

Supplementary material for

An Improved Parameterization of Sea Spray-Mediated Heat Flux Using Gaussian Quadrature: Case Studies with a Coupled CFSv2.0-WW3 System

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Introduction

Figure S1 (Figure S2) are global 53-day averaged SST differences between SPRAY-A15 and OISST and the differences between SPRAY-GQ and SPRAY-A15 in Jan-Feb, 2017 (Aug-Sep, 2018).

Figure S3 (Figure S4) are global 53-day averaged WSP10 differences between SPRAY-A15 and ERA5 and the differences between SPRAY-GQ and SPRAY-A15 in Jan-Feb, 2017 (Aug-Sep, 2018).

Figure S5 (Figure S6) are global 53-day averaged SWH differences between SPRAY-A15 and ERA5 and the differences between SPRAY-GQ and SPRAY-A15 in Jan-Feb, 2017 (Aug-Sep, 2018).

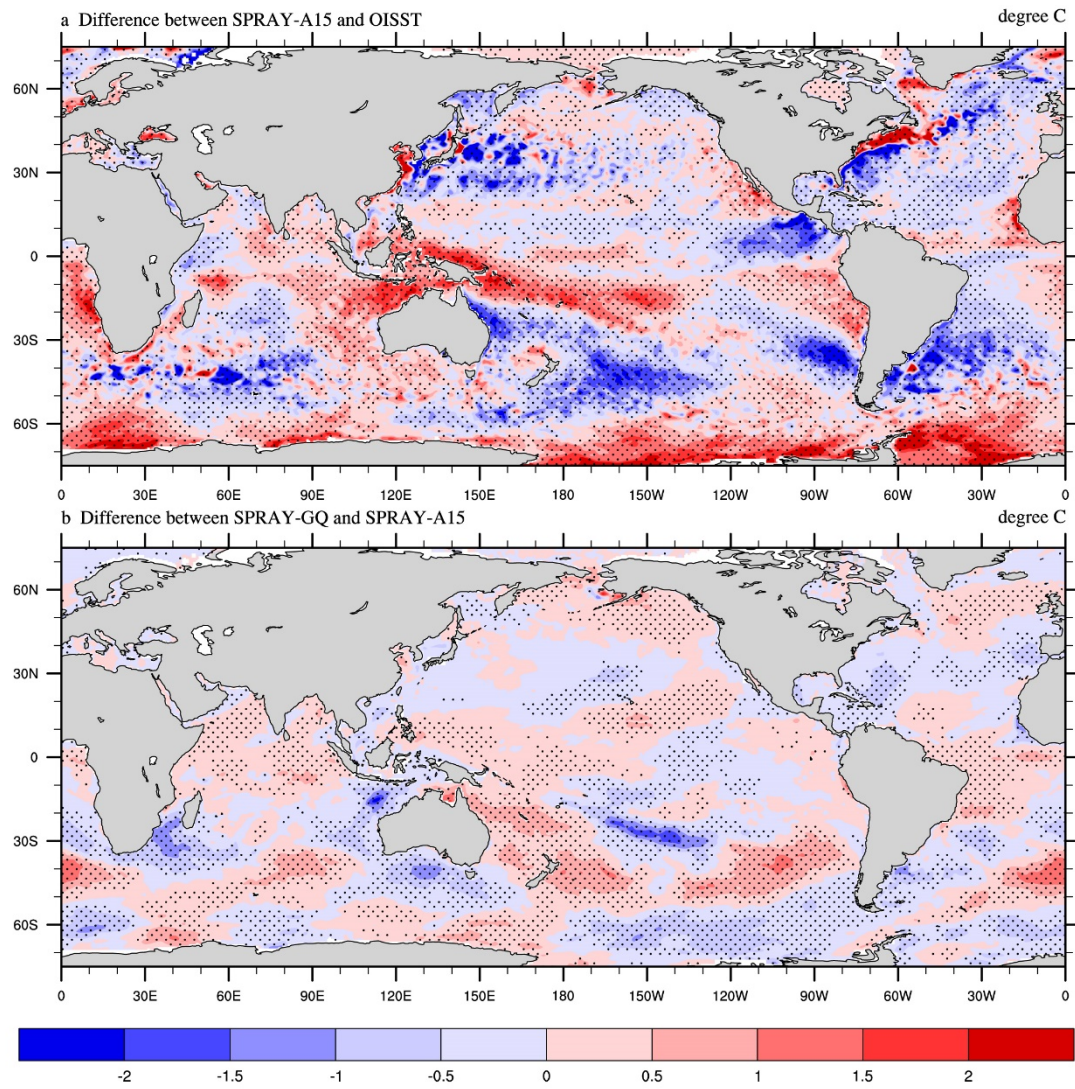


Figure S1. The global 53-day averaged SST ($^{\circ}\text{C}$) differences between SPRAY-A15 and OISST (a; SPRAY-A15 minus OISST) and the differences between SPRAY-GQ and SPRAY-A15 (b; SPRAY-GQ minus SPRAY-A15) in Jan-Feb, 2017. The first 3-day simulation is discarded. The dotted areas are statistically significant at 95% confidence level.

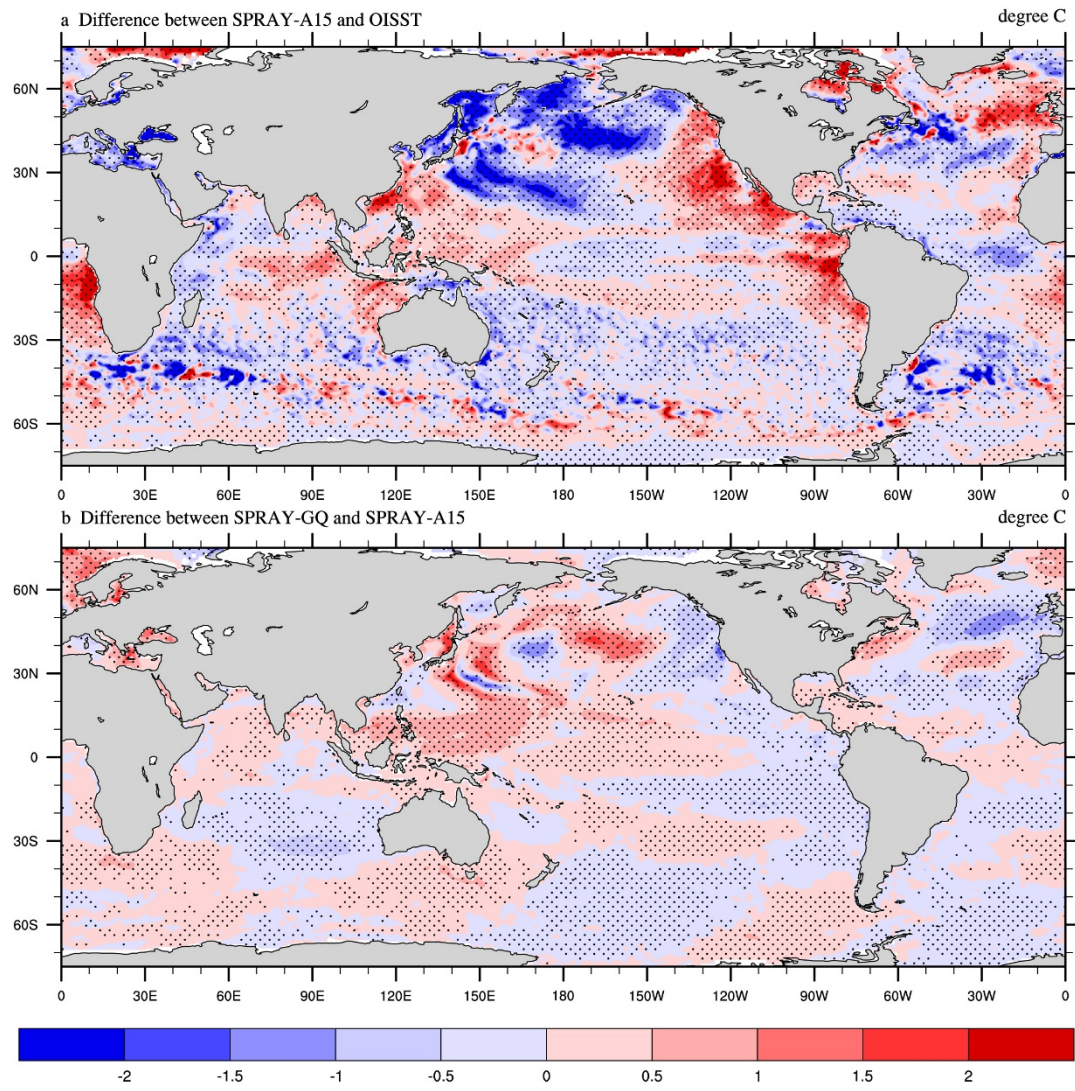


Figure S2. The same as Figure S1, but for Aug-Sep, 2018.

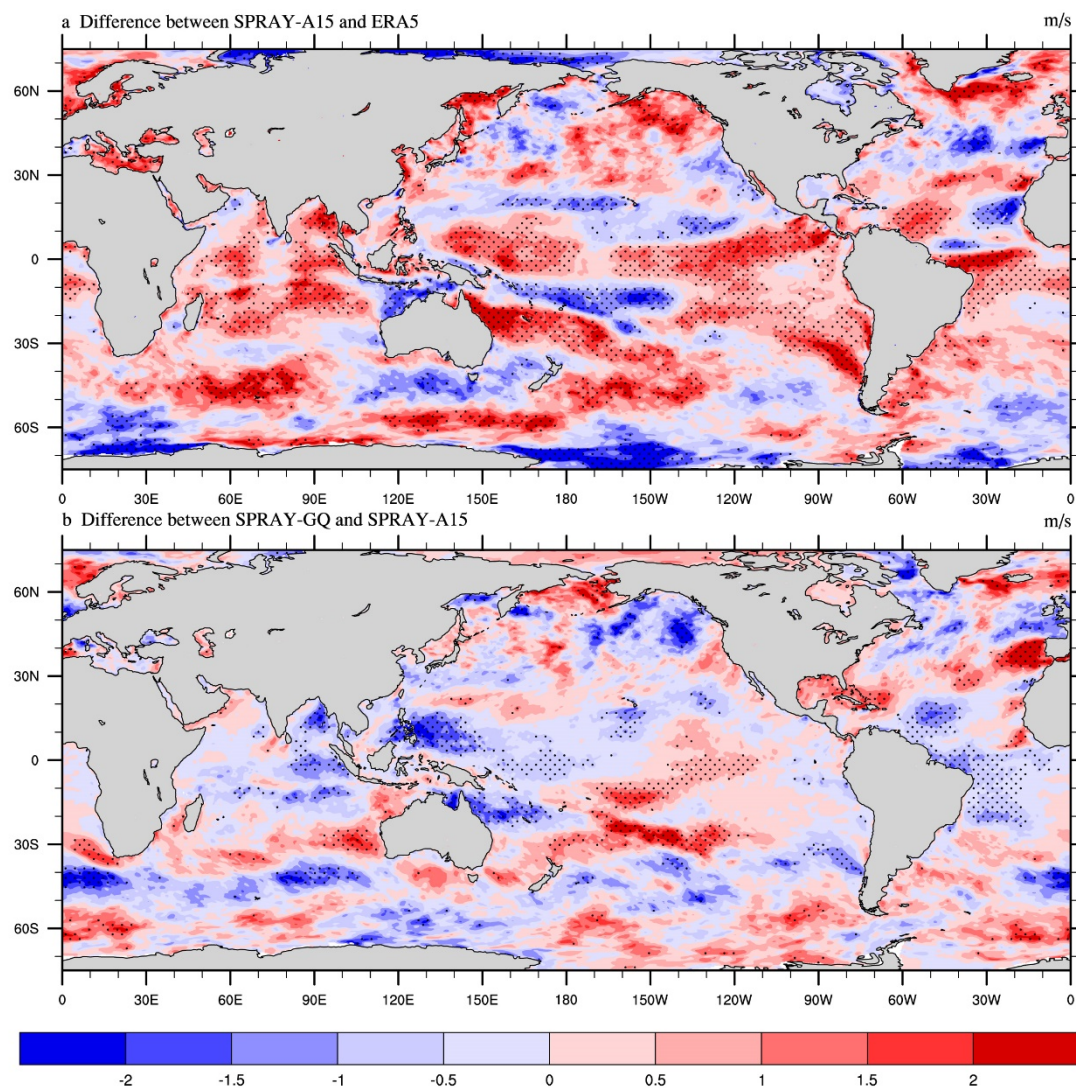


Figure S3. The global 53-day averaged WSP10 (m/s) differences between SPRAY-A15 and ERA5 (a; SPRAY-A15 minus ERA5), and the differences between SPRAY-GQ and SPRAY-A15 (b; SPRAY-GQ minus SPRAY-A15) in Jan-Feb, 2017. The first 3-day simulation is discarded. The dotted areas are statistically significant at 95% confidence level.

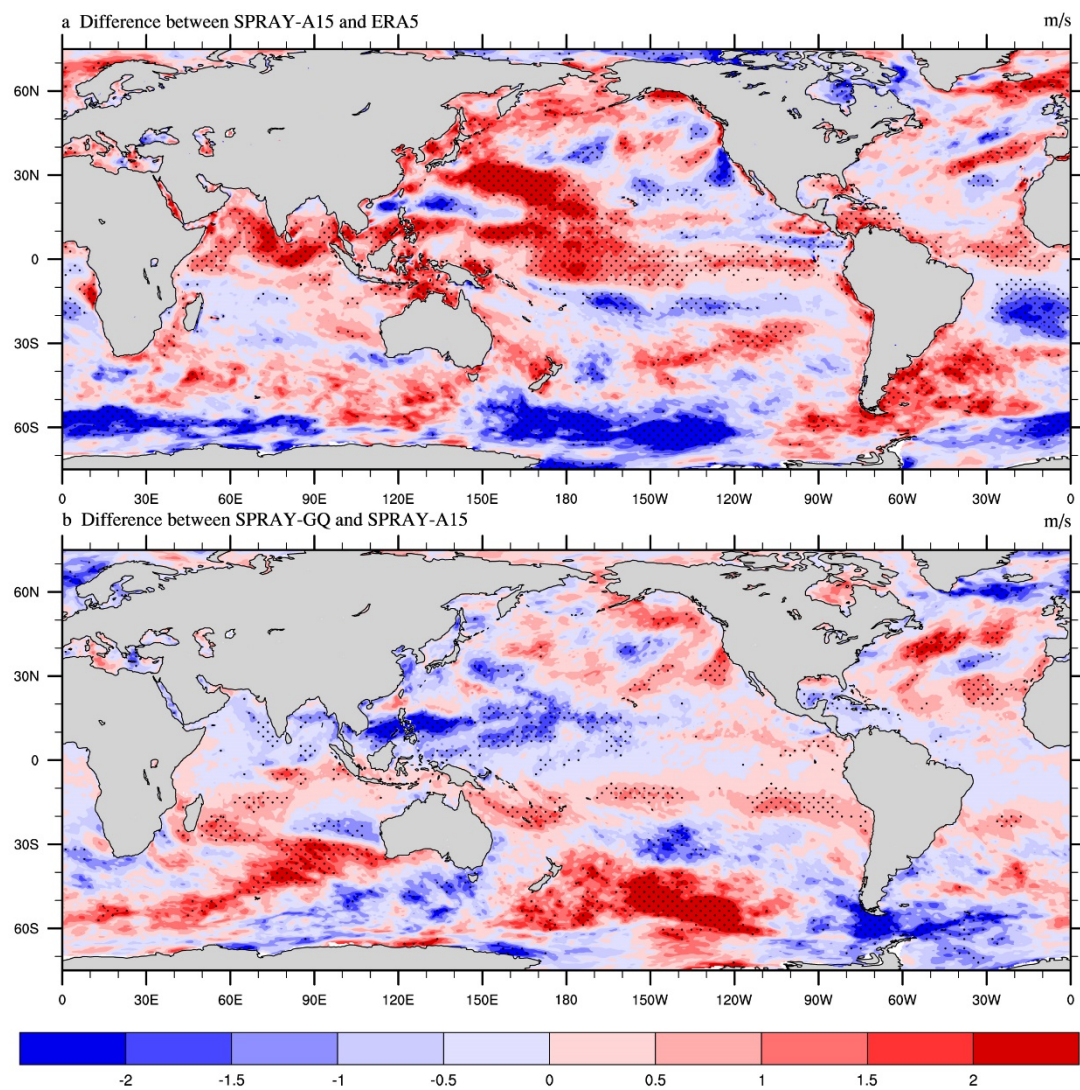


Figure S4. The same as Figure S3, but for Aug-Sep, 2018.

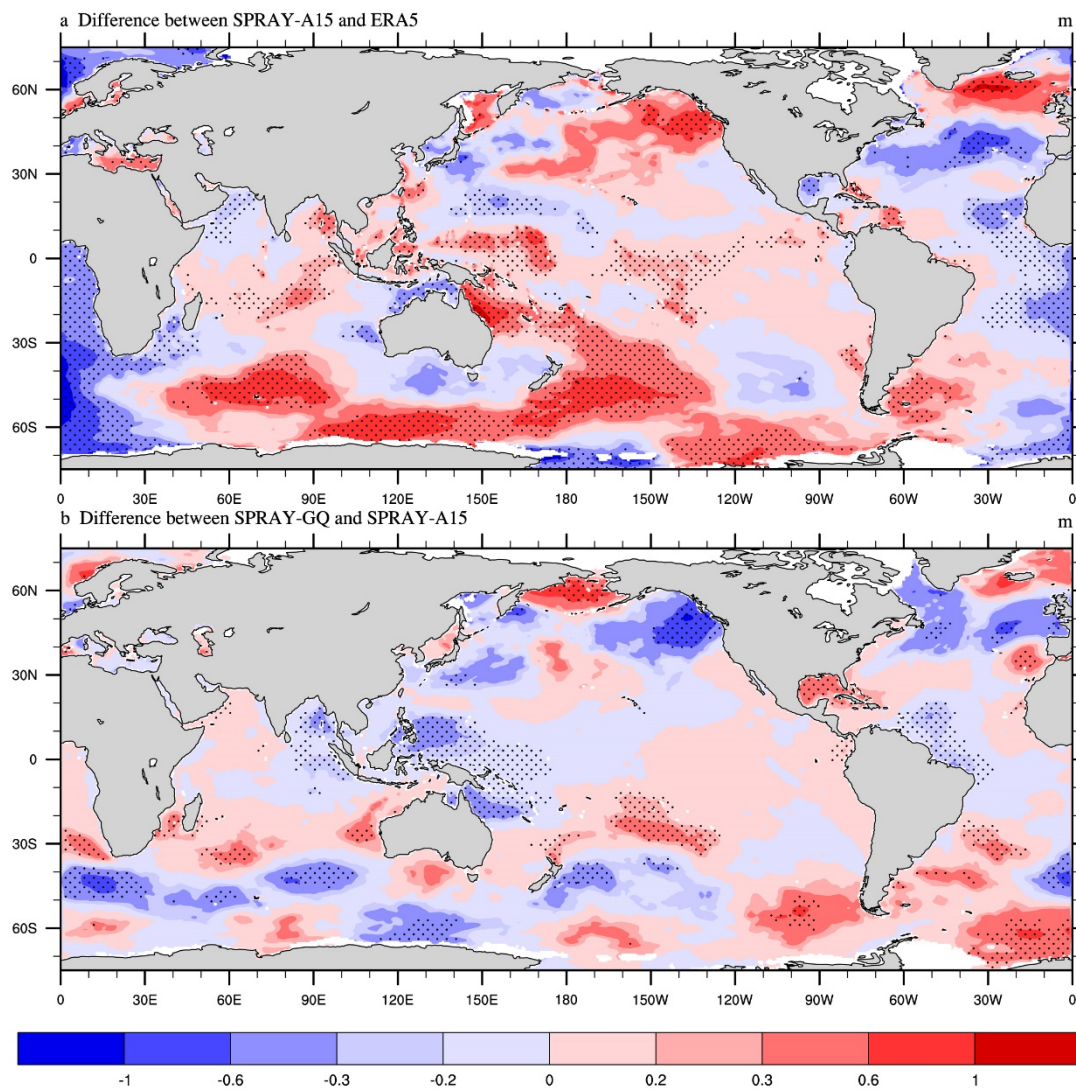


Figure S5. The global 53-day averaged SWH (m) differences between SPRAY-A15 and ERA5 (a; SPRAY-A15 minus ERA5), and the differences between SPRAY-GQ and SPRAY-A15 (b; SPRAY-GQ minus SPRAY-A15) in Jan-Feb, 2017. The first 3-day simulation is discarded. The dotted areas are statistically significant at 95% confidence level.

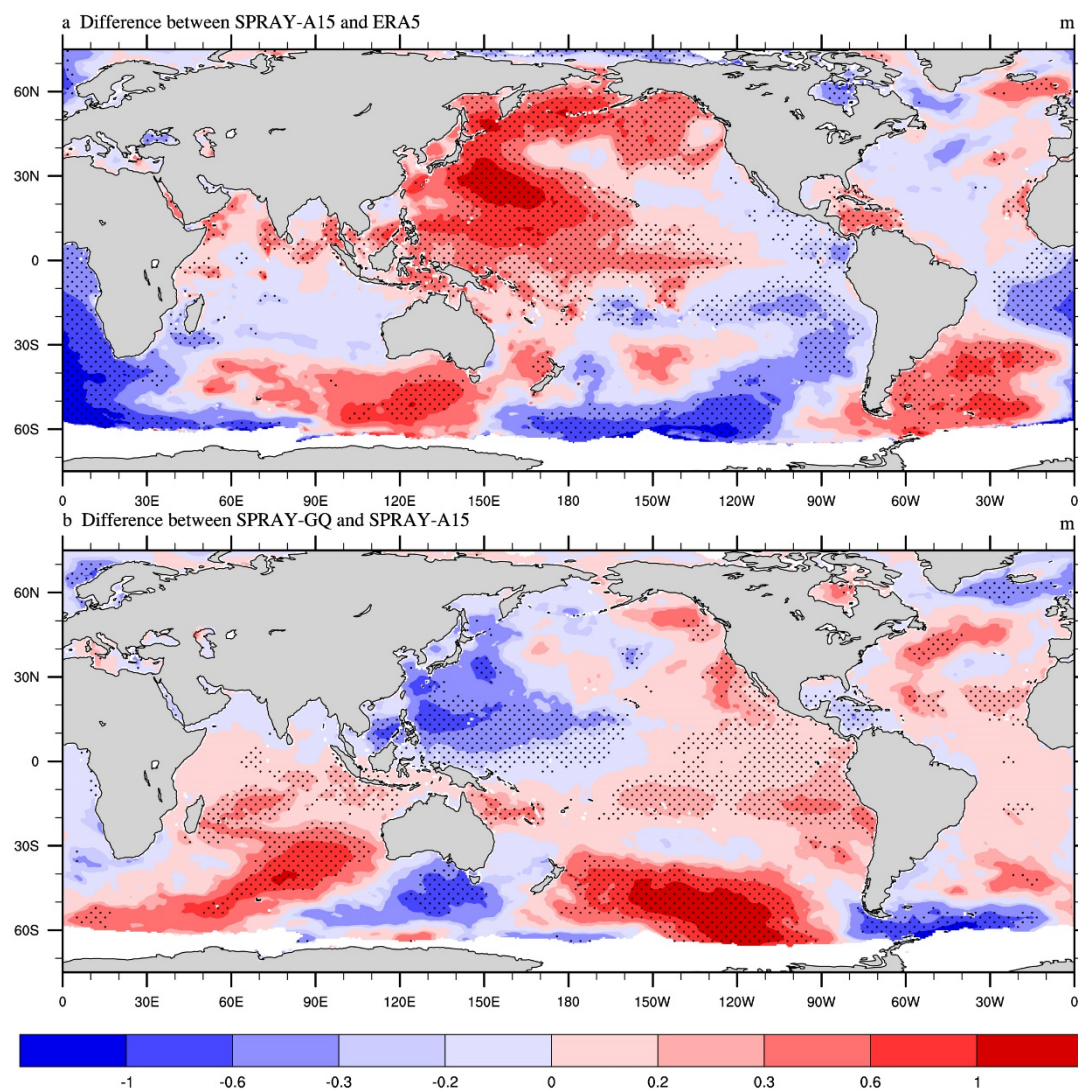


Figure S6. The same as Figure S5, but for Aug-Sep, 2018.