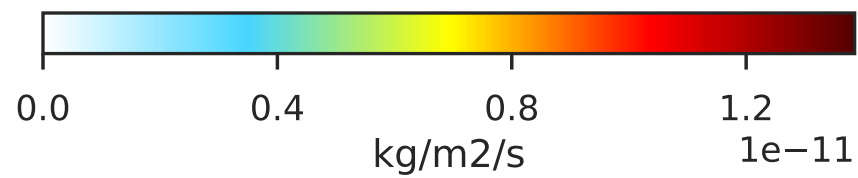
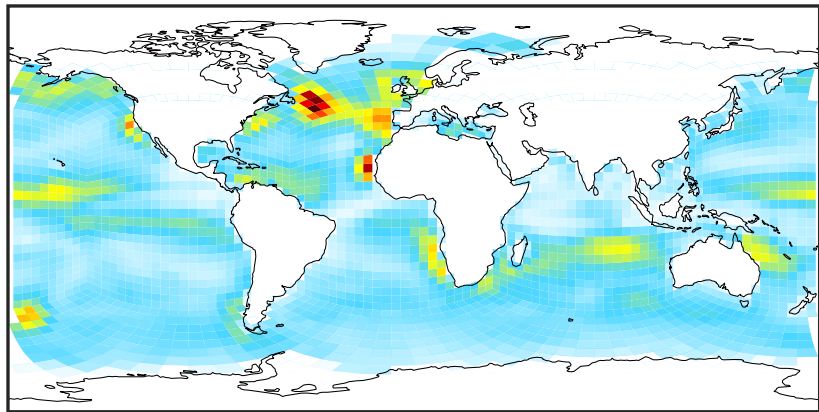
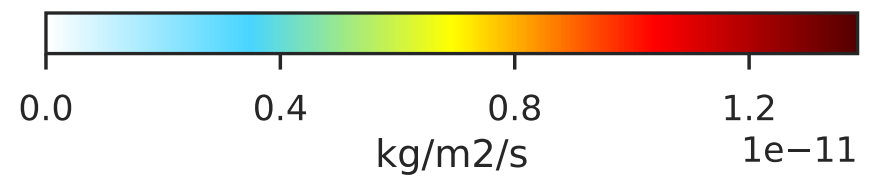
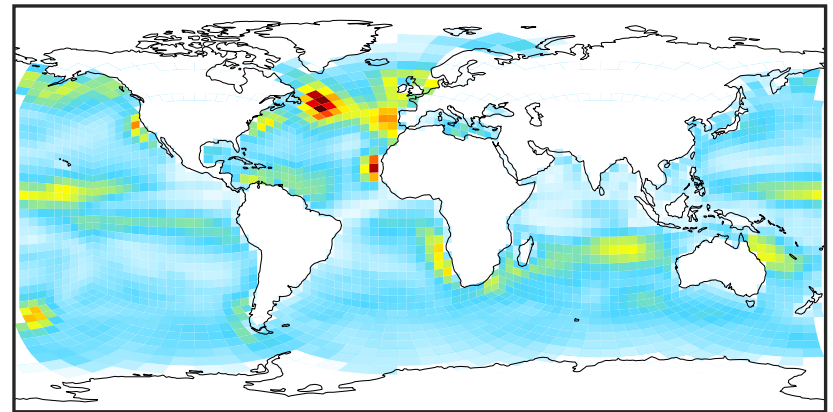


# EmisDMS\_Ocean (Apr2019)

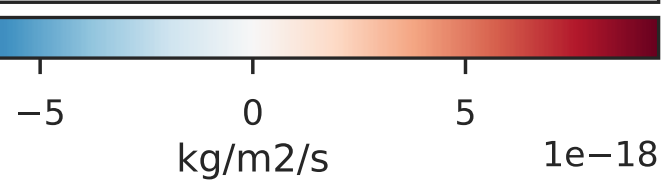
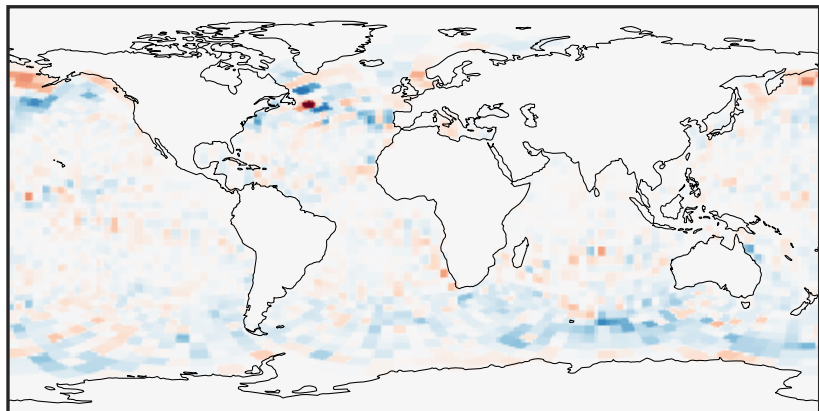
GCHP\_14.0.0 (Ref)  
c24



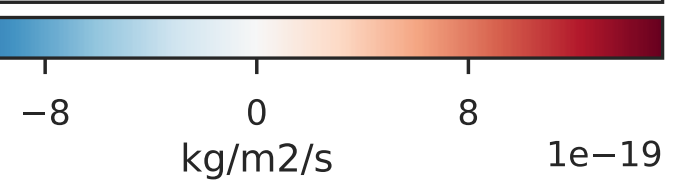
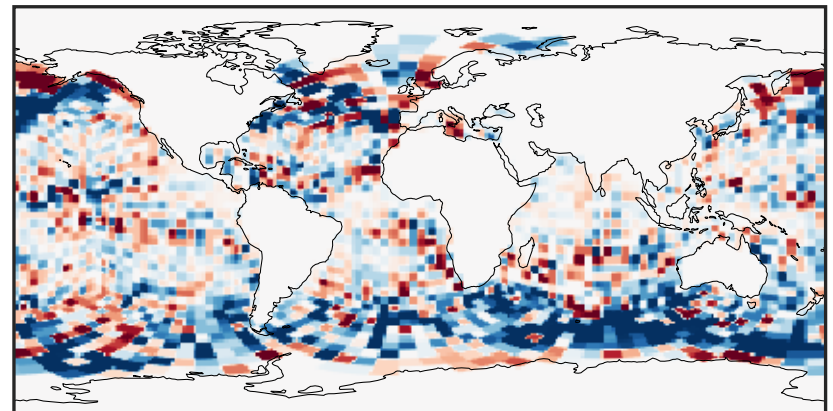
GCHP\_14.2.0 (Dev)  
c24



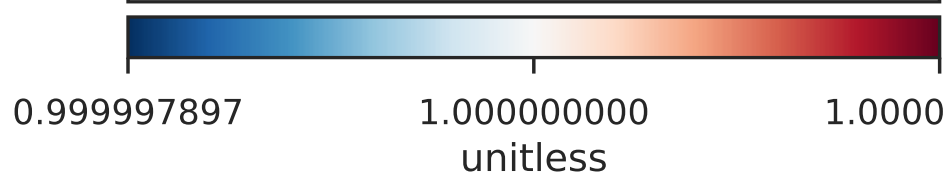
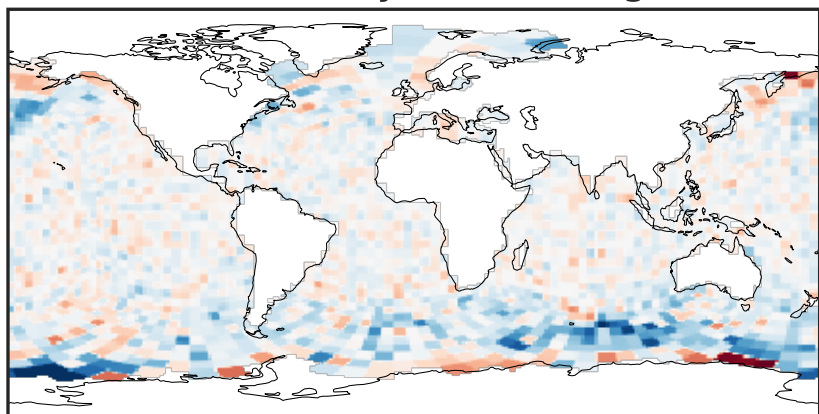
Difference (1x1.25)  
Dev - Ref, Dynamic Range



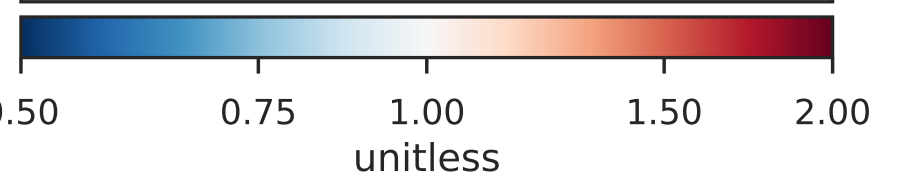
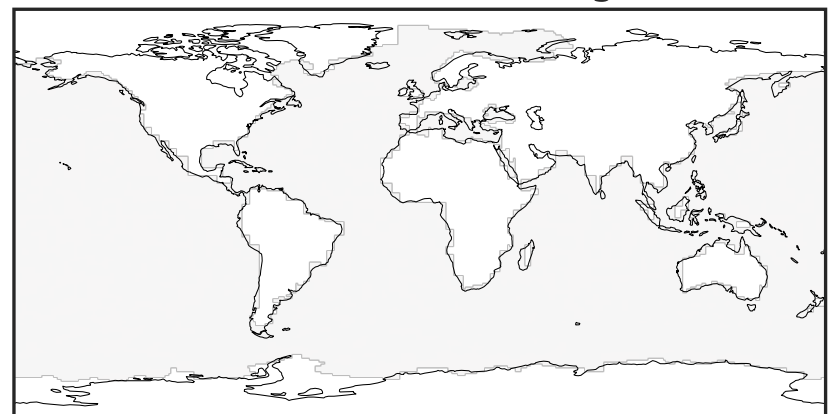
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Ratio (1x1.25)  
Dev/Ref, Dynamic Range

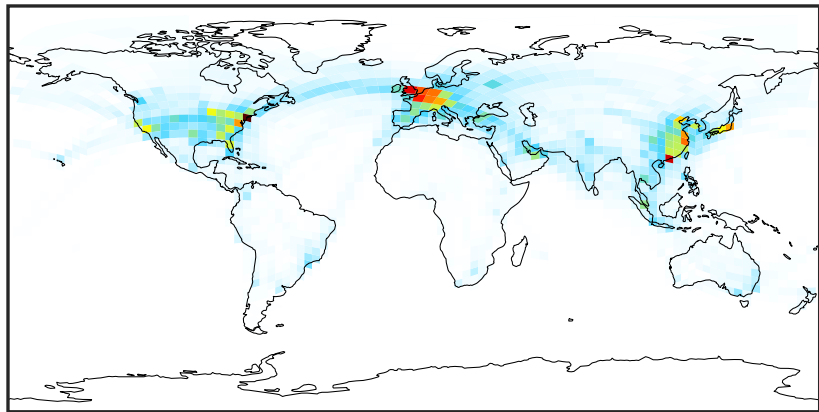


Ratio (1x1.25)  
Dev/Ref, Fixed Range



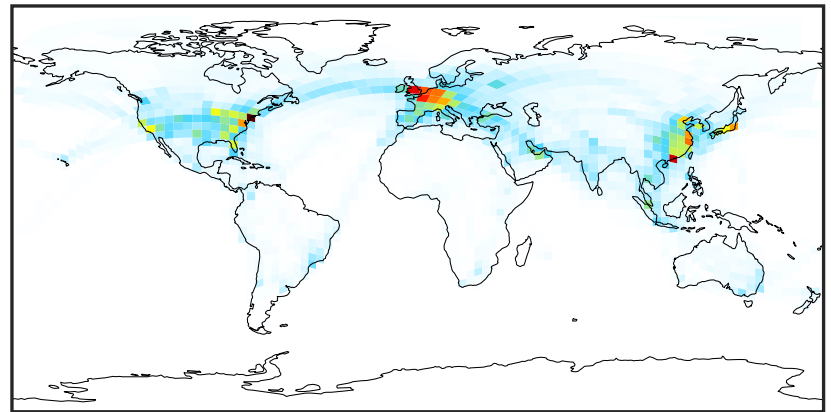
# EmisSO2\_Aircraft (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 2.5 5.0 7.5  
kg/m2/s 1e-13

GCHP\_14.2.0 (Dev)  
c24



0.0 2.5 5.0 7.5  
kg/m2/s 1e-13

Difference (1x1.25)  
Dev - Ref, Dynamic Range



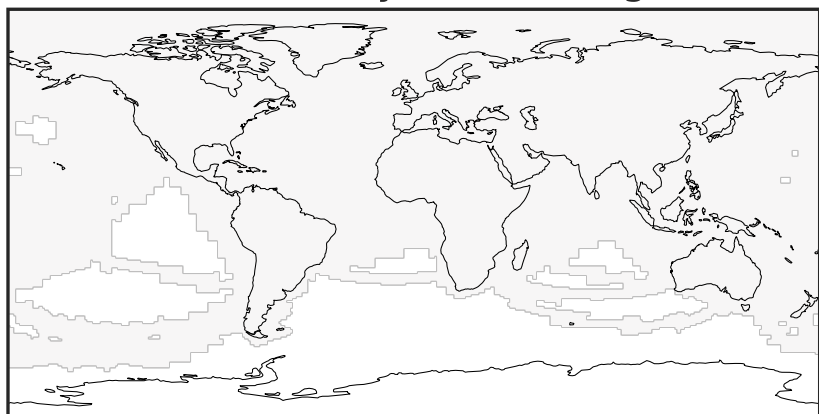
Zero throughout domain  
kg/m2/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

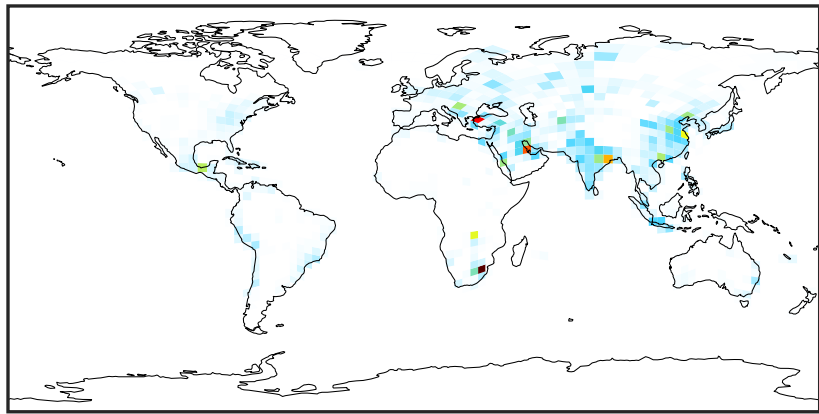
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Ref and Dev equal throughout domain  
unitless

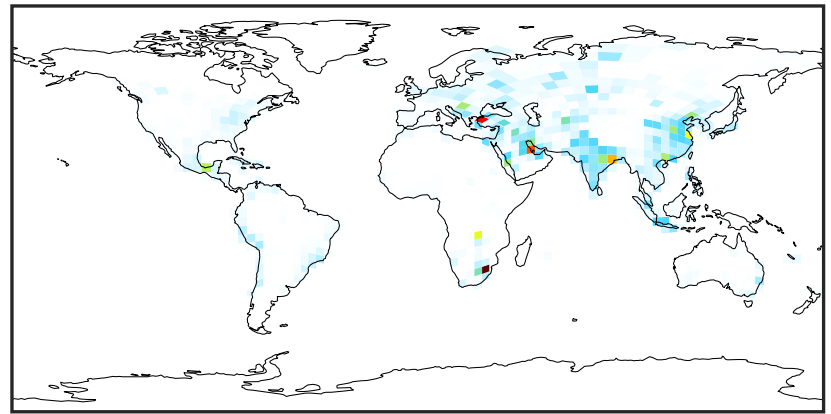
# EmisSO2\_Anthro (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



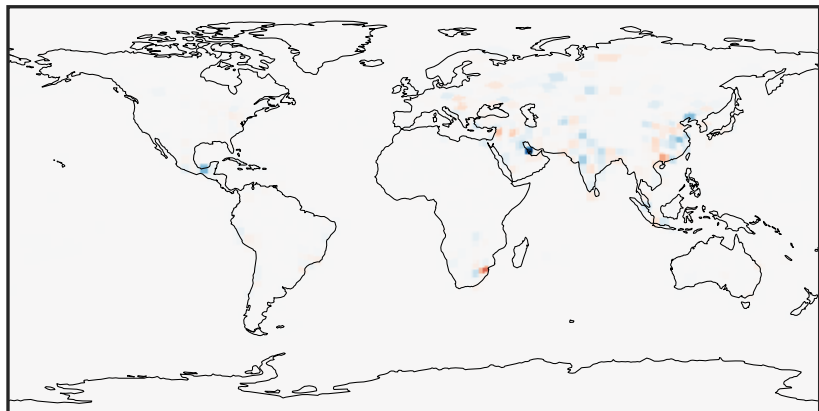
0.0 1.5 3.0 4.5  
kg/m2/s  $1e-10$

GCHP\_14.2.0 (Dev)  
c24



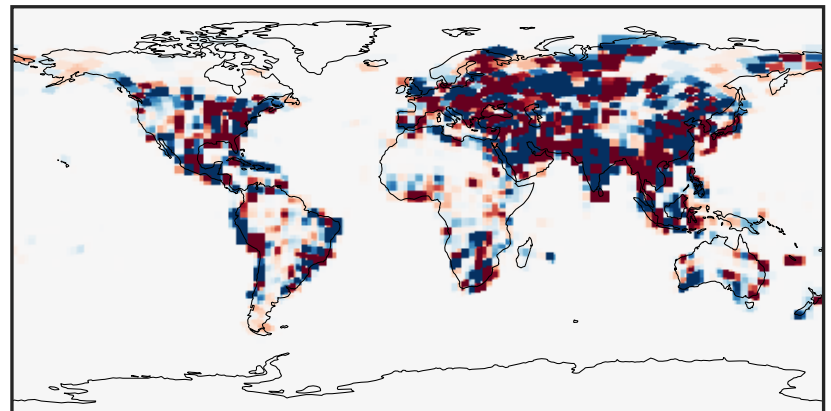
0.0 1.5 3.0 4.5  
kg/m2/s  $1e-10$

Difference (1x1.25)  
Dev - Ref, Dynamic Range



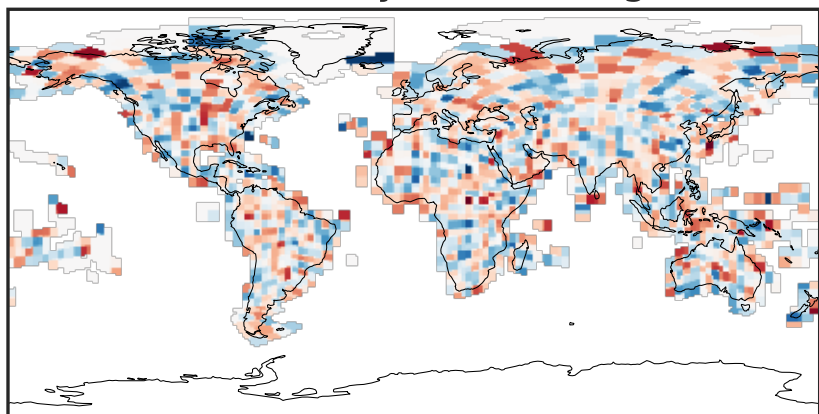
-1.5 0.0 1.5  
kg/m2/s  $1e-14$

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



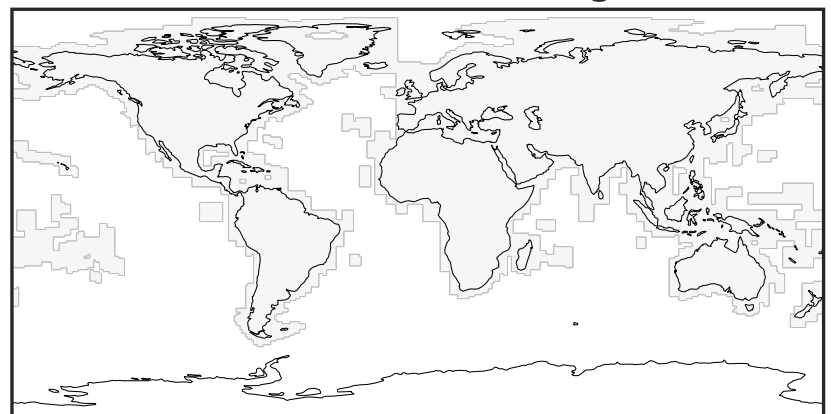
-8 0 8  
kg/m2/s  $1e-17$

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9999025 1.0000000 1.0000975  
unitless

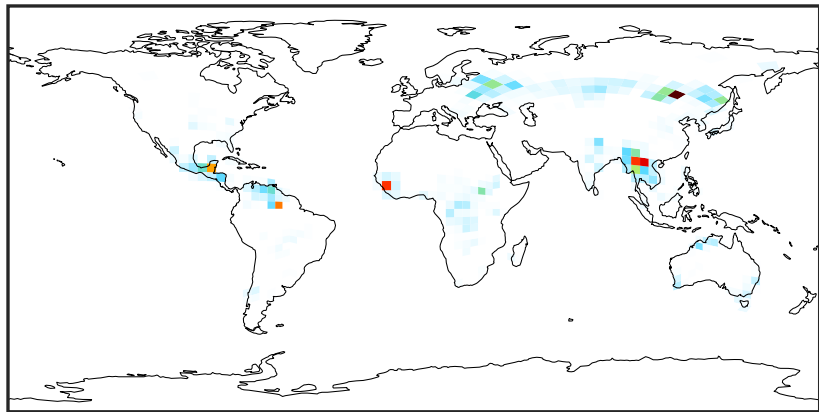
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

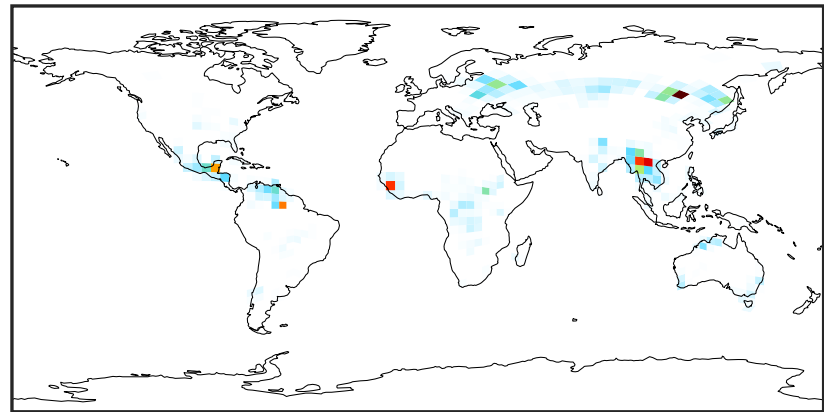
# EmisSO2\_BioBurn (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-11

Difference (1x1.25)  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

Ratio (1x1.25)  
Dev/Ref, Fixed Range

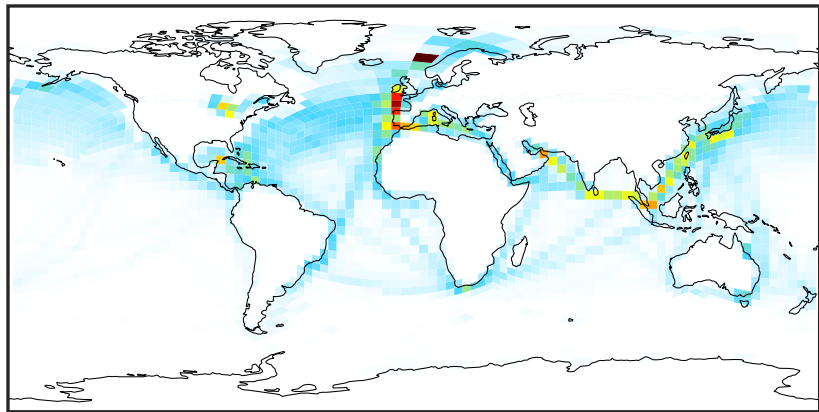


Ref and Dev equal throughout domain  
unitless



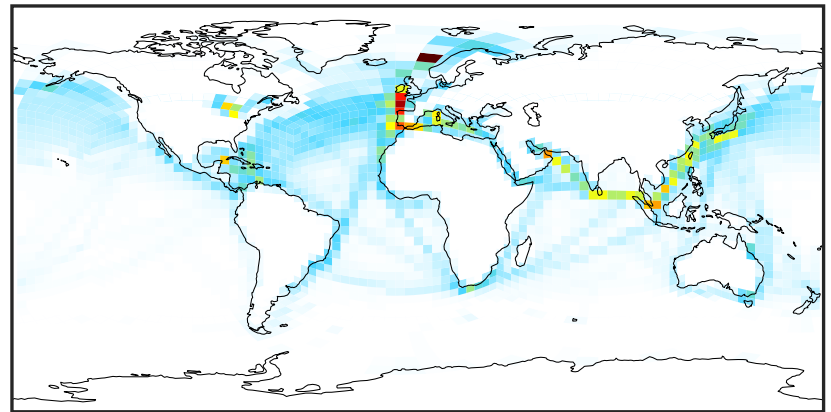
# EmisSO2\_Ship (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 0.5 1.0 1.5  
kg/m2/s 1e-11

GCHP\_14.2.0 (Dev)  
c24



0.0 0.5 1.0 1.5  
kg/m2/s 1e-11

Difference (1x1.25)  
Dev - Ref, Dynamic Range



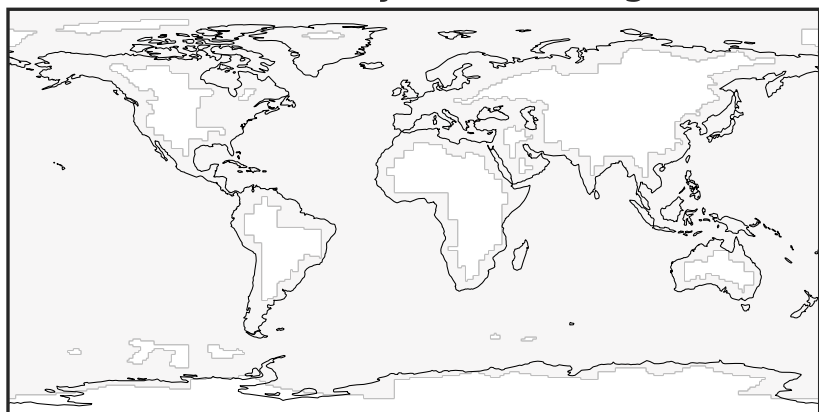
Zero throughout domain  
kg/m2/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



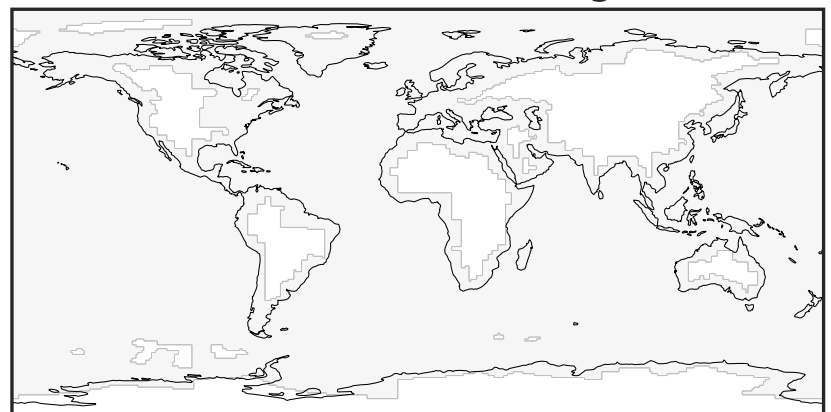
Zero throughout domain  
kg/m2/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

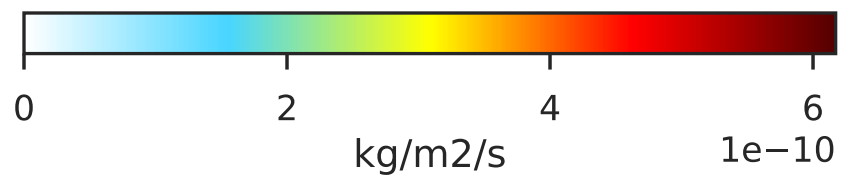
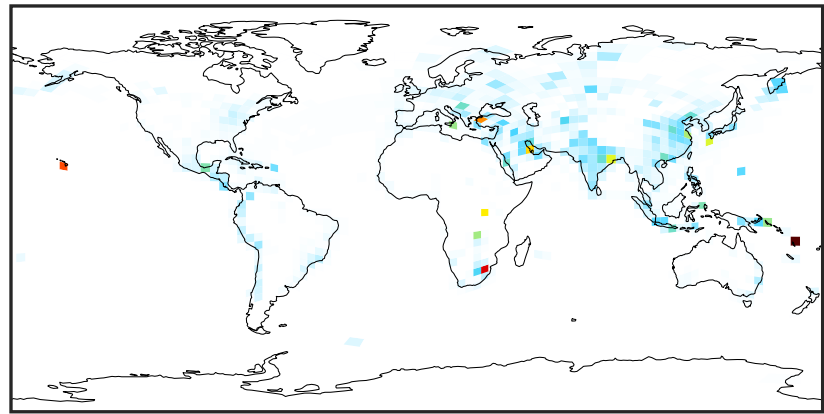
Ratio (1x1.25)  
Dev/Ref, Fixed Range



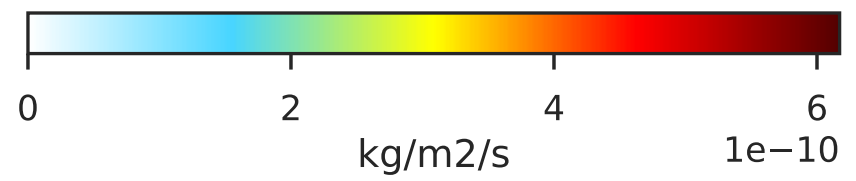
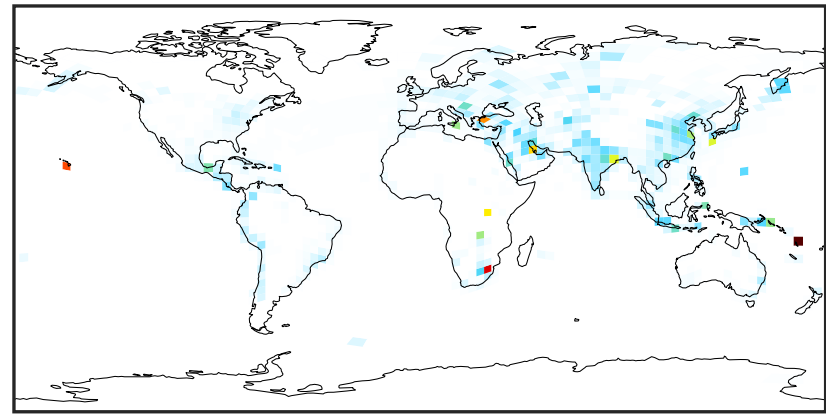
Ref and Dev equal throughout domain  
unitless

# EmisSO2\_Total (Apr2019)

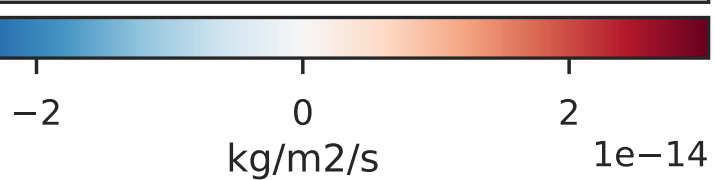
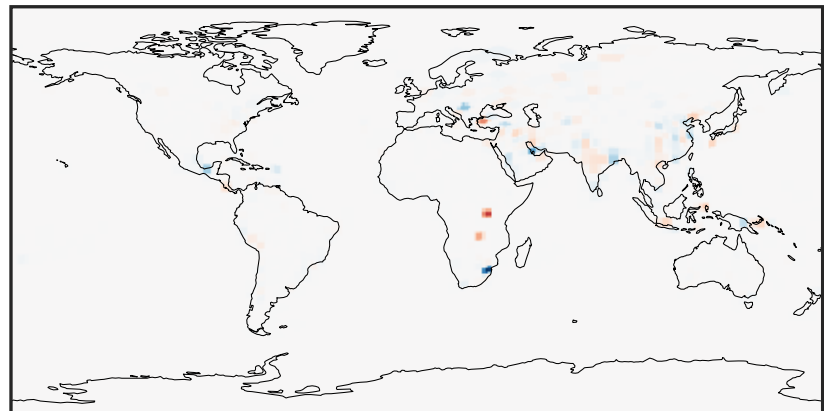
GCHP\_14.0.0 (Ref)  
c24



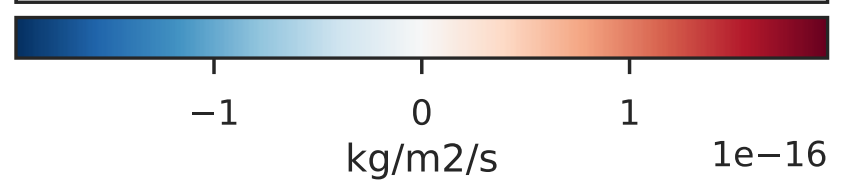
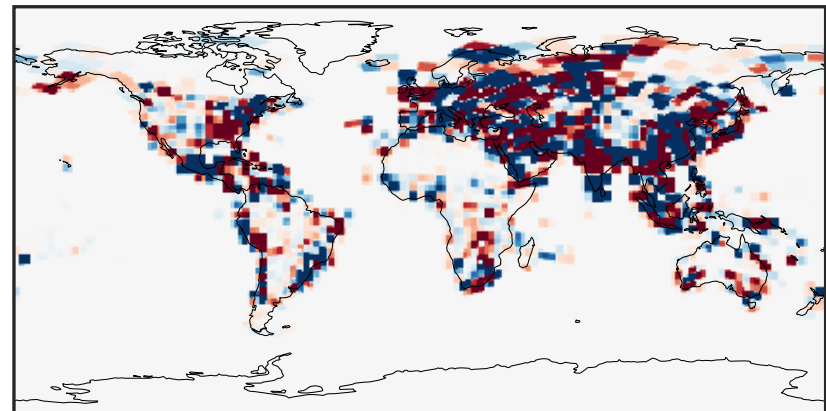
GCHP\_14.2.0 (Dev)  
c24



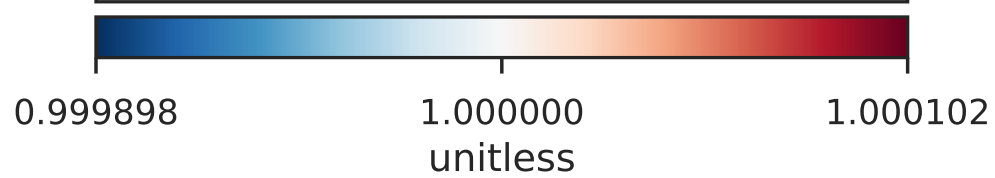
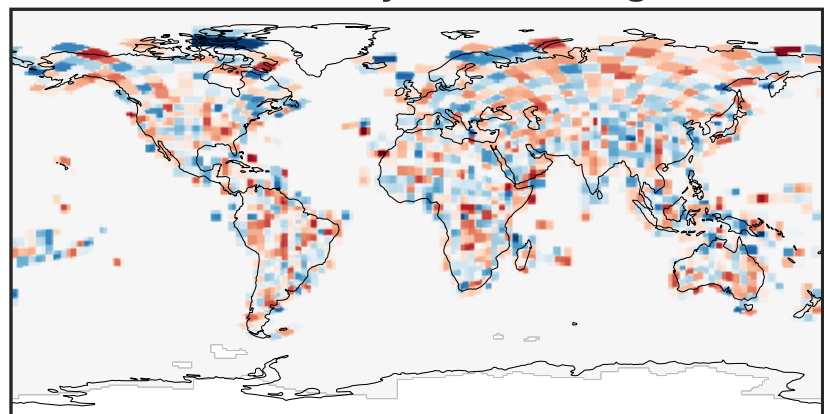
Difference (1x1.25)  
Dev - Ref, Dynamic Range



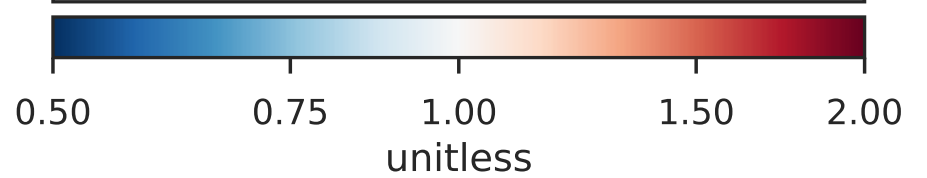
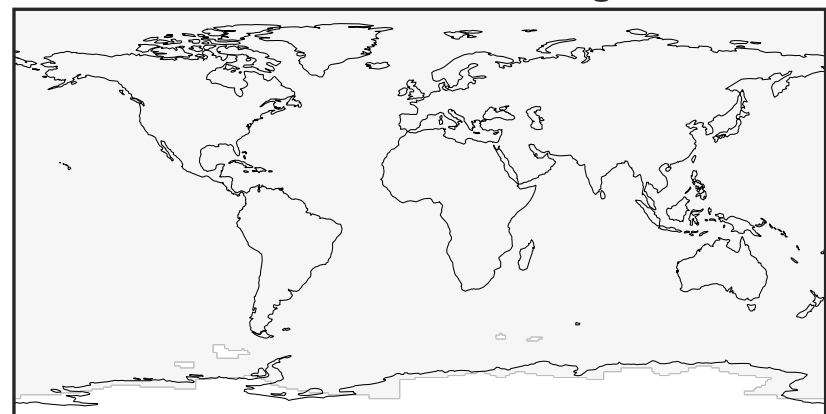
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Ratio (1x1.25)  
Dev/Ref, Dynamic Range

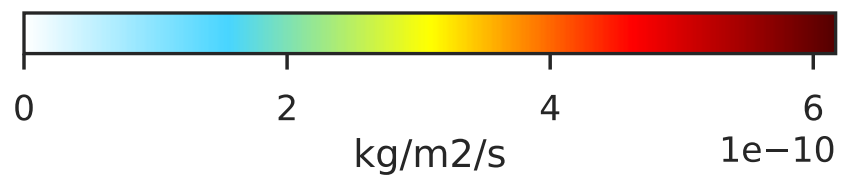
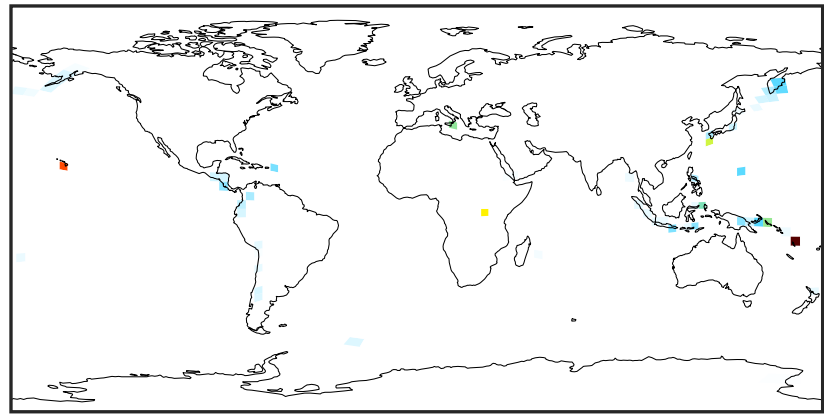


Ratio (1x1.25)  
Dev/Ref, Fixed Range

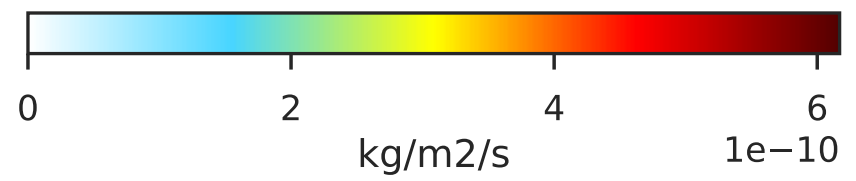
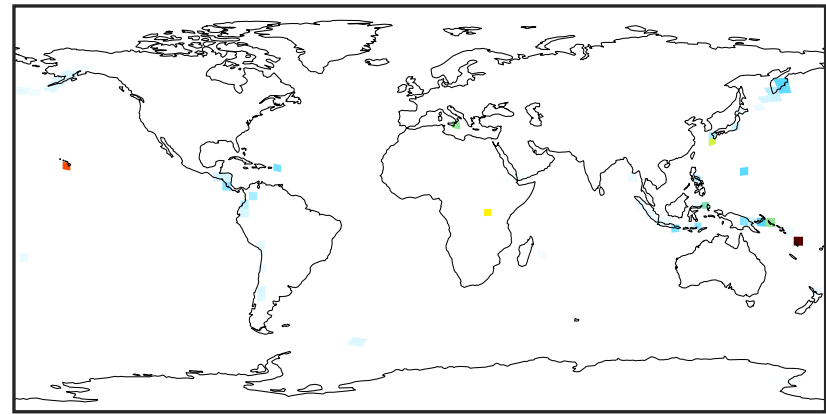


# EmisSO2\_VolcDegas (Apr2019)

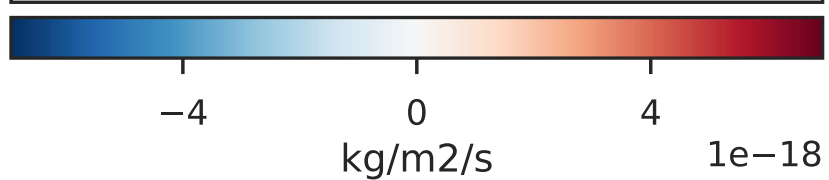
GCHP\_14.0.0 (Ref)  
c24



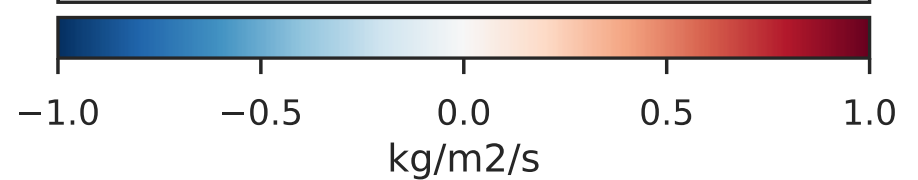
GCHP\_14.2.0 (Dev)  
c24



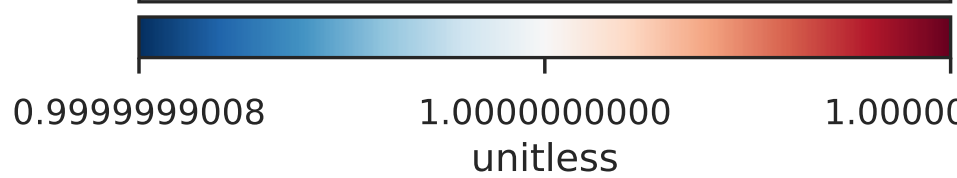
Difference (1x1.25)  
Dev - Ref, Dynamic Range



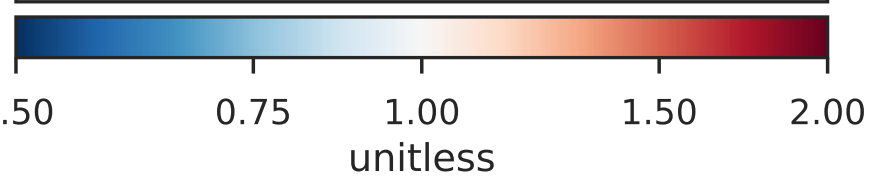
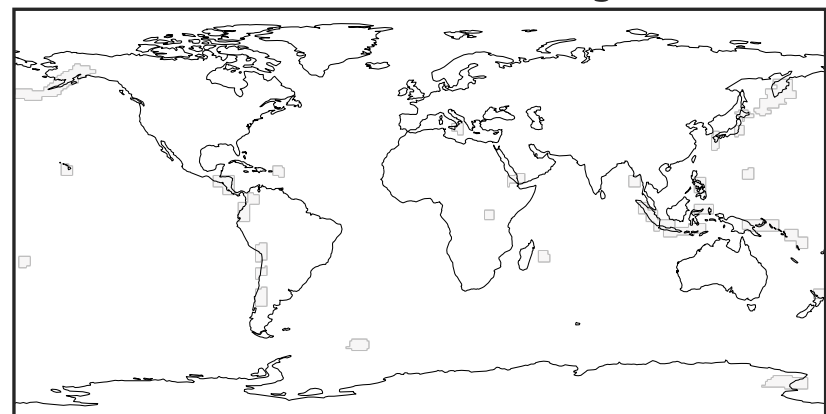
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ratio (1x1.25)  
Dev/Ref, Fixed Range



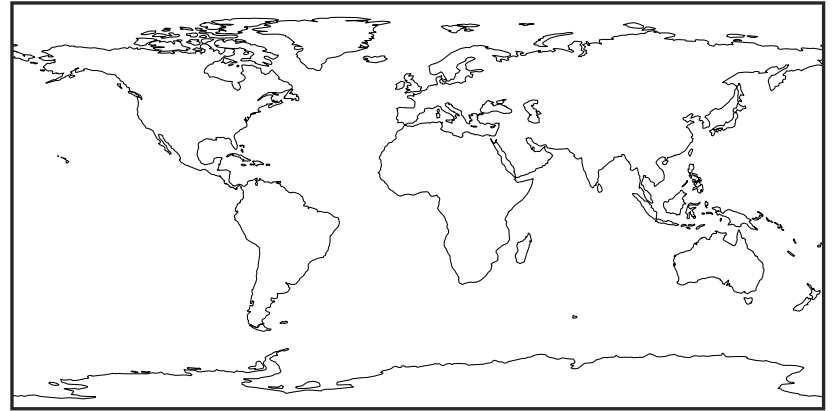
# EmisSO2\_VolcErupt (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



Zero throughout domain  
kg/m2/s

GCHP\_14.2.0 (Dev)  
c24



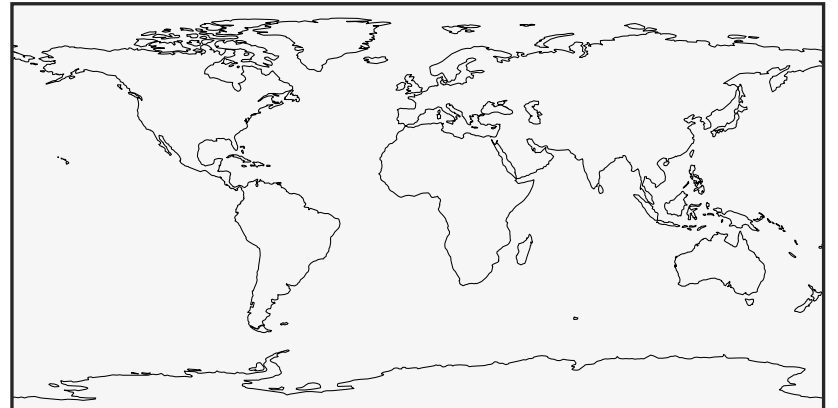
Zero throughout domain  
kg/m2/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m2/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



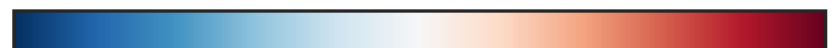
Zero throughout domain  
kg/m2/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

Ratio (1x1.25)  
Dev/Ref, Fixed Range

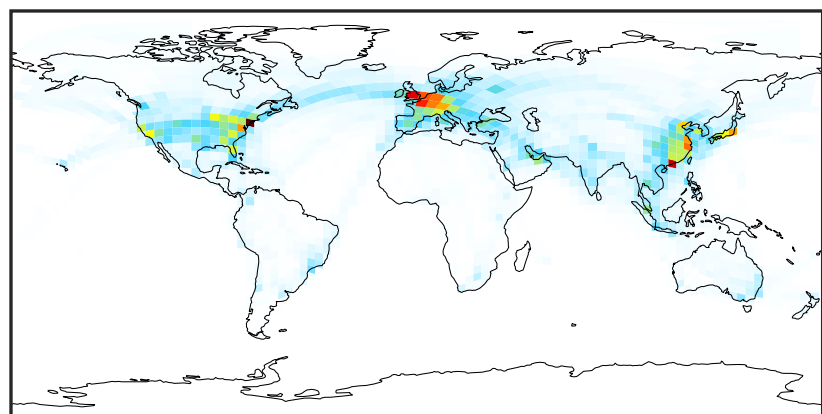


Undefined throughout domain  
unitless



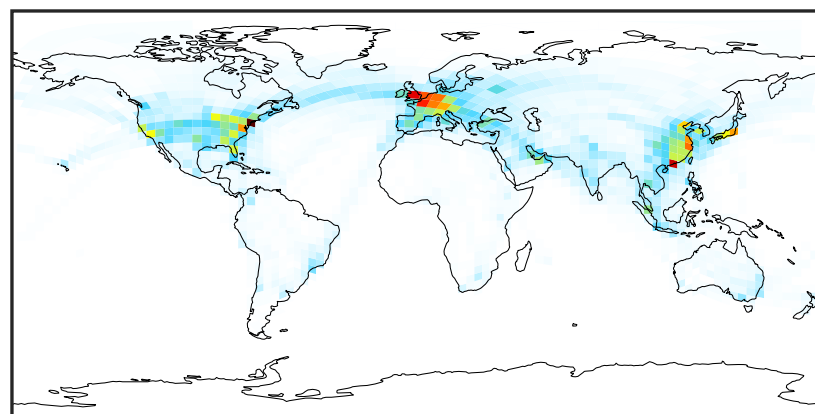
# EmisSO4\_Aircraft (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



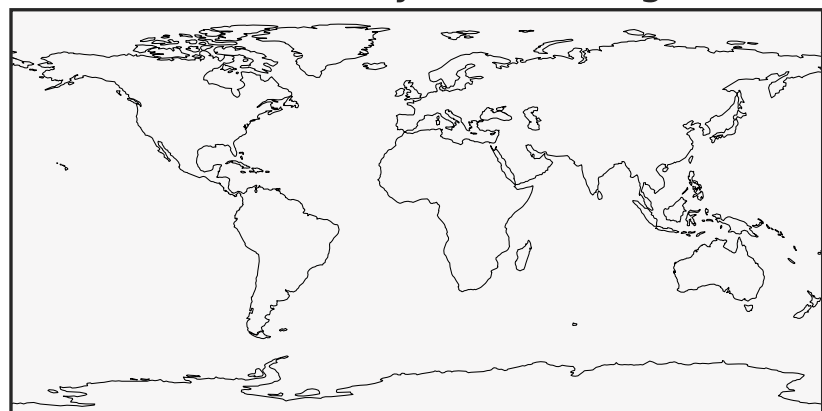
0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-14

GCHP\_14.2.0 (Dev)  
c24



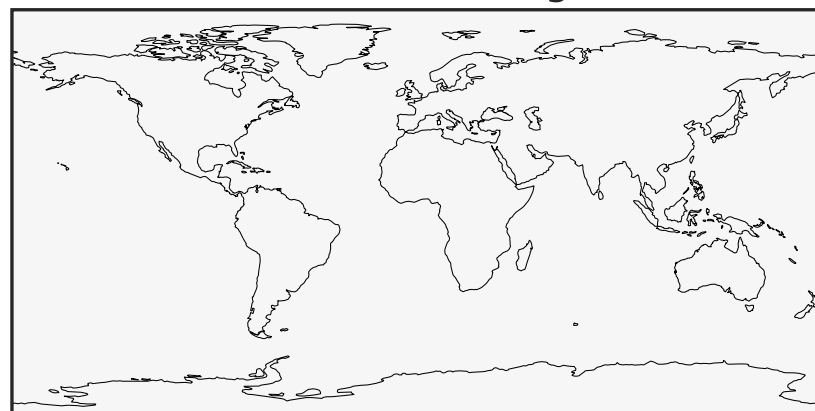
0.0 0.8 1.6 2.4  
kg/m<sup>2</sup>/s 1e-14

Difference (1x1.25)  
Dev - Ref, Dynamic Range



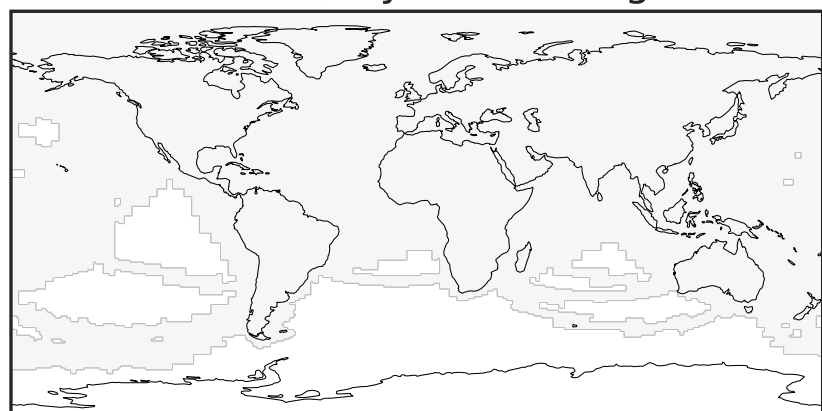
Zero throughout domain  
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



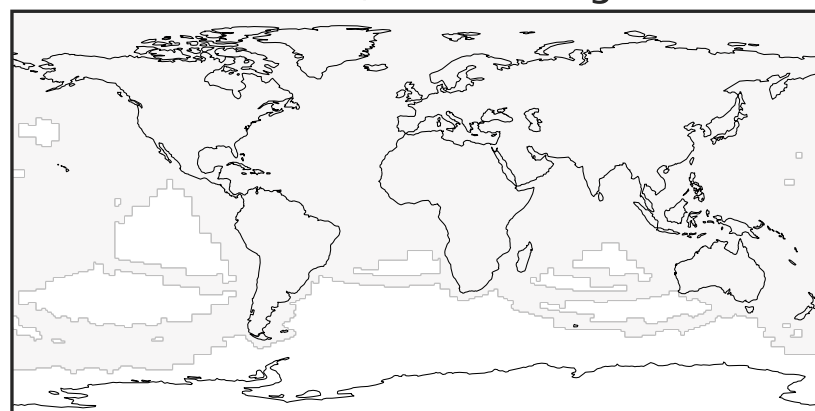
Zero throughout domain  
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

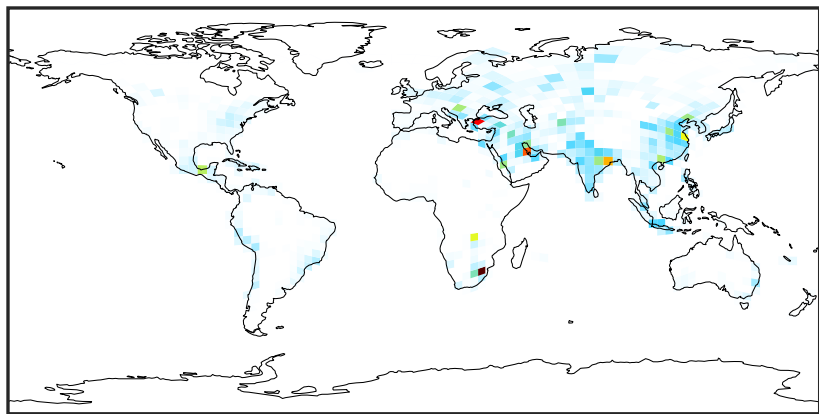
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Ref and Dev equal throughout domain  
unitless

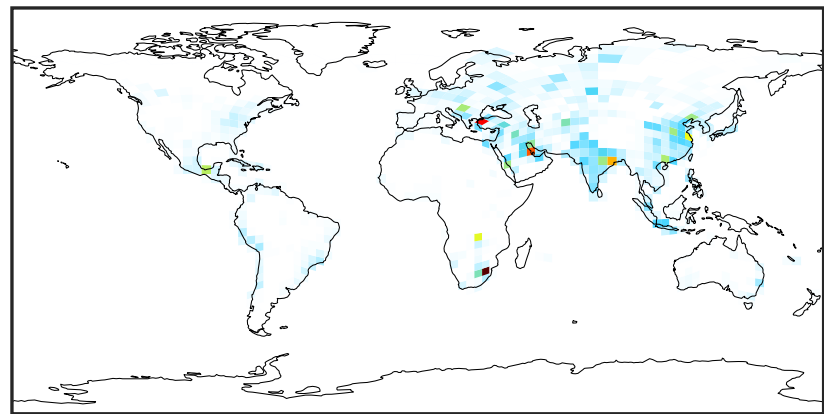
# EmisSO4\_Anthro (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



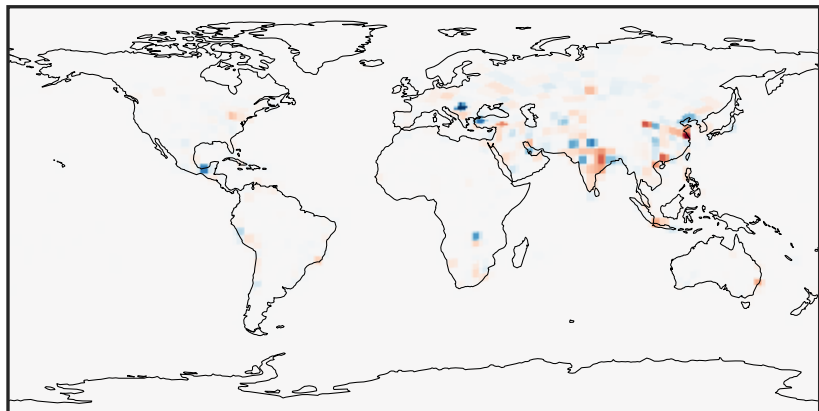
0.0 0.4 0.8 1.2  $10^{-11}$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



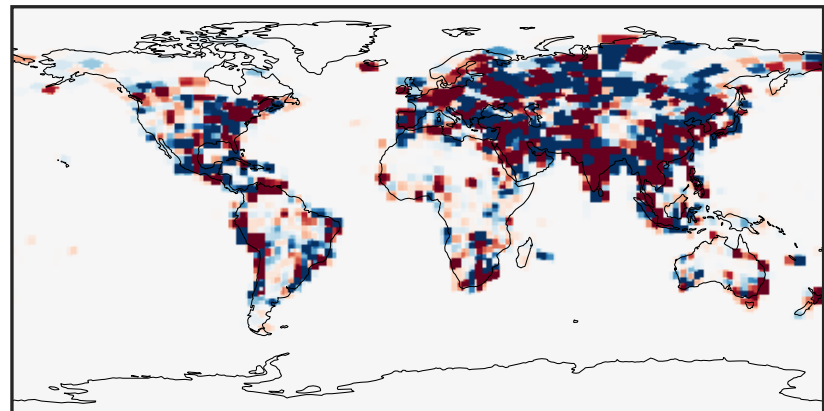
0.0 0.4 0.8 1.2  $10^{-11}$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



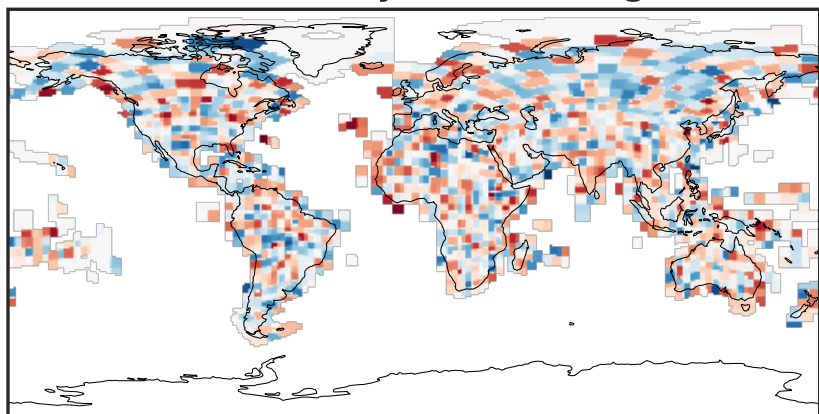
-2 0 2  $10^{-16}$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



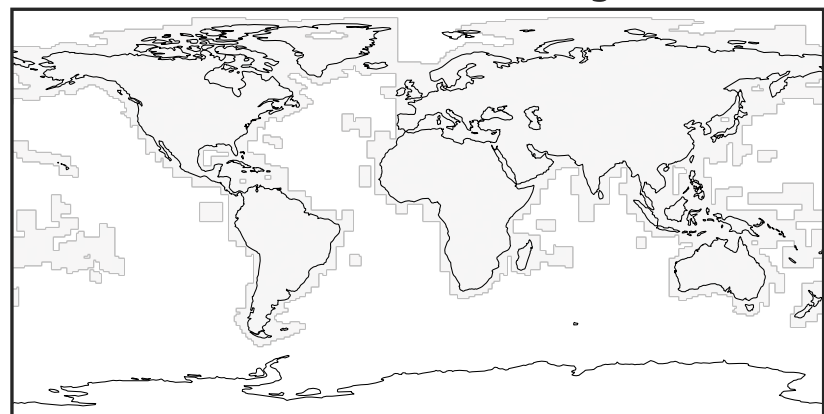
-2 0 2  $10^{-18}$   
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9999061 1.000000 1.0000939  
unitless

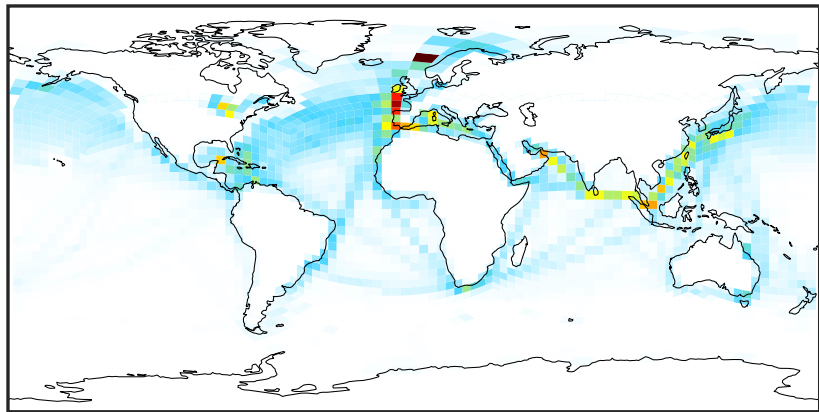
Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless

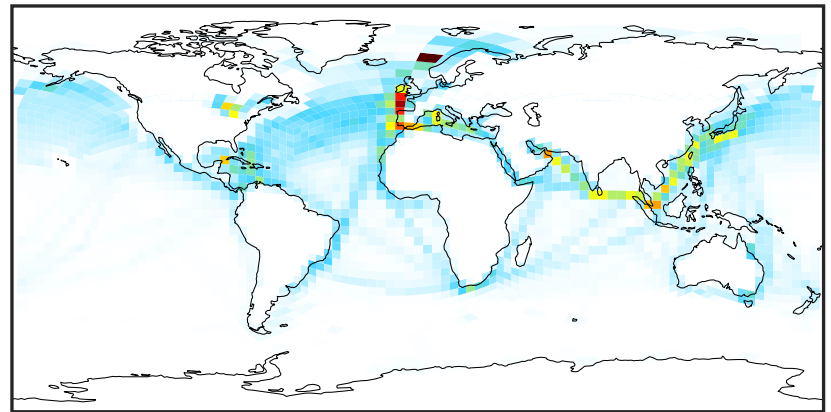
# EmisSO4\_Ship (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



0.0 1.5 3.0 4.5  
kg/m2/s  $1e-13$

GCHP\_14.2.0 (Dev)  
c24



0.0 1.5 3.0 4.5  
kg/m2/s  $1e-13$

Difference (1x1.25)  
Dev - Ref, Dynamic Range



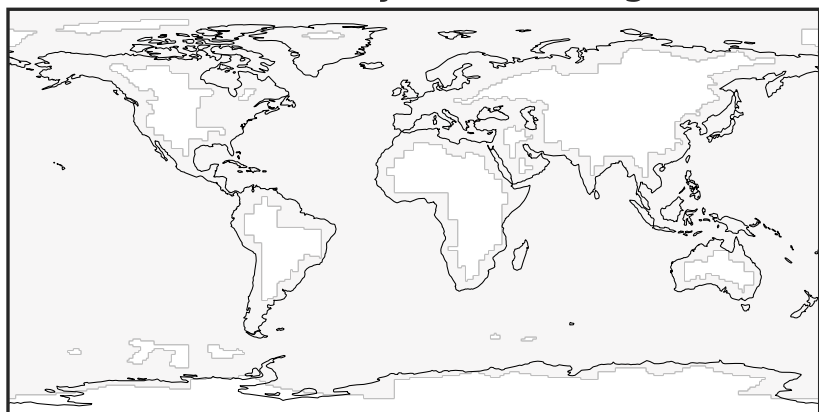
Zero throughout domain  
kg/m2/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



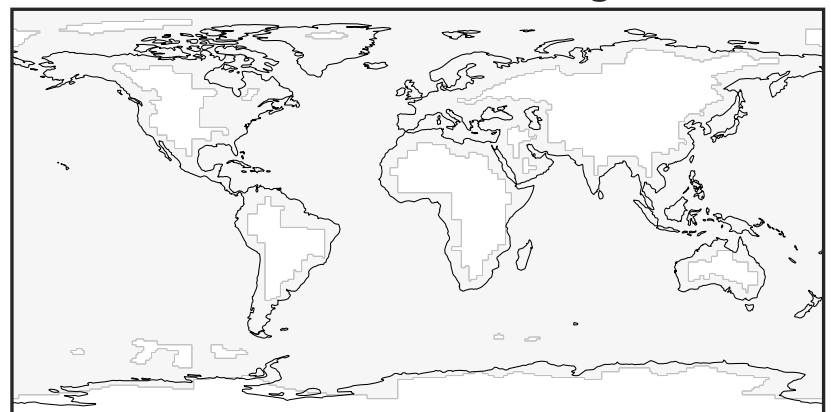
Zero throughout domain  
kg/m2/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



Ref and Dev equal throughout domain  
unitless

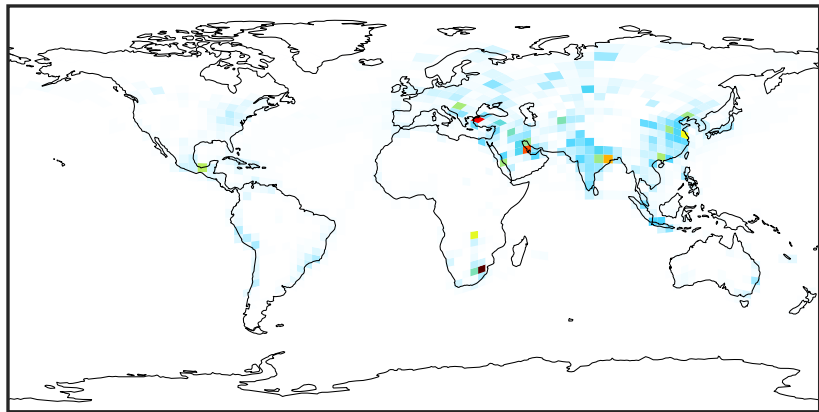
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Ref and Dev equal throughout domain  
unitless

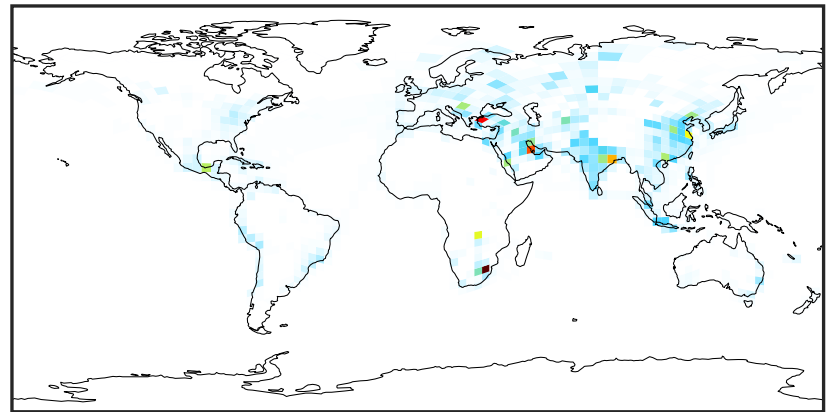
# EmisSO4\_Total (Apr2019)

GCHP\_14.0.0 (Ref)  
c24



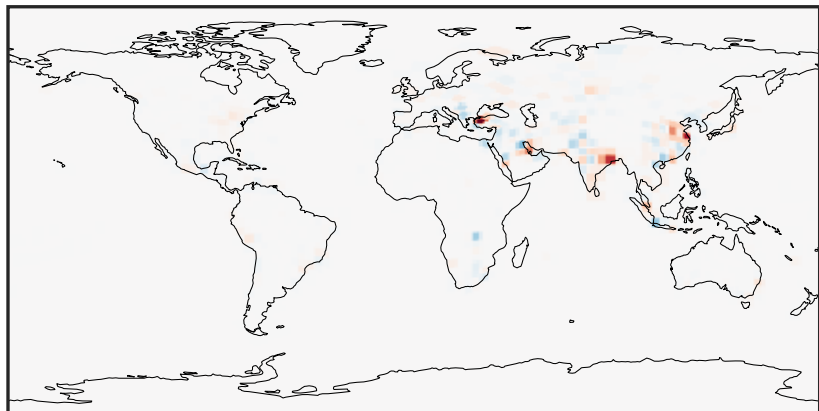
0.0 0.4 0.8 1.2  $10^{-11}$   
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



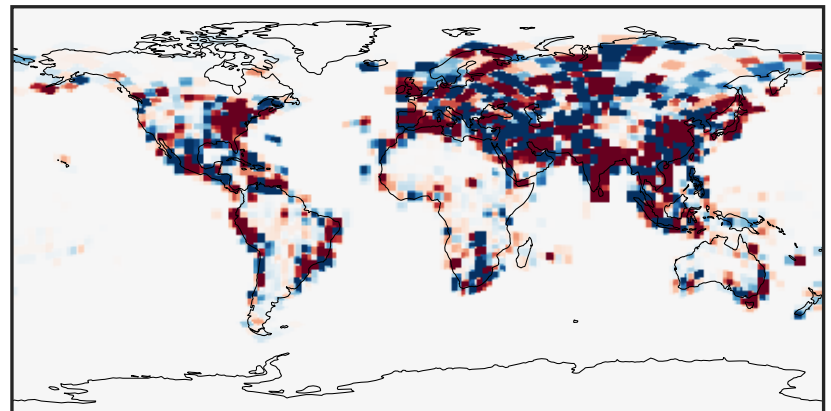
0.0 0.4 0.8 1.2  $10^{-11}$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Dynamic Range



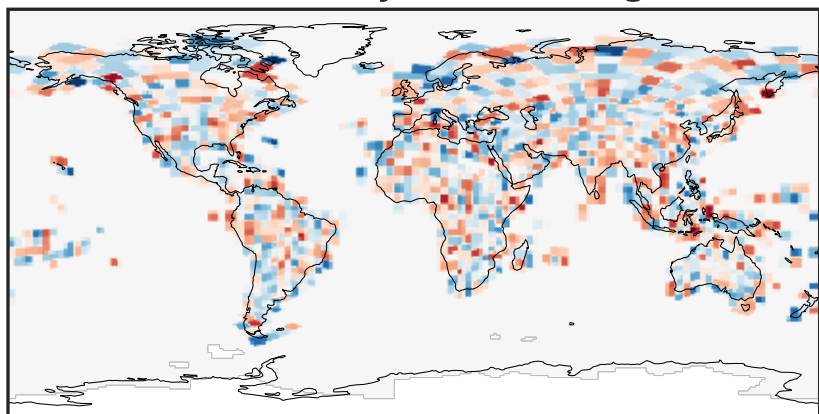
-3 0 3  $10^{-16}$   
kg/m<sup>2</sup>/s

Difference (1x1.25)  
Dev - Ref, Restricted Range [5%,95%]



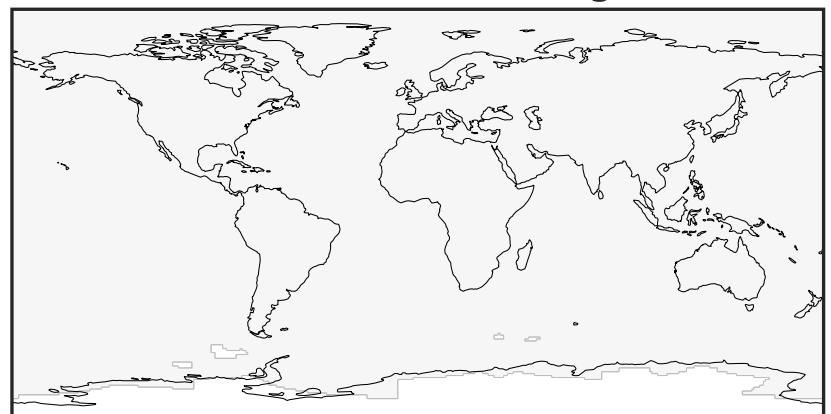
-3 0 3  $10^{-18}$   
kg/m<sup>2</sup>/s

Ratio (1x1.25)  
Dev/Ref, Dynamic Range



0.9998974 1.000000 1.0001026  
unitless

Ratio (1x1.25)  
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00  
unitless