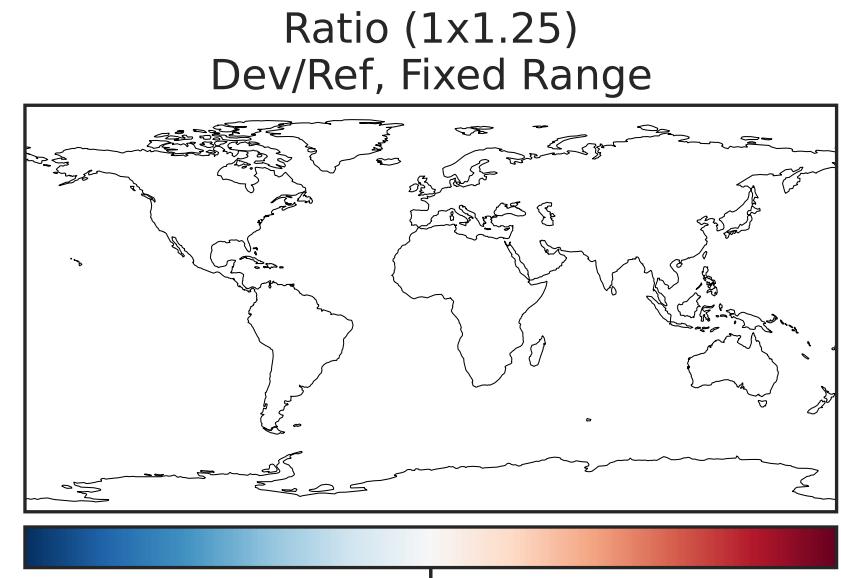
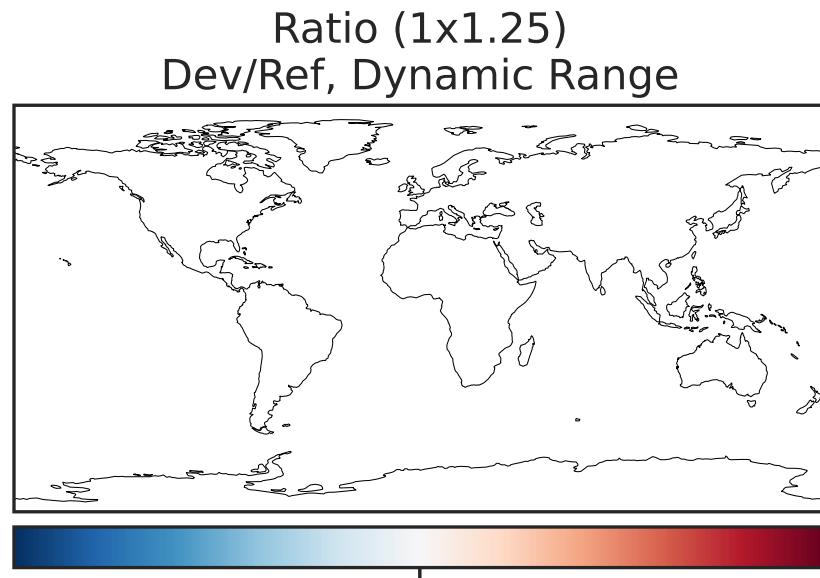
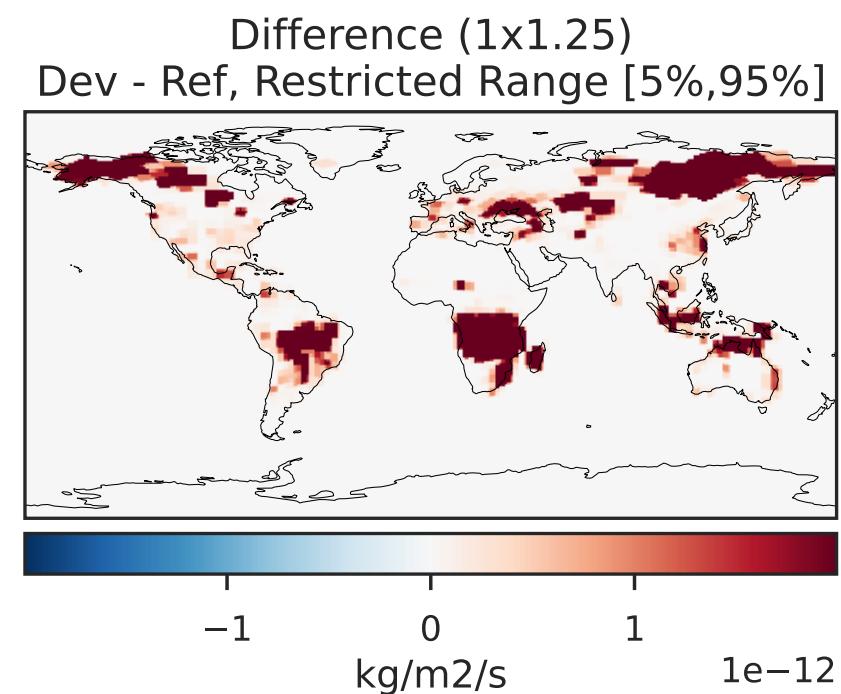
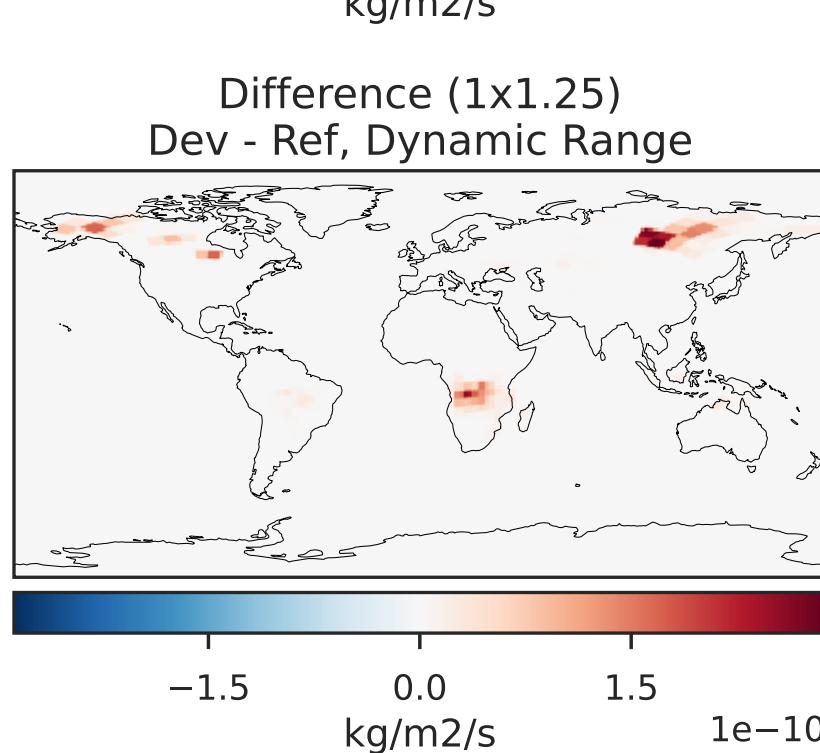
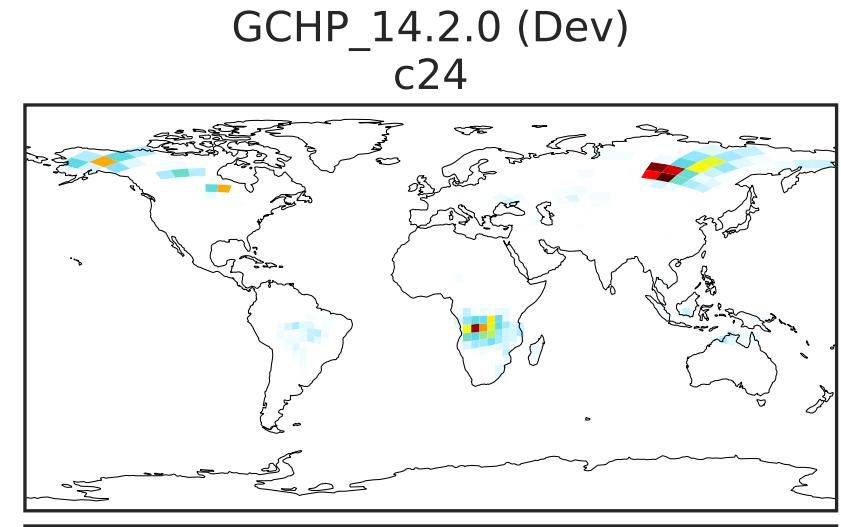
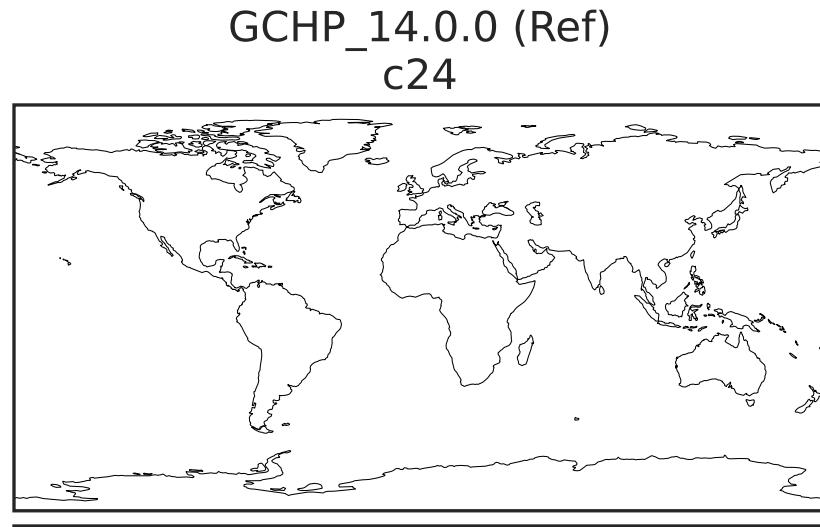
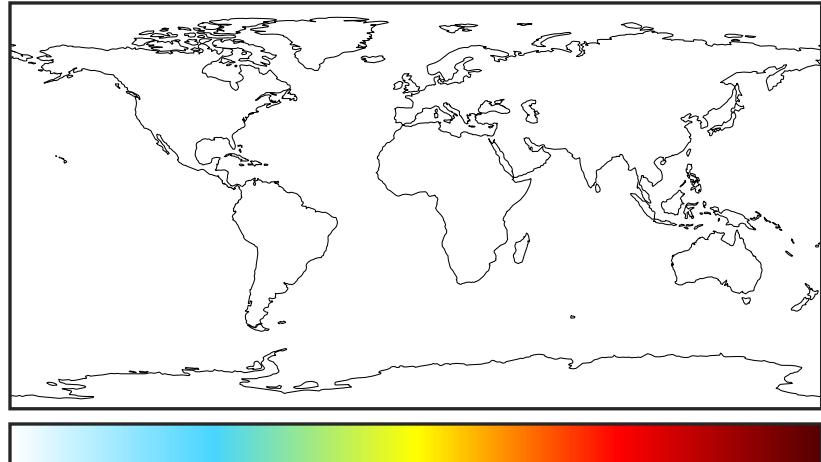


# EmisACTA\_BioBurn (Jul2019)



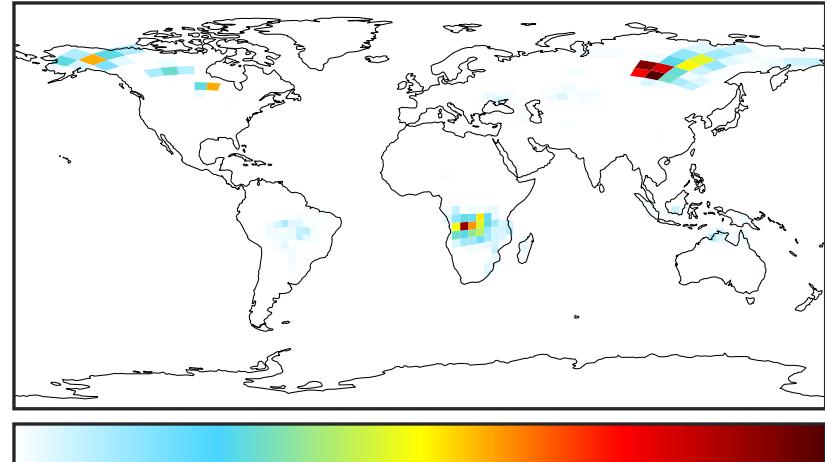
# EmisACTA\_Total (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



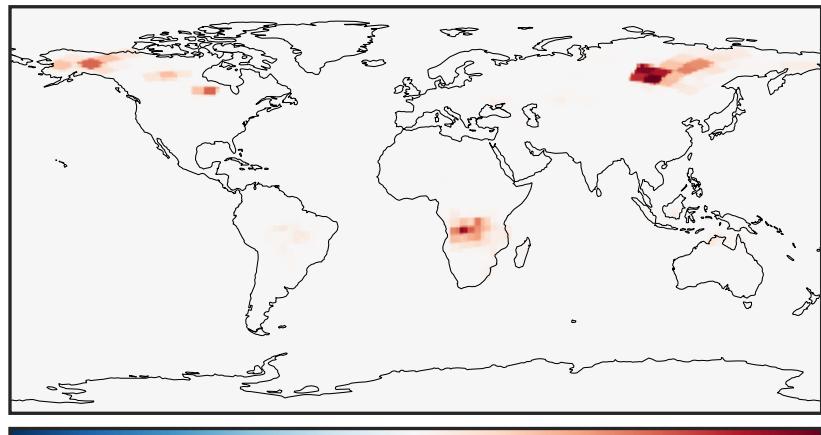
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



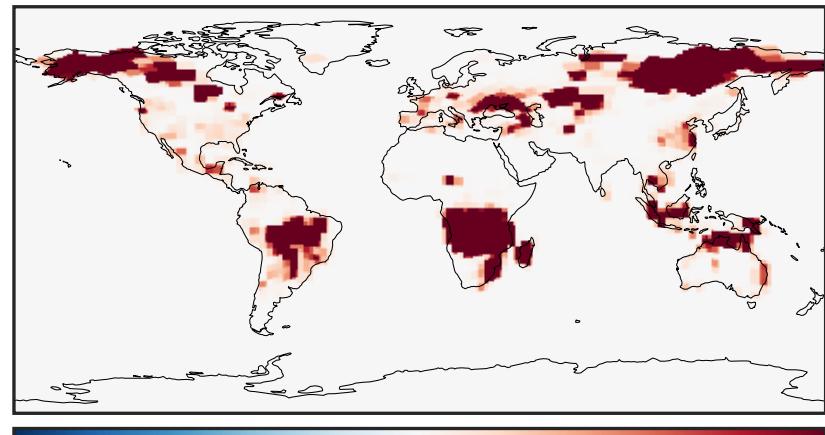
0.0      0.8      1.6      2.4  
kg/m<sup>2</sup>/s      1e-10

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



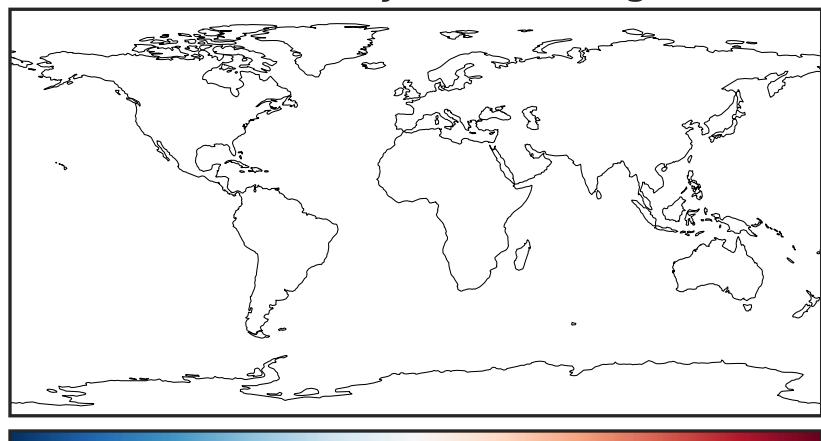
-1.5      0.0      1.5      1e-10  
kg/m<sup>2</sup>/s

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



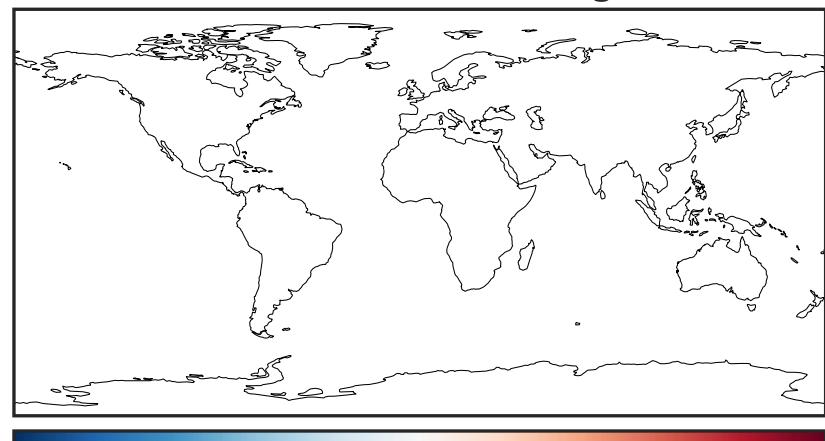
-1      0      1      1e-12  
kg/m<sup>2</sup>/s

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



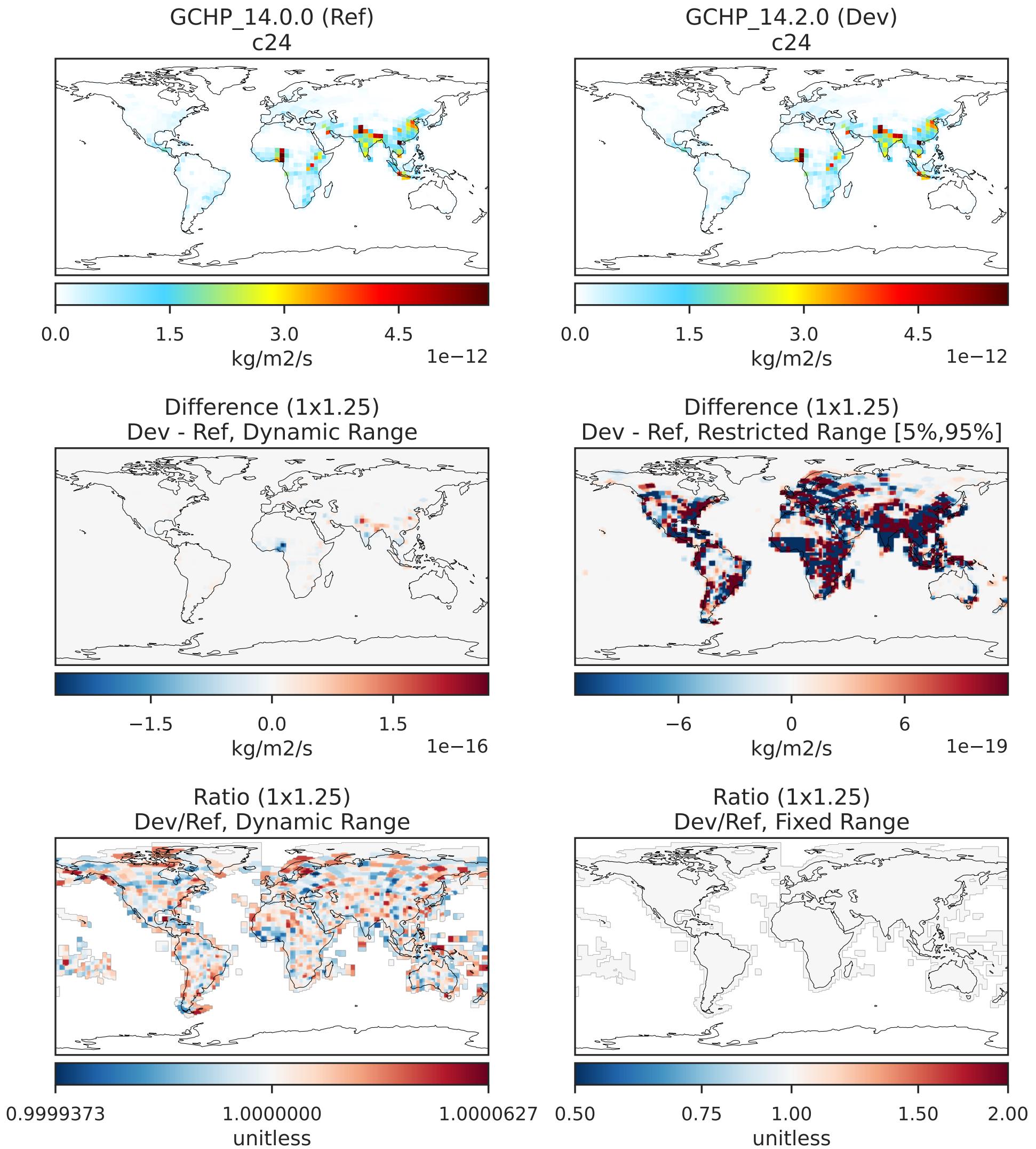
Undefined throughout domain  
unitless

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



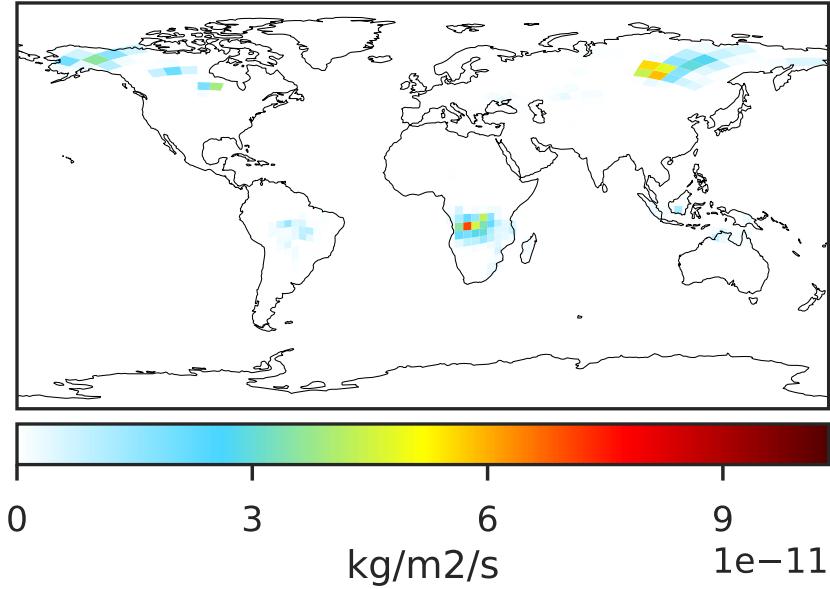
Undefined throughout domain  
unitless

# EmisALD2\_Anthro (Jul2019)

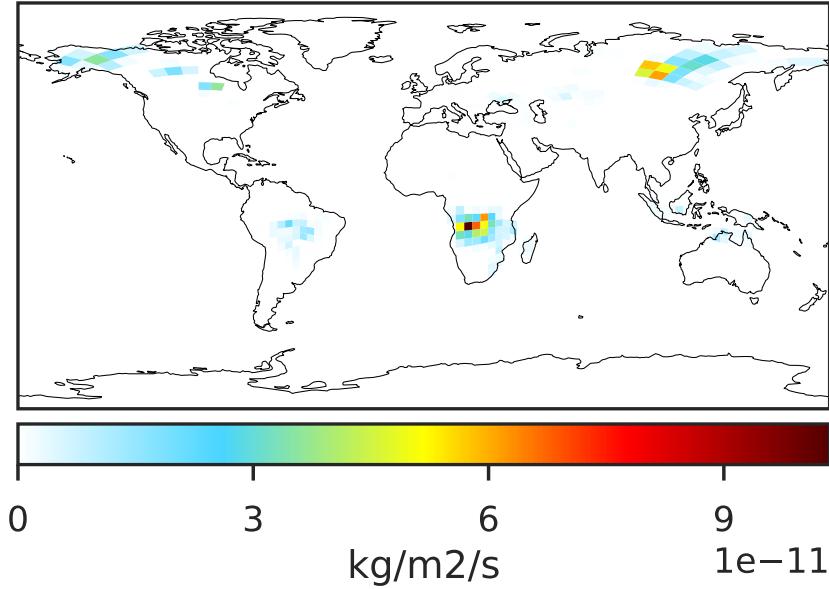


# EmisALD2\_BioBurn (Jul2019)

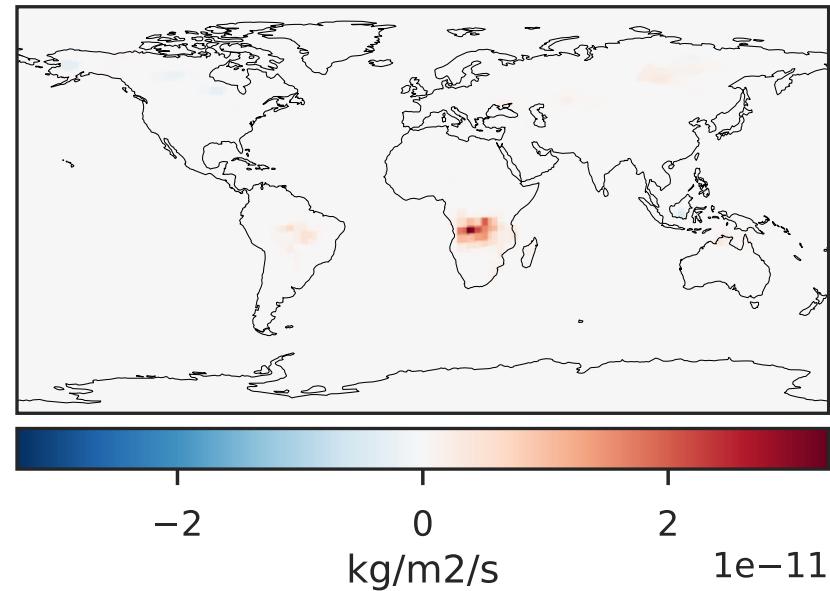
GCHP\_14.0.0 (Ref)  
c24



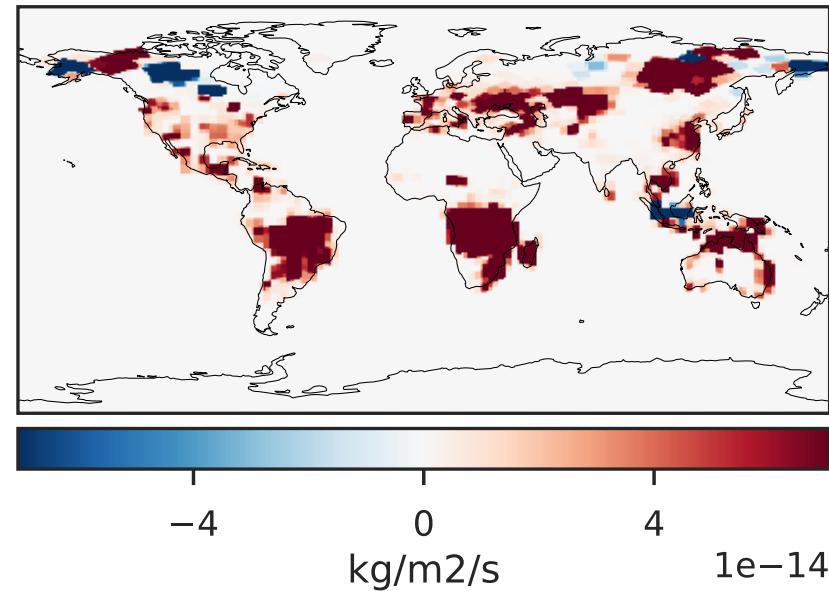
GCHP\_14.2.0 (Dev)  
c24



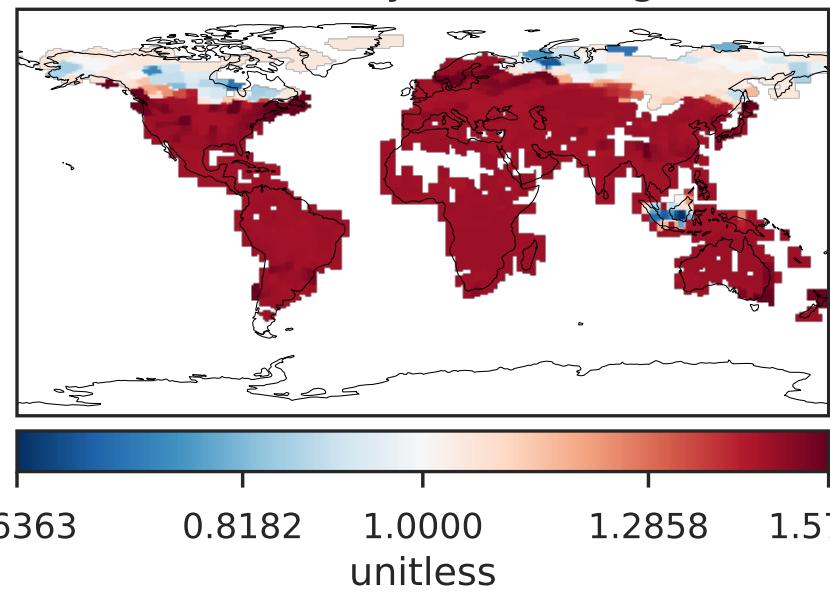
Difference (1x1.25)  
Dev - Ref, Dynamic Range



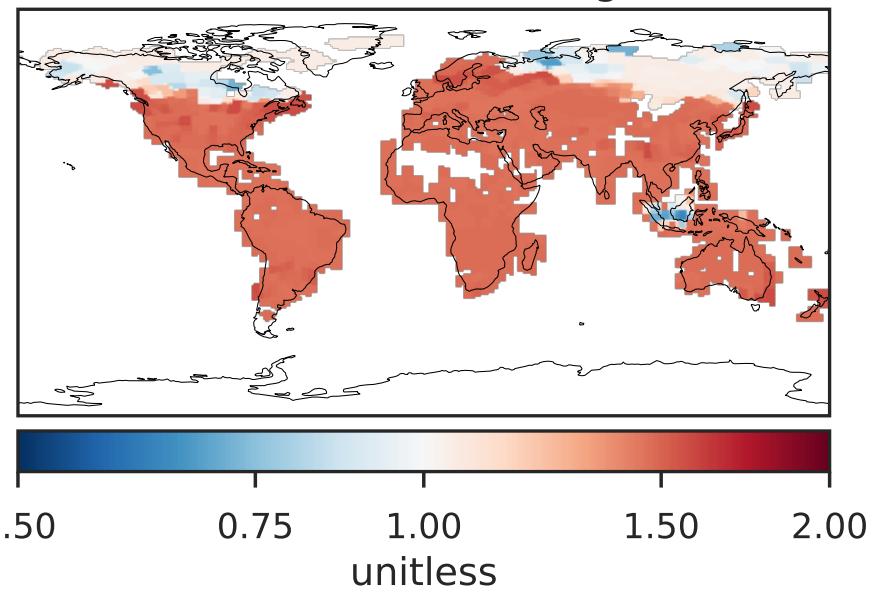
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



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

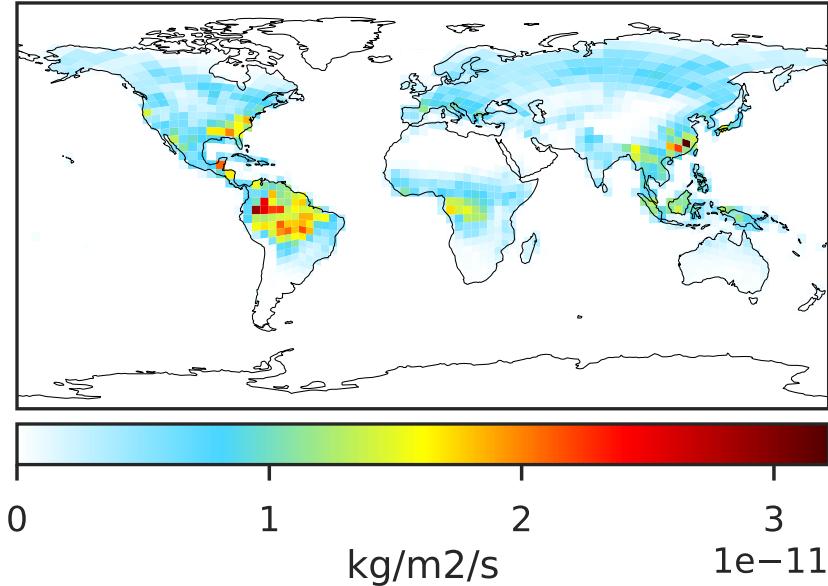


Ratio (1x1.25)  
Dev/Ref, Fixed Range

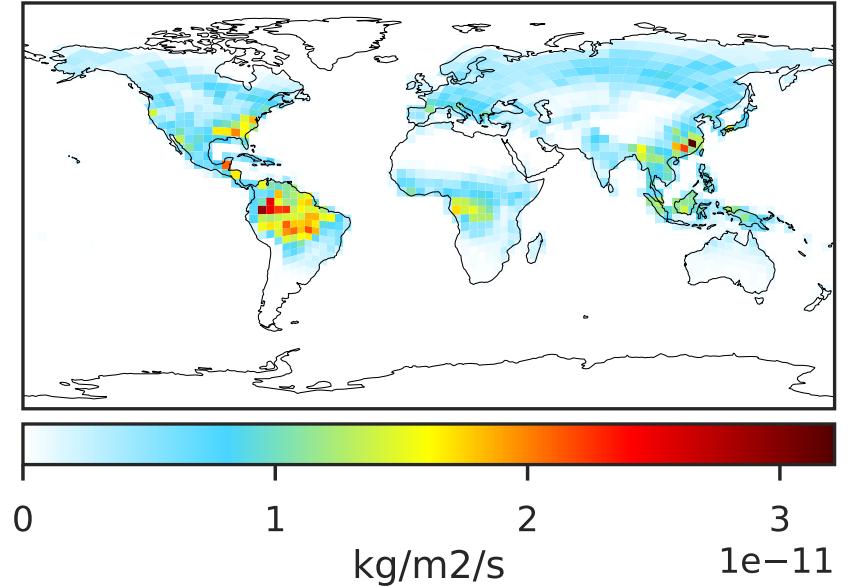


# EmisALD2\_Biogenic (Jul2019)

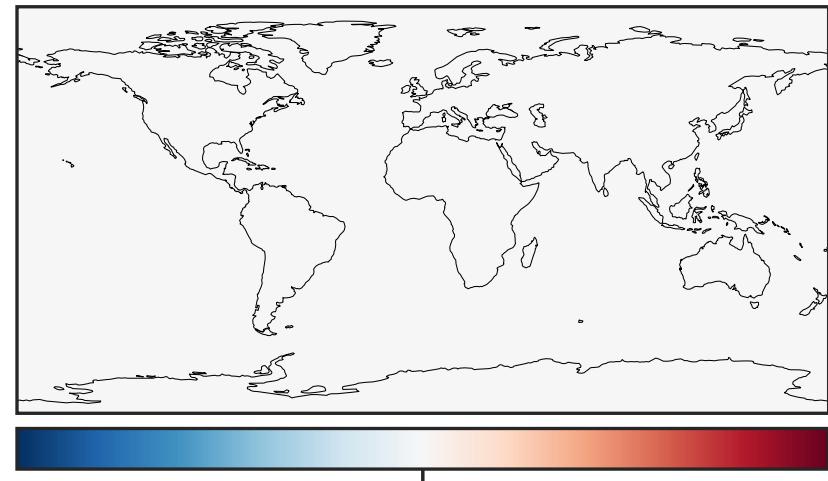
GCHP\_14.0.0 (Ref)  
c24



GCHP\_14.2.0 (Dev)  
c24

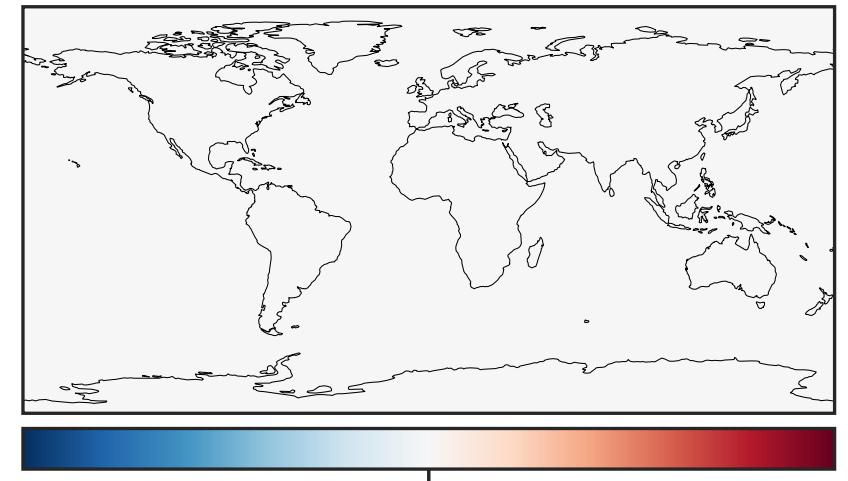


Difference (1x1.25)  
Dev - Ref, Dynamic Range



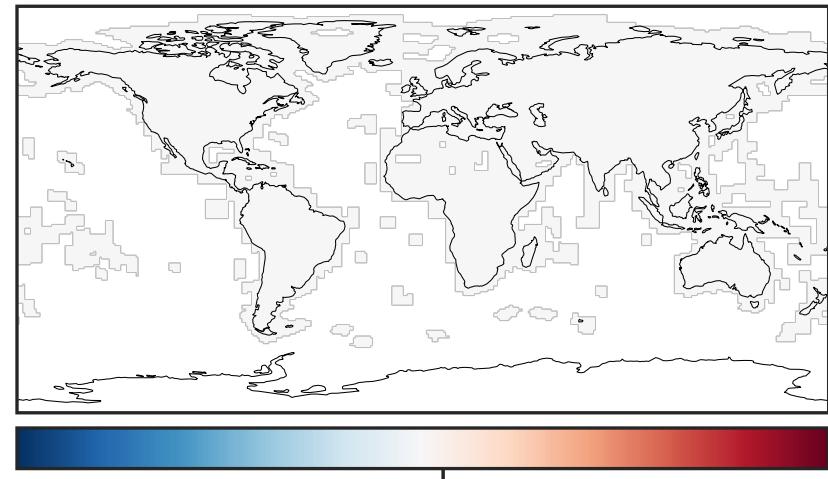
Zero throughout domain  
kg/m<sup>2</sup>/s

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



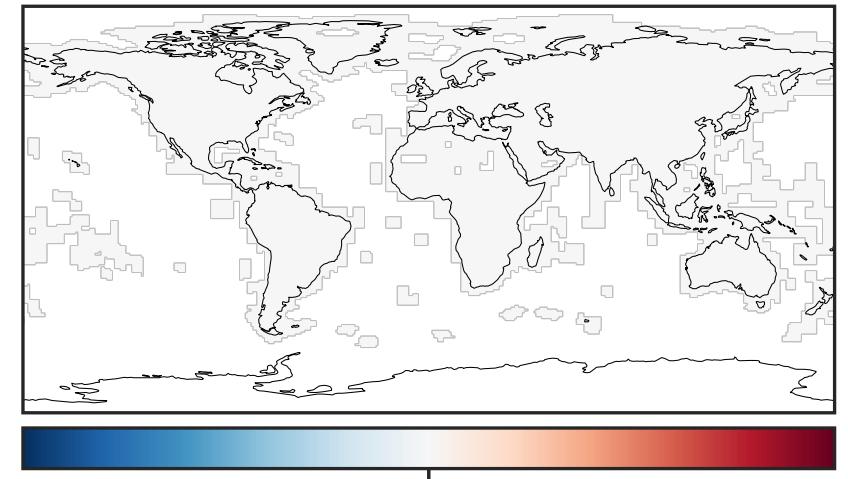
Zero throughout domain  
kg/m<sup>2</sup>/s

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



Ref and Dev equal throughout domain  
unitless

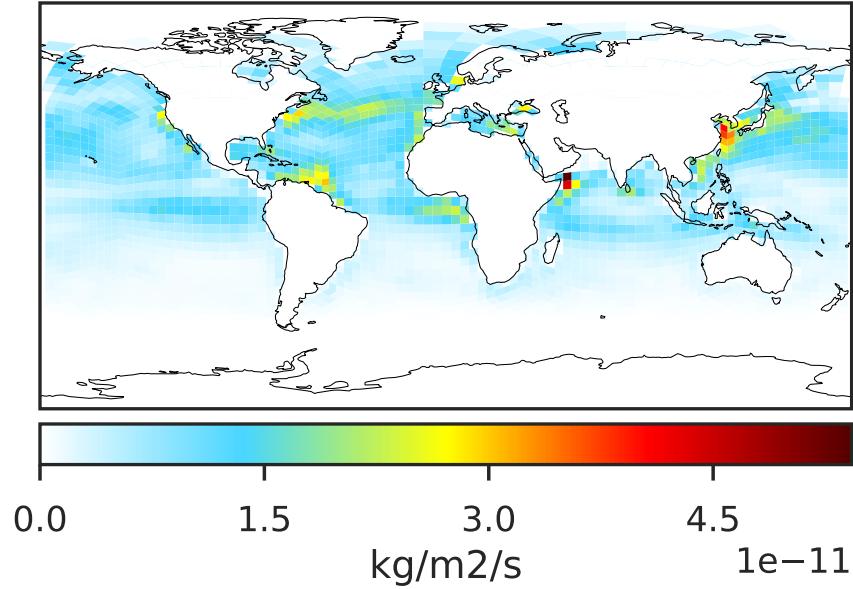
Ratio (1x1.25)  
Dev/Ref, Fixed Range



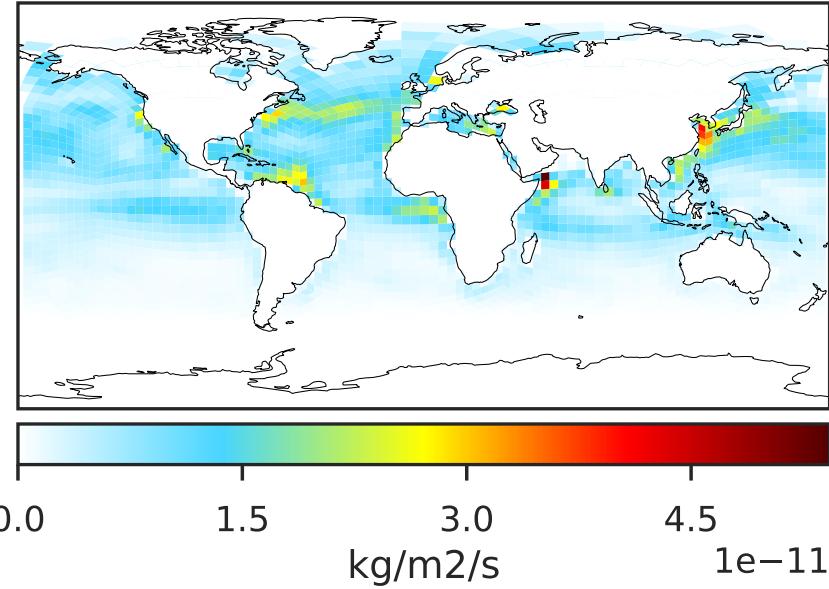
Ref and Dev equal throughout domain  
unitless

# EmisALD2\_Ocean (Jul2019)

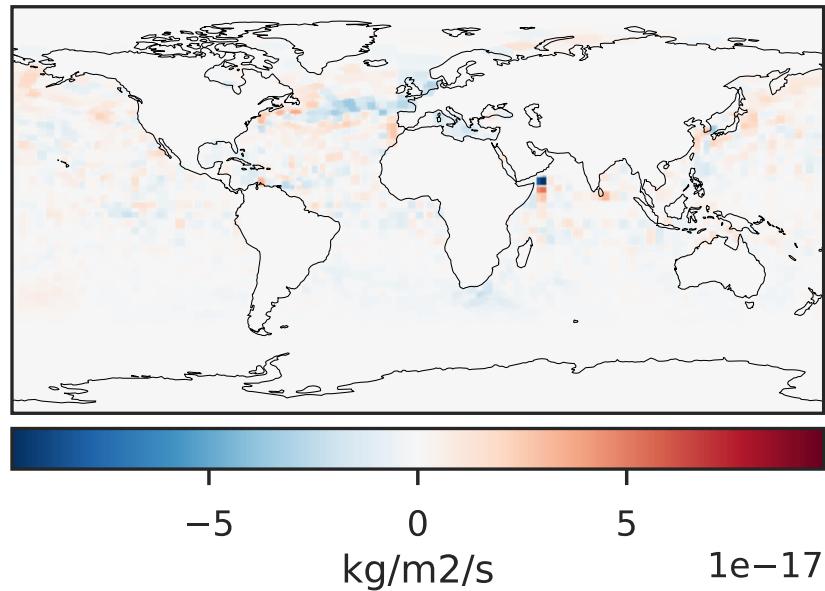
GCHP\_14.0.0 (Ref)  
c24



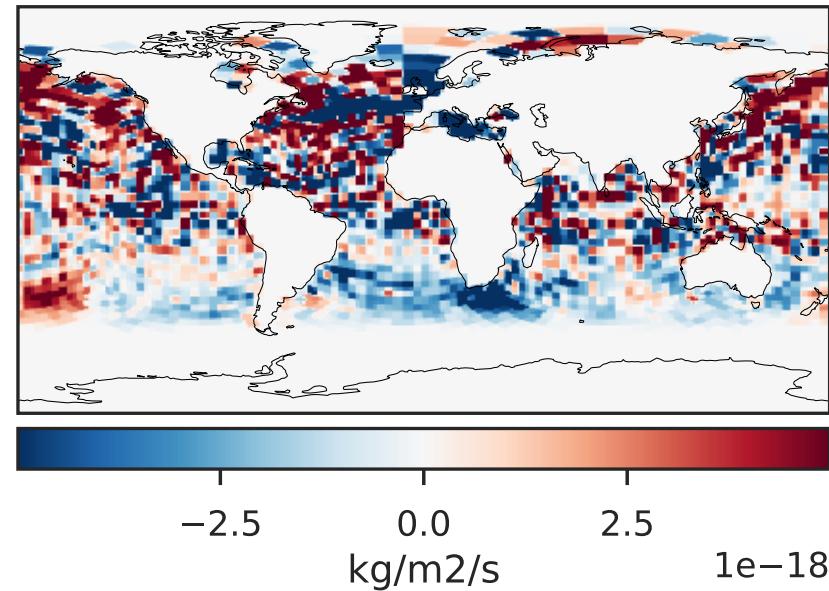
GCHP\_14.2.0 (Dev)  
c24



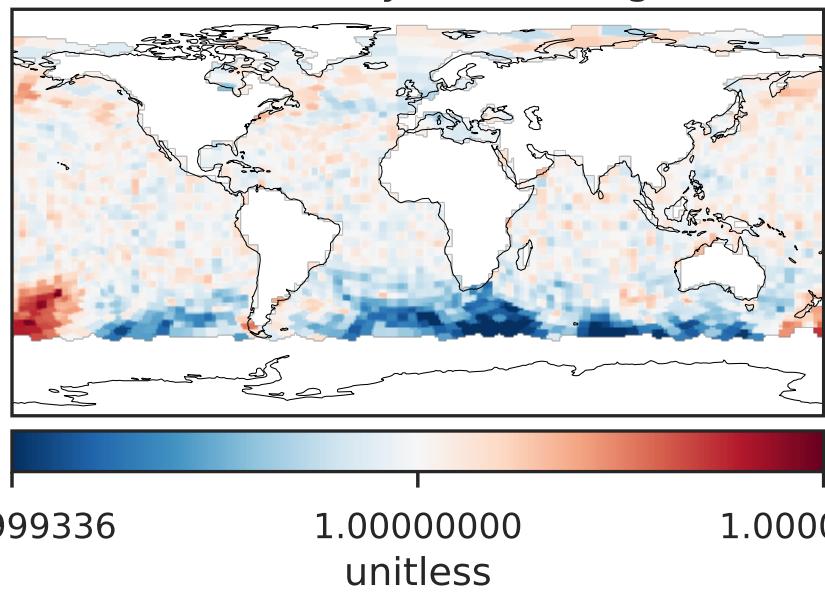
Difference (1x1.25)  
Dev - Ref, Dynamic Range



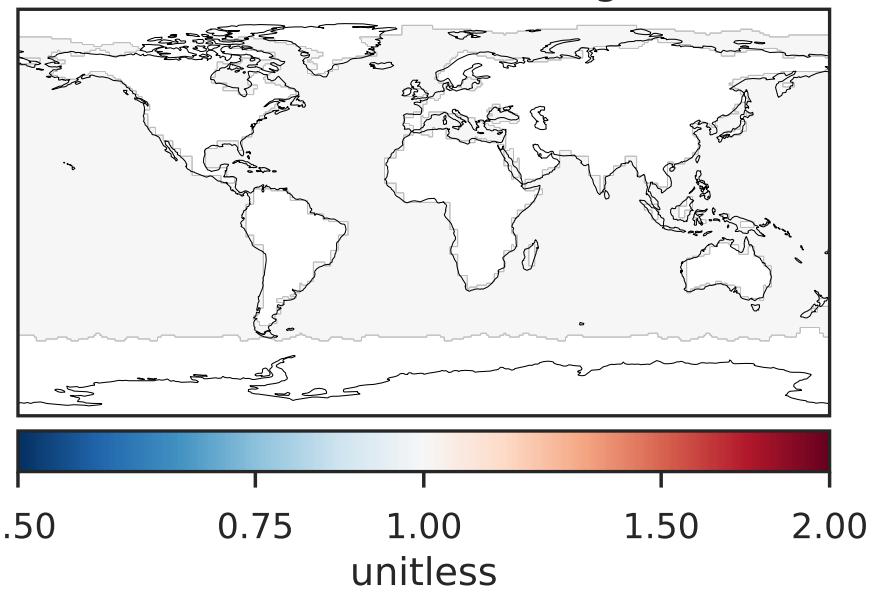
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



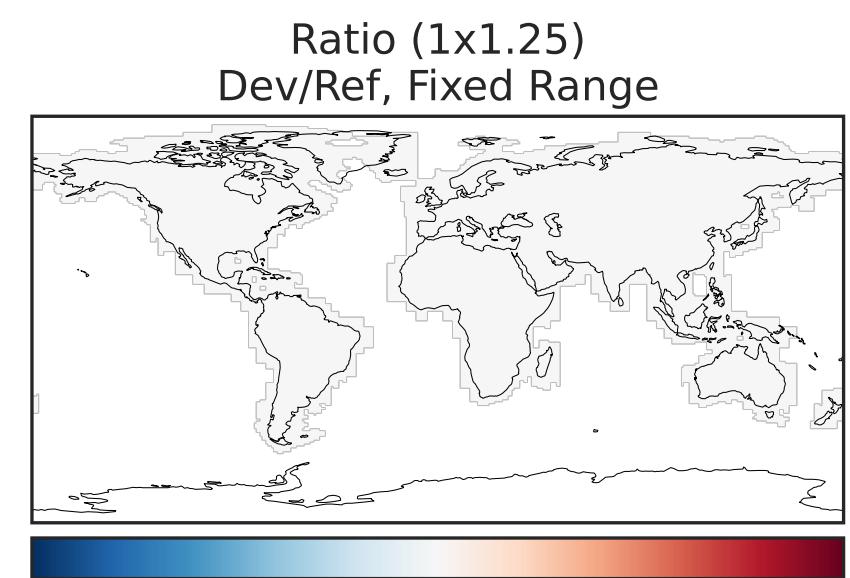
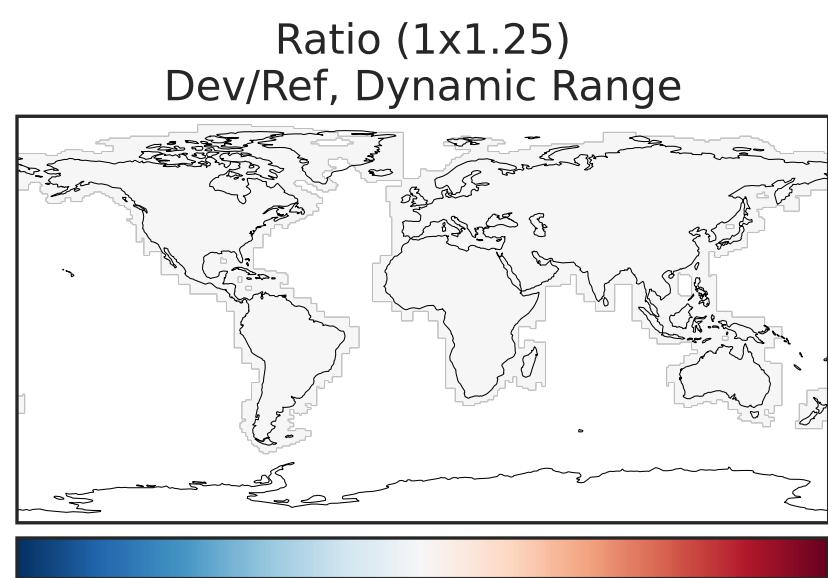
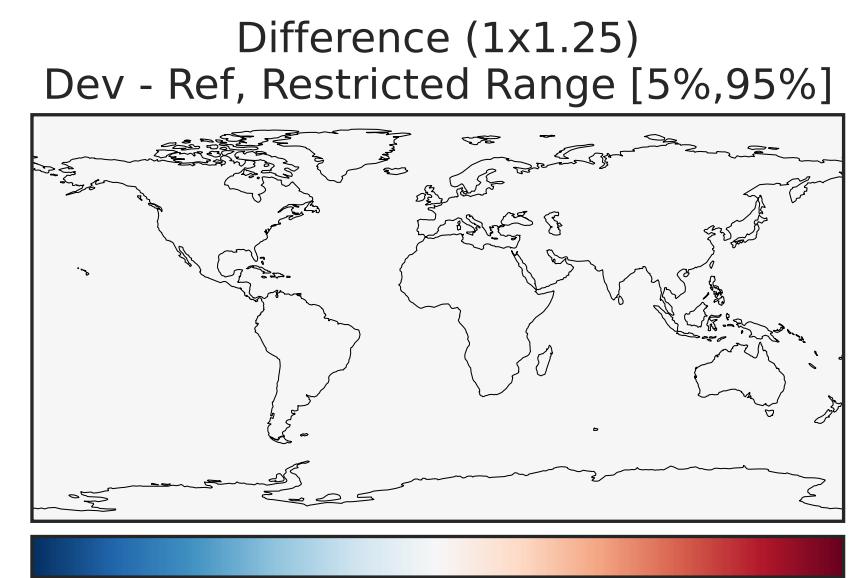
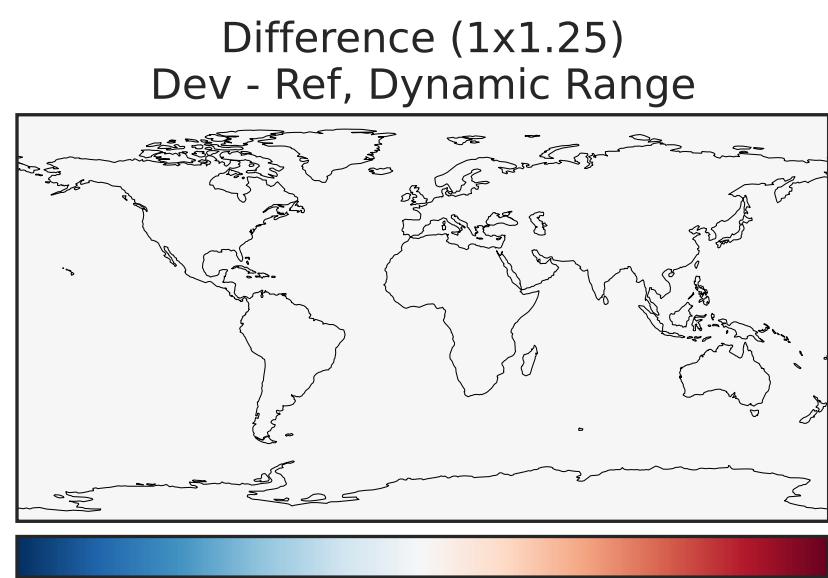
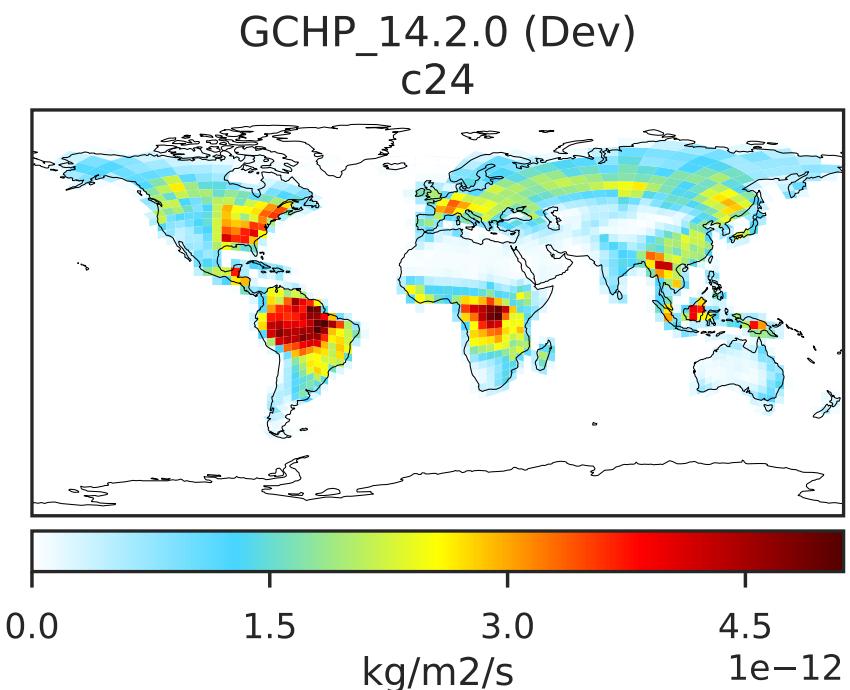
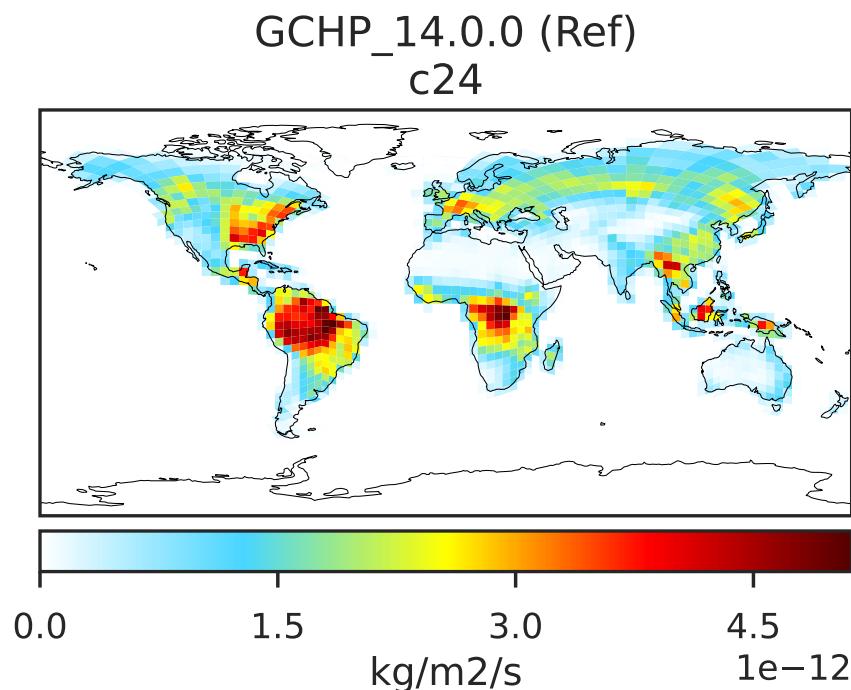
Ratio (1x1.25)  
Dev/Ref, Dynamic Range



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

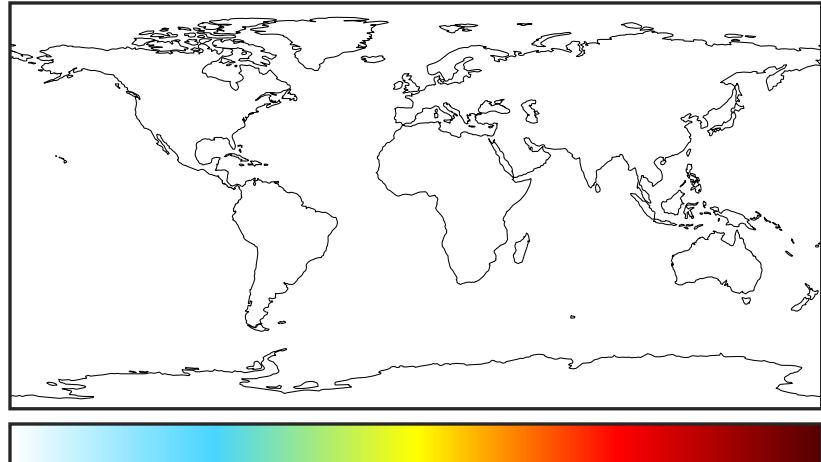


# EmisALD2\_PlantDecay (Jul2019)



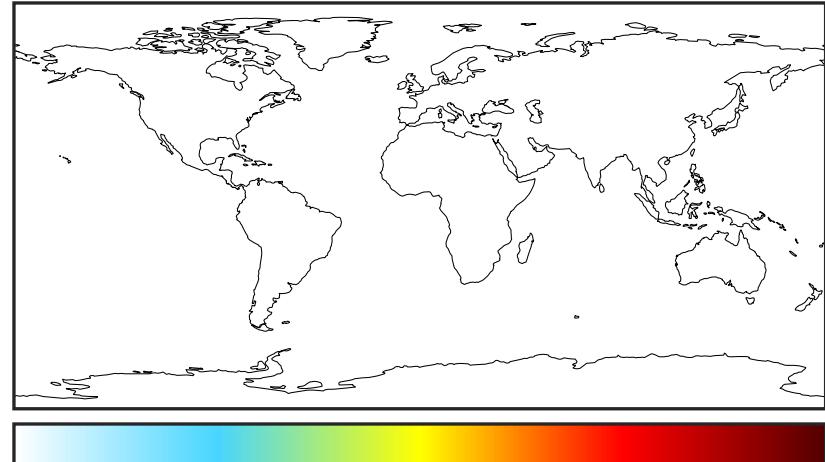
# EmisALD2\_Ship (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



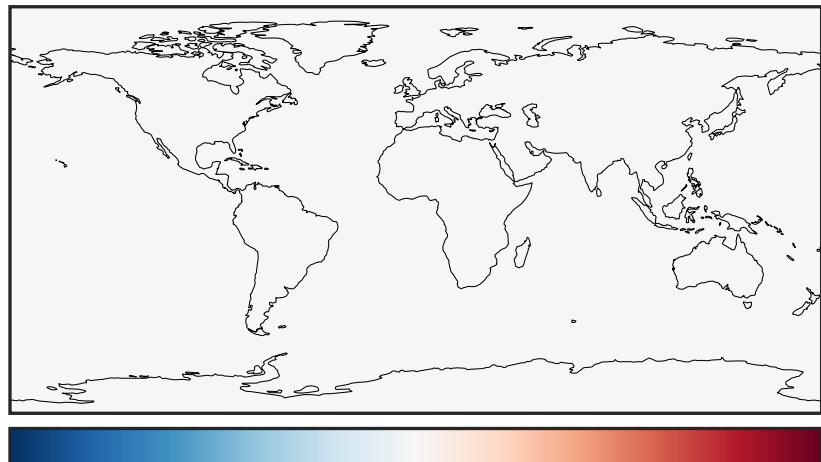
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



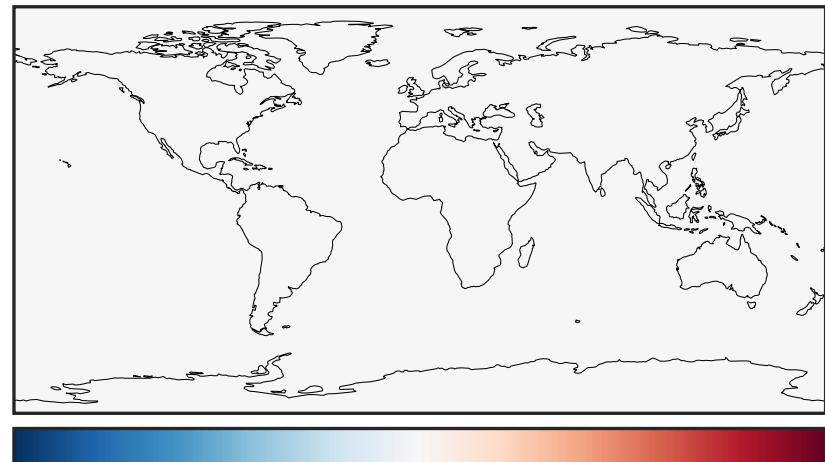
Zero throughout domain  
kg/m<sup>2</sup>/s

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



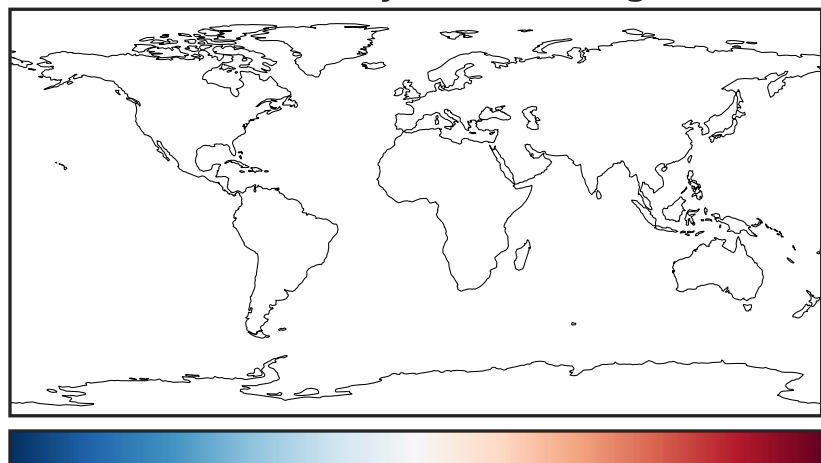
Zero throughout domain  
kg/m<sup>2</sup>/s

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



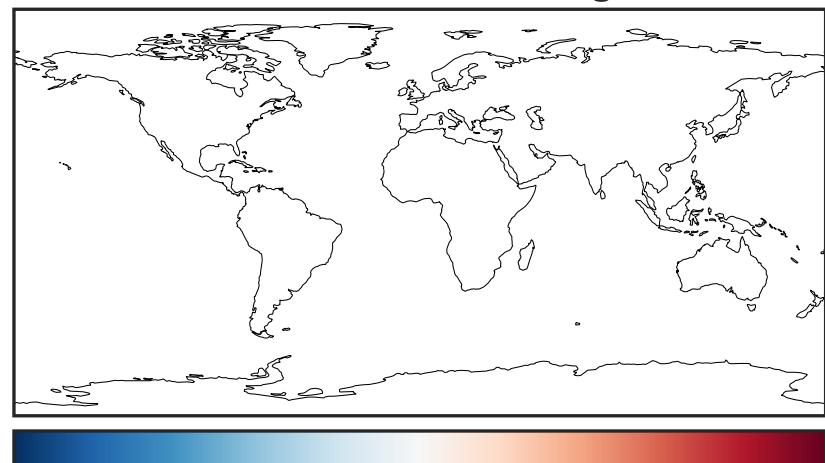
Zero throughout domain  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

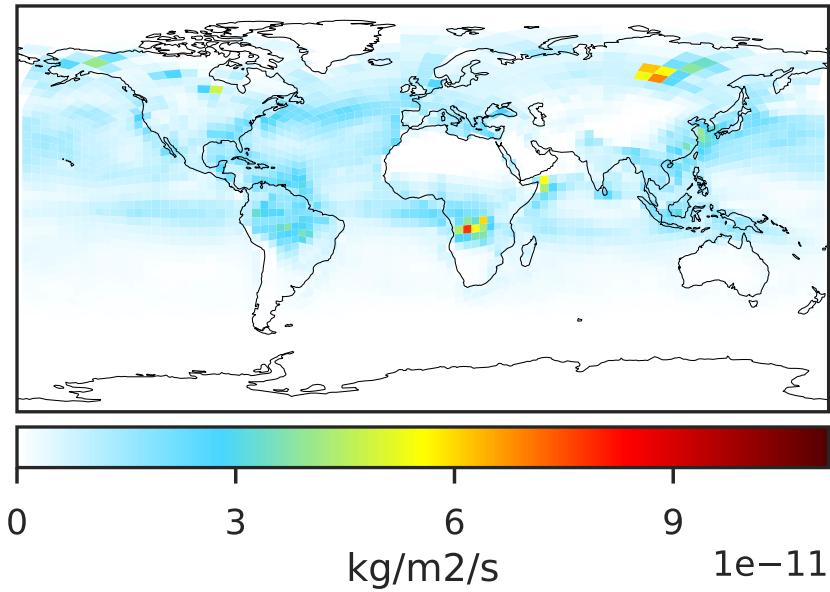
Ratio (1x1.25)  
Dev/Ref, Fixed Range



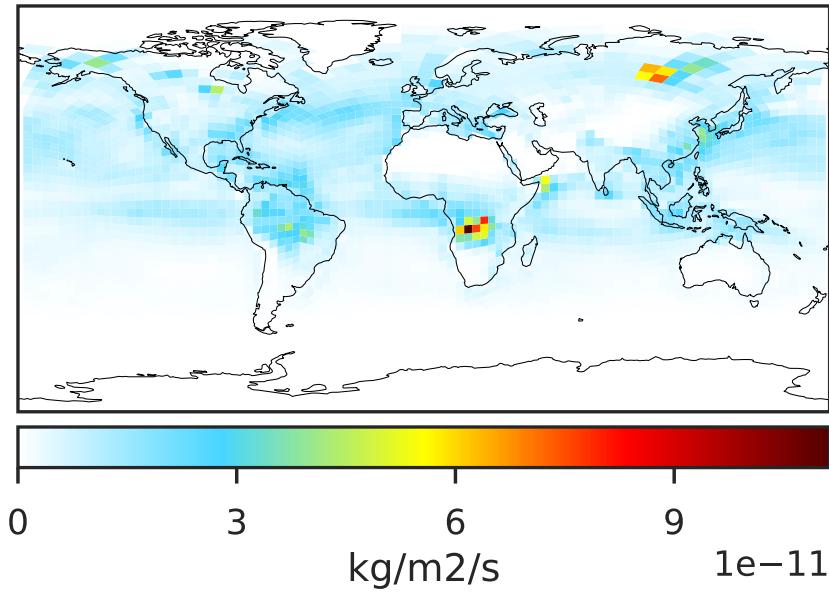
Undefined throughout domain  
unitless

# EmisALD2\_Total (Jul2019)

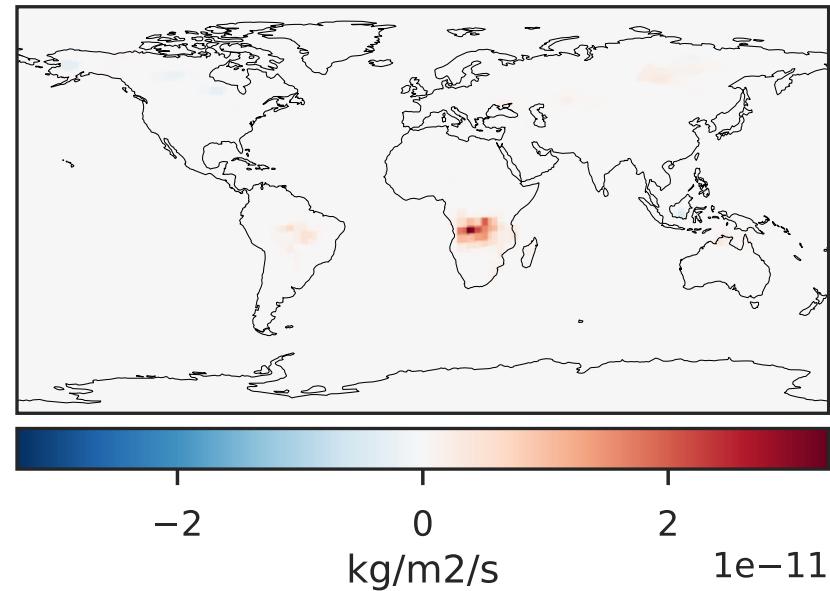
GCHP\_14.0.0 (Ref)  
c24



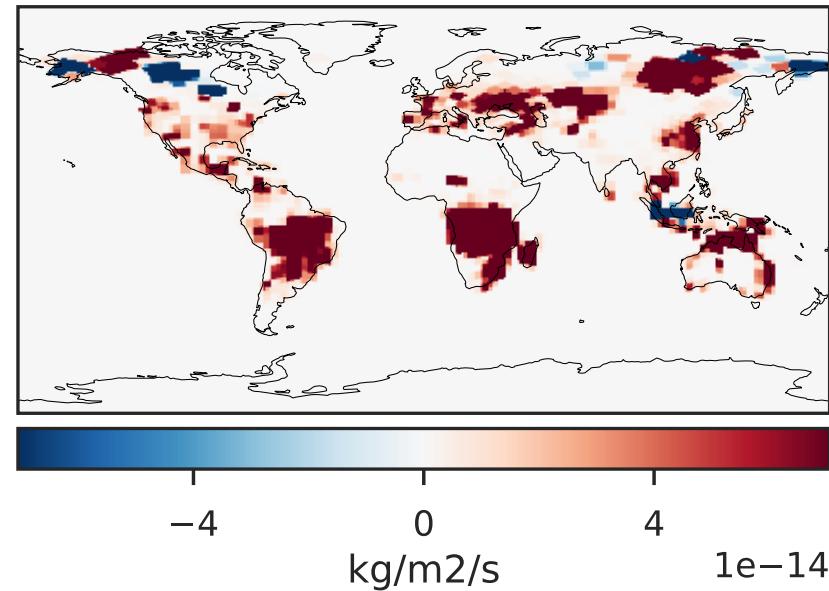
GCHP\_14.2.0 (Dev)  
c24



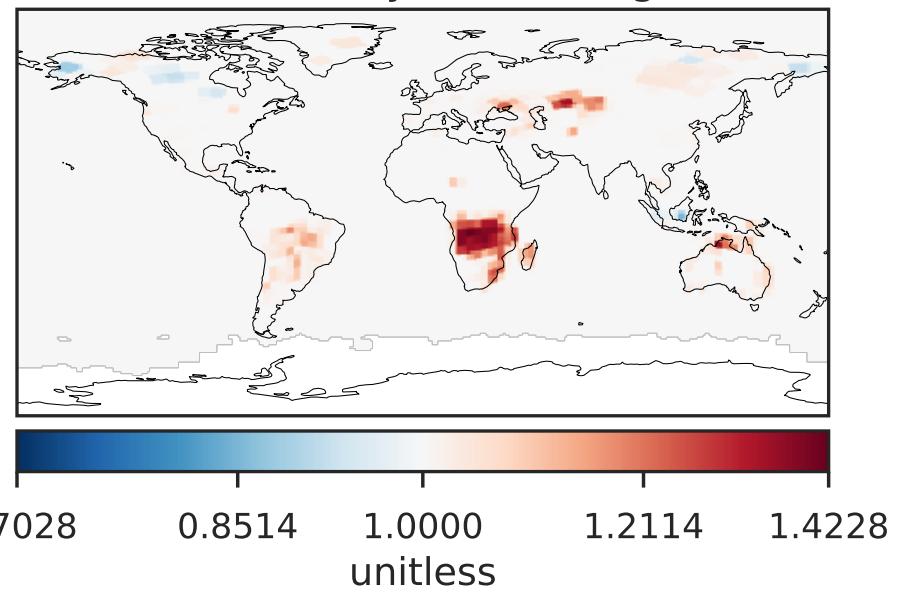
Difference (1x1.25)  
Dev - Ref, Dynamic Range



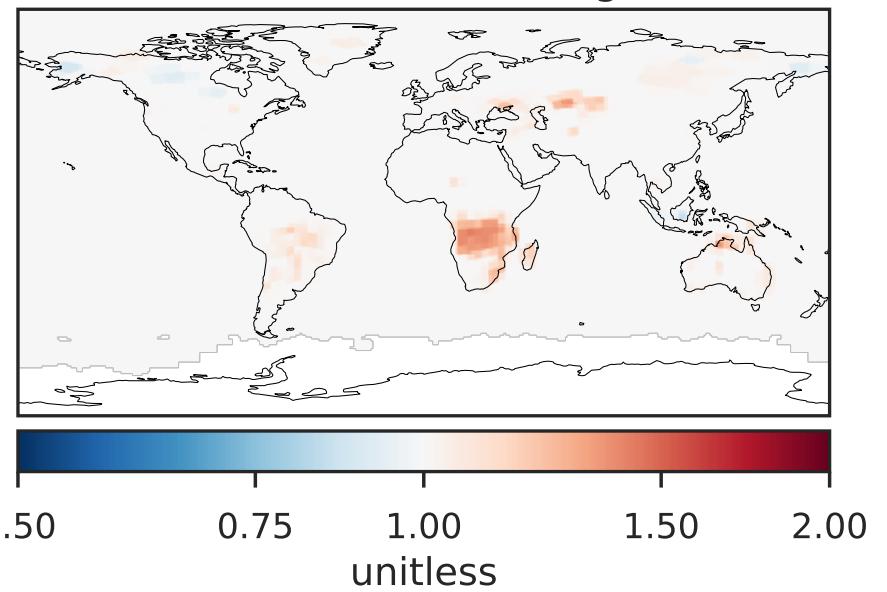
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



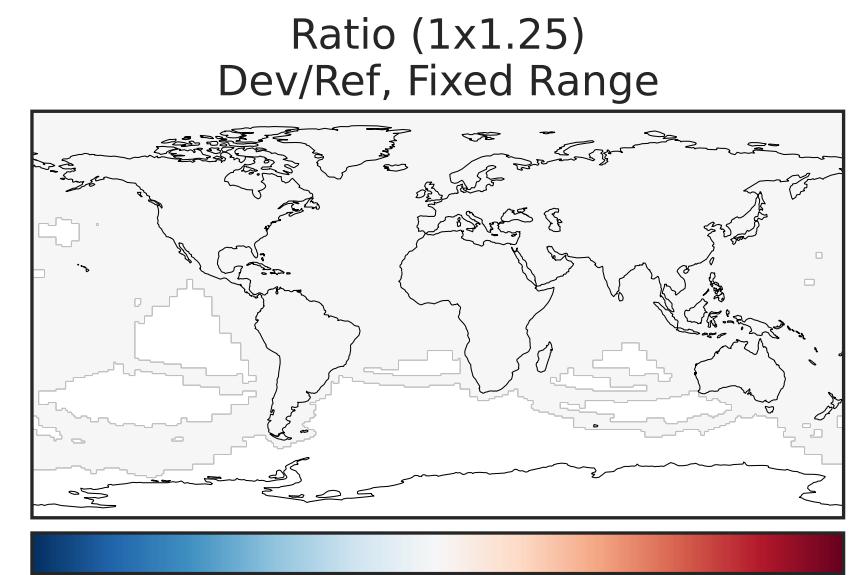
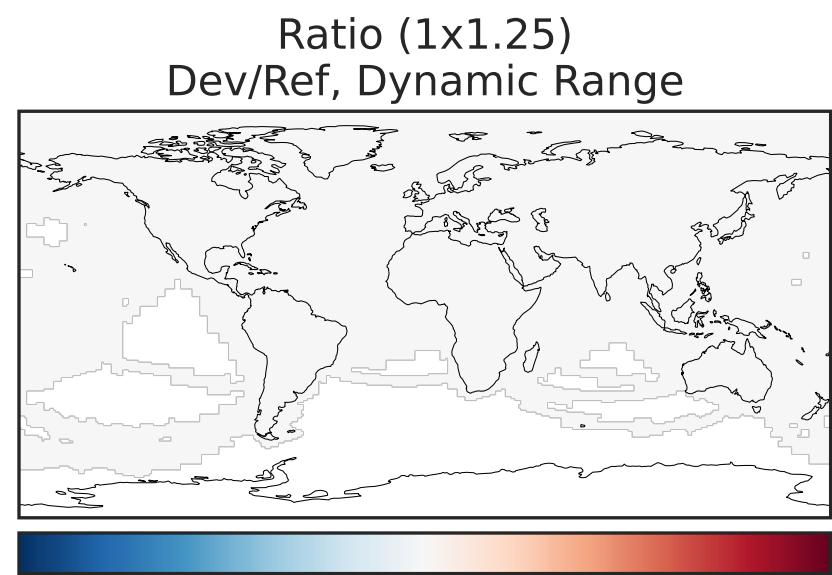
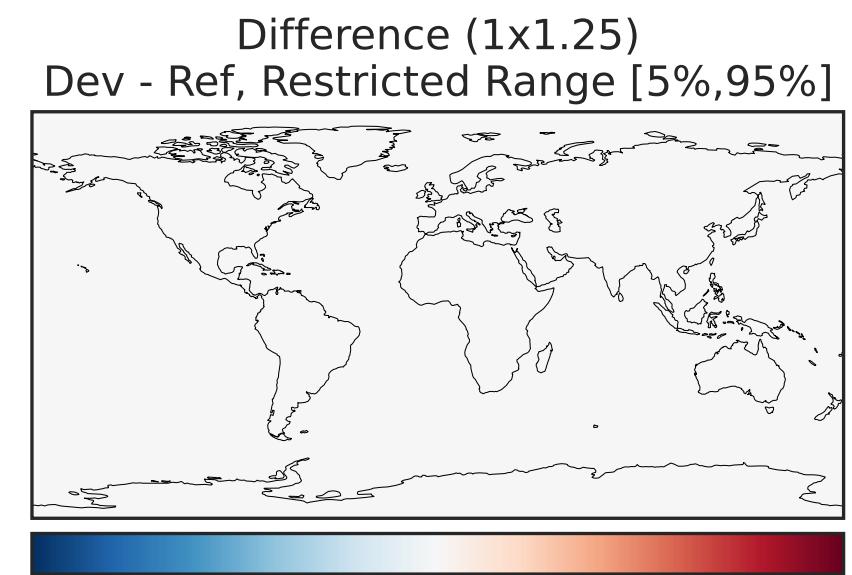
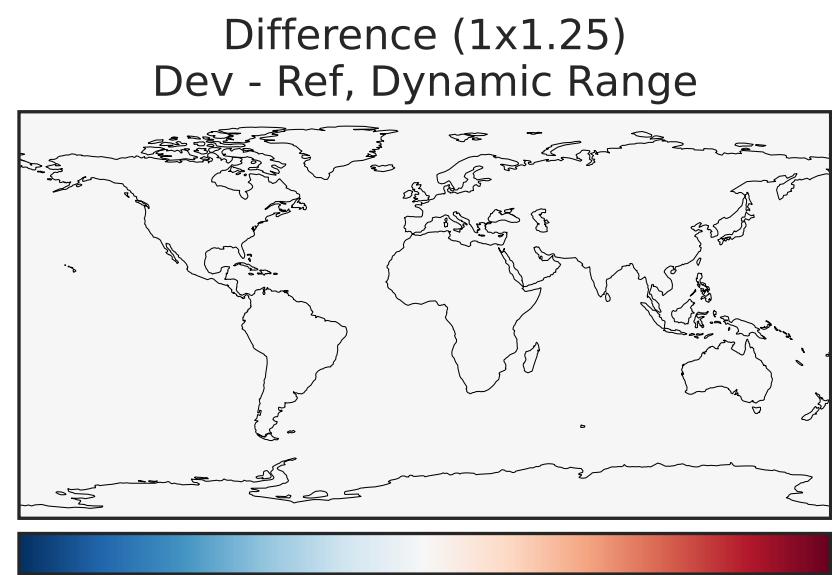
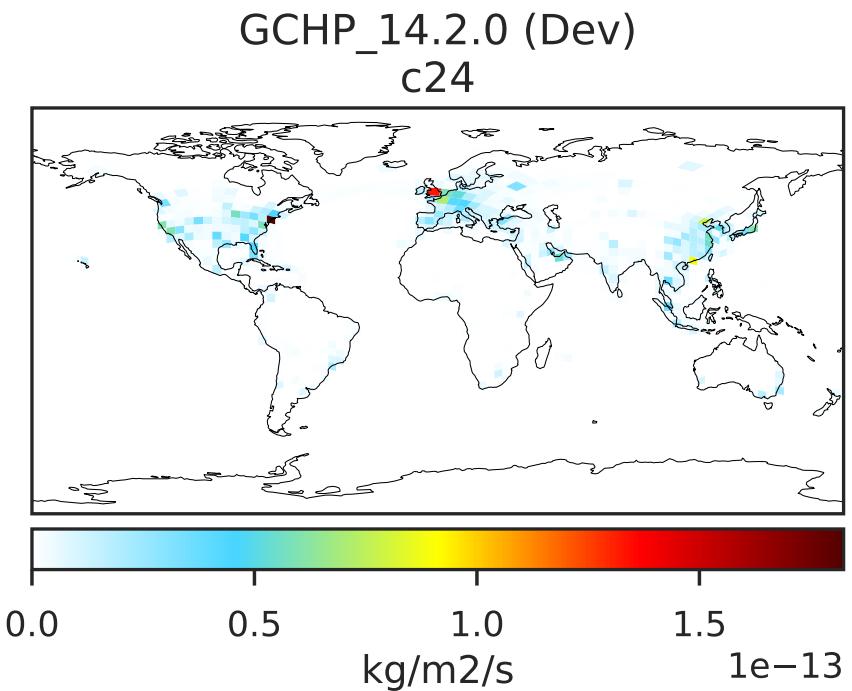
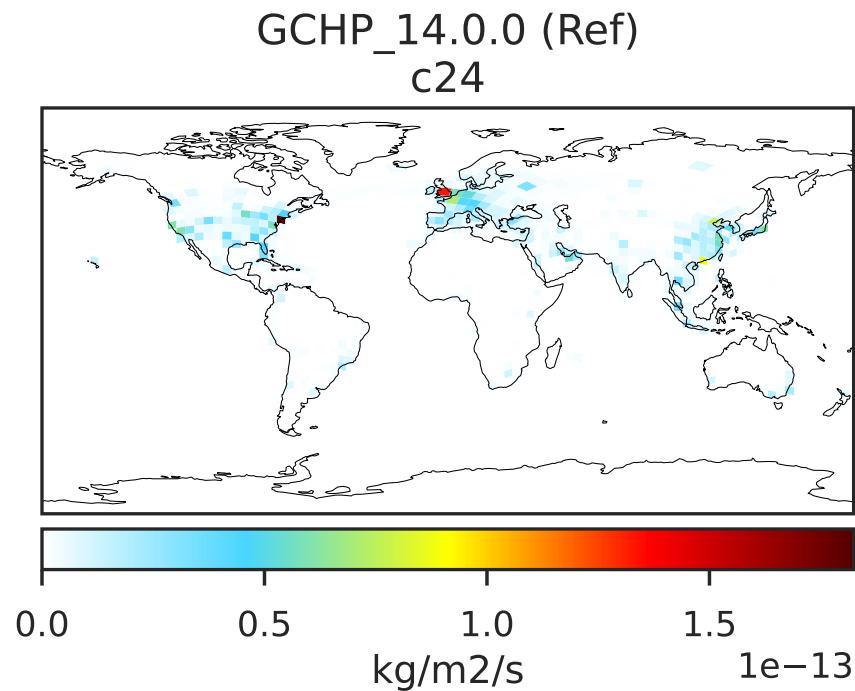
Ratio (1x1.25)  
Dev/Ref, Dynamic Range



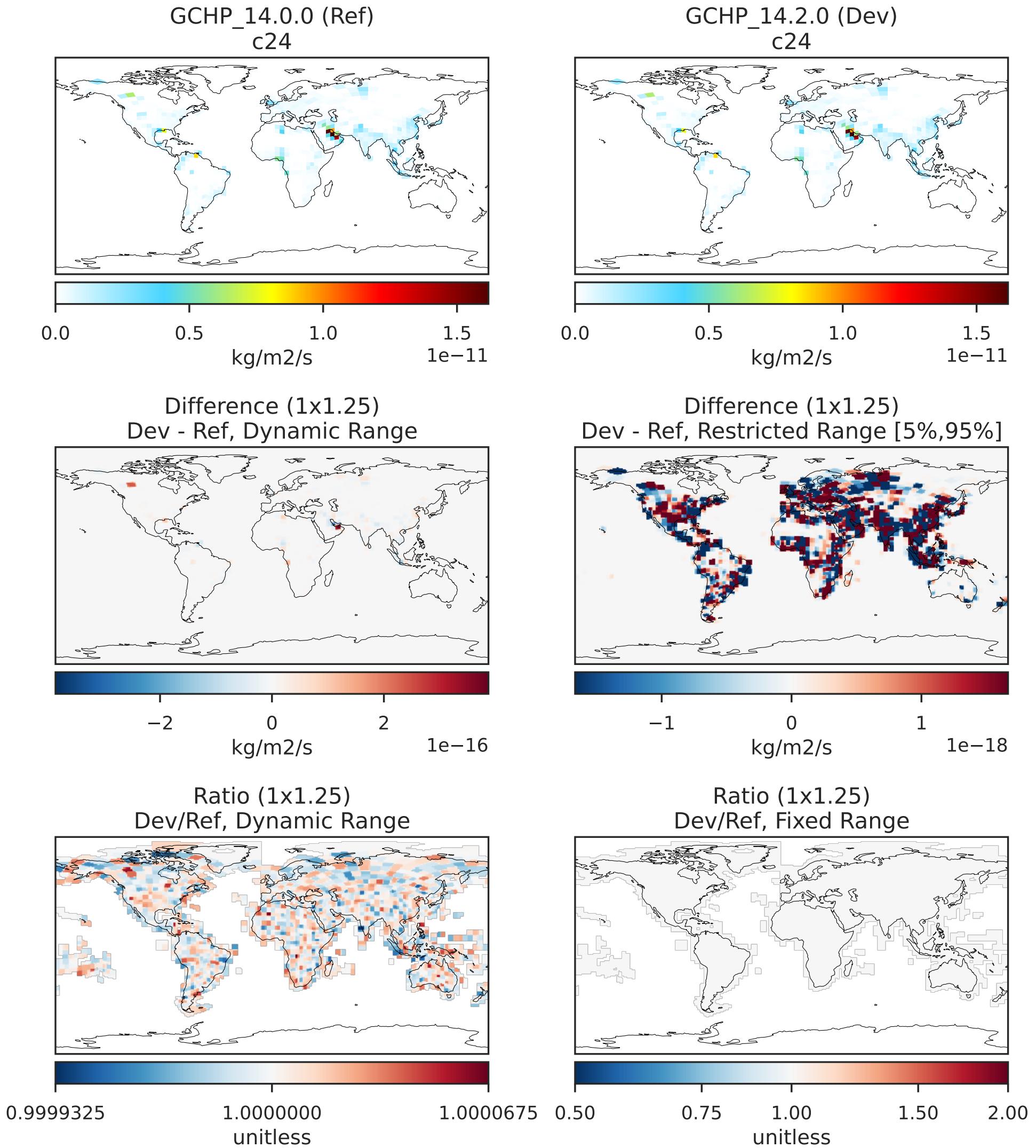
Ratio (1x1.25)  
Dev/Ref, Fixed Range



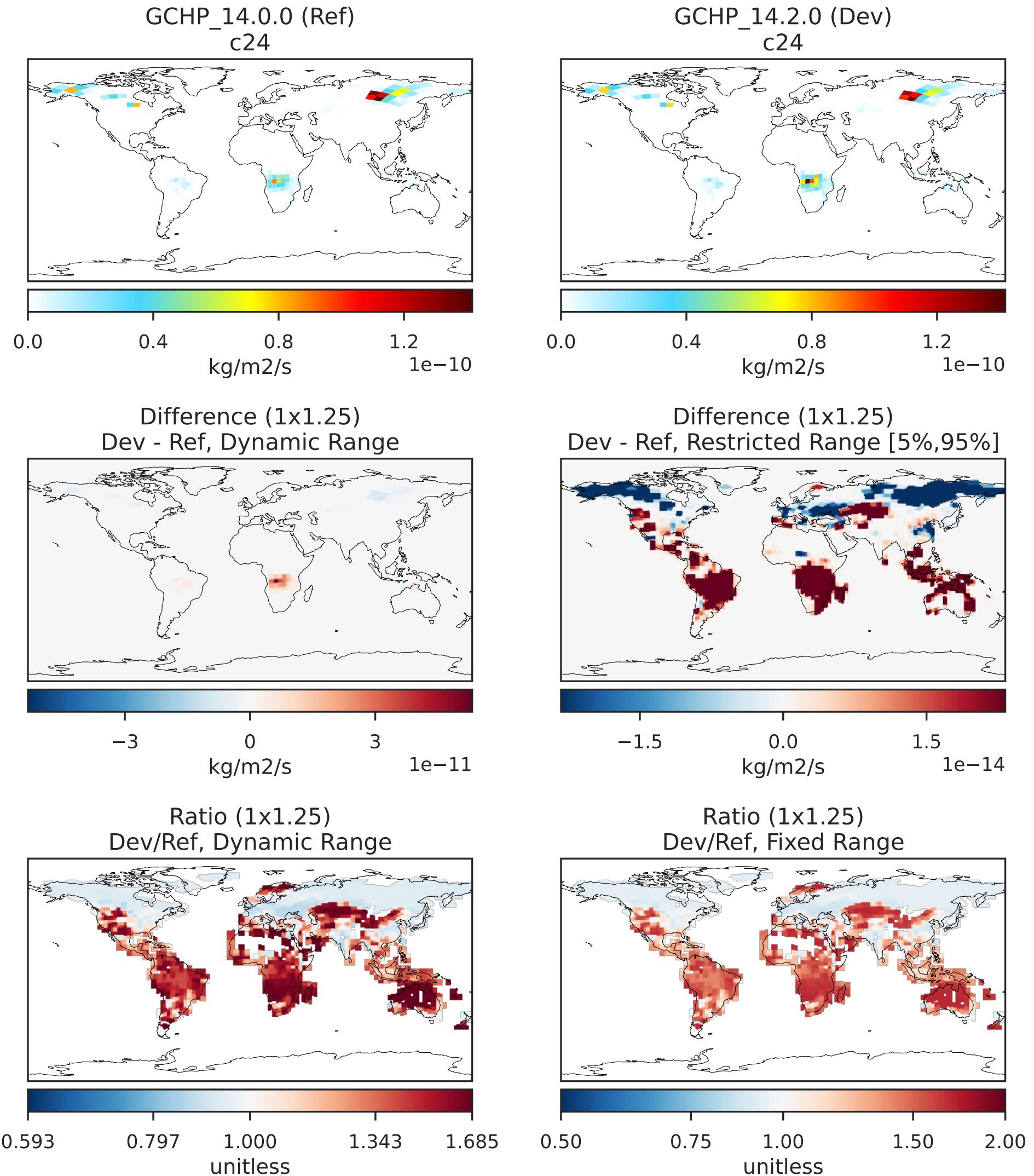
# EmisCH2O\_Aircraft (Jul2019)



# EmisCH2O\_Anthro (Jul2019)

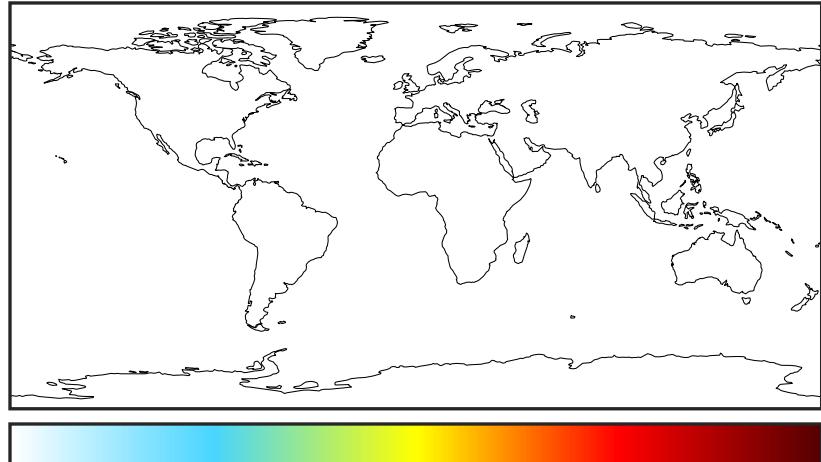


# EmisCH2O\_BioBurn (Jul2019)



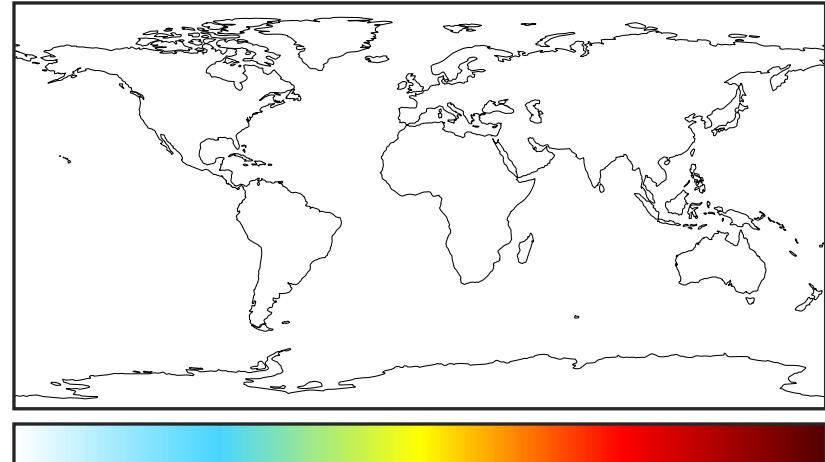
# EmisCH2O\_Ship (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



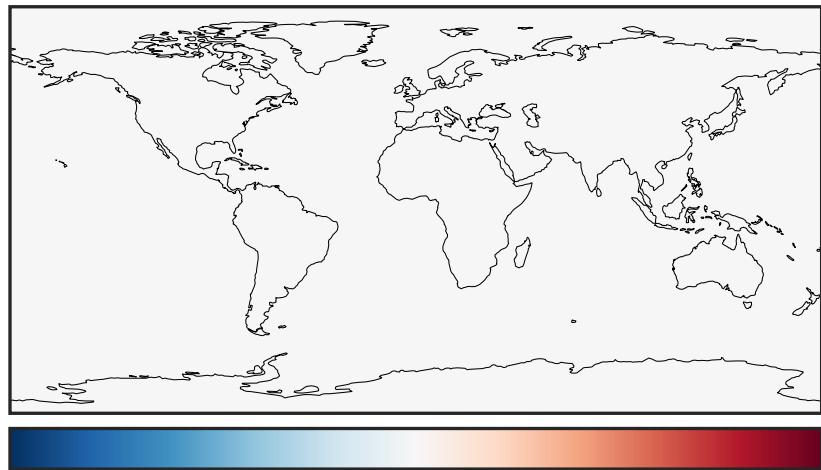
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



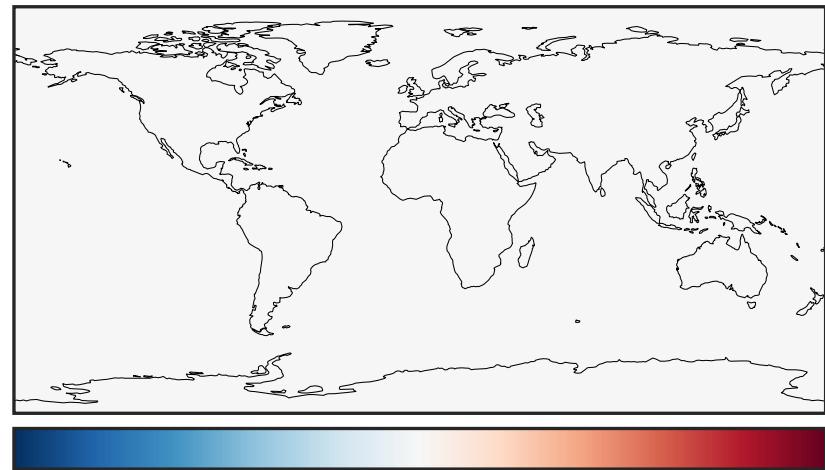
Zero throughout domain  
kg/m<sup>2</sup>/s

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



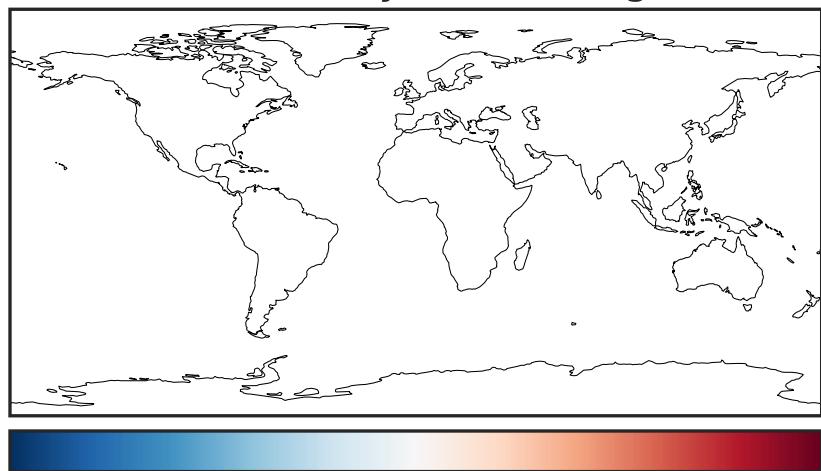
Zero throughout domain  
kg/m<sup>2</sup>/s

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



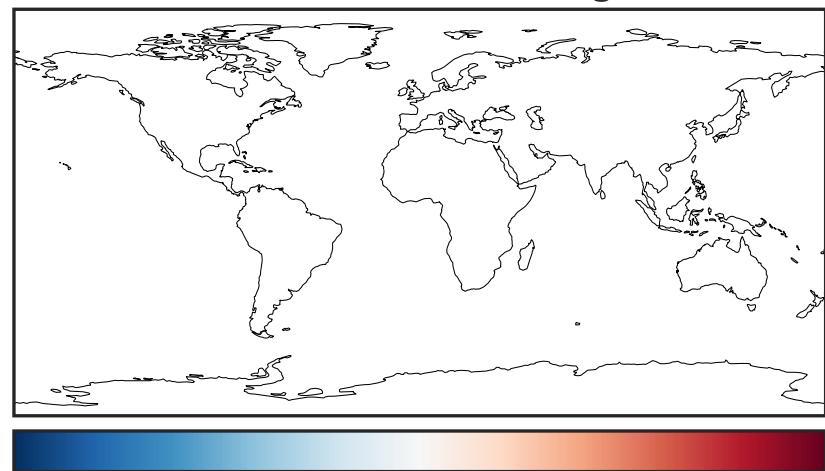
Zero throughout domain  
kg/m<sup>2</sup>/s

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



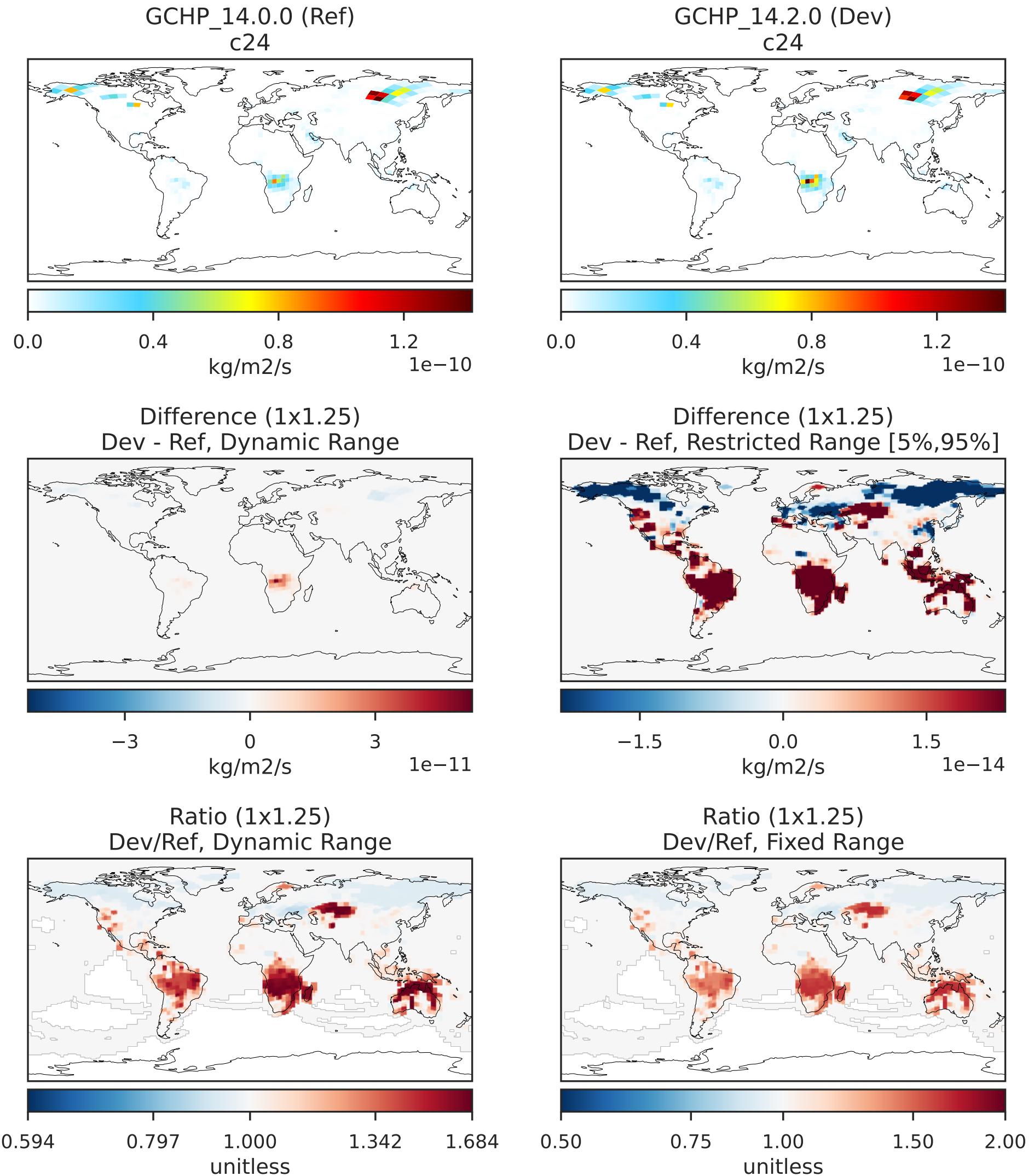
Undefined throughout domain  
unitless

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

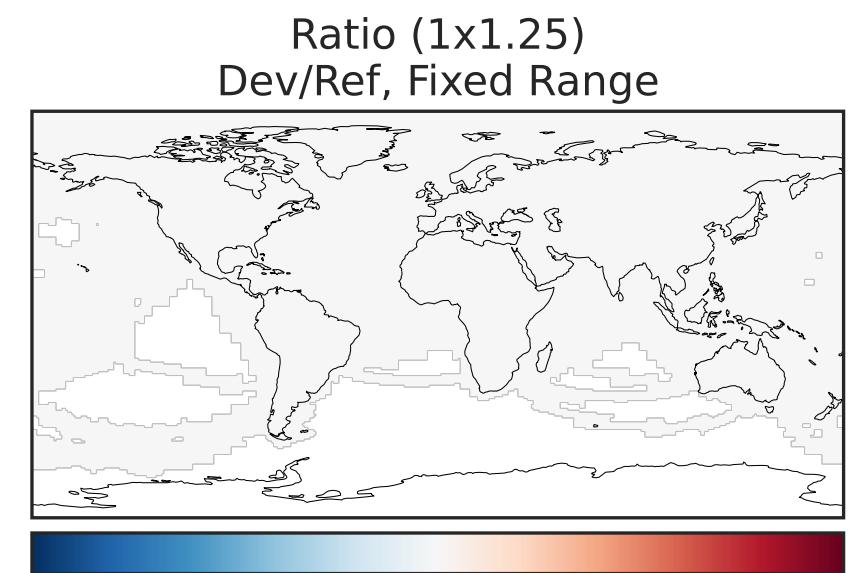
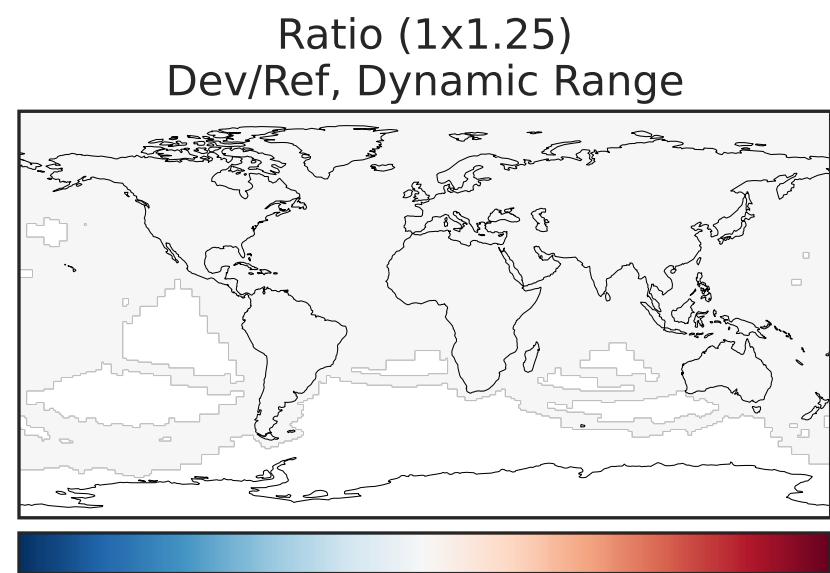
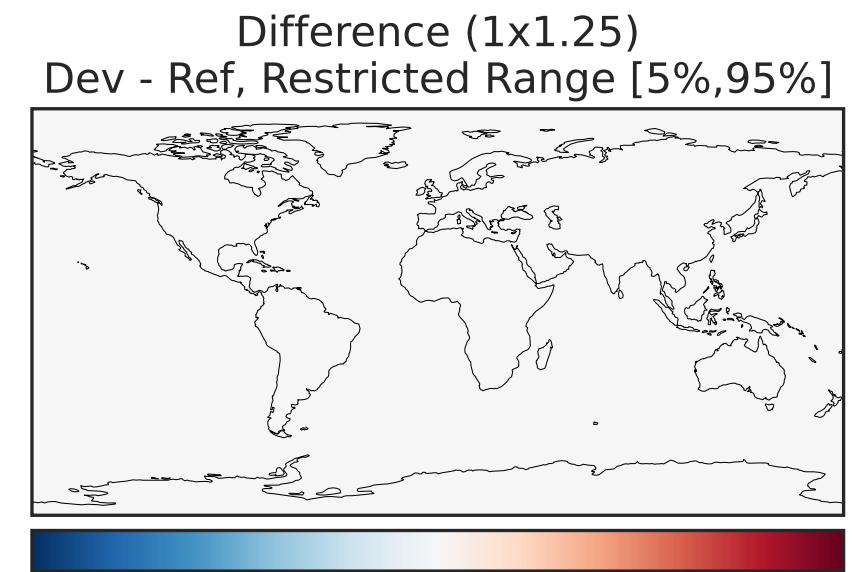
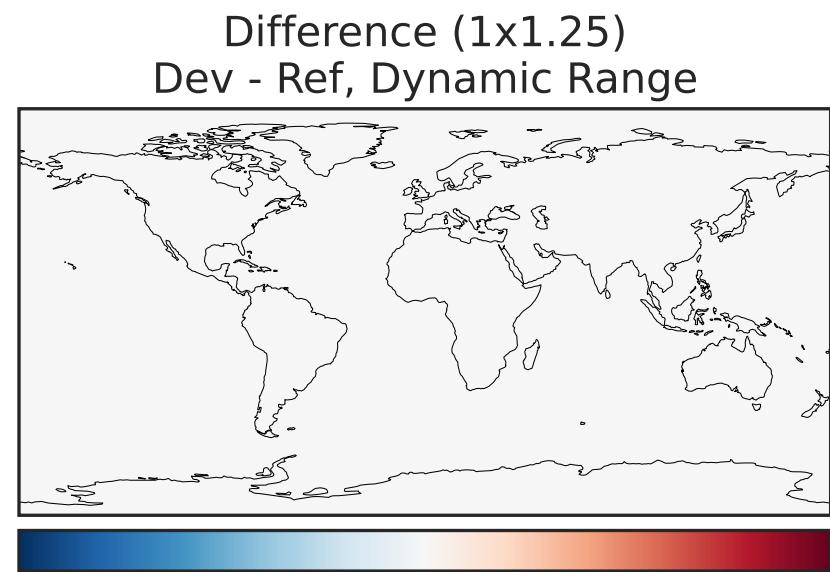
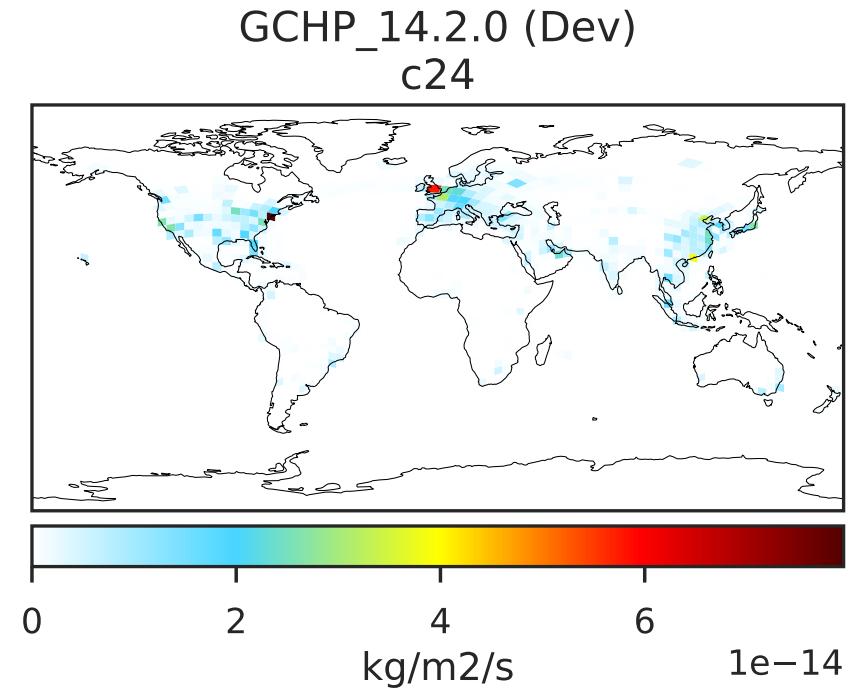
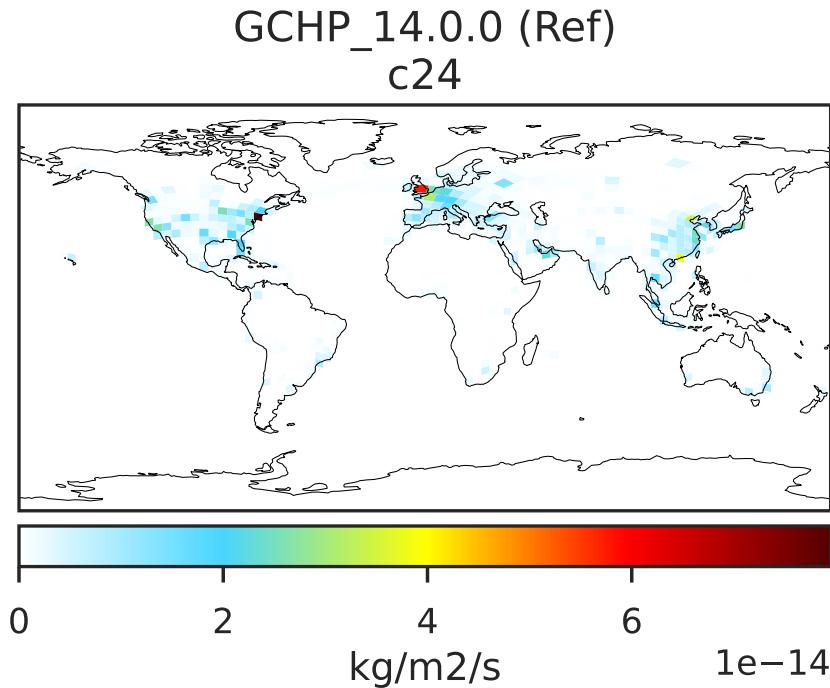


Undefined throughout domain  
unitless

# EmisCH2O\_Total (Jul2019)

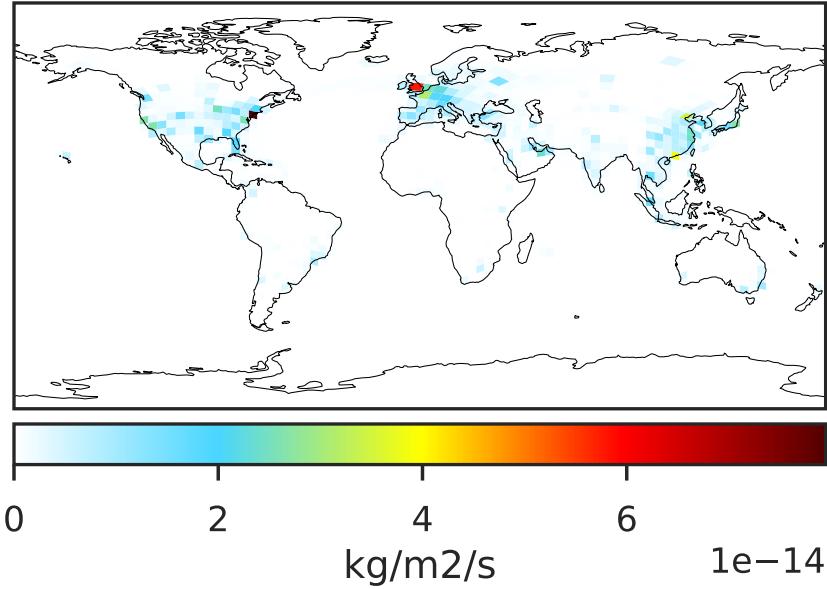


# EmisMACR\_Aircraft (Jul2019)

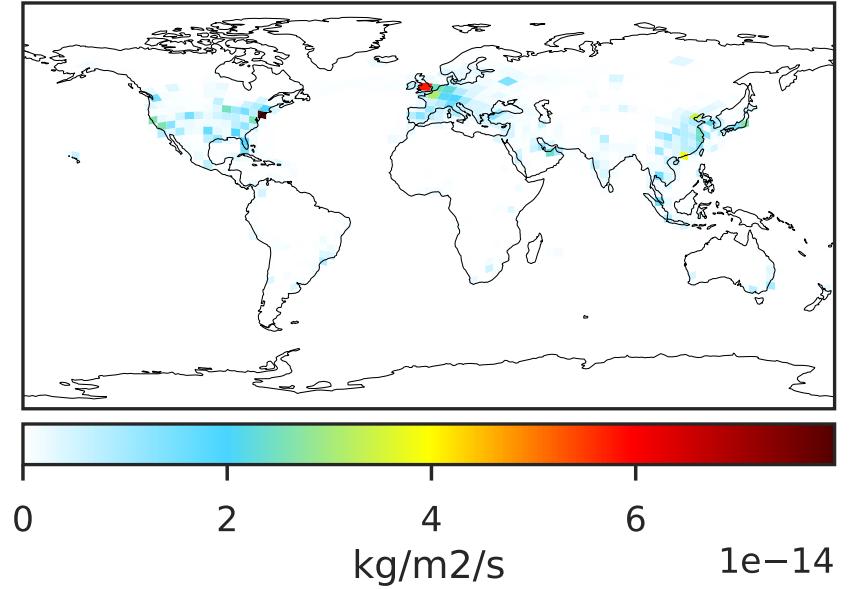


# EmisMACR\_Total (Jul2019)

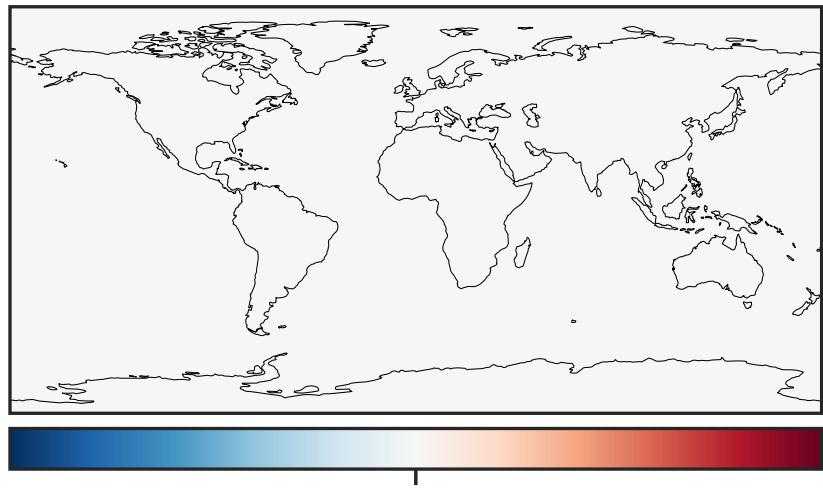
GCHP\_14.0.0 (Ref)  
c24



GCHP\_14.2.0 (Dev)  
c24

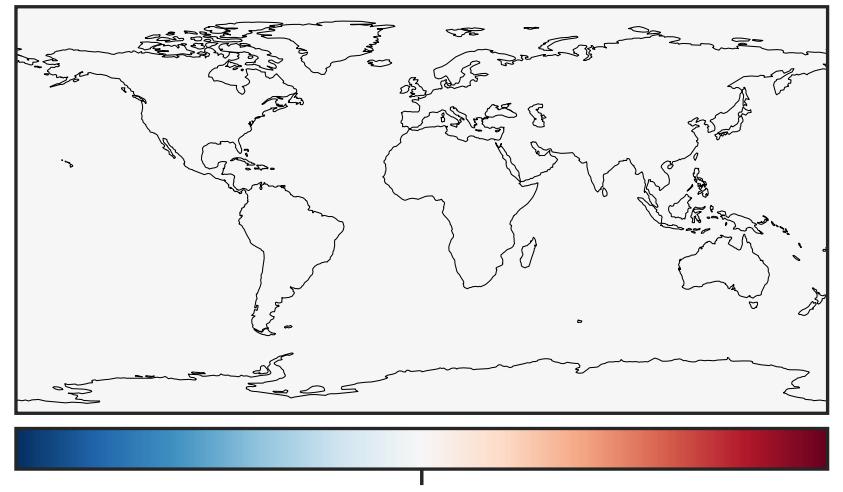


Difference (1x1.25)  
Dev - Ref, Dynamic Range



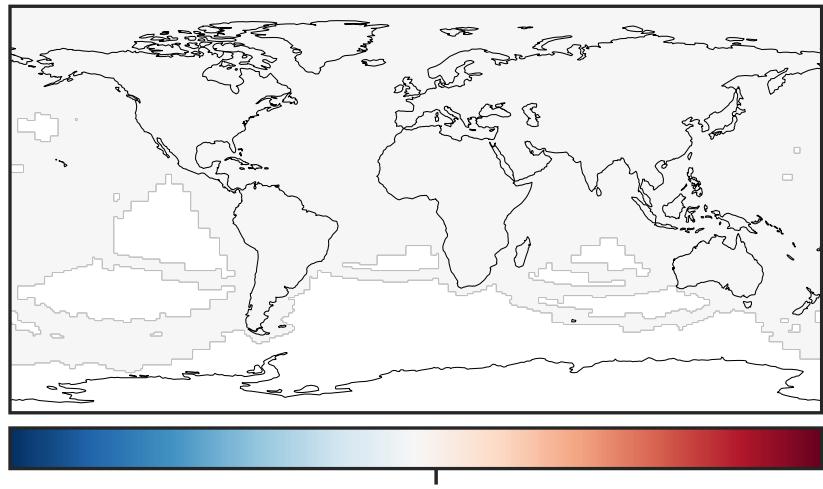
Zero throughout domain  
kg/m<sup>2</sup>/s

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



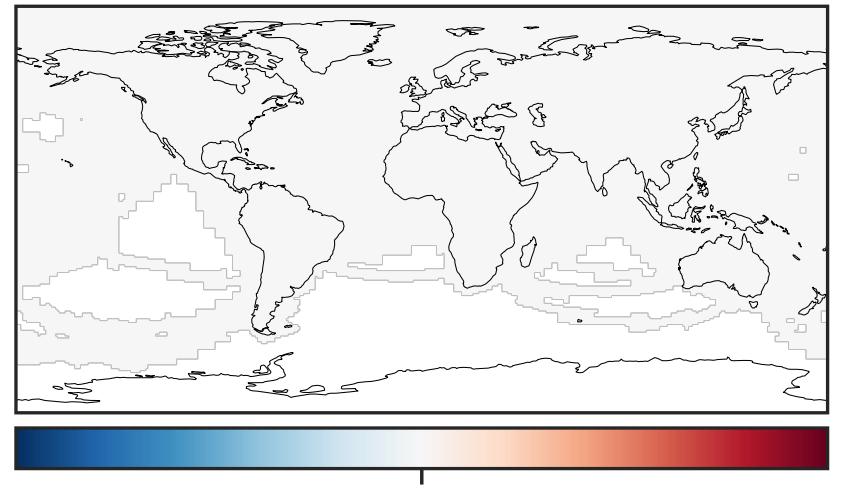
Zero throughout domain  
kg/m<sup>2</sup>/s

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



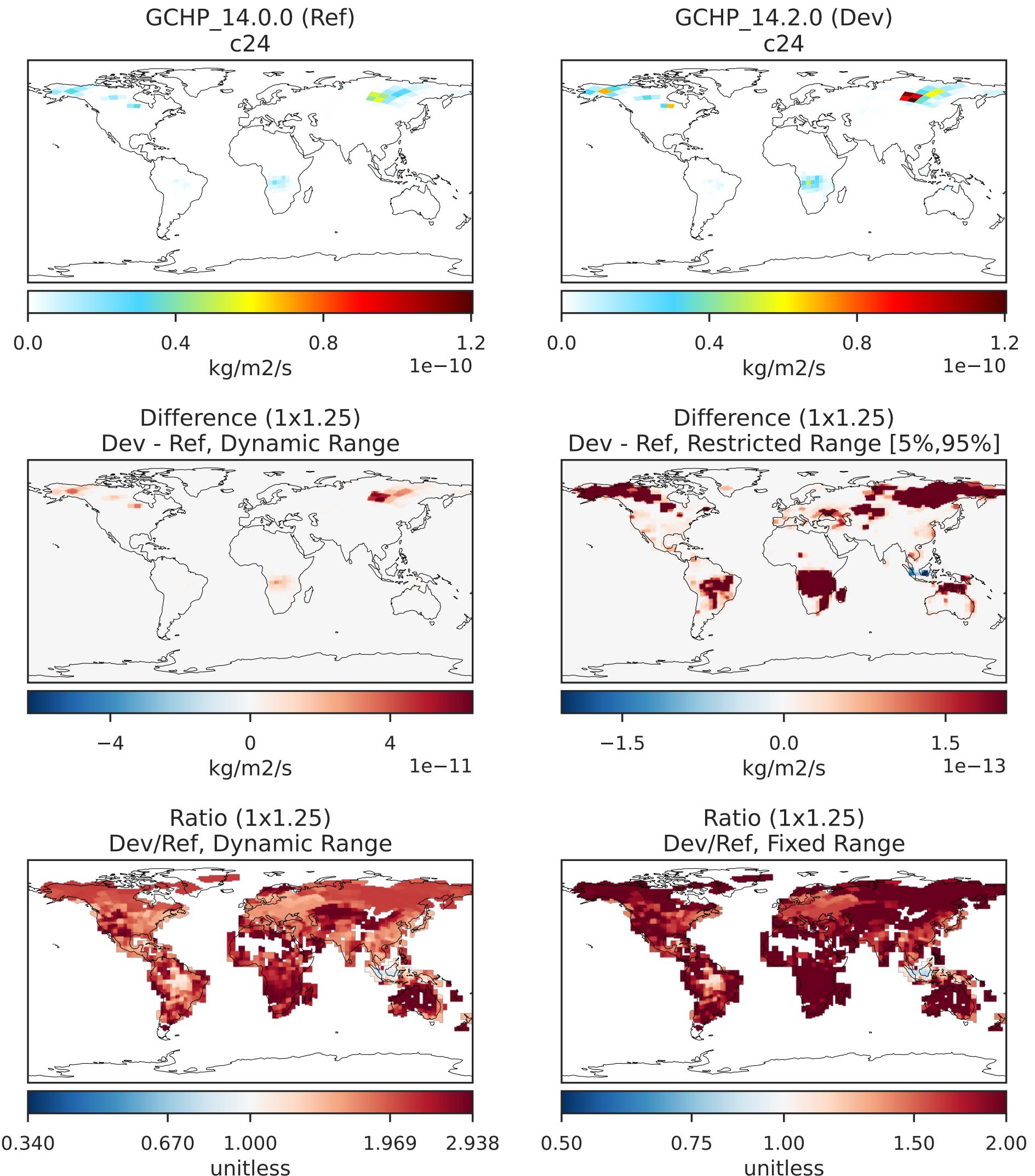
Ref and Dev equal throughout domain  
unitless

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

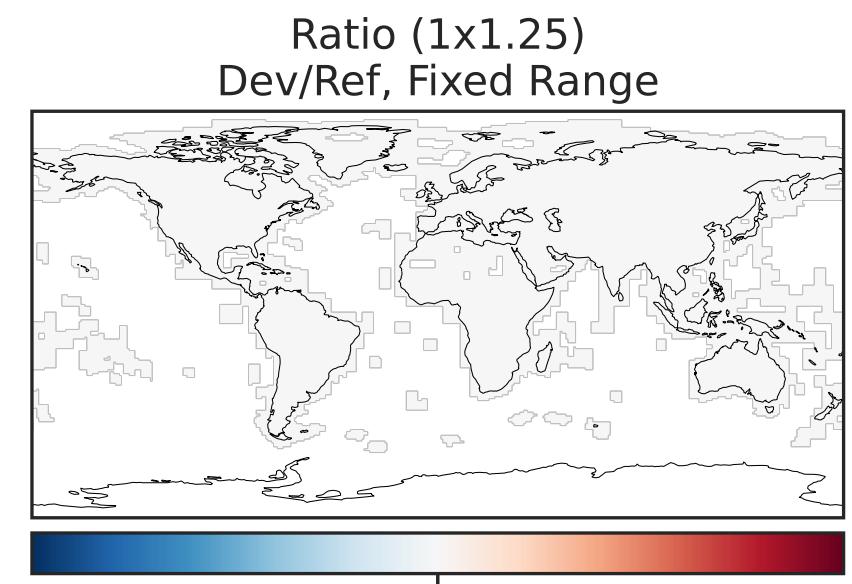
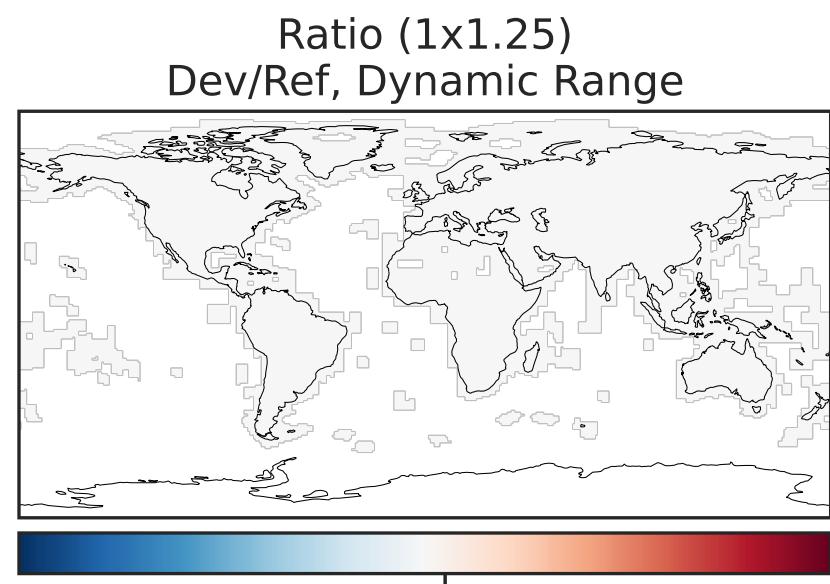
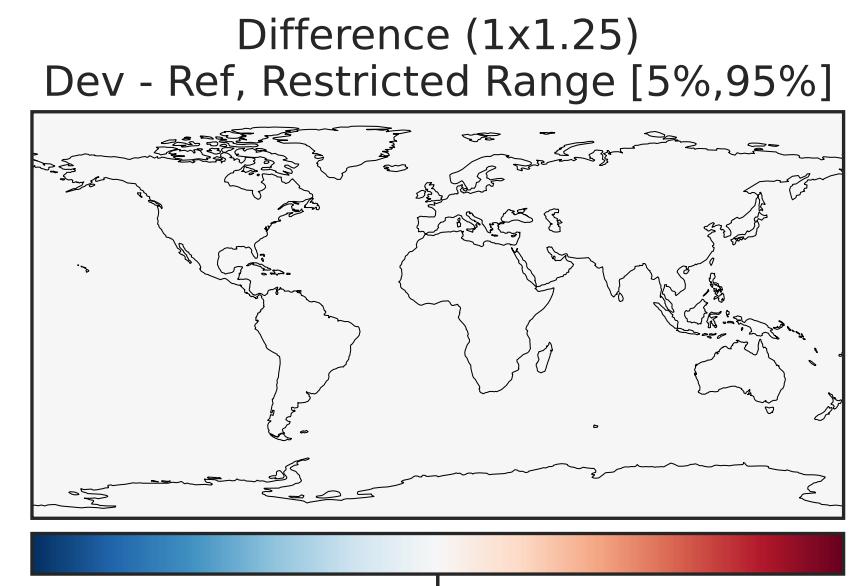
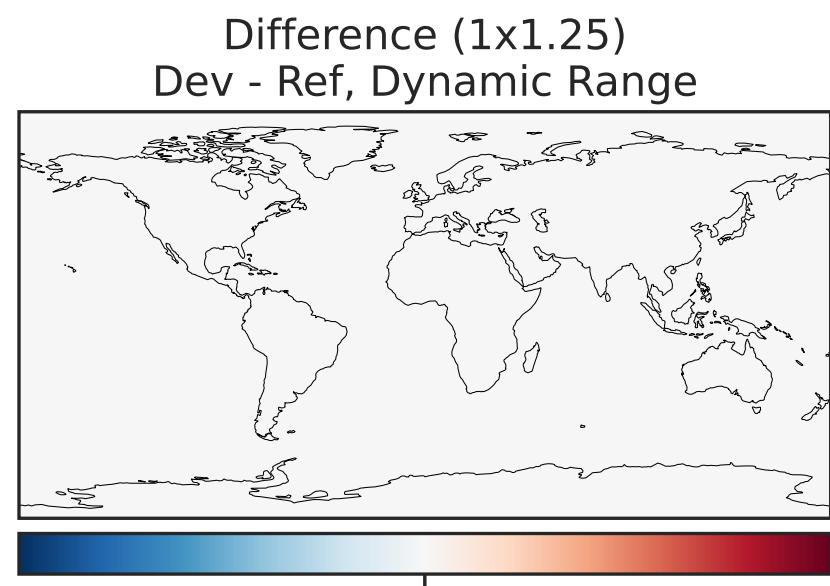
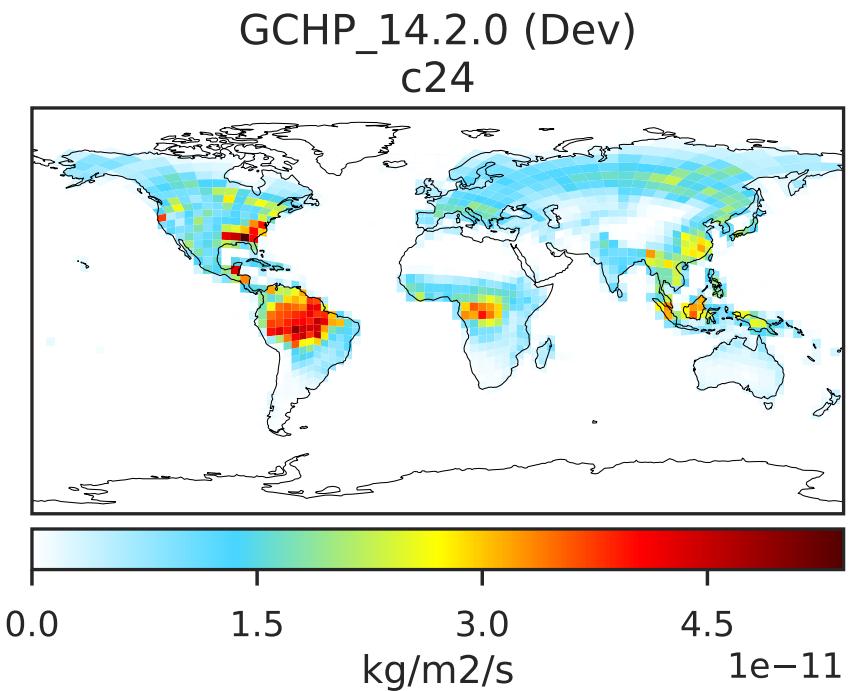
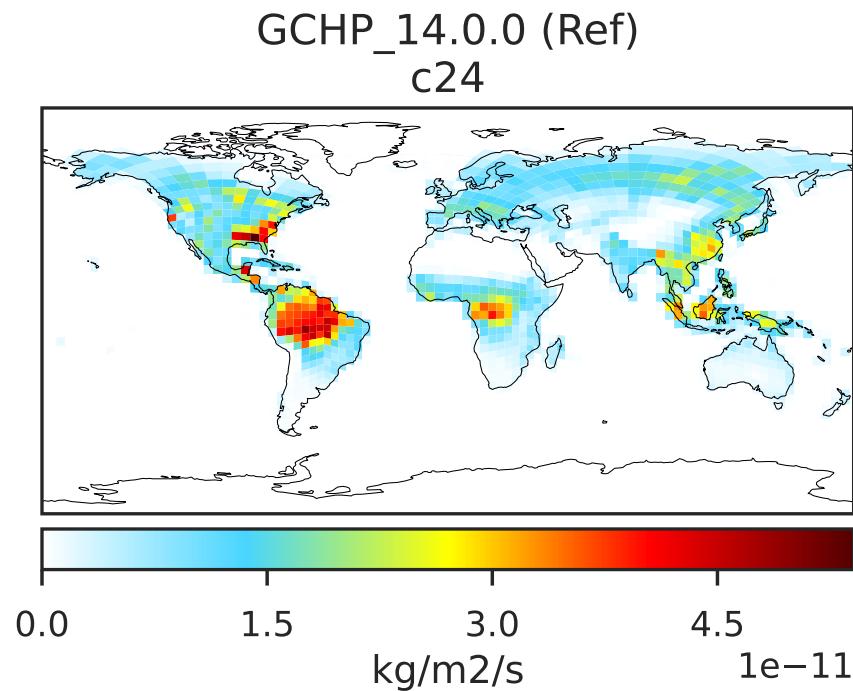


Ref and Dev equal throughout domain  
unitless

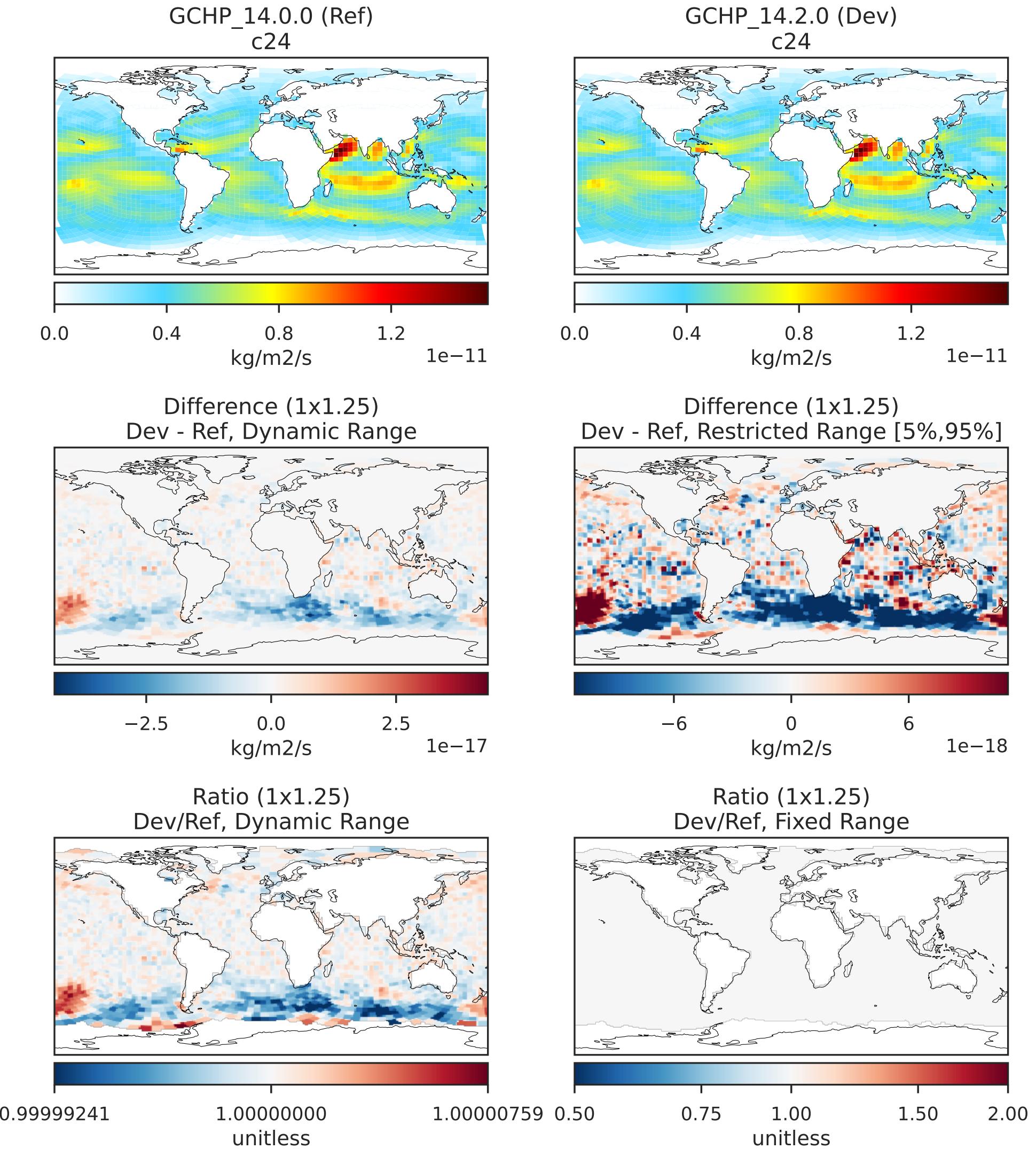
# EmisACET\_BioBurn (Jul2019)



# EmisACET\_Biogenic (Jul2019)

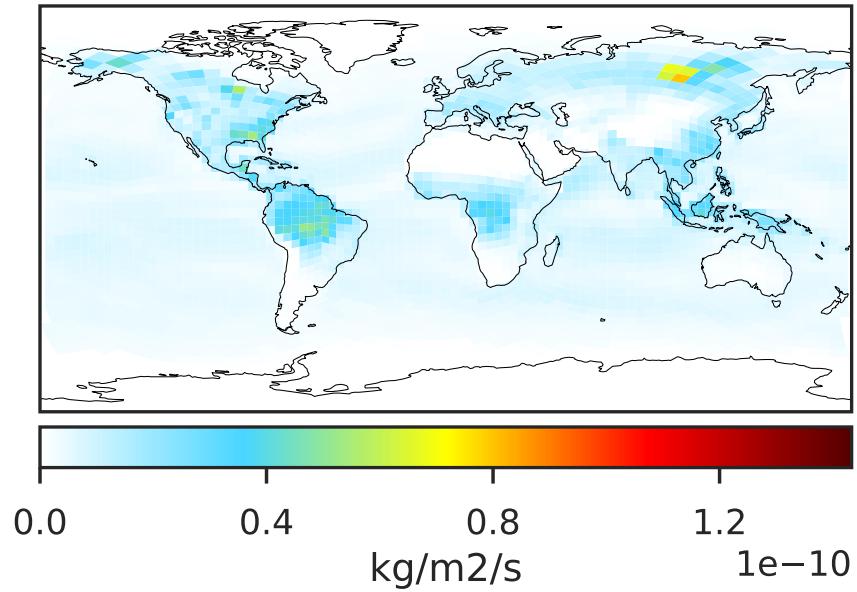


# EmisACET\_Ocean (Jul2019)

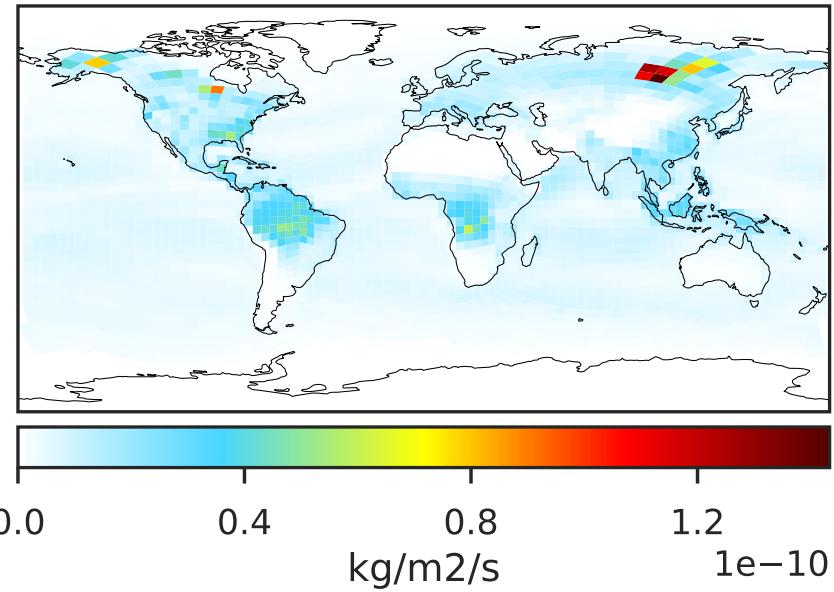


# EmisACET\_Total (Jul2019)

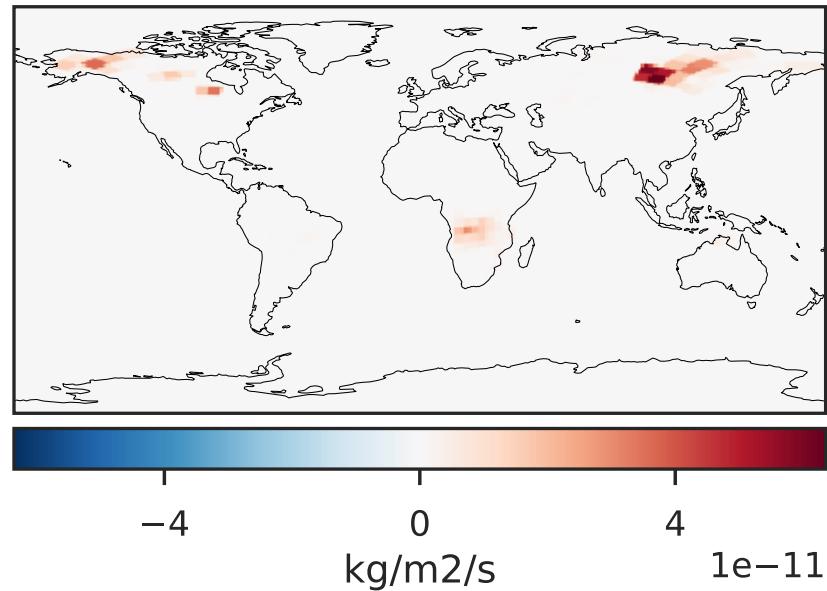
GCHP\_14.0.0 (Ref)  
c24



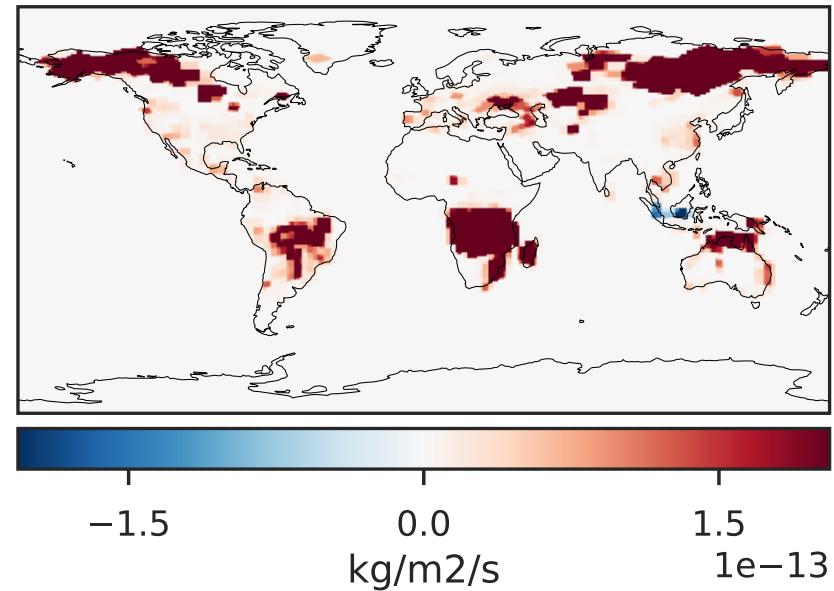
GCHP\_14.2.0 (Dev)  
c24



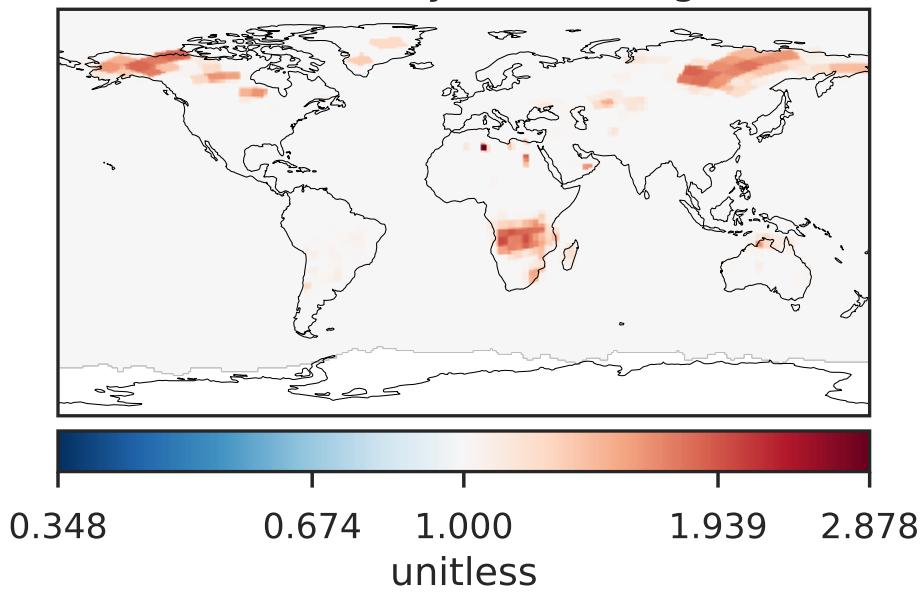
Difference (1x1.25)  
Dev - Ref, Dynamic Range



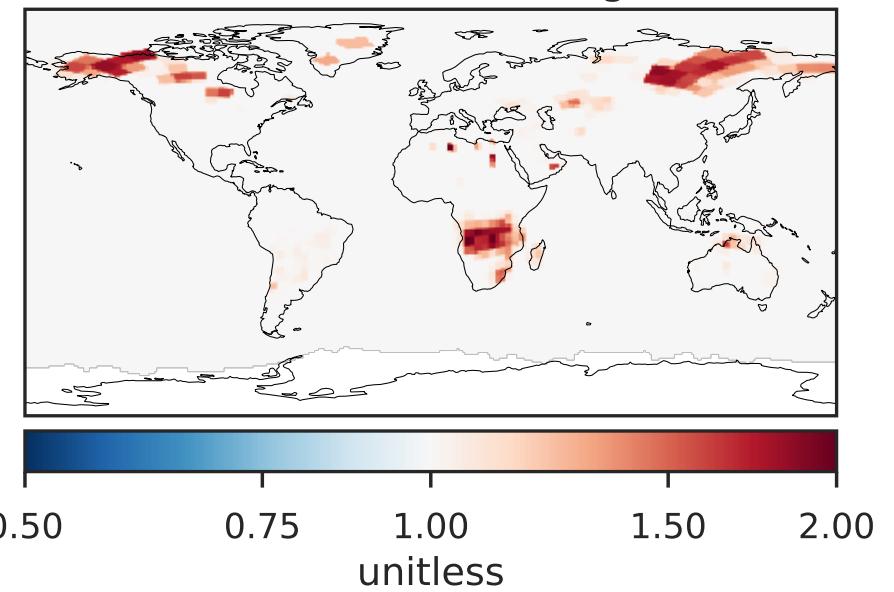
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



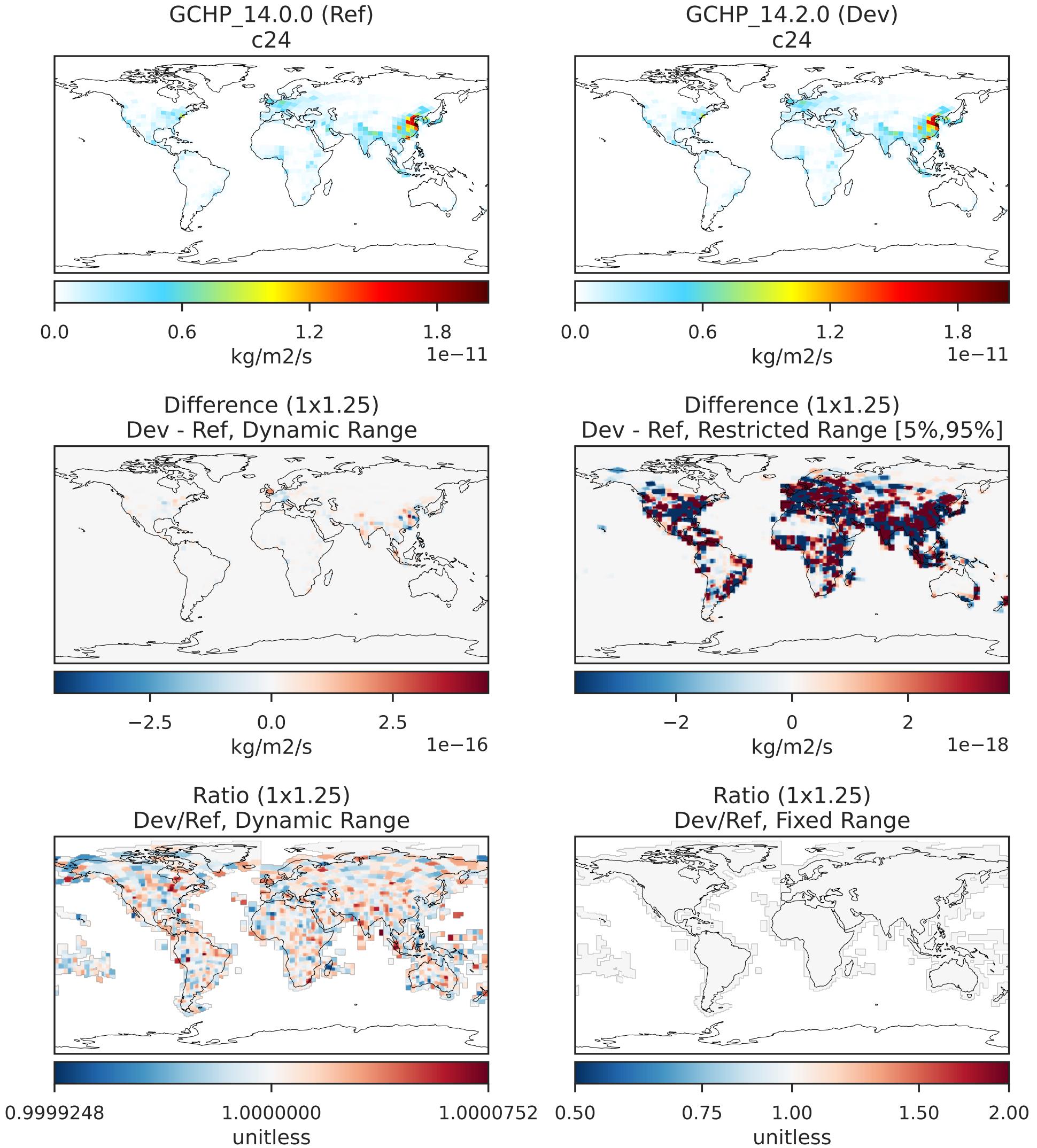
Ratio (1x1.25)  
Dev/Ref, Dynamic Range



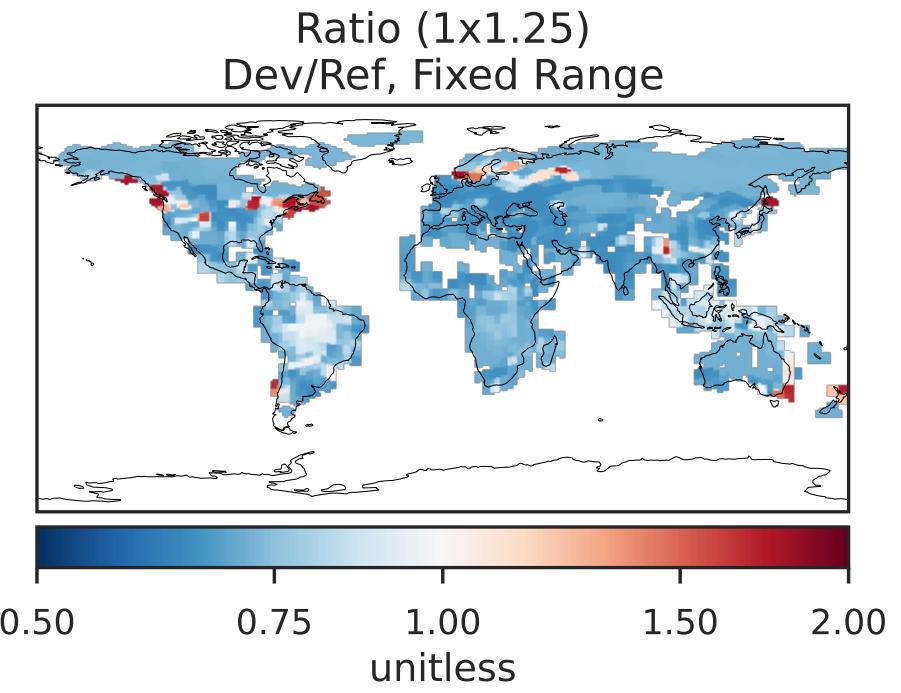
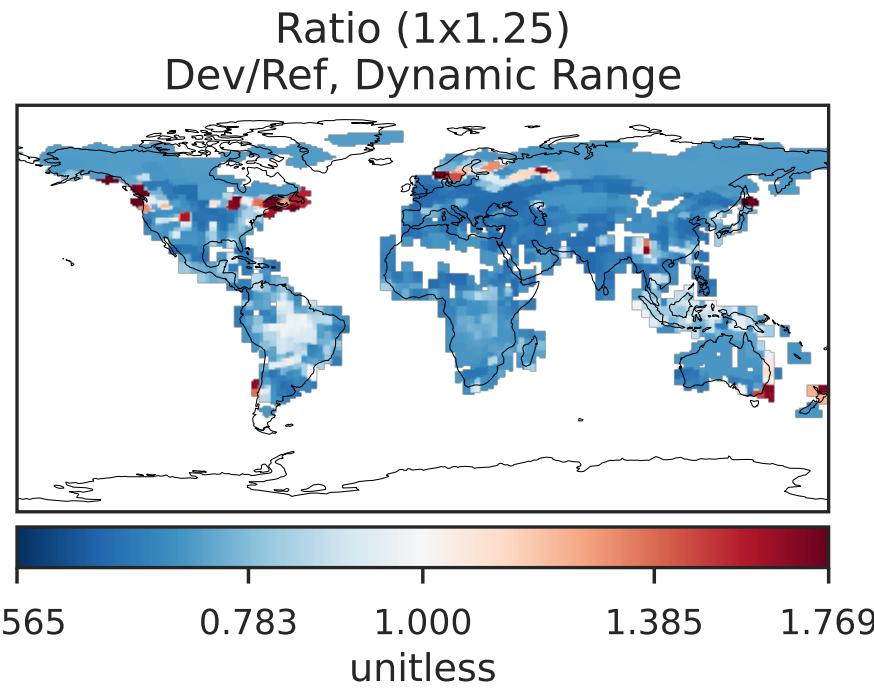
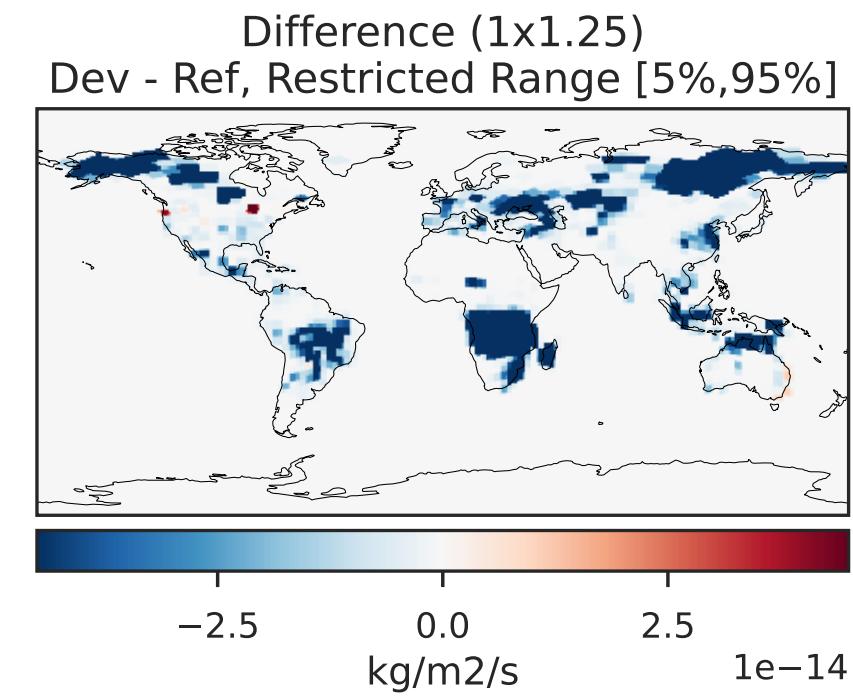
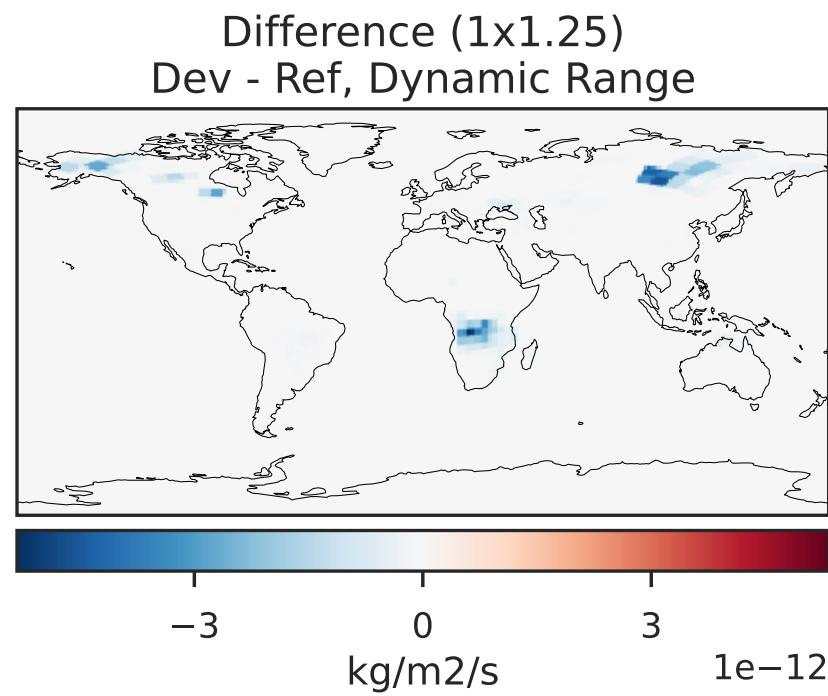
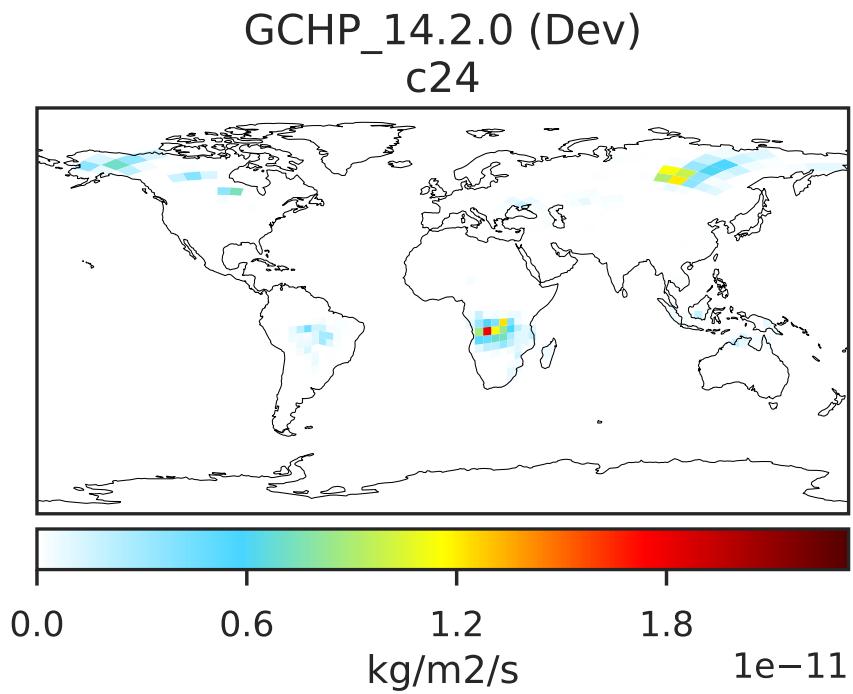
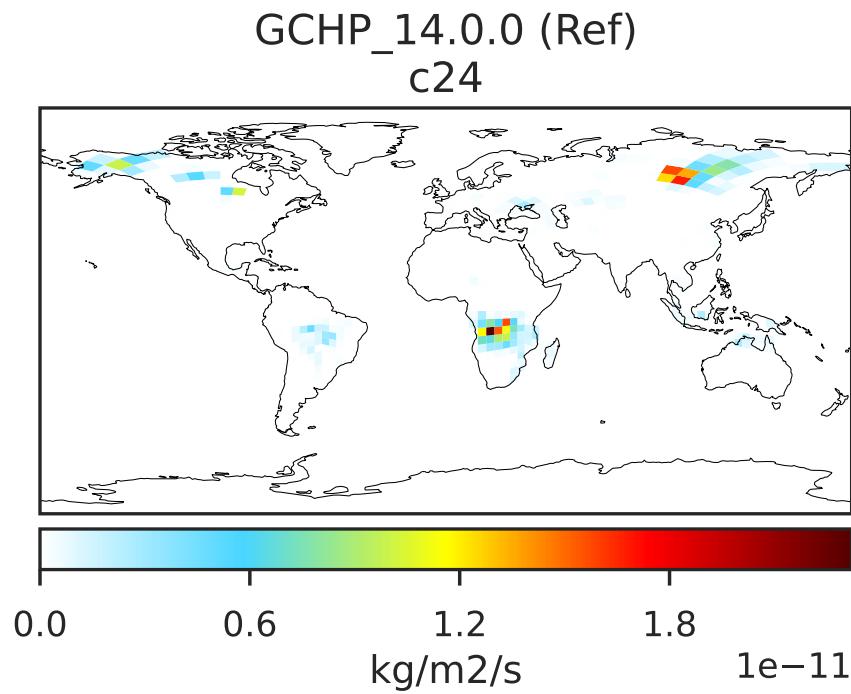
Ratio (1x1.25)  
Dev/Ref, Fixed Range



# EmisMEK\_Anthro (Jul2019)

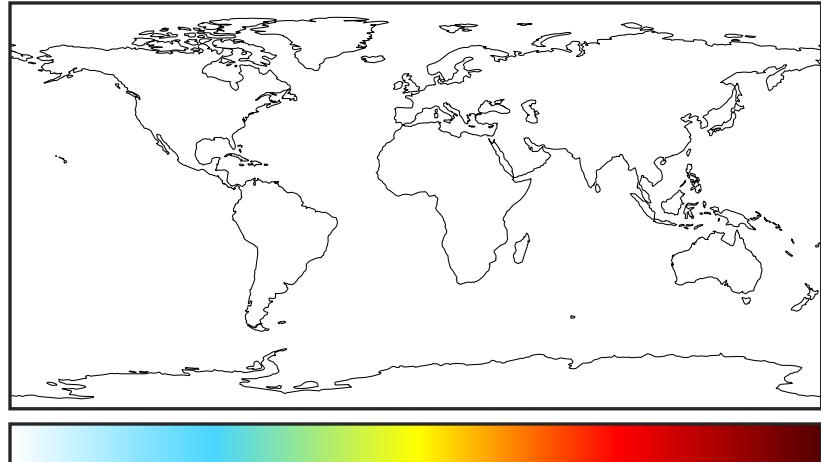


# EmisMEK\_BioBurn (Jul2019)



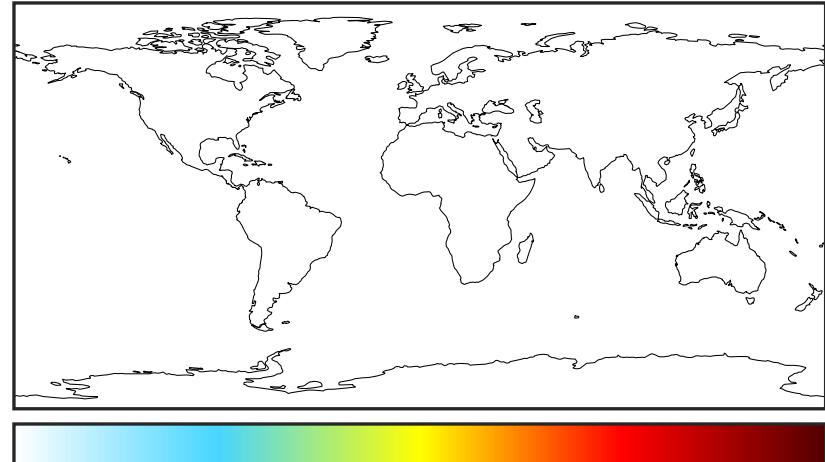
# EmisMEK\_Ship (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



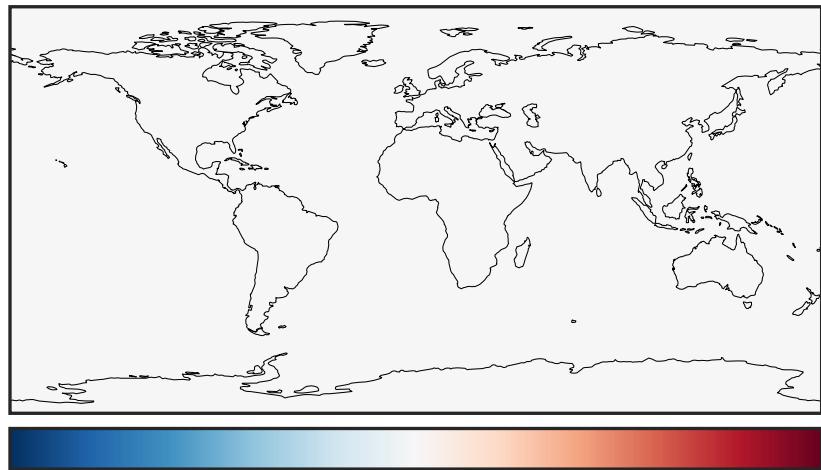
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



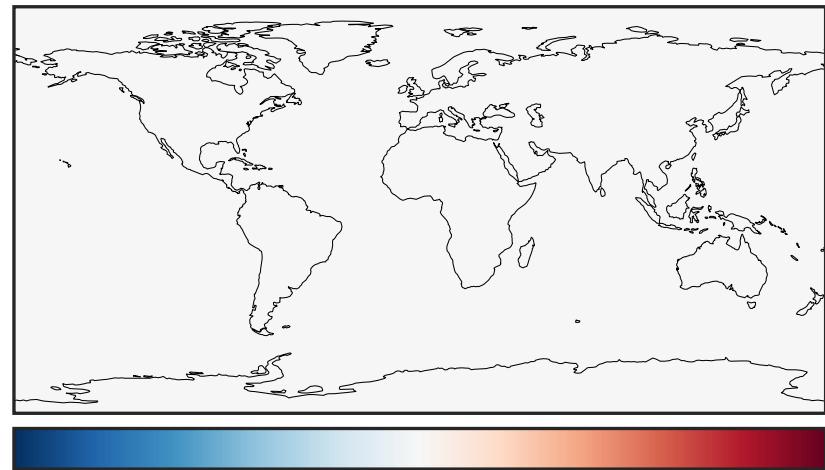
Zero throughout domain  
kg/m<sup>2</sup>/s

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



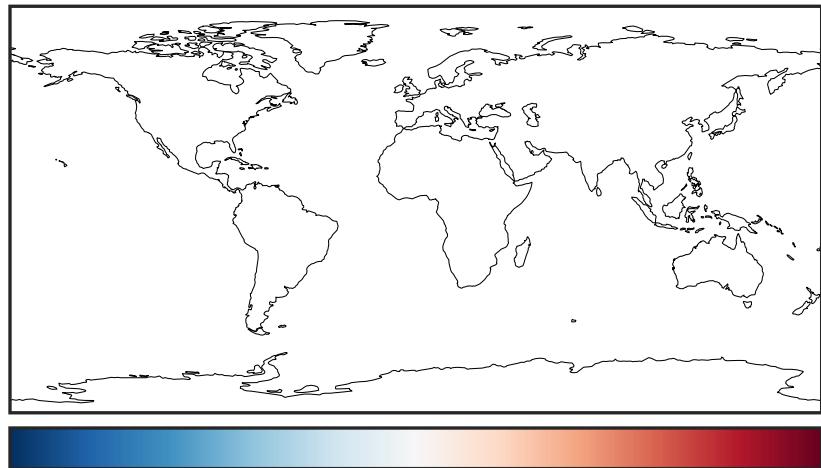
Zero throughout domain  
kg/m<sup>2</sup>/s

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



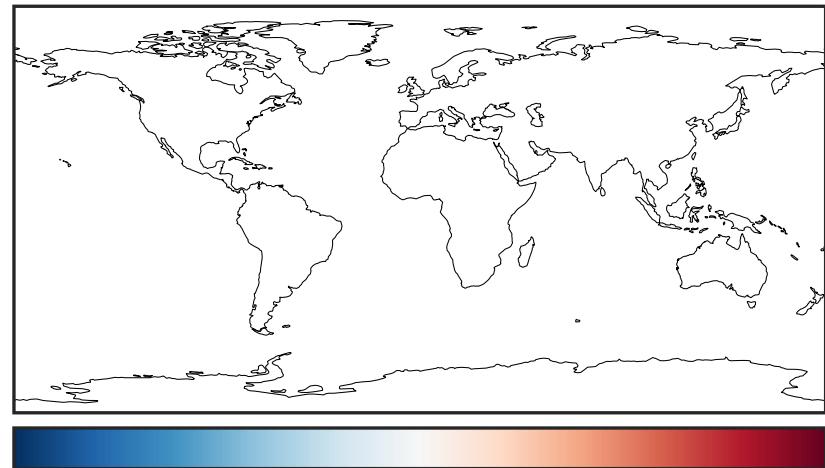
Zero throughout domain  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

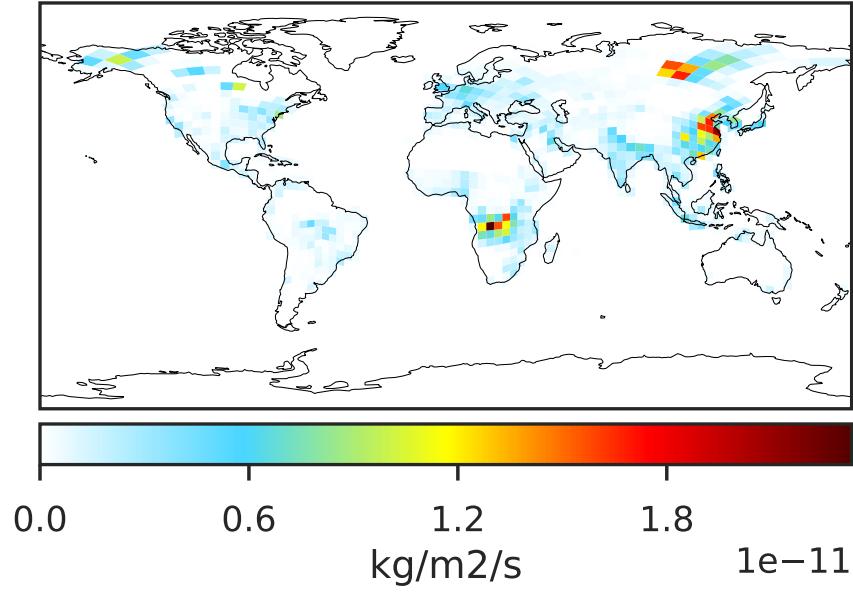
Ratio (1x1.25)  
Dev/Ref, Fixed Range



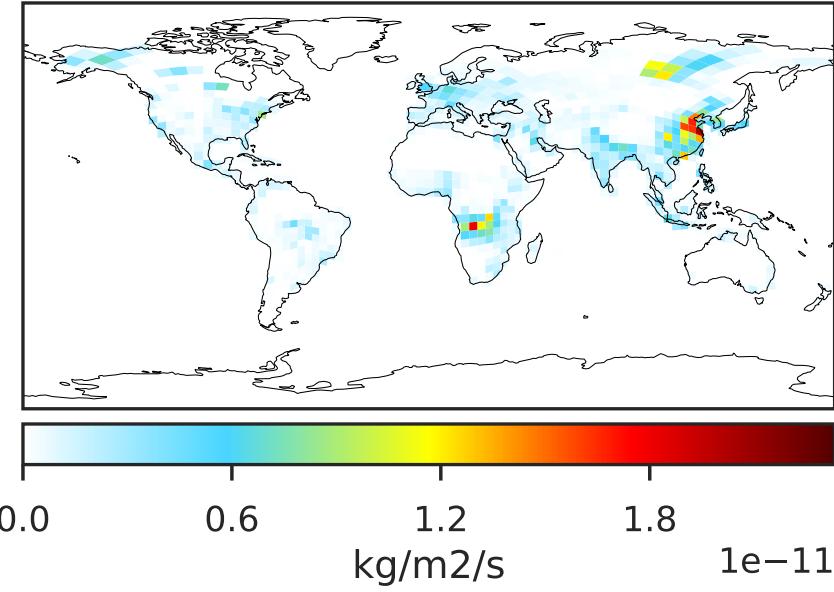
Undefined throughout domain  
unitless

# EmisMEK\_Total (Jul2019)

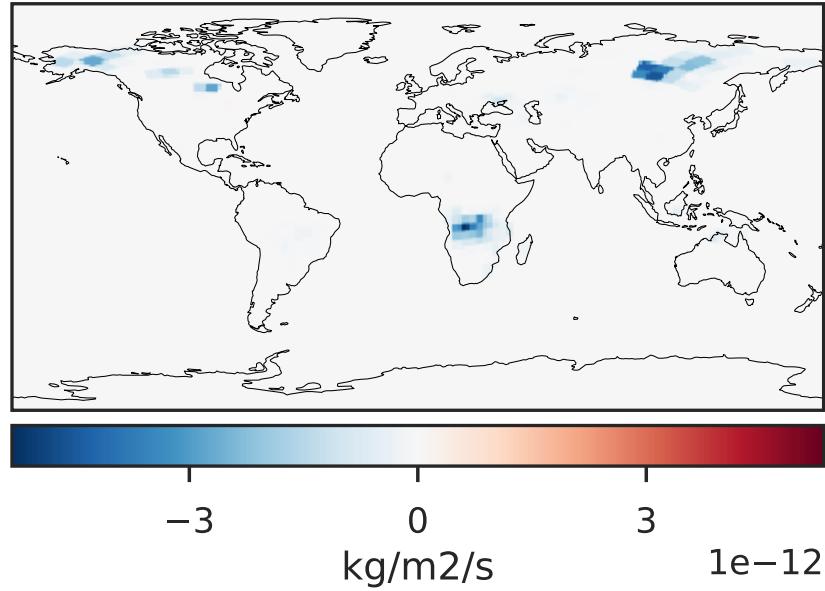
GCHP\_14.0.0 (Ref)  
c24



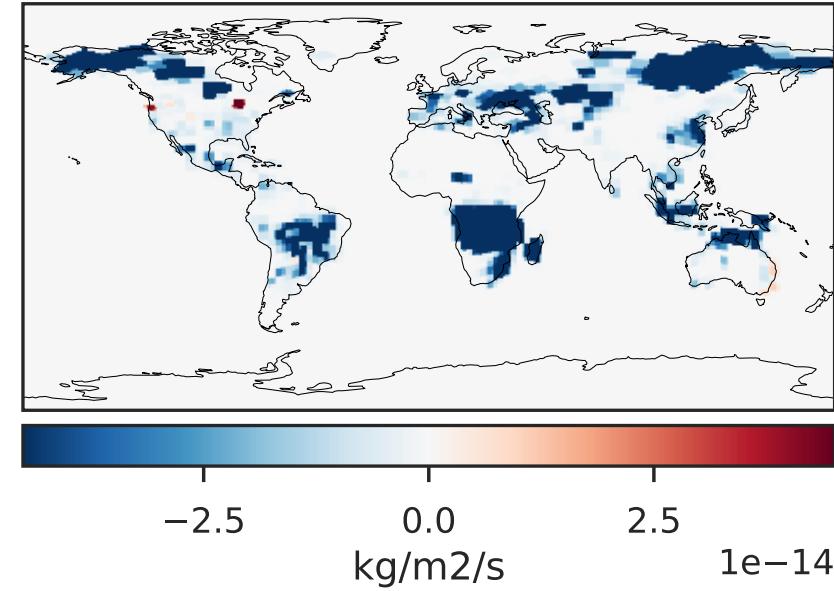
GCHP\_14.2.0 (Dev)  
c24



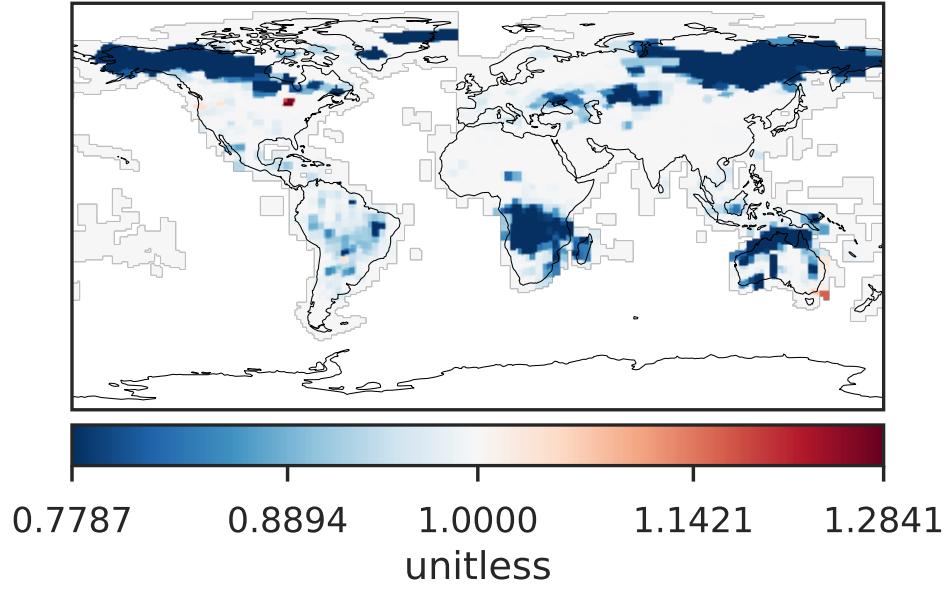
Difference (1x1.25)  
Dev - Ref, Dynamic Range



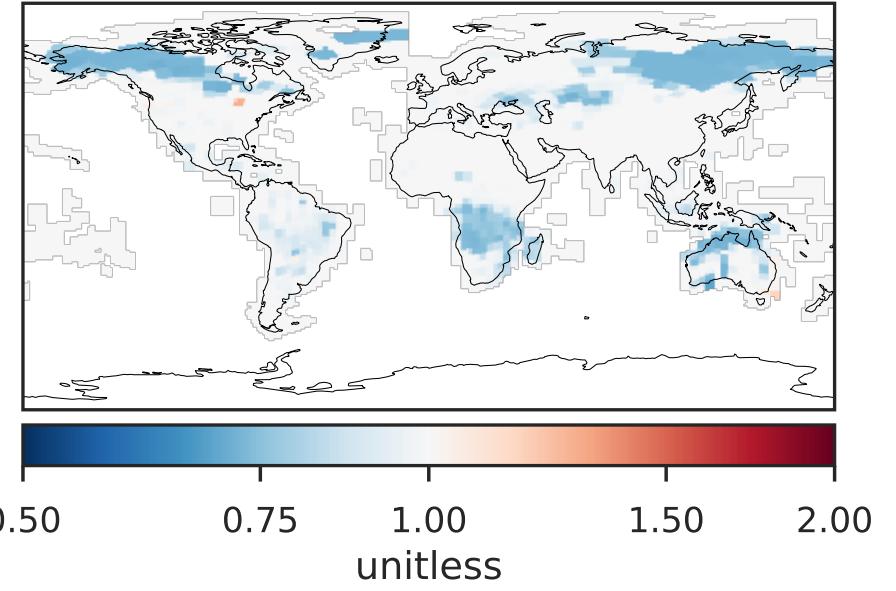
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



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

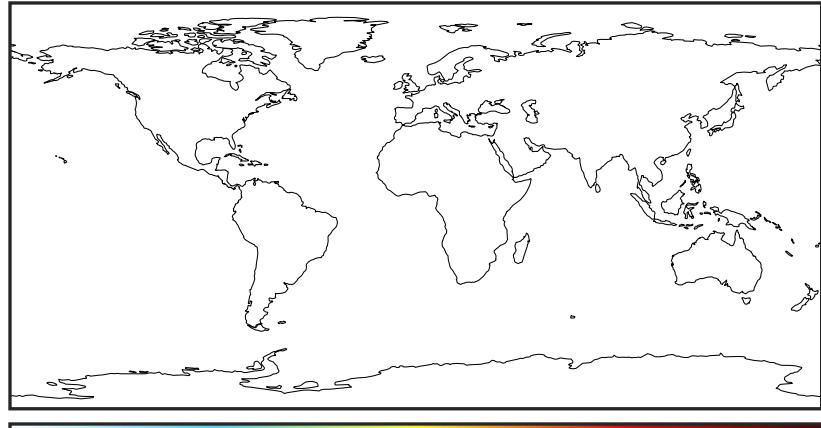


Ratio (1x1.25)  
Dev/Ref, Fixed Range



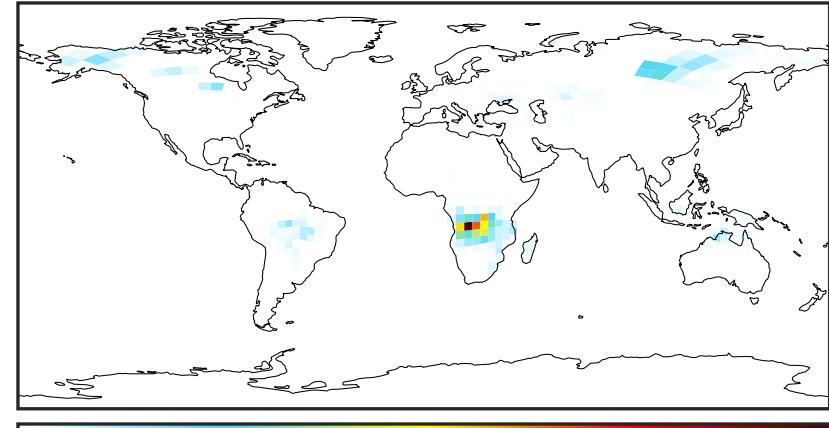
# EmisMVK\_BioBurn (Jul2019)

GCHP\_14.0.0 (Ref)  
c24

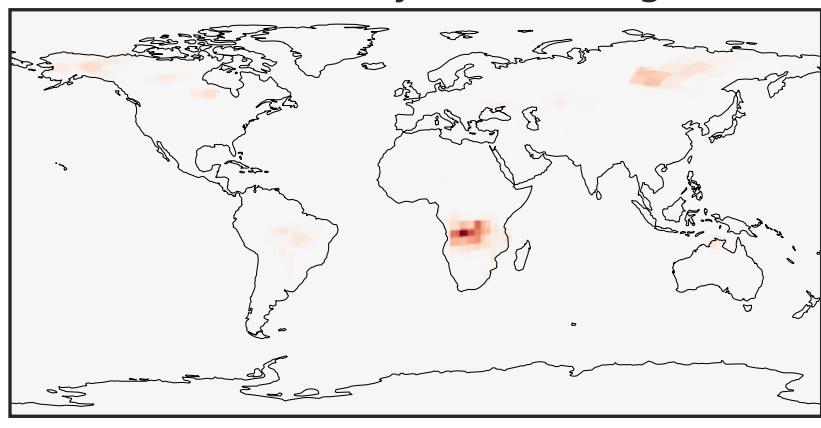


Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24

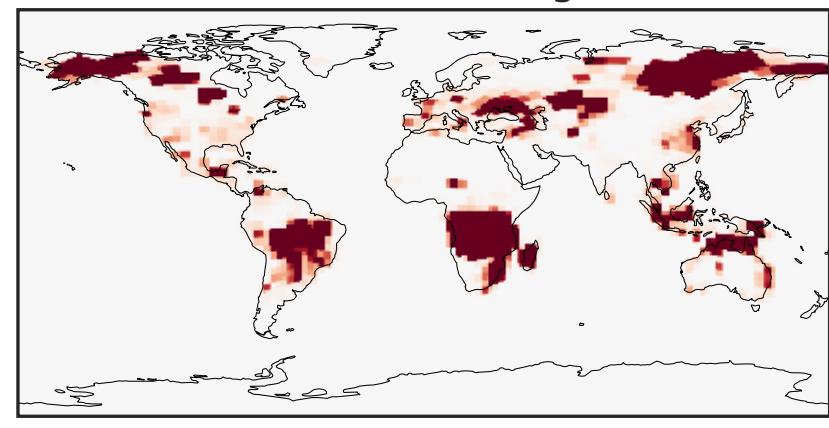


Difference (1x1.25)  
Dev - Ref, Dynamic Range



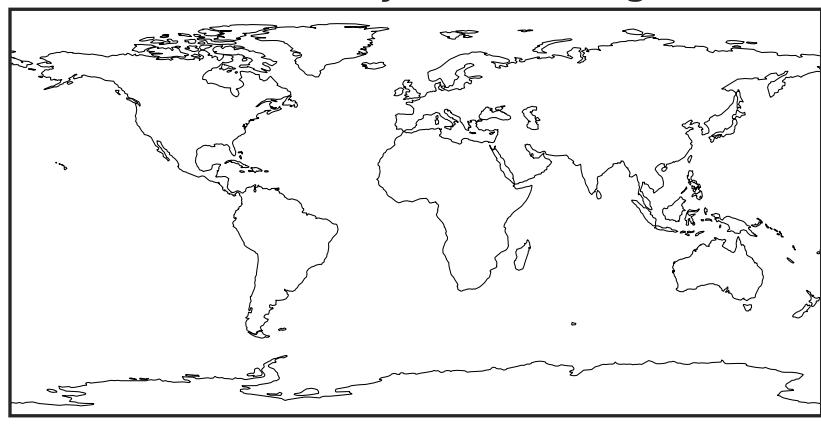
-1.5 0.0 1.5 1e-11  
kg/m<sup>2</sup>/s

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



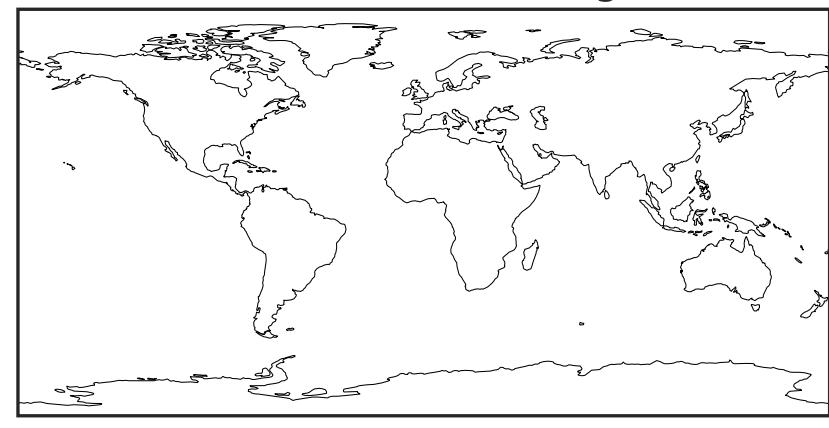
-8 0 8 1e-14  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

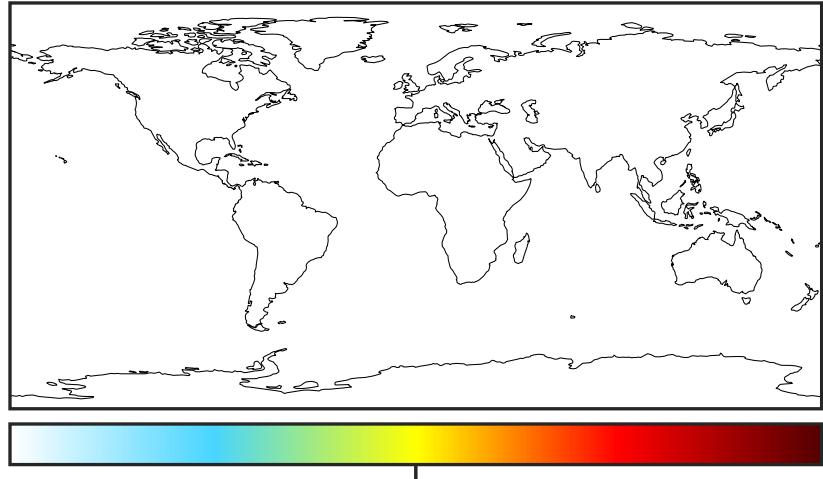
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

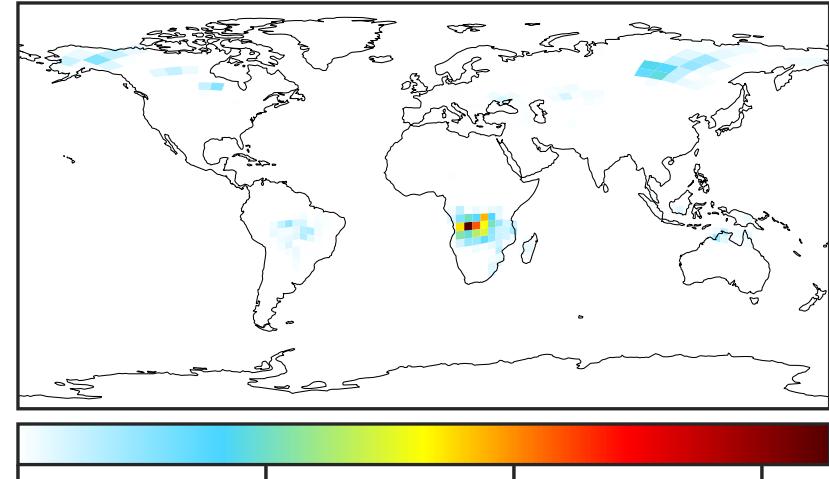
# EmisMVK\_Total (Jul2019)

GCHP\_14.0.0 (Ref)  
c24

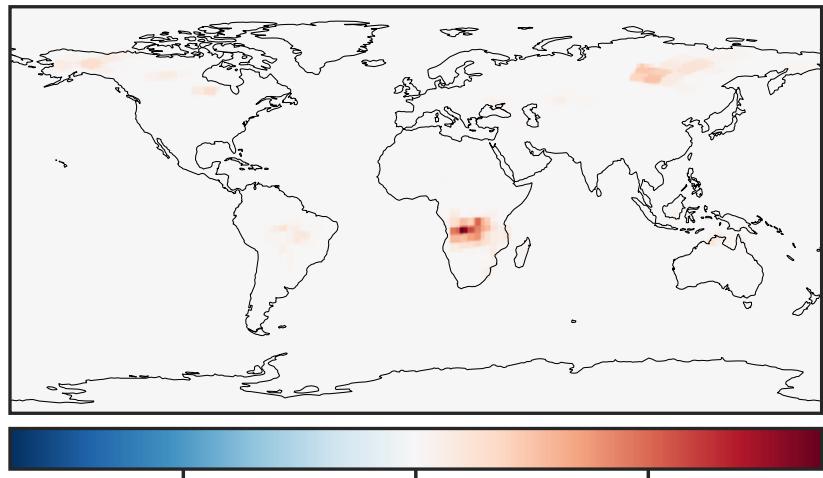


Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24

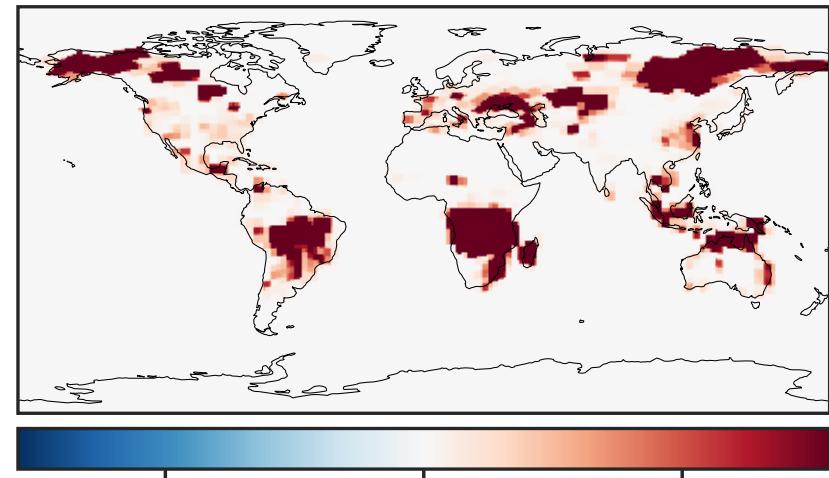


Difference (1x1.25)  
Dev - Ref, Dynamic Range



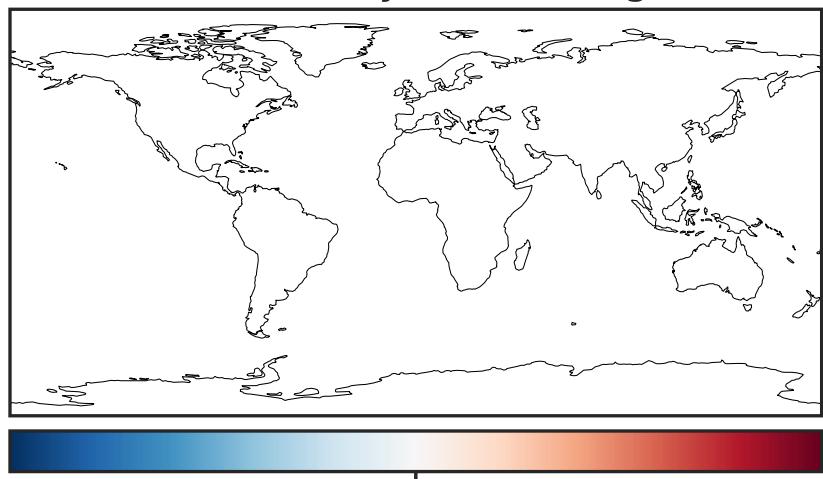
-1.5 0.0 1.5 1e-11  
kg/m<sup>2</sup>/s

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



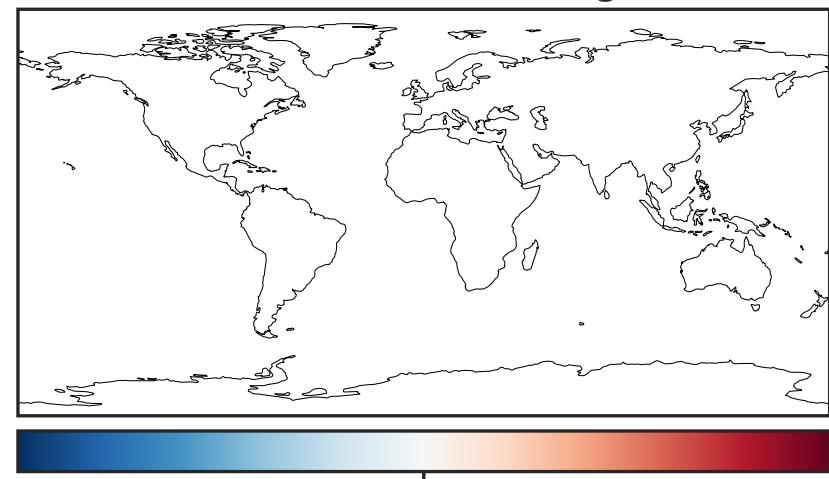
-8 0 8 1e-14  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

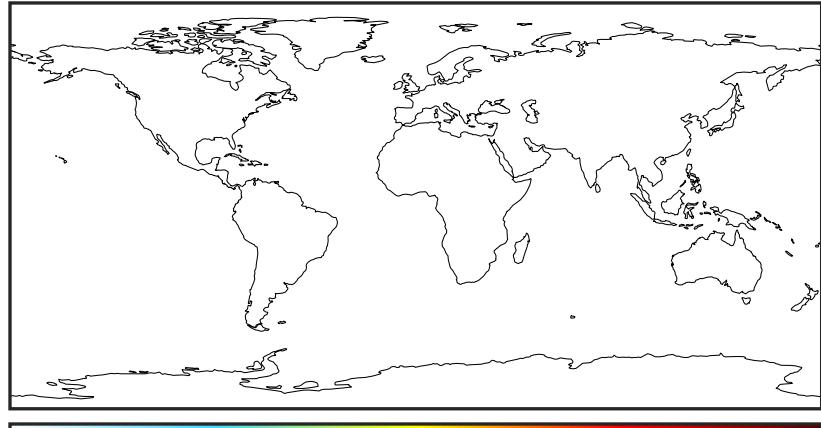
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

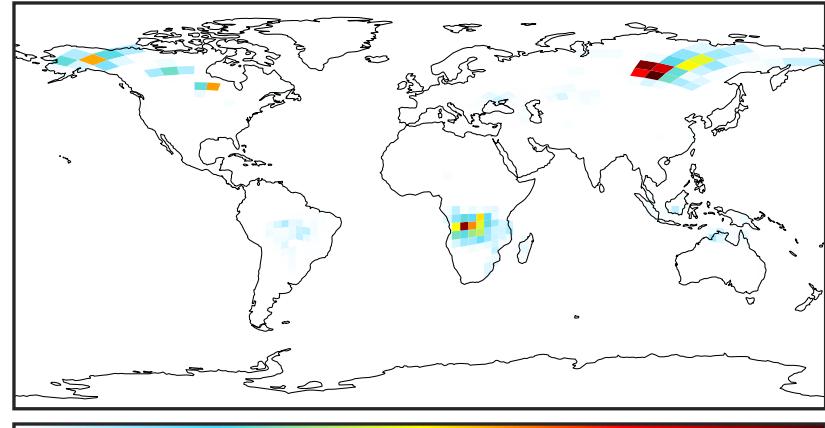
# EmisFURA\_BioBurn (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



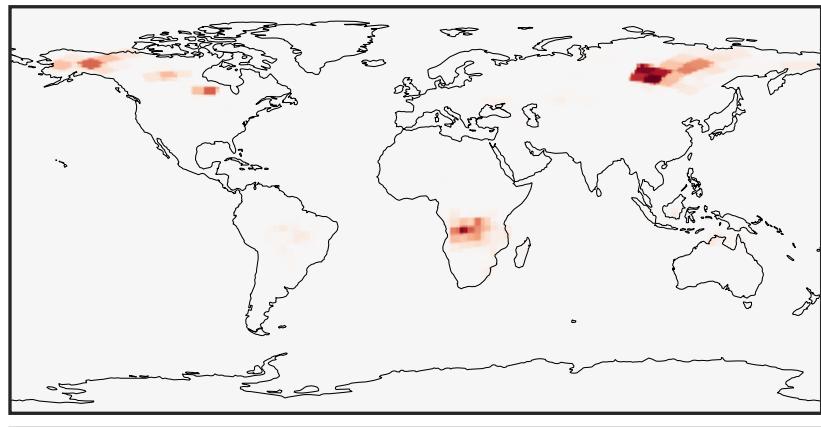
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



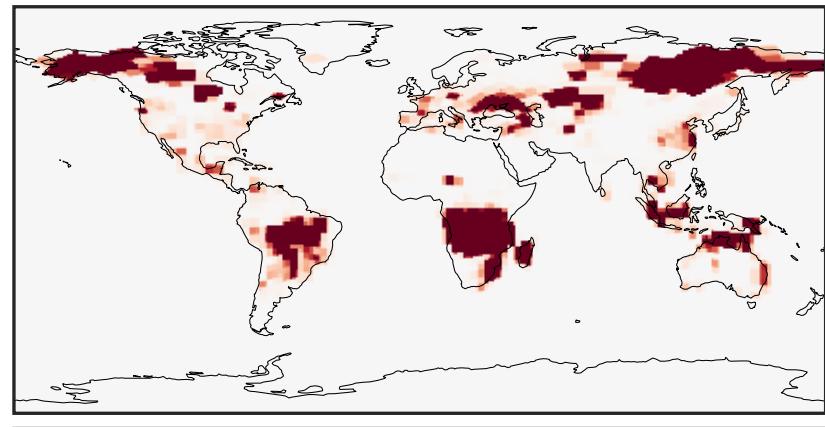
0 2 4 6  
kg/m<sup>2</sup>/s  
1e-11

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



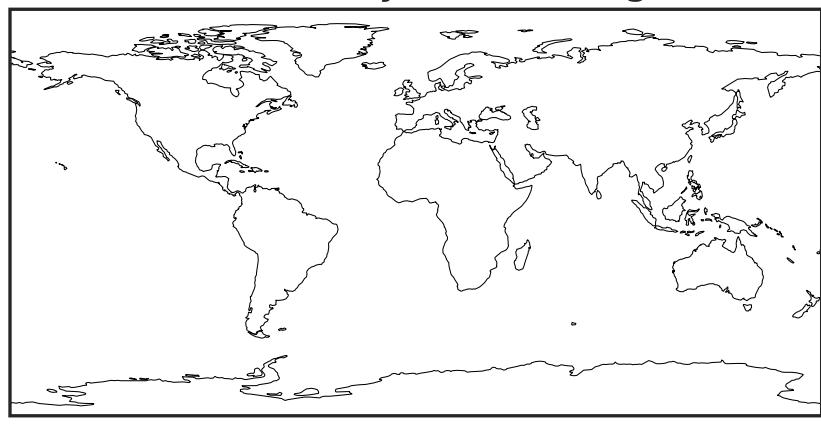
-4 0 4  
kg/m<sup>2</sup>/s  
1e-11

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



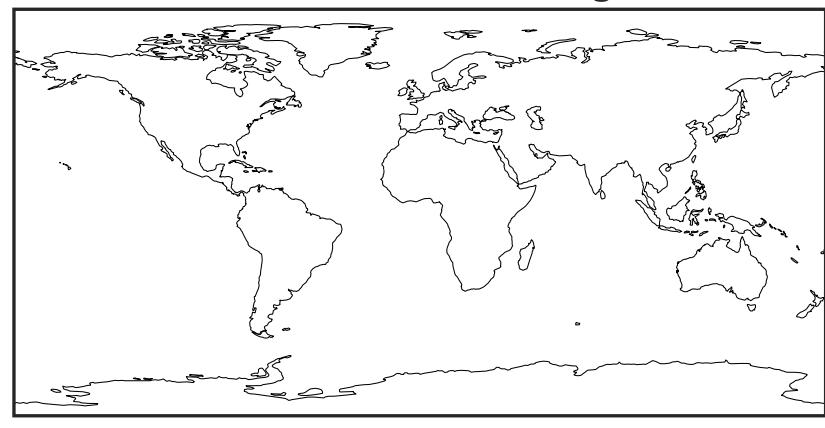
-2.5 0.0 2.5  
kg/m<sup>2</sup>/s  
1e-13

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



Undefined throughout domain  
unitless

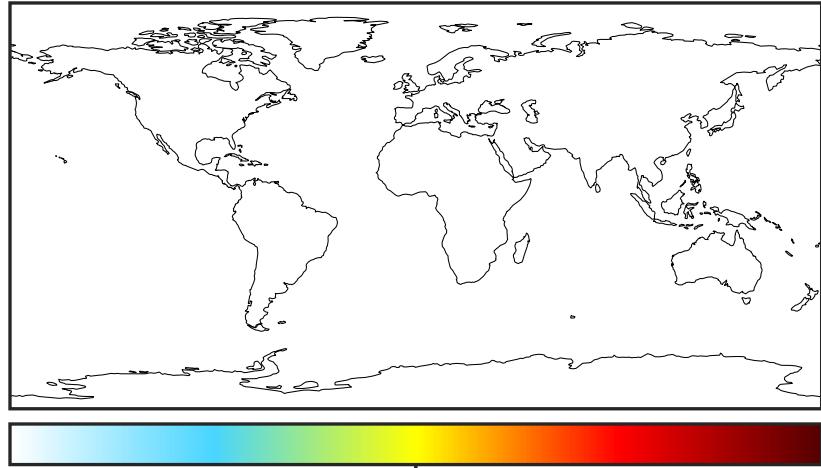
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

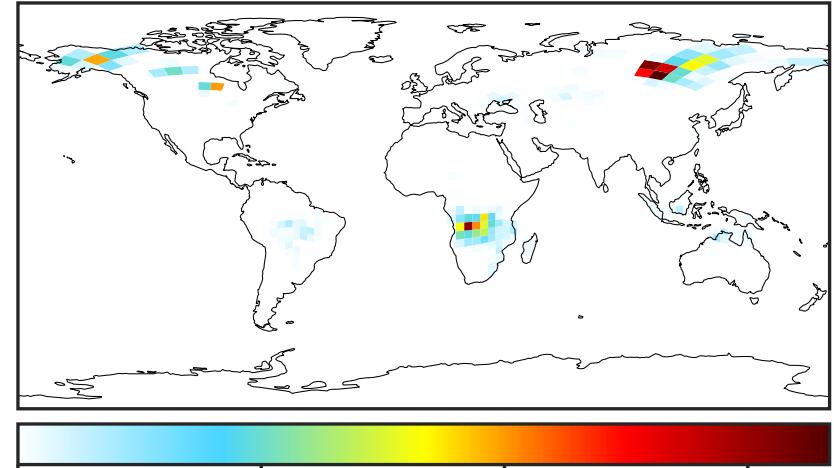
# EmisFURA\_Total (Jul2019)

GCHP\_14.0.0 (Ref)  
c24

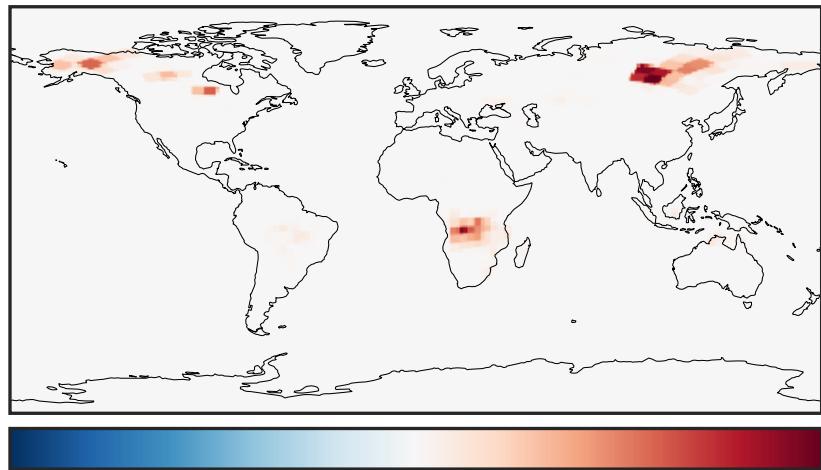


Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24

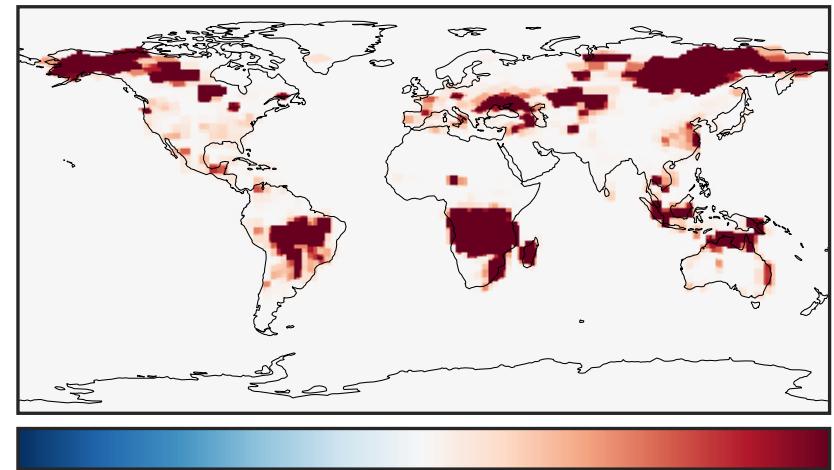


Difference (1x1.25)  
Dev - Ref, Dynamic Range



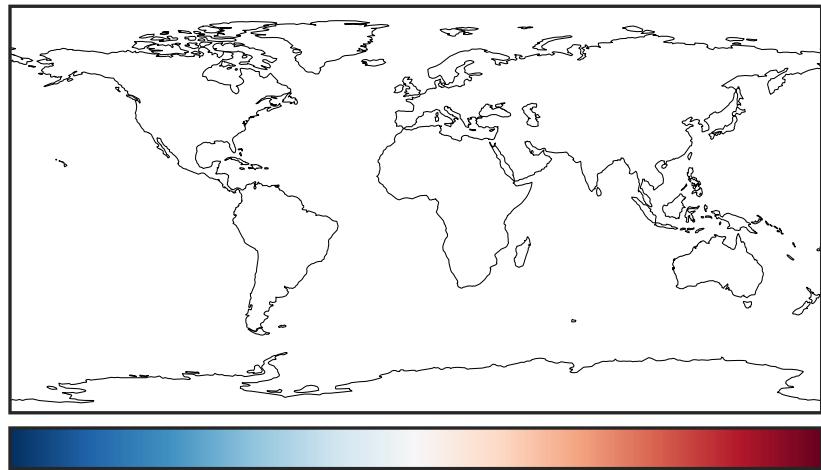
-4 0 4 1e-11  
kg/m<sup>2</sup>/s

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



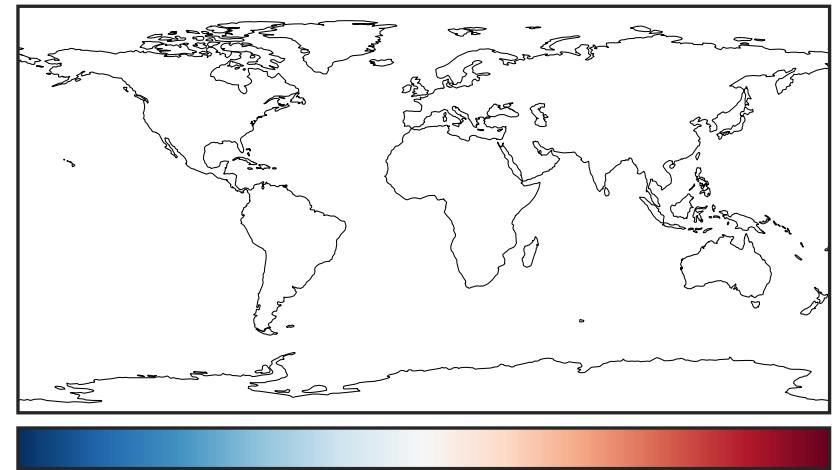
-2.5 0.0 2.5 1e-13  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

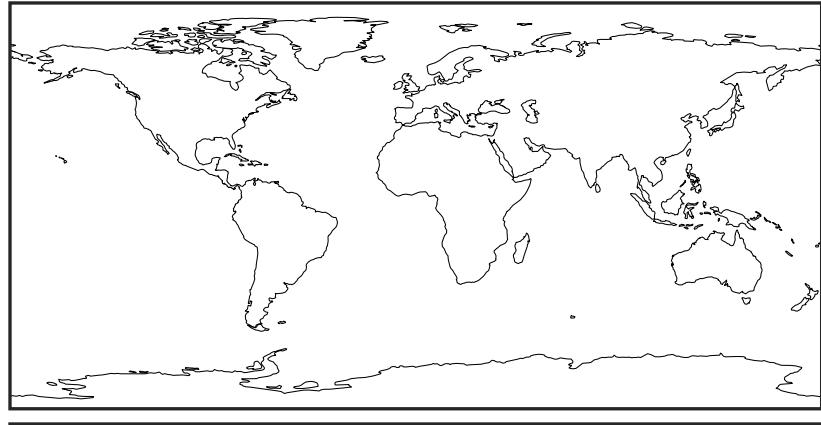
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

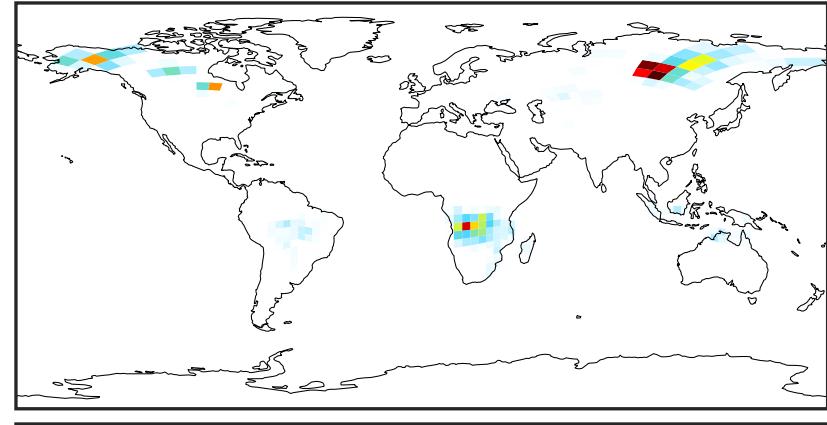
# EmisGLYX\_BioBurn (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



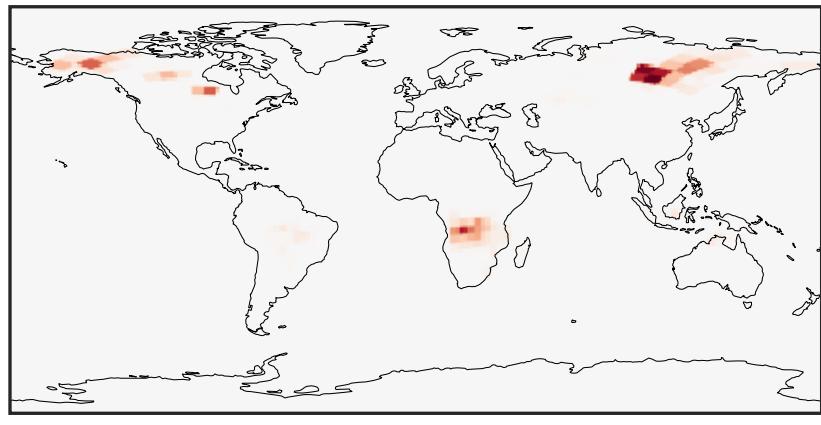
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



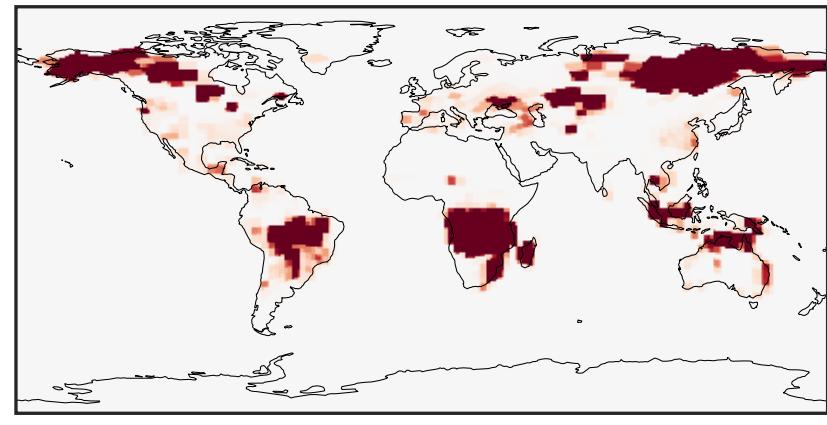
0.0      1.5      3.0  
kg/m<sup>2</sup>/s      1e-11

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



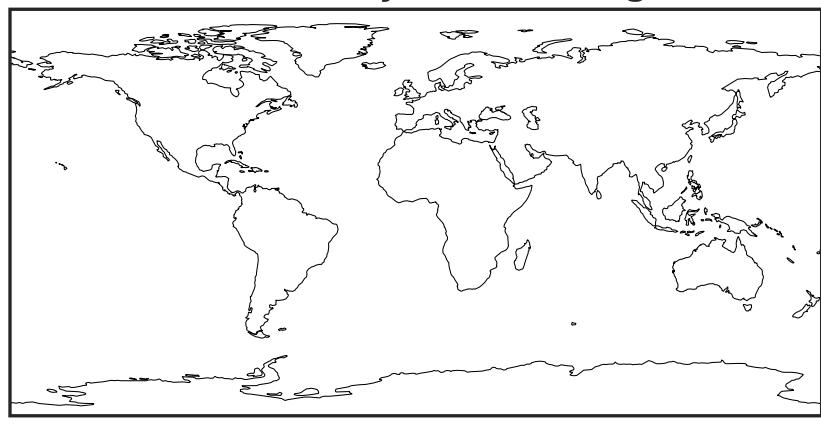
-2.5      0.0      2.5  
kg/m<sup>2</sup>/s      1e-11

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



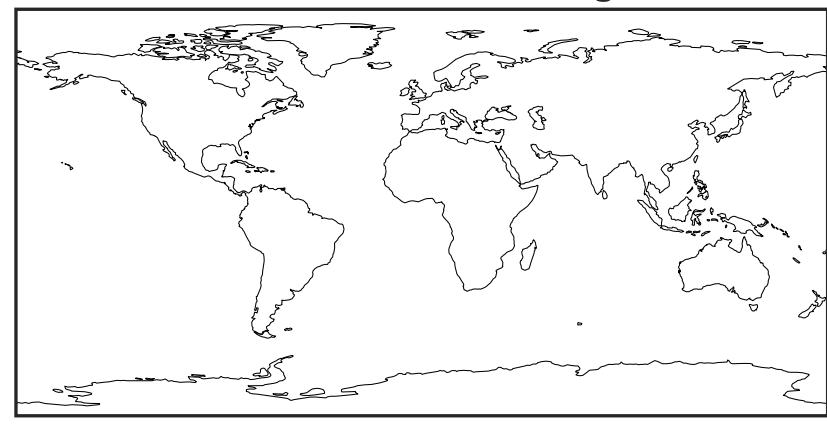
-1.5      0.0      1.5  
kg/m<sup>2</sup>/s      1e-13

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



Undefined throughout domain  
unitless

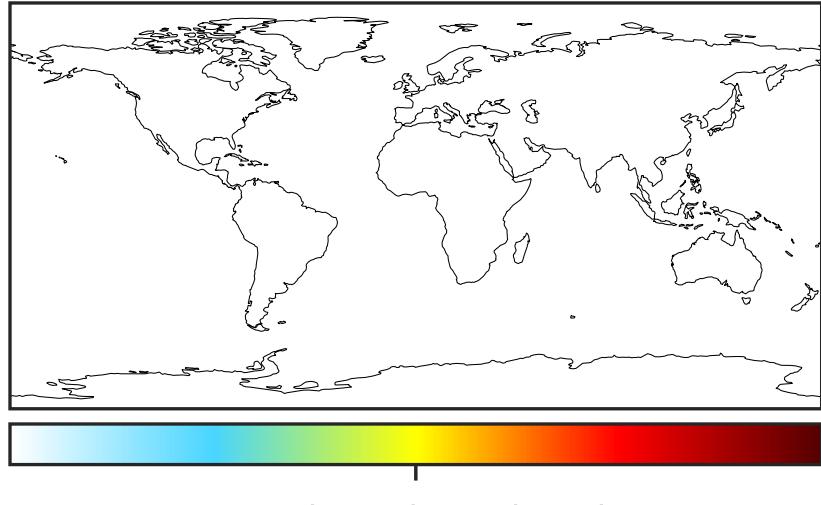
Ratio (1x1.25)  
Dev/Ref, Fixed Range



Undefined throughout domain  
unitless

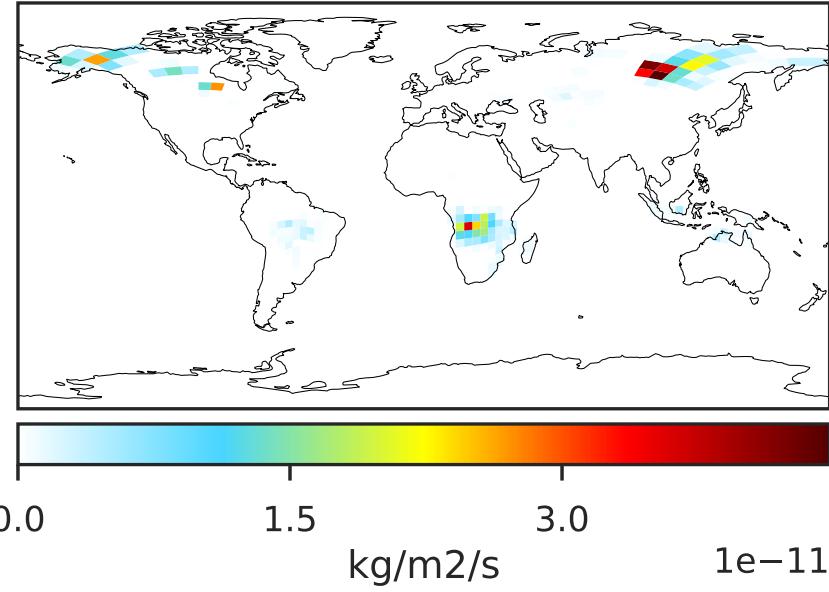
# EmisGLYX\_Total (Jul2019)

GCHP\_14.0.0 (Ref)  
c24

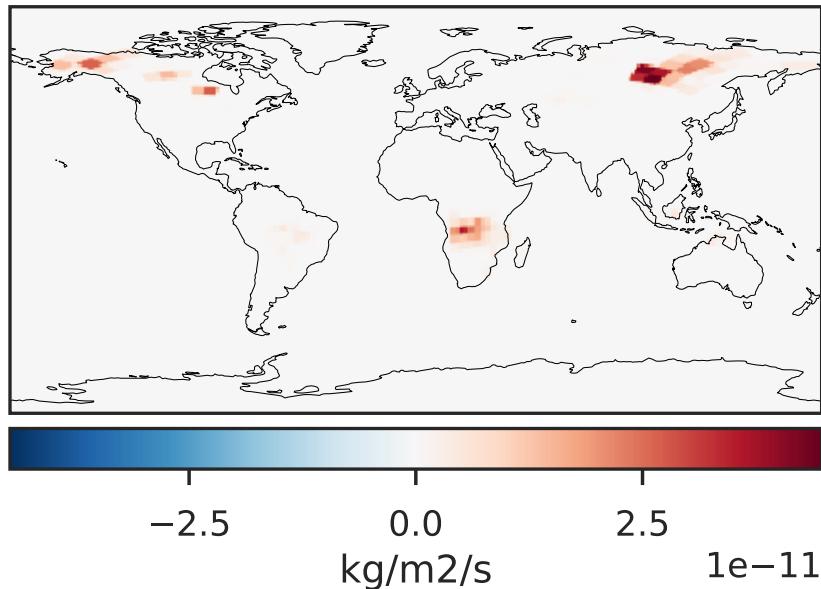


Zero throughout domain  
kg/m<sup>2</sup>/s

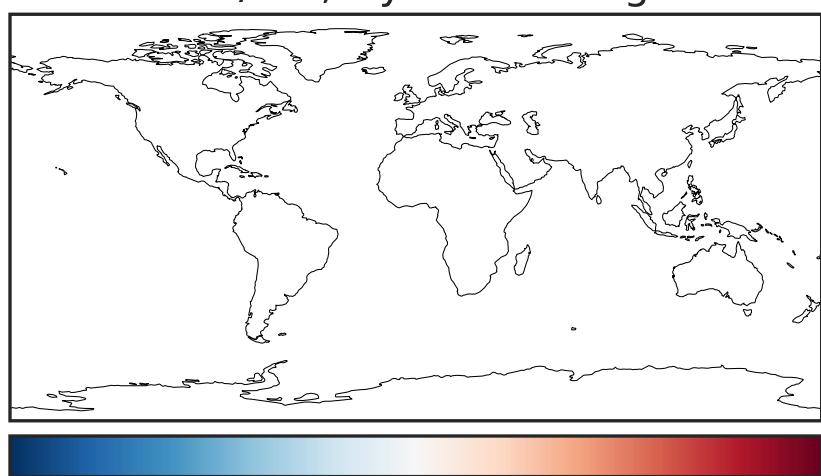
GCHP\_14.2.0 (Dev)  
c24



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

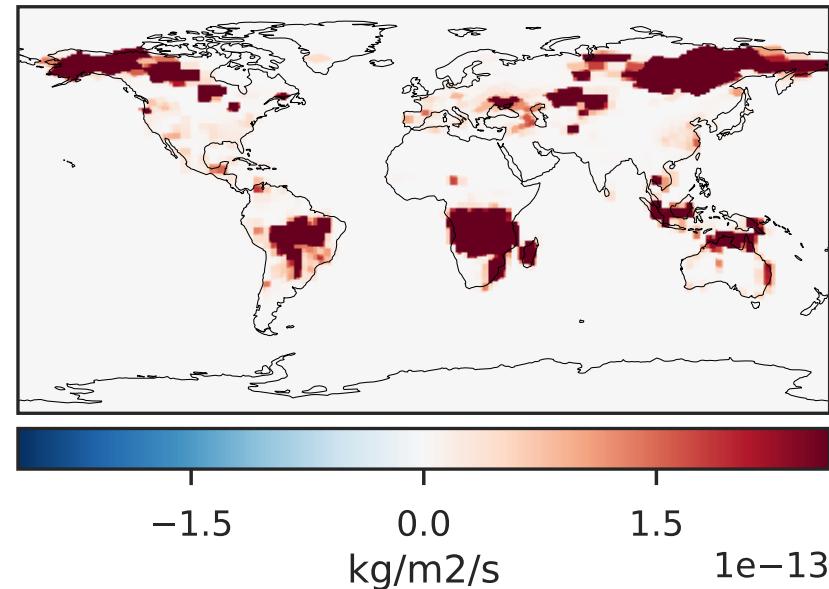


Ratio (1x1.25)  
Dev/Ref, Dynamic Range

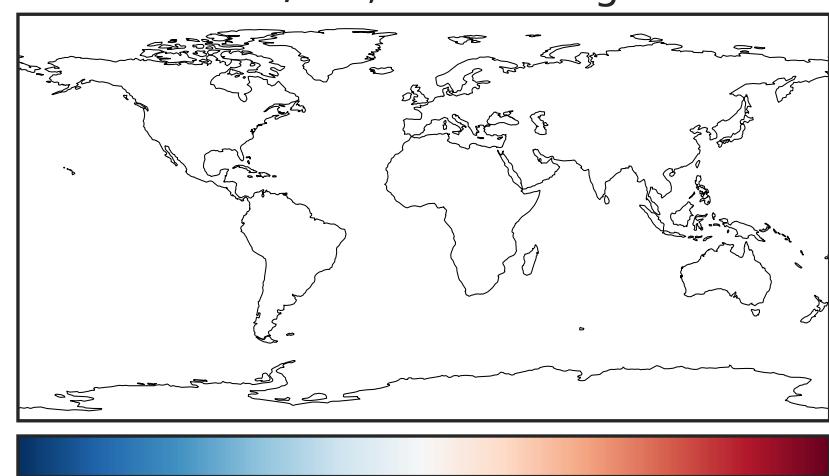


Undefined throughout domain  
unitless

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



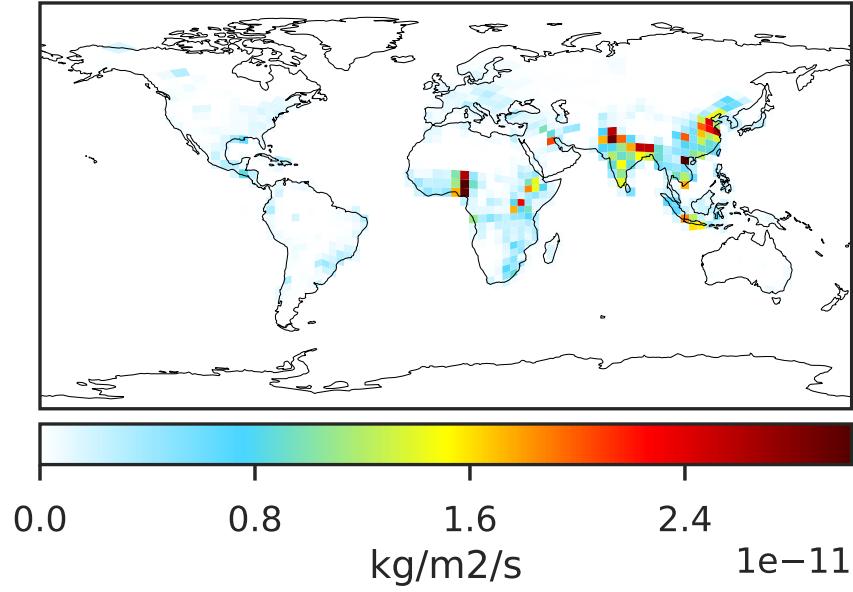
Ratio (1x1.25)  
Dev/Ref, Fixed Range



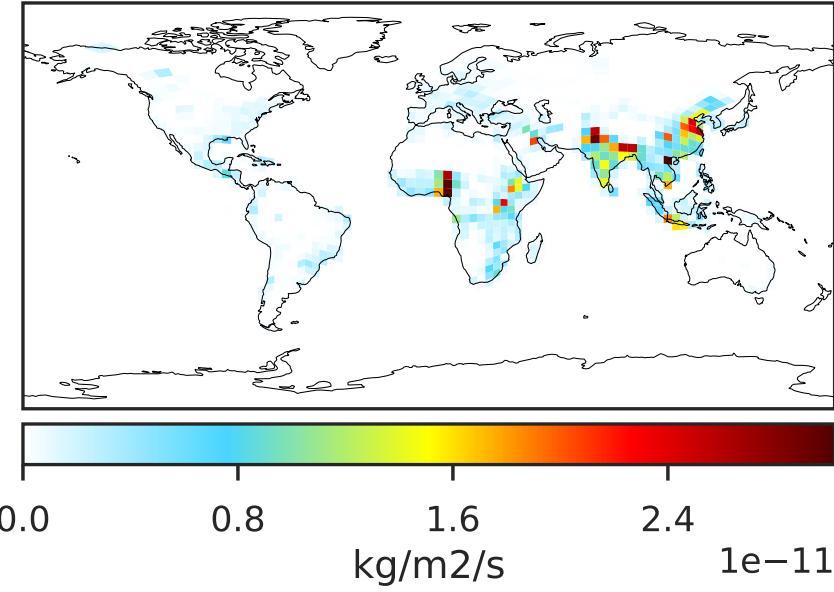
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# EmisHCOOH\_Anthro (Jul2019)

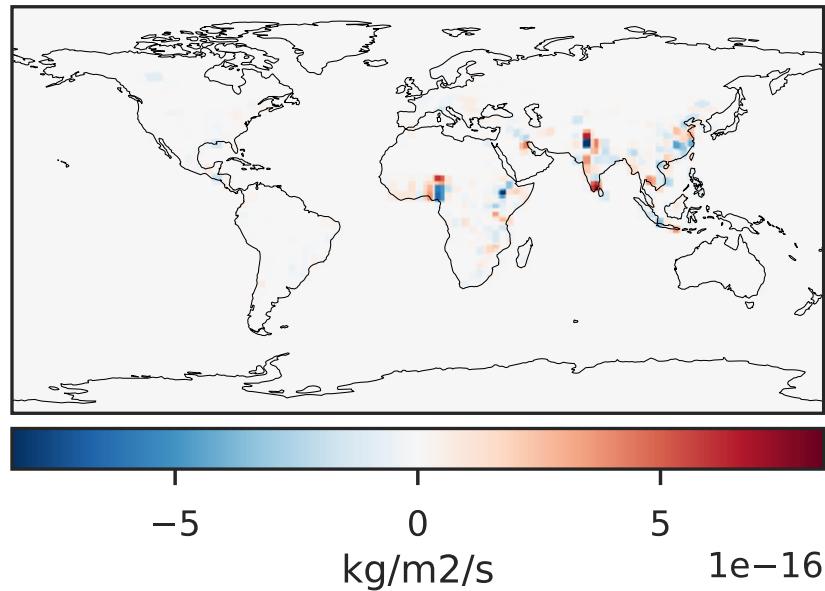
GCHP\_14.0.0 (Ref)  
c24



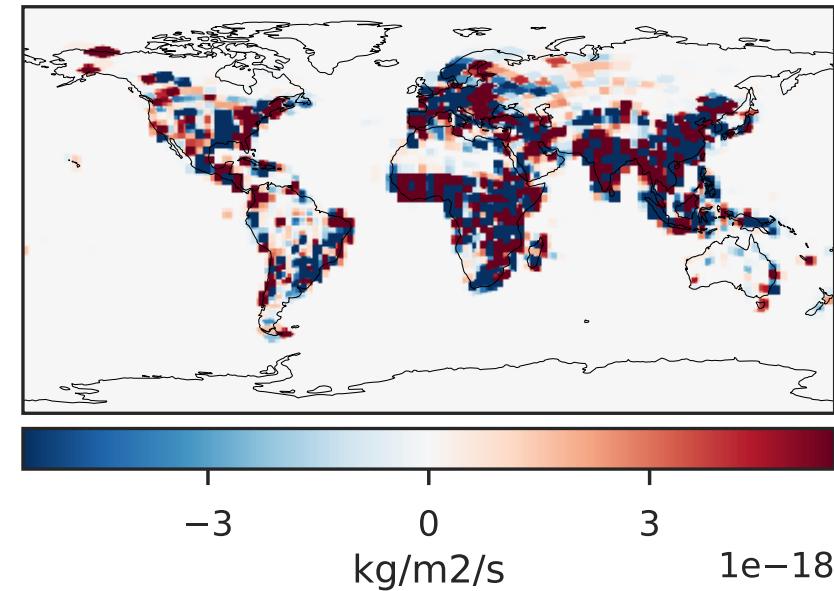
GCHP\_14.2.0 (Dev)  
c24



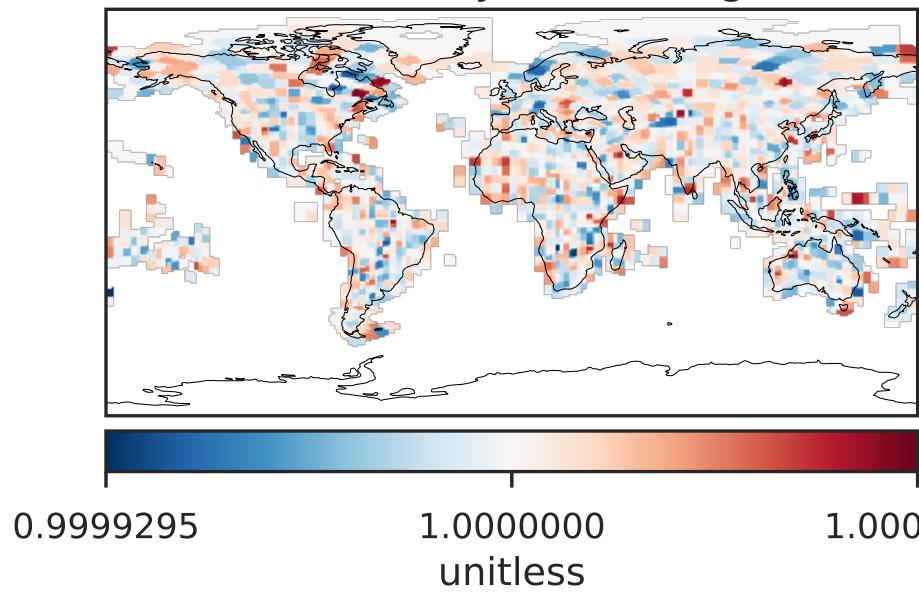
Difference (1x1.25)  
Dev - Ref, Dynamic Range



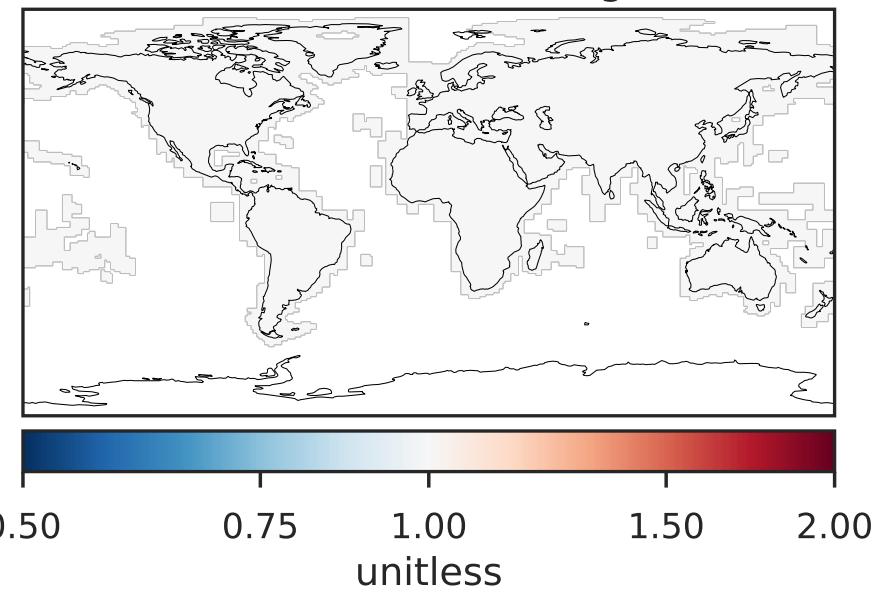
Difference (1x1.25)  
Dev - Ref, Restricted Range [5%, 95%]



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

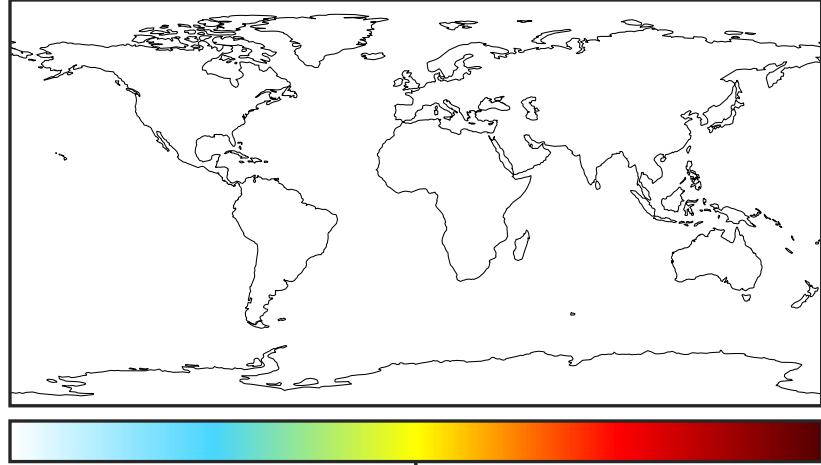


Ratio (1x1.25)  
Dev/Ref, Fixed Range



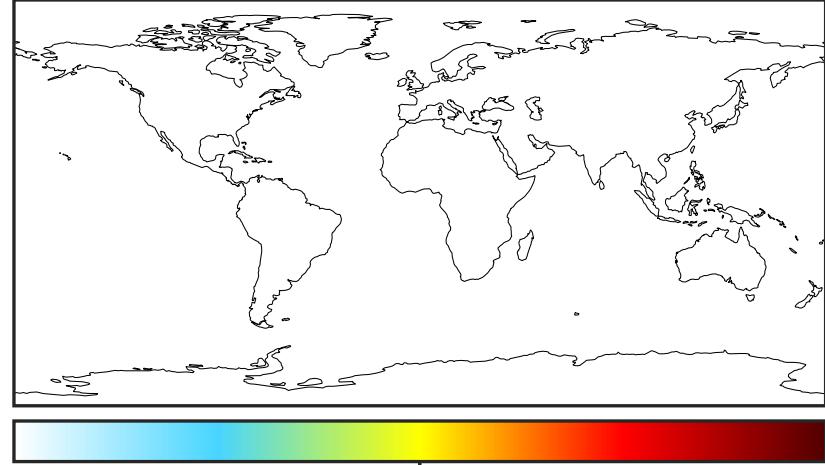
# EmisHCOOH\_Ship (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



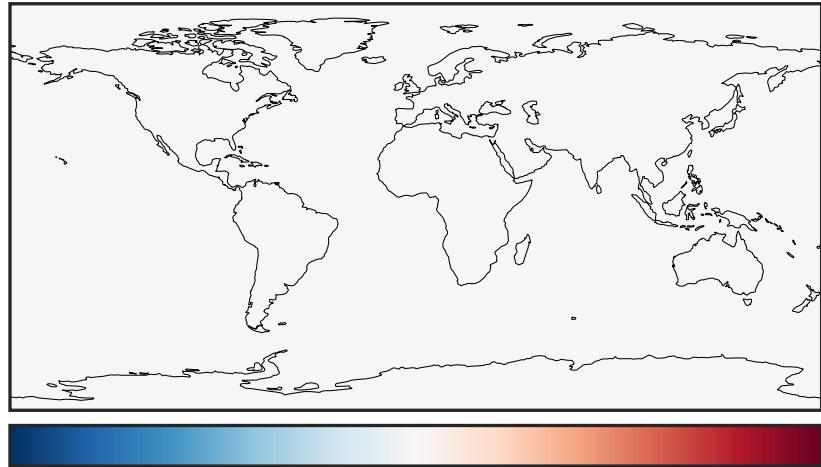
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



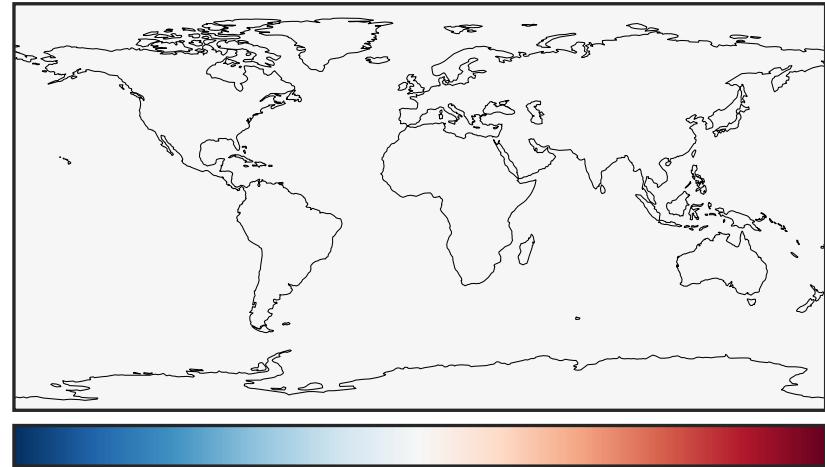
Zero throughout domain  
kg/m<sup>2</sup>/s

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



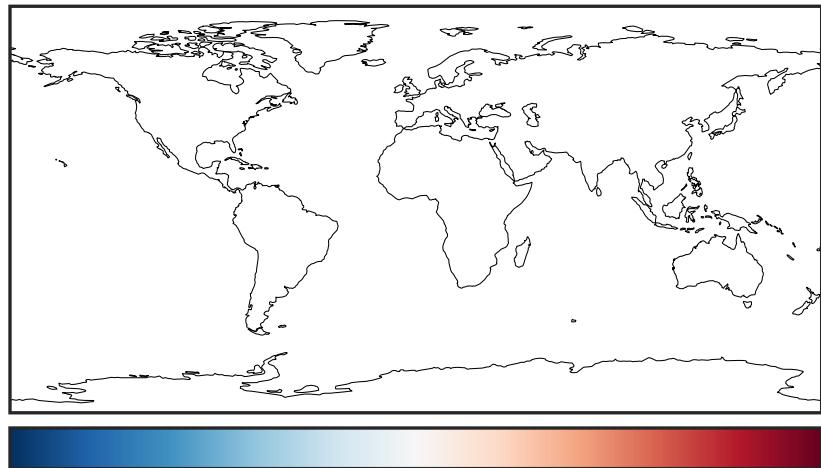
Zero throughout domain  
kg/m<sup>2</sup>/s

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



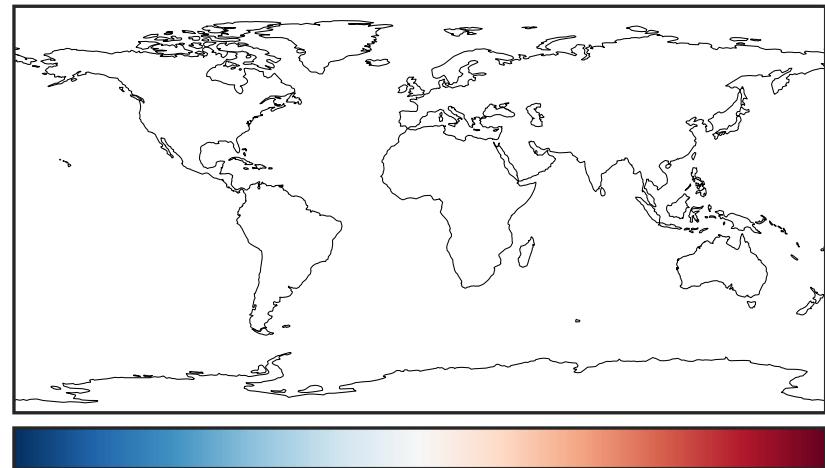
Zero throughout domain  
kg/m<sup>2</sup>/s

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



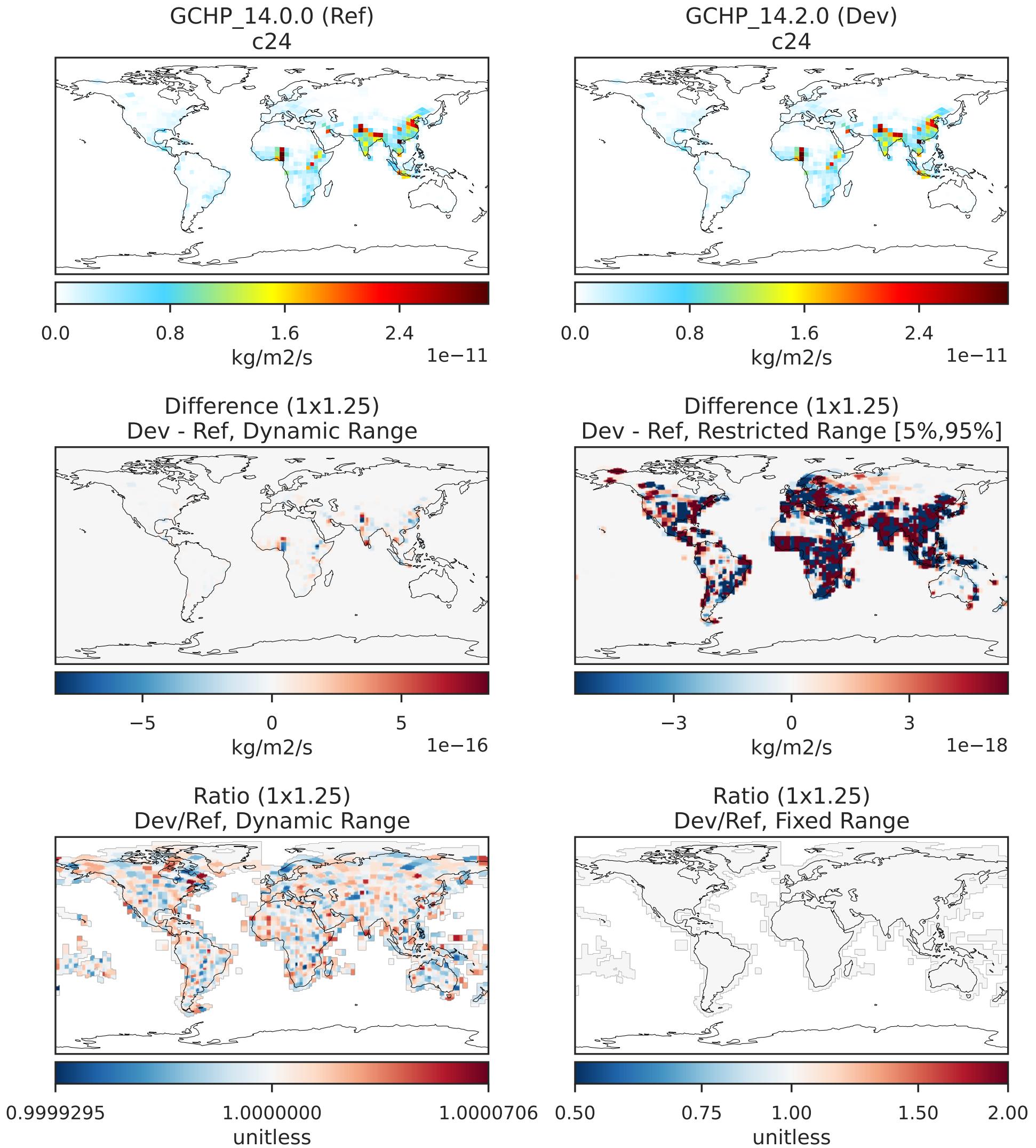
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Ratio (1x1.25)  
Dev/Ref, Fixed Range



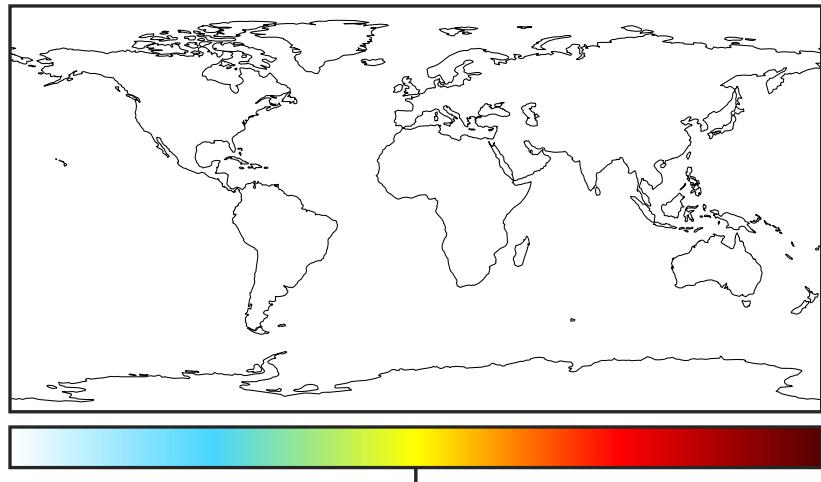
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# EmisHCOOH\_Total (Jul2019)



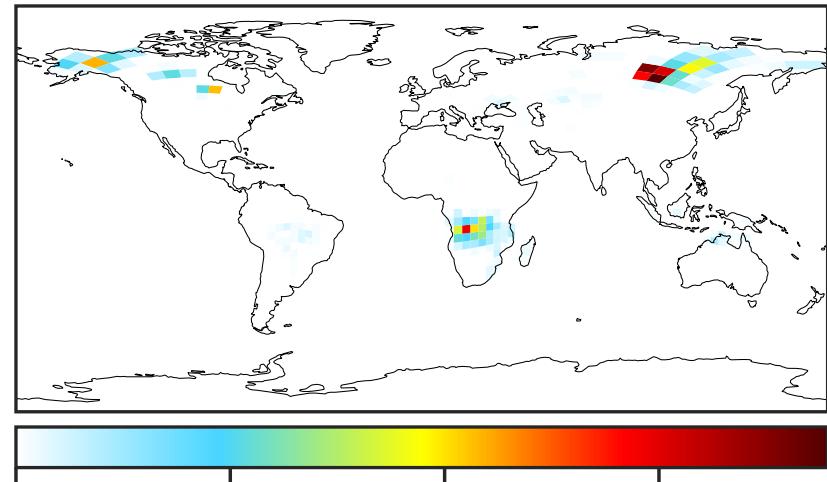
# EmisPHEN\_BioBurn (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



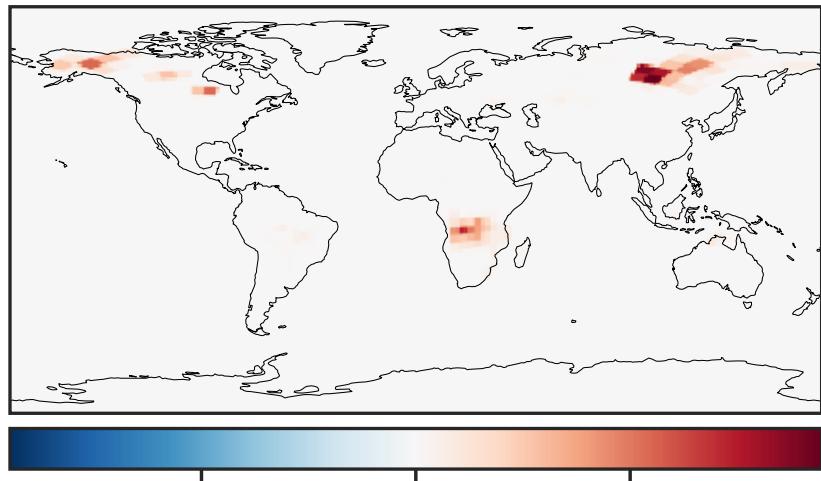
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



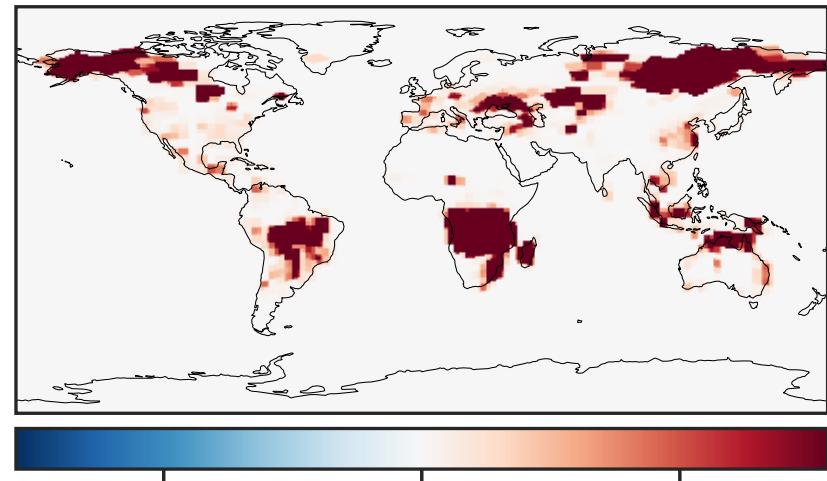
0.0    1.5    3.0    4.5  
kg/m<sup>2</sup>/s    1e-11

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



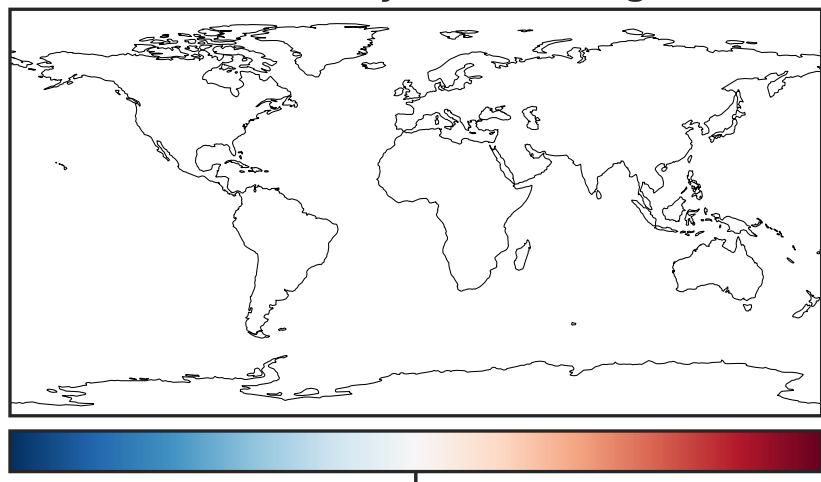
-3    0    3    1e-11  
kg/m<sup>2</sup>/s

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



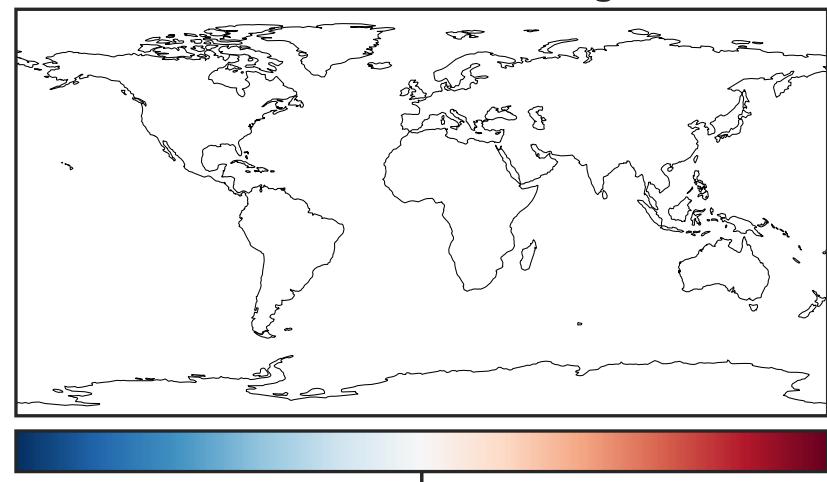
-2    0    2    1e-13  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

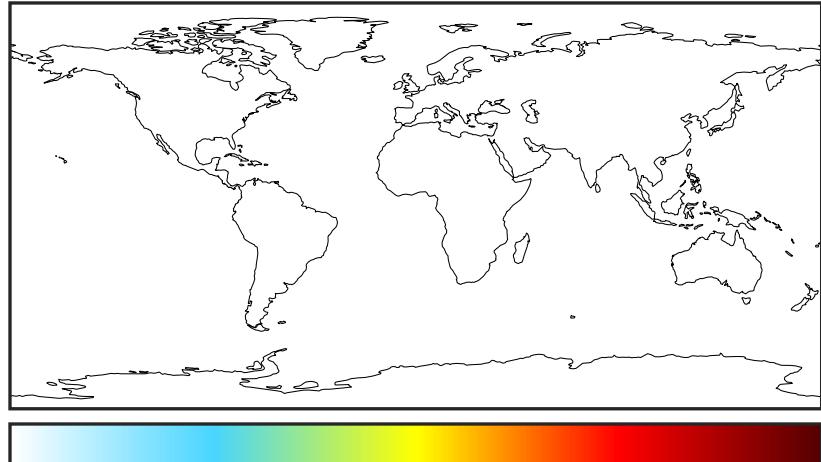
Ratio (1x1.25)  
Dev/Ref, Fixed Range



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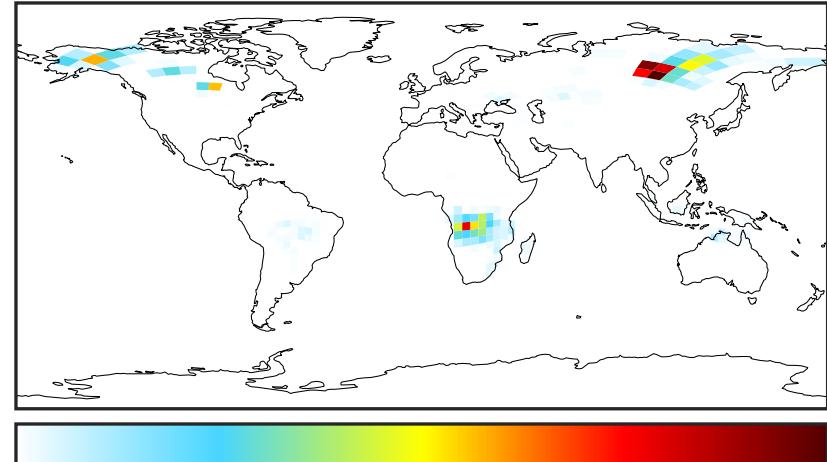
# EmisPHEN\_Total (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



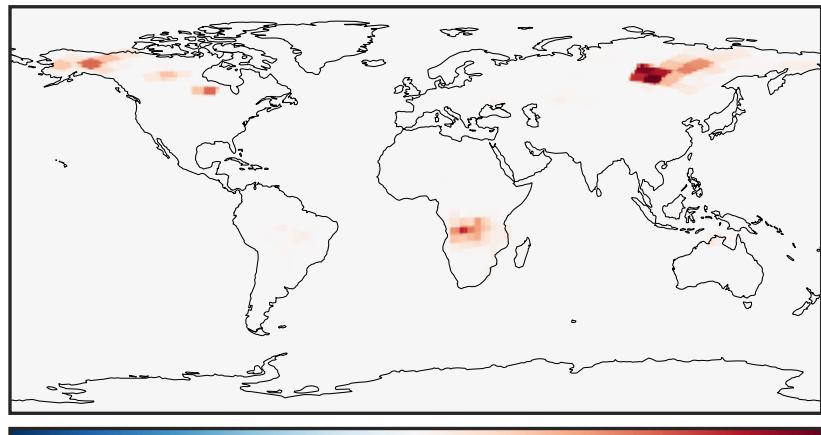
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



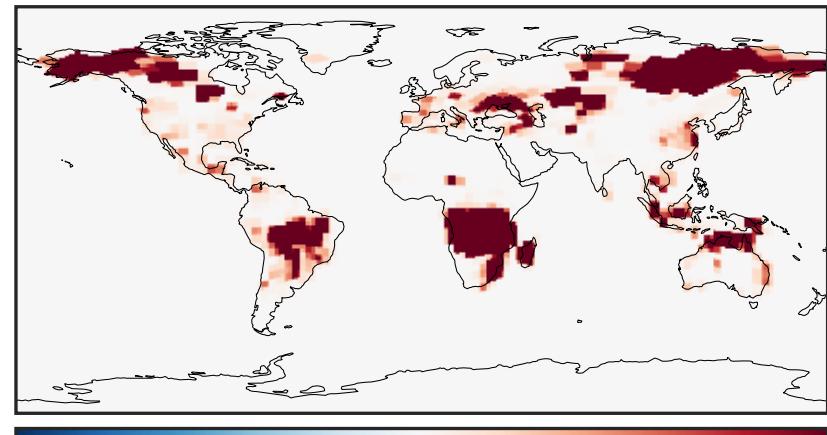
0.0    1.5    3.0    4.5  
kg/m<sup>2</sup>/s    1e-11

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



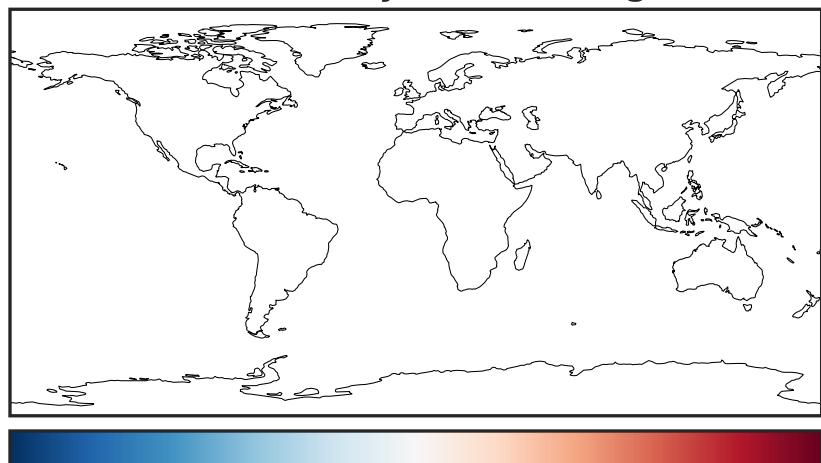
-3    0    3    1e-11  
kg/m<sup>2</sup>/s

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



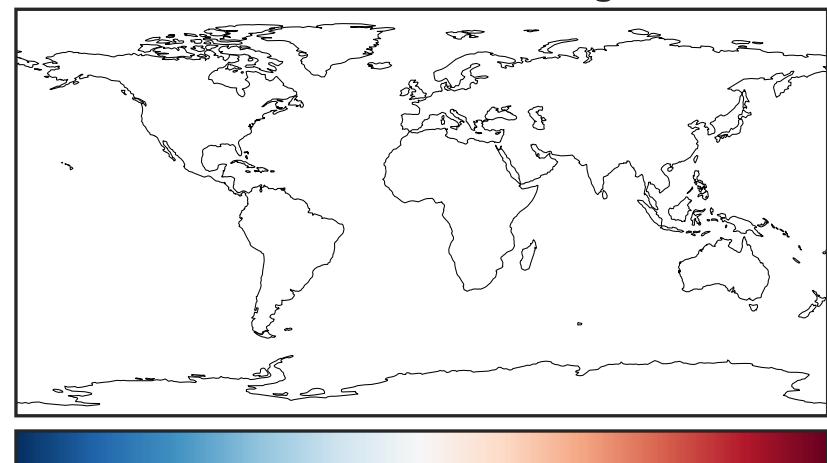
-2    0    2    1e-13  
kg/m<sup>2</sup>/s

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



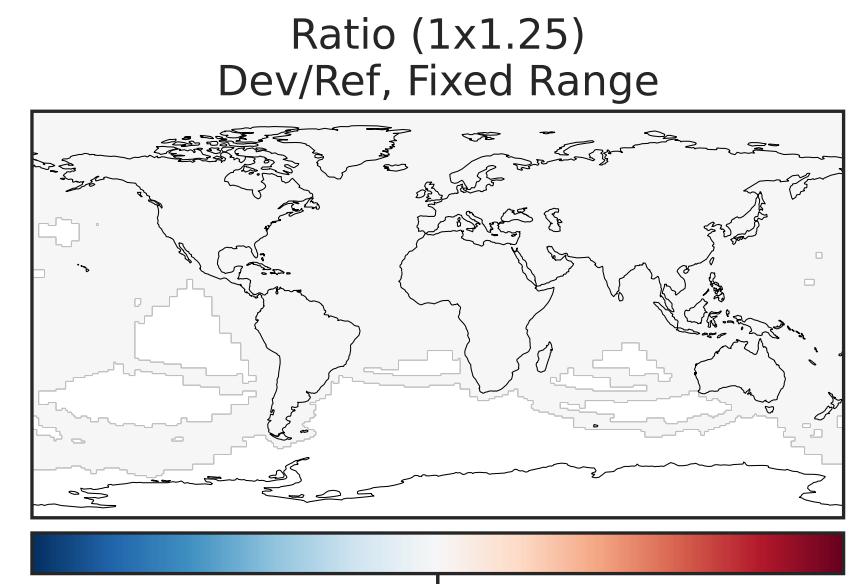
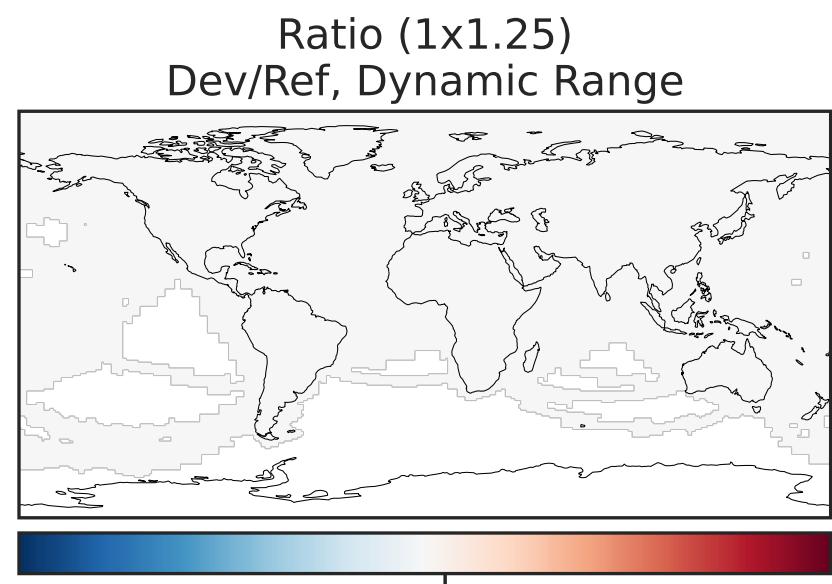
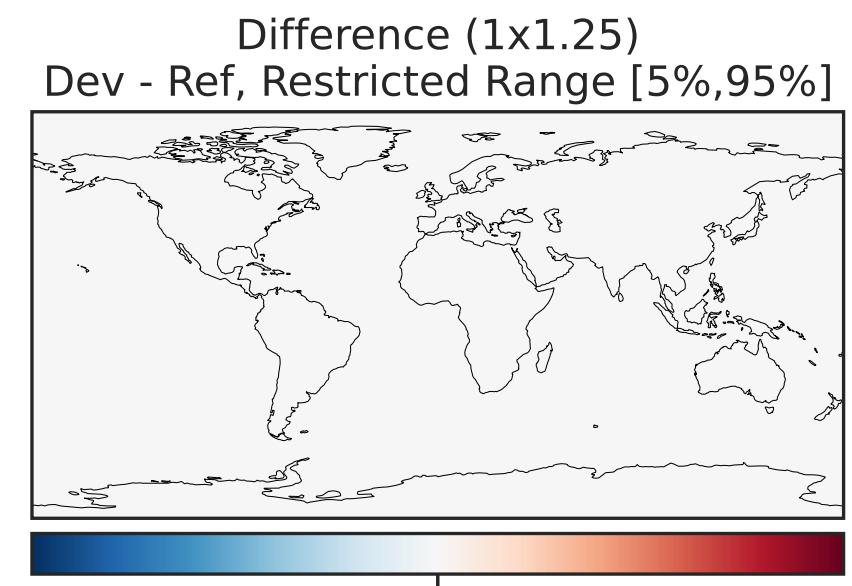
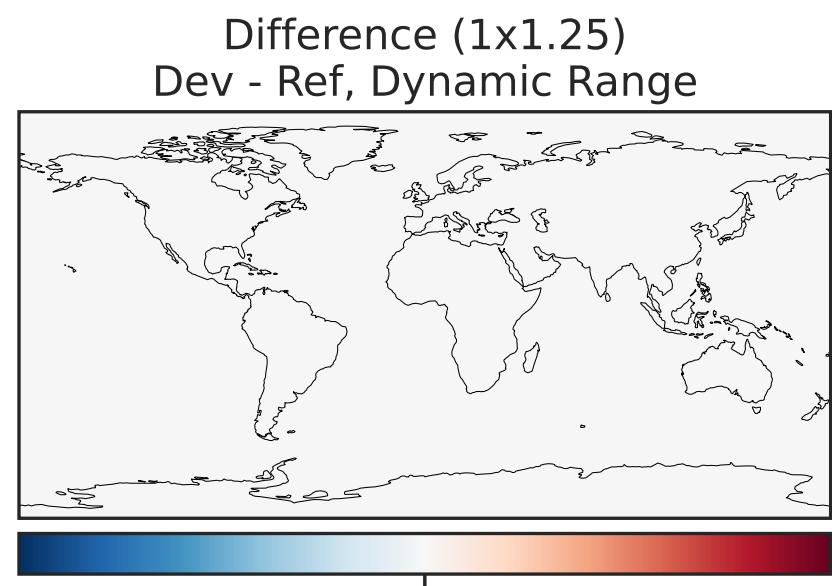
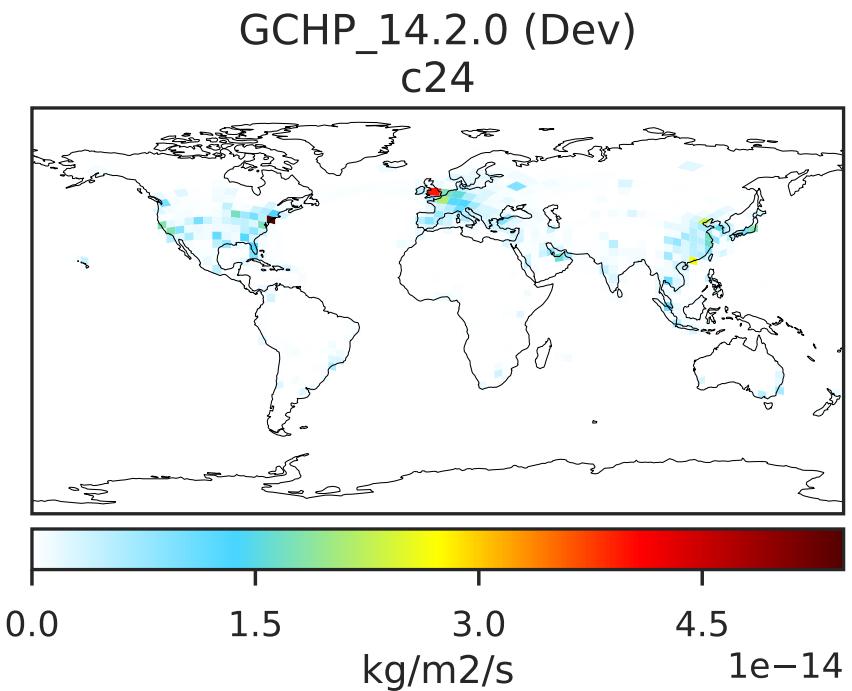
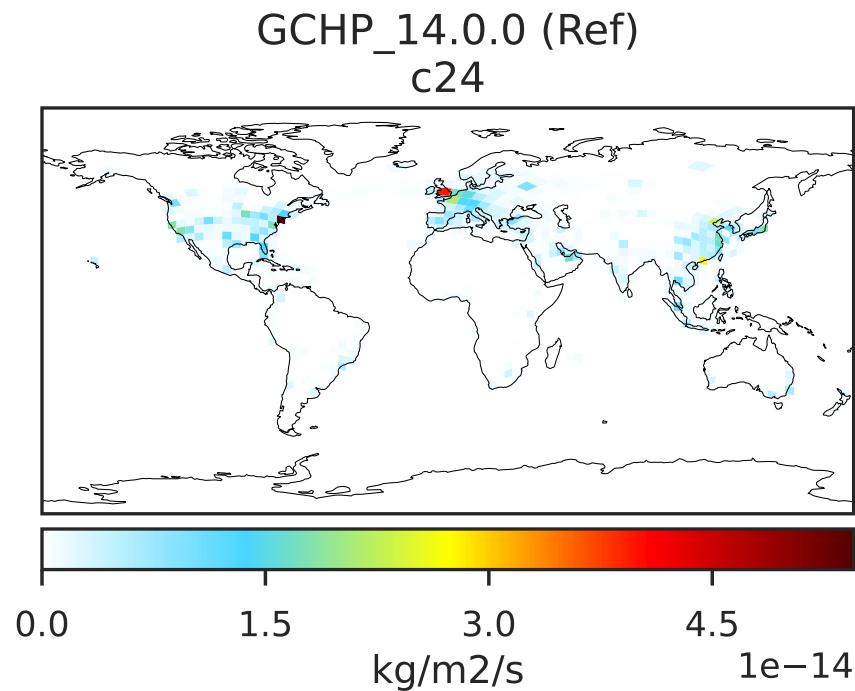
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unitless

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



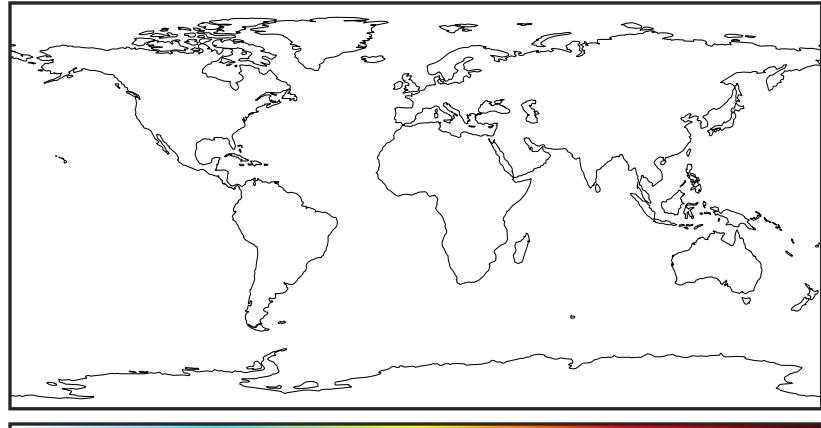
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# EmisRCHO\_Aircraft (Jul2019)



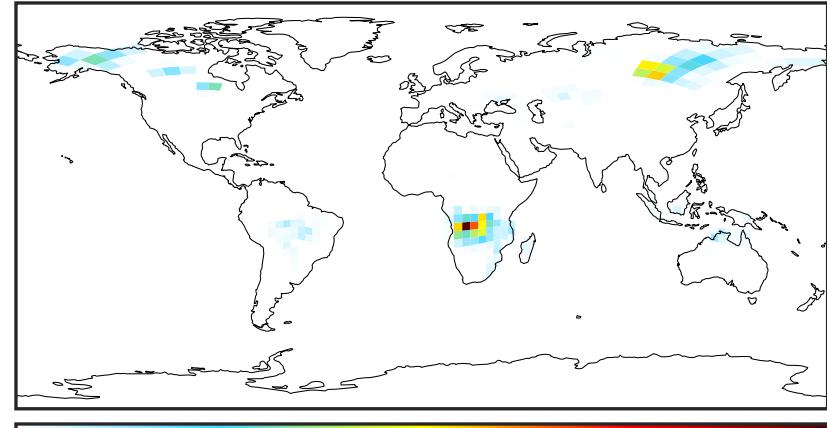
# EmisRCHO\_BioBurn (Jul2019)

GCHP\_14.0.0 (Ref)  
c24



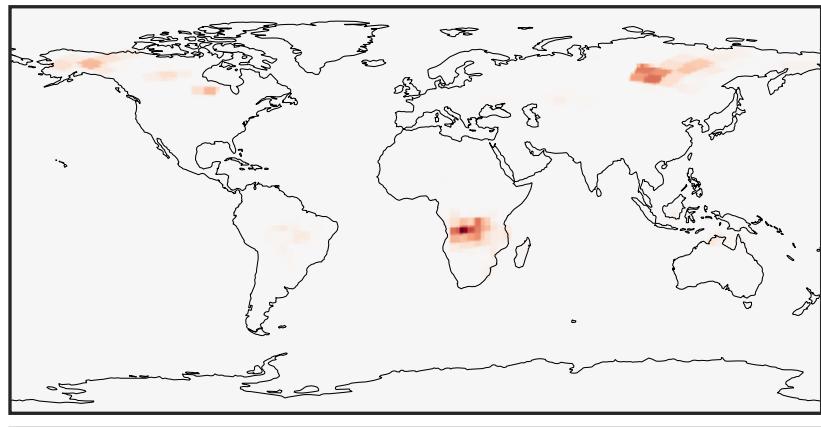
Zero throughout domain  
kg/m<sup>2</sup>/s

GCHP\_14.2.0 (Dev)  
c24



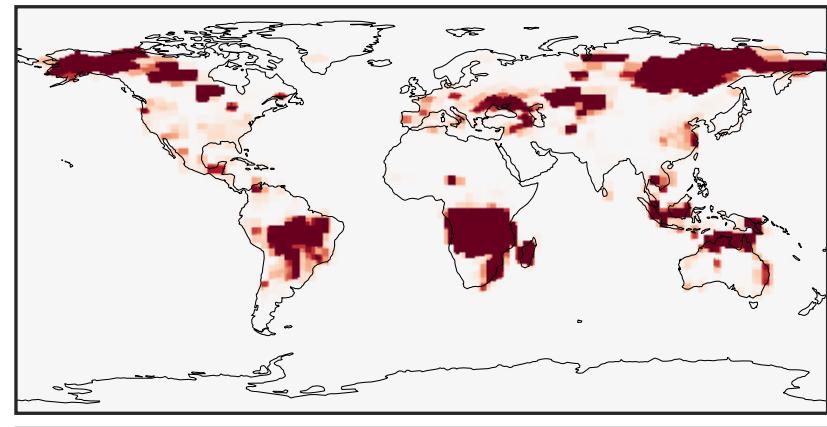
0.0 0.4 0.8 1.2  
kg/m<sup>2</sup>/s 1e-10

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



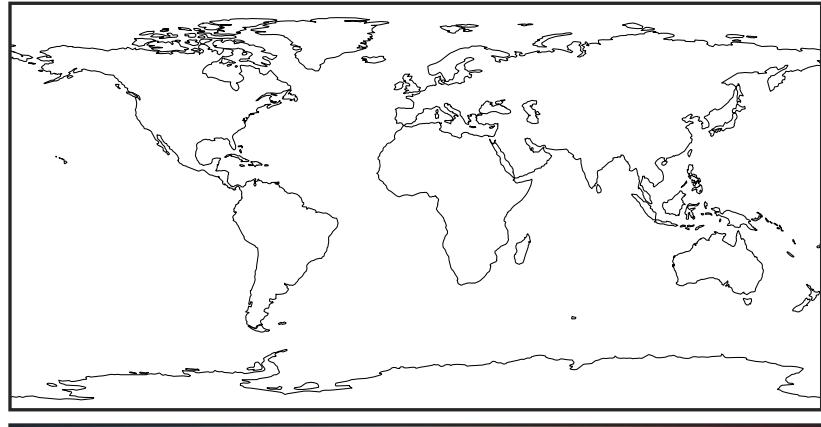
-8 0 8 1e-11  
kg/m<sup>2</sup>/s

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



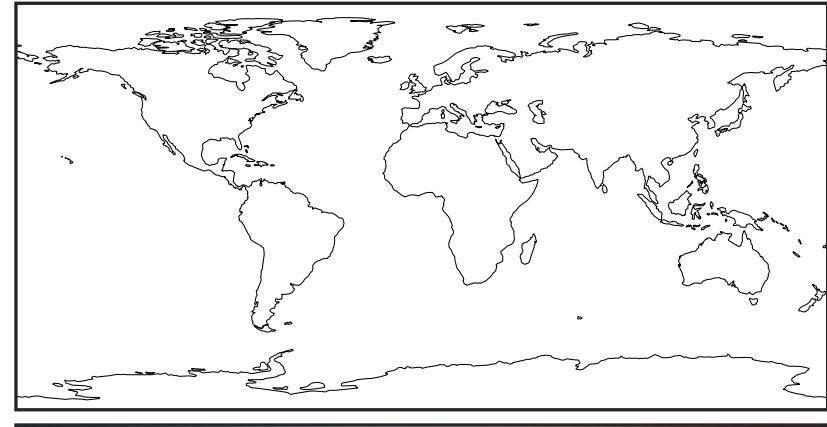
-4 0 4 1e-13  
kg/m<sup>2</sup>/s

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



Undefined throughout domain  
unitless

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



Undefined throughout domain  
unitless

# EmisRCHO\_Total (Jul2019)

