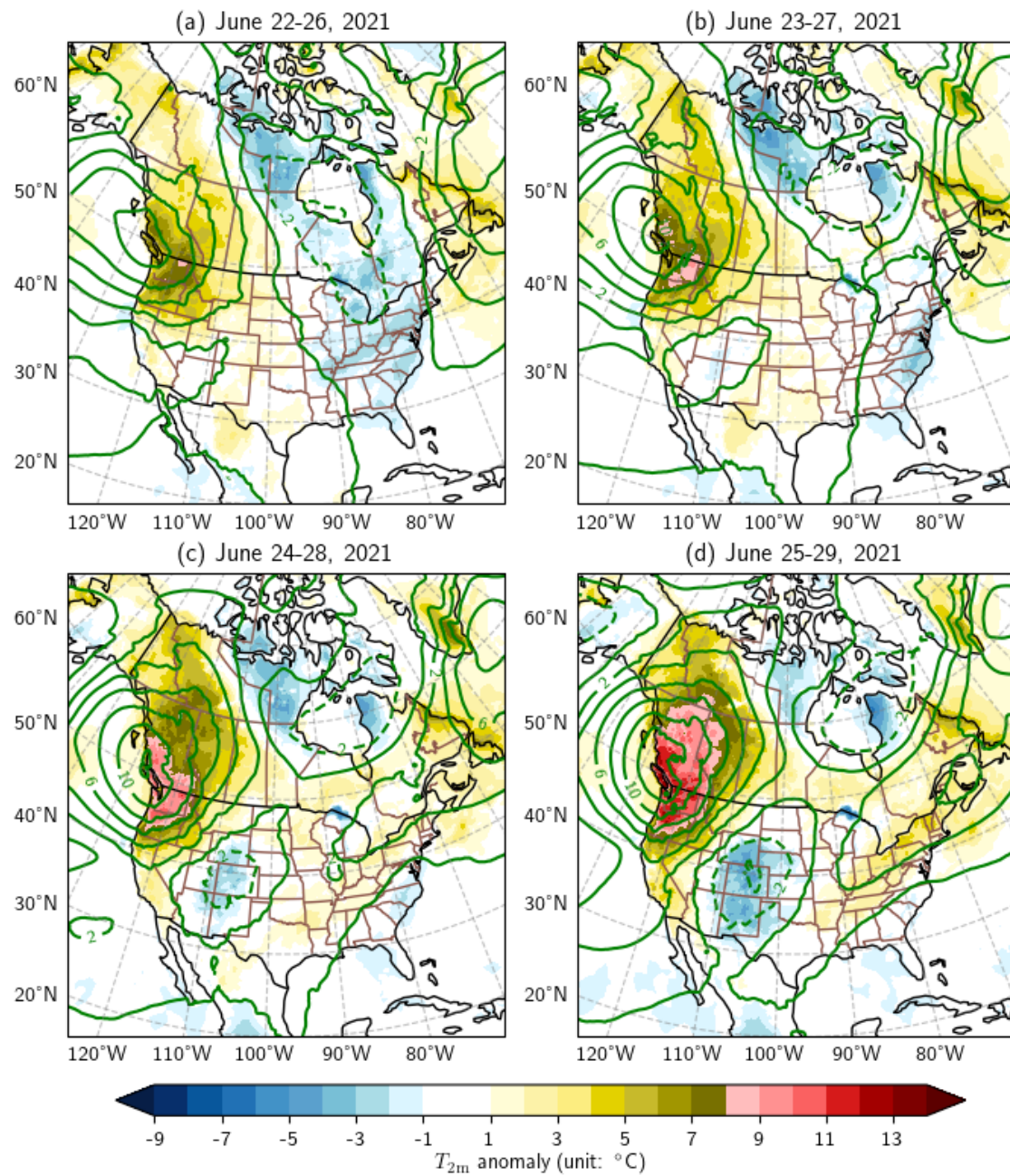


**Fig. S3 | The distributions of integrated water vapour (IWV) from the ERA5 reanalysis, valid at 0000 UTC June 21-26, 2021.**

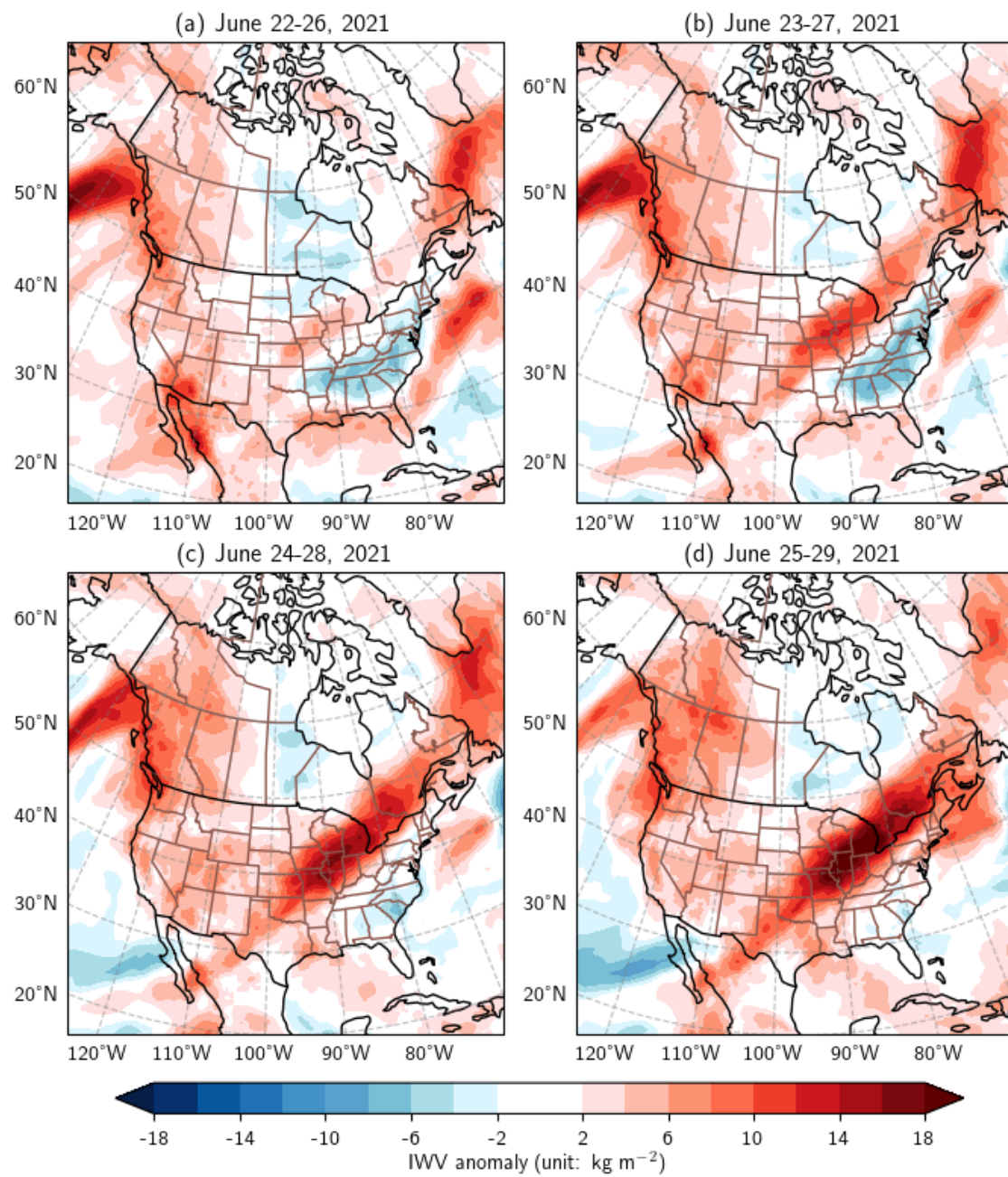




**Fig. S4 | Weather satellite (GOES-17) visible imagery valid at 0000 UTC June 24-29, 2021** (courtesy of Pacific Storm Prediction Centre, Environment and Climate Change Canada).



**Fig. S5 | The 5-day mean anomalies of the lower-tropospheric averaged temperature ( $\bar{T}$ , line contours with intervals of 2°C) and the 2-metre temperature ( $T_{2m}$ , colour-filled) in late June 2021. Data are from the ERA5 reanalysis.**



**Fig. S6 | The 5-day mean I WV anomalies in late June 2021.** Data are from the ERA5 reanalysis.