

Supporting Information for “Assessing the impact of Climate Change on Atmospheric Rivers: A modeling perspective.”

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Summary

This document accompanies the manuscript: “Assesing the impact of Climate Change on Atmospheric Rivers: A modeling perspective”. It contains additional figures mentioned in the Results section of the manuscript. Figures included herein are the comparisons amongst different climate states of: sea surface temperature (SST), surface temperatures, and 850 hPa zonal jets. All data presented was generated using the National Aeronautics and Space Administration (NASA) GISS ModelE2.1. The main acronyms used in the figures correspond to different climate states and are: (1) LGM–Last Glacial Maximum,

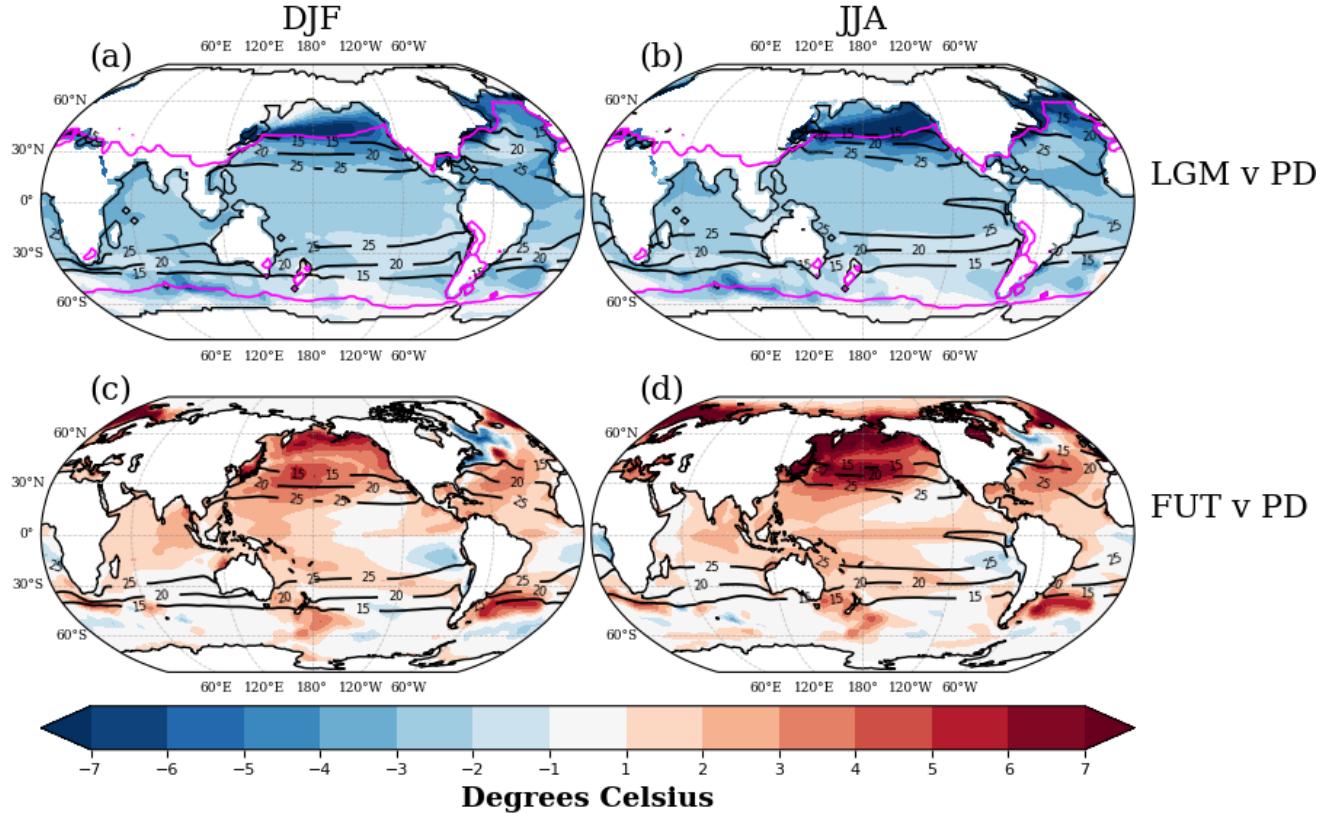


Figure S1: Sea surface temperature differences (shading) for LGM minus PD (top row) and FUT minus PD (bottom row). DJF is shown in sub-panels (a) and (c), respectively, while JJA is shown in sub-panels (b) and (d). Black contours show seasonal climatology values of the control integration, PD, in values of 15, 20, 25 degrees Celsius. Magenta contours in the LGM comparison show the annual extent of sea ice and snow/ice cover.

(2) PD—present-day, and (3) FUT, which is end of century forcing conditions as per Representative Concentration Pathways 8.5 (RCP8.5).

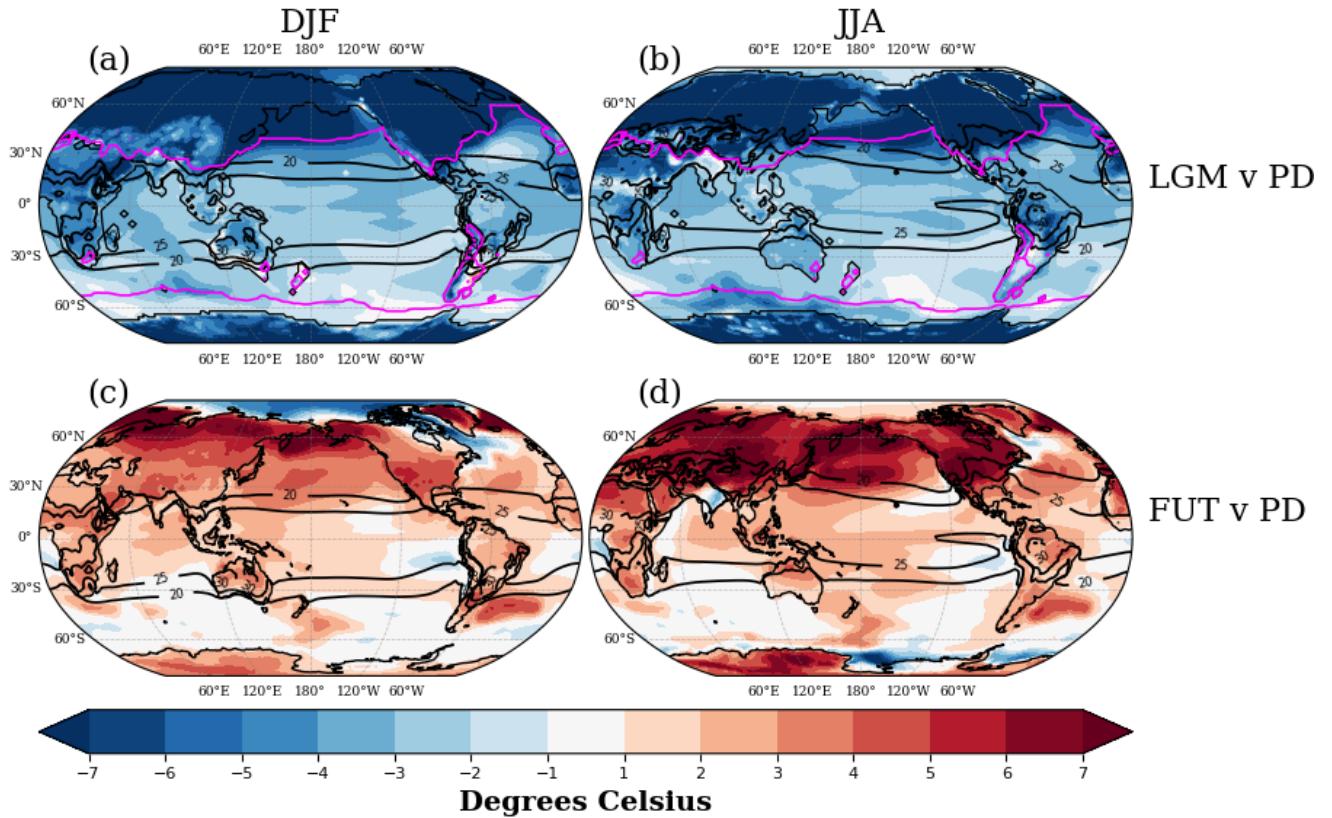


Figure S2: Surface temperature differences (shading) for LGM minus PD (top row) and FUT minus PD (bottom row). Shading is only shown in regions where the differences are statistically significant. DJF is shown in sub-panels (a) and (c), respectively, while JJA is shown in sub-panels (b) and (d). Black contours show seasonal climatology values of the control integration, PD, in values of 20 and 25 degrees Celsius. Magenta contours in the LGM comparison show the annual extent of sea ice and snow/ice cover.

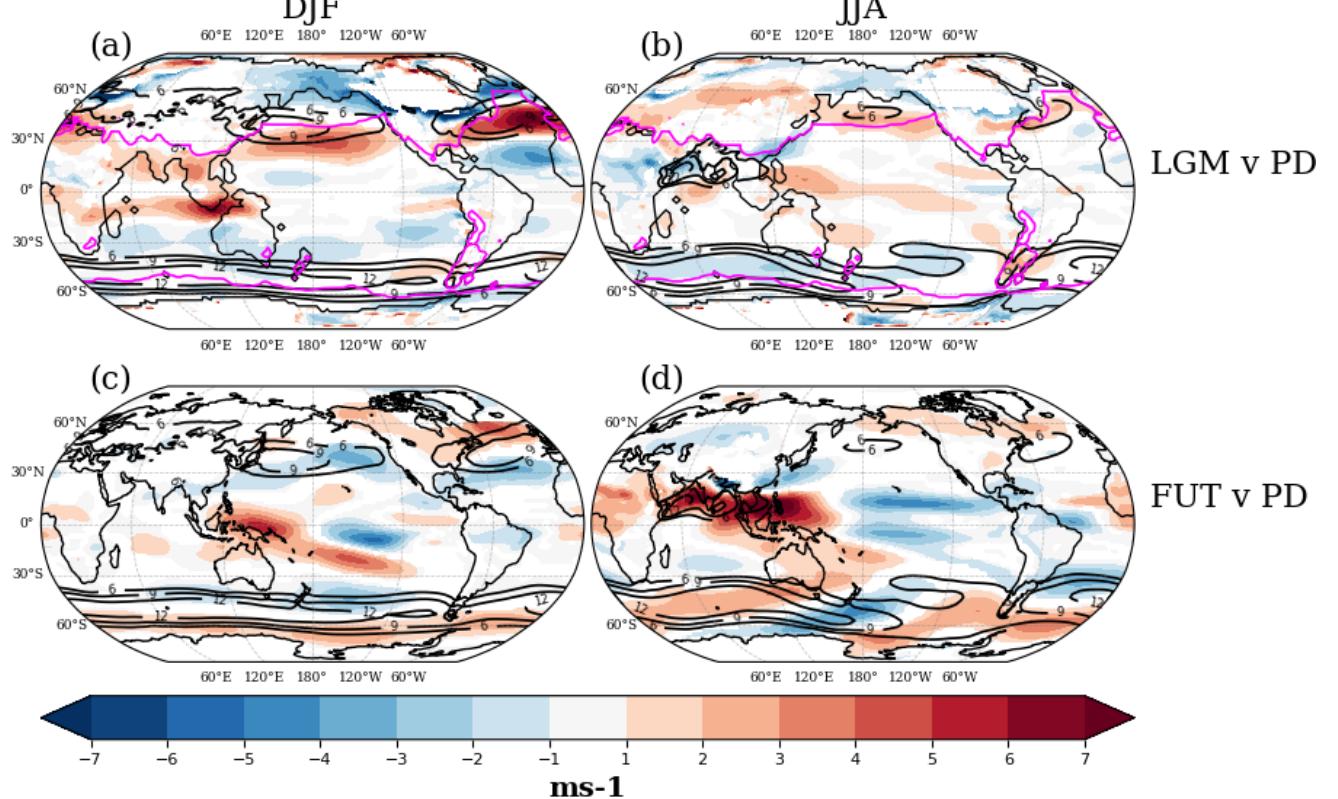


Figure S3: 850hPa differences (shading) for LGM minus PD (top row) and FUT minus PD (bottom row). Shading is only shown for statistically significant regions. DJF is shown in sub-panels (a) and (c), respectively, while JJA is shown in sub-panels (b) and (d). Shading is only shown in statistically significant regions. Black contours show seasonal climatology values of the control integration, PD, in values of 6, 9, 12 ms⁻¹. Magenta contours in the LGM comparison show the annual extent of sea ice and snow/ice cover.