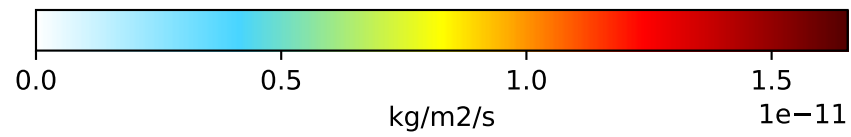
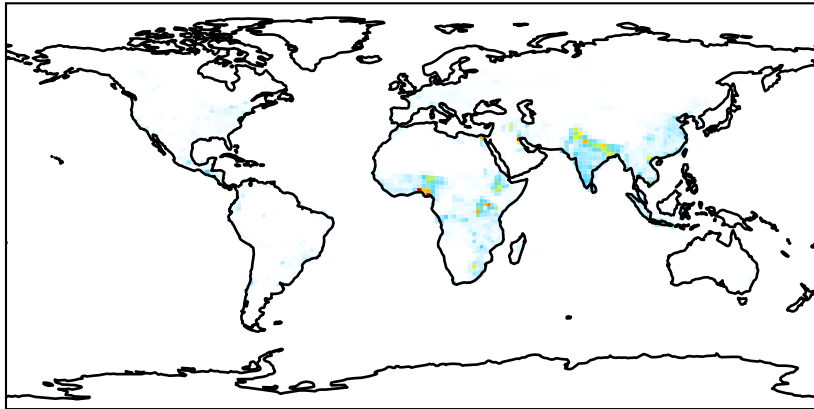
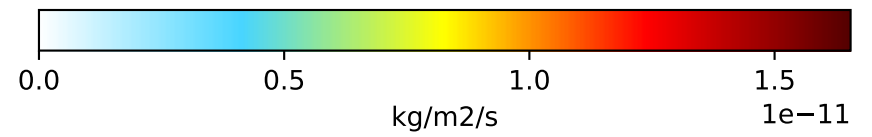
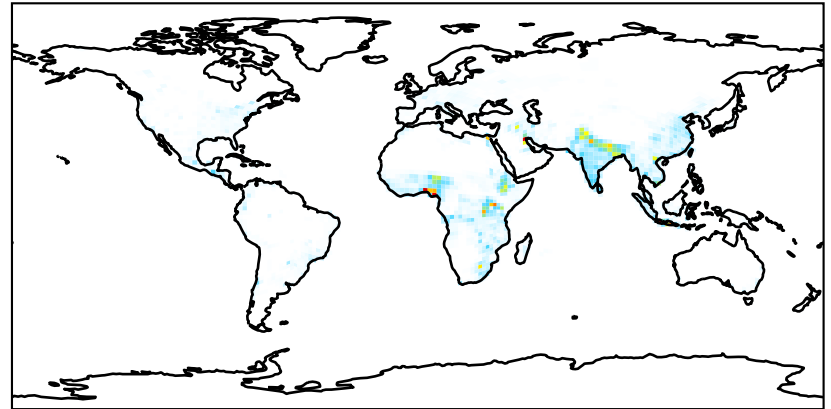


# EmisALD2\_Anthro (Jul2019)

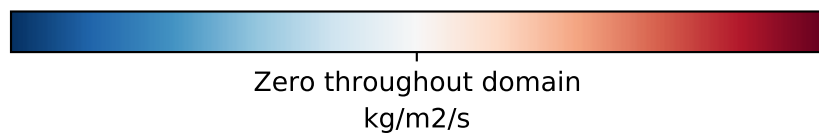
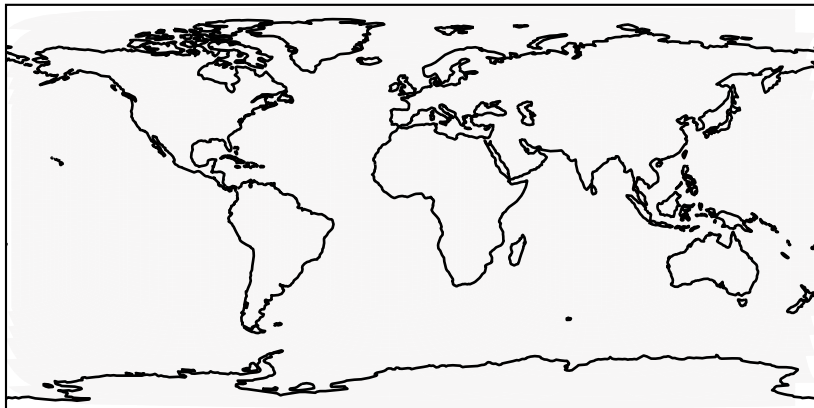
GCHP\_13.0.0-beta.1 (Ref)  
c48



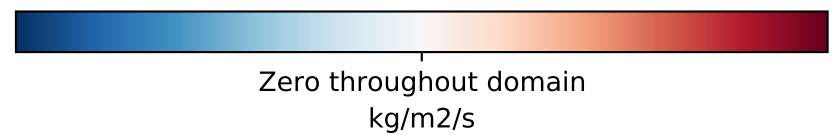
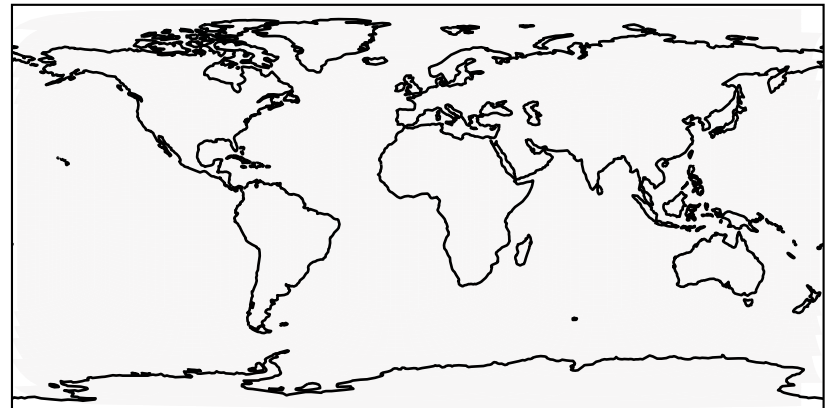
GCHP\_13.0.0-rc.0 (Dev)  
c48



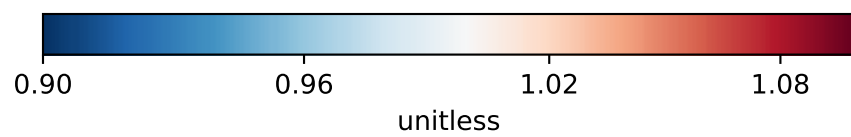
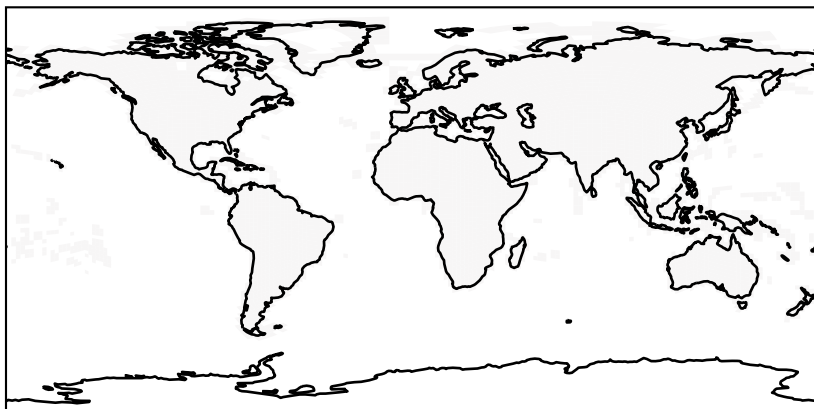
Difference  
Dev - Ref, Dynamic Range



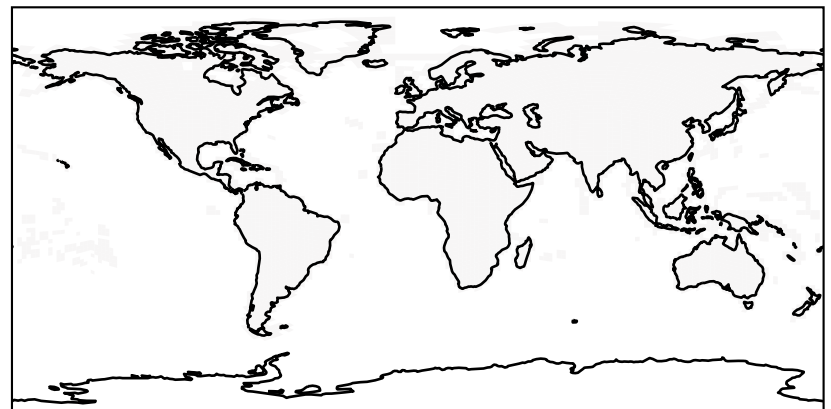
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

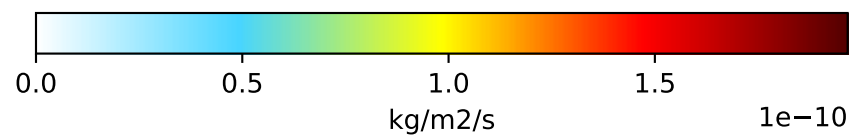
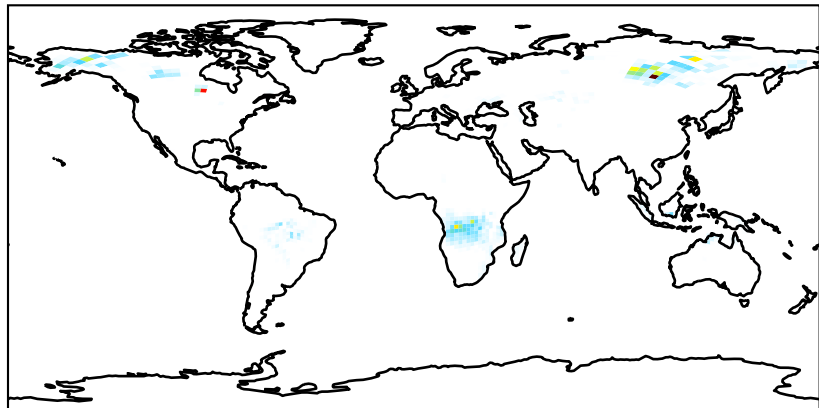


Ratio  
Dev/Ref, Fixed Range

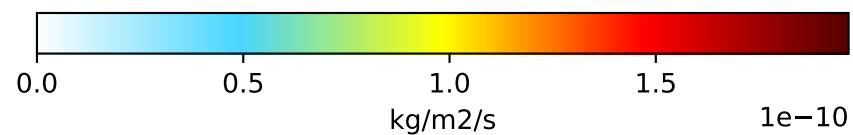
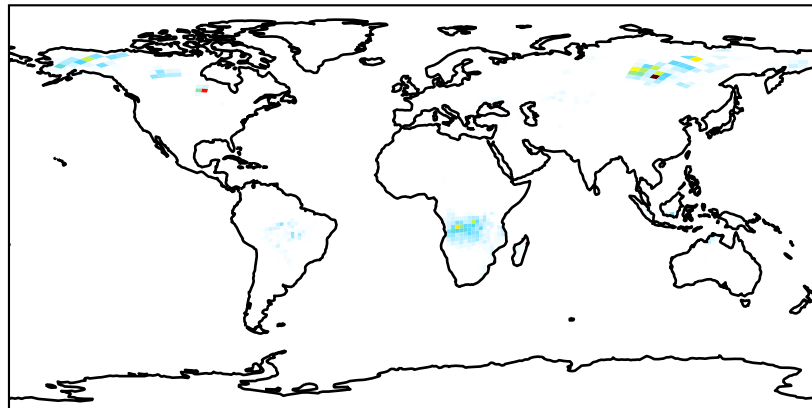


# EmisALD2\_BioBurn (Jul2019)

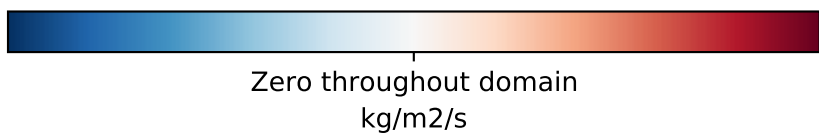
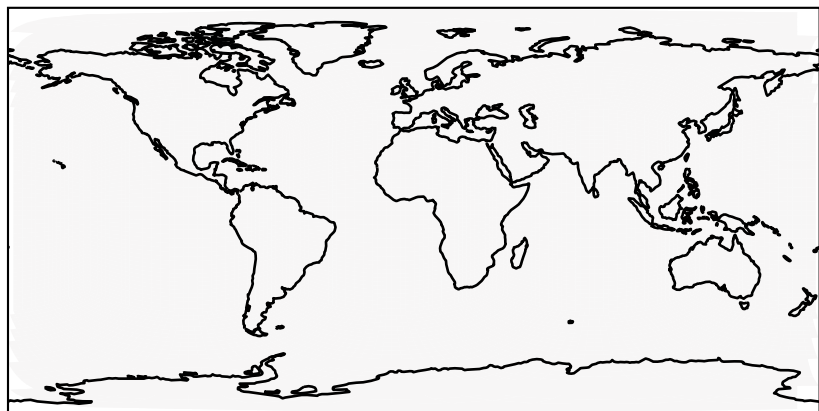
GCHP\_13.0.0-beta.1 (Ref)  
c48



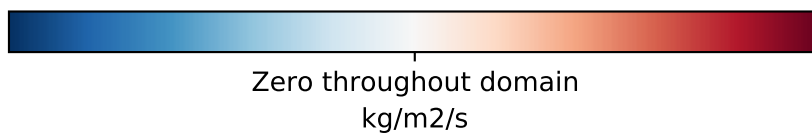
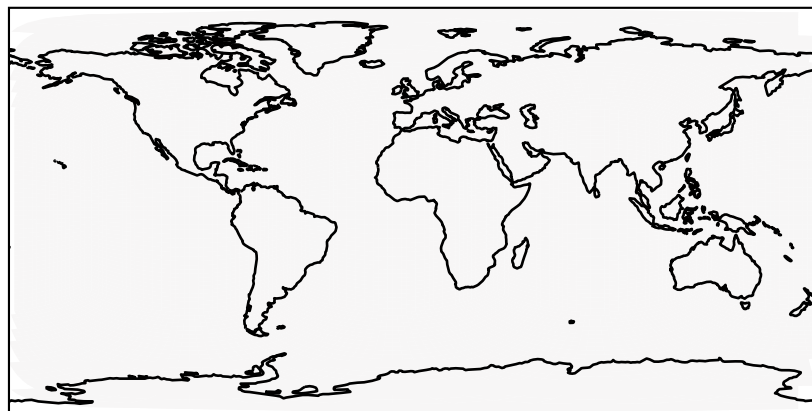
GCHP\_13.0.0-rc.0 (Dev)  
c48



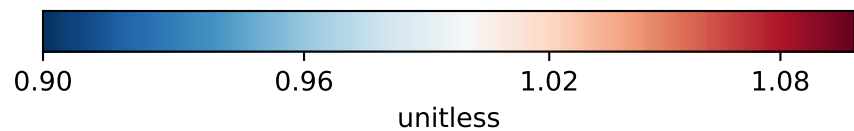
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

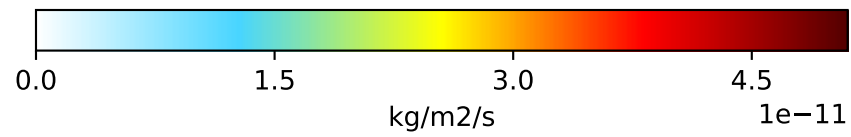
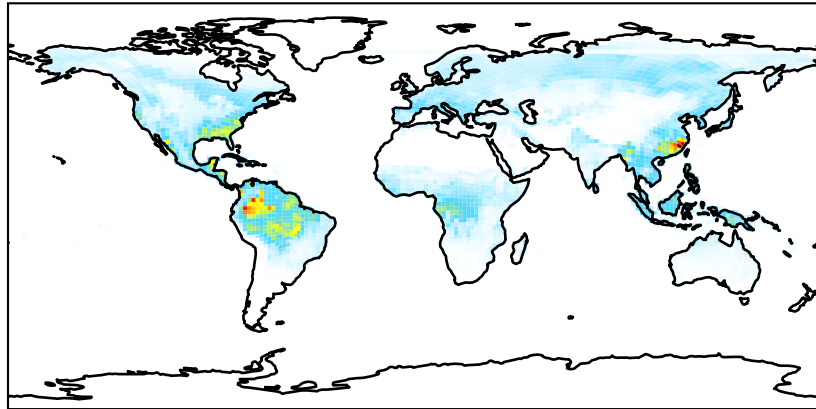


Ratio  
Dev/Ref, Fixed Range

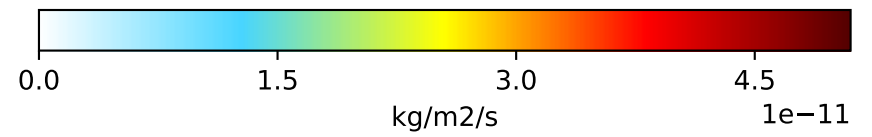
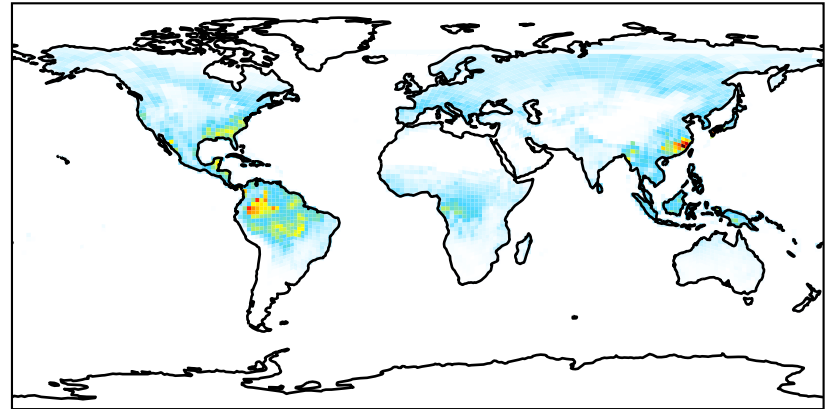


# EmisALD2\_Biogenic (Jul2019)

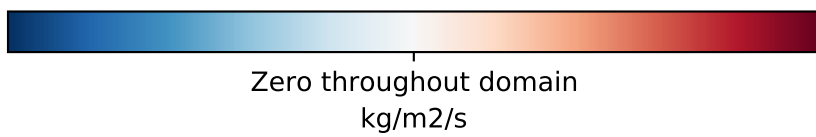
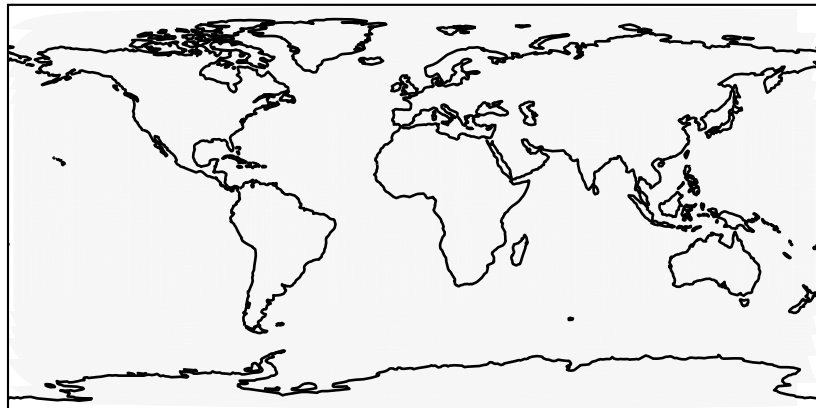
GCHP\_13.0.0-beta.1 (Ref)  
c48



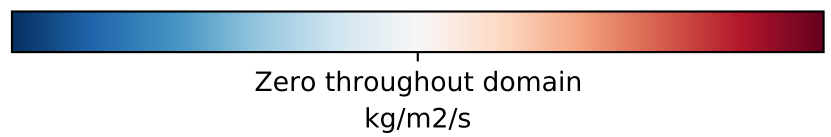
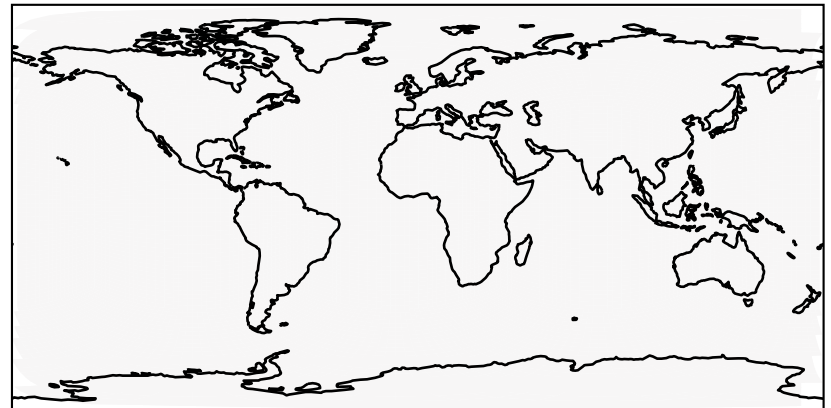
GCHP\_13.0.0-rc.0 (Dev)  
c48



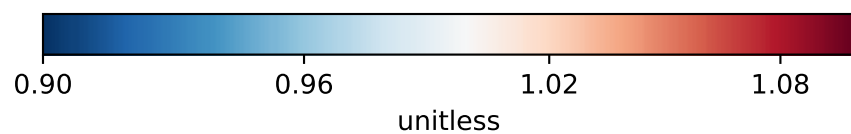
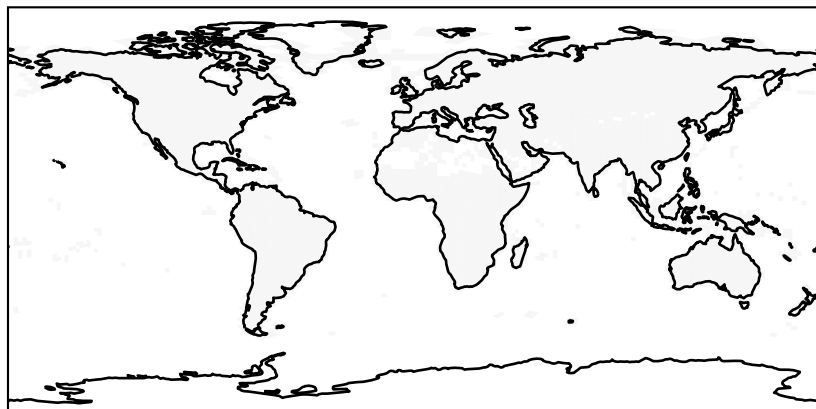
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

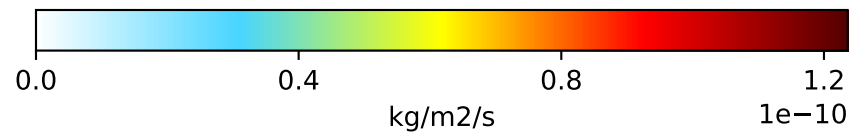
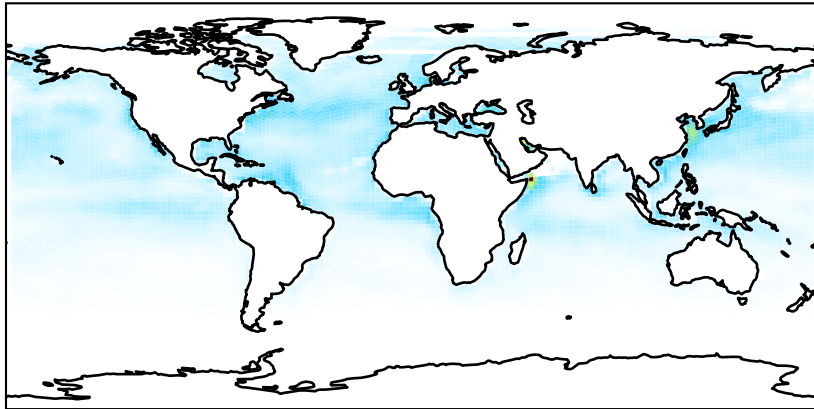


Ratio  
Dev/Ref, Fixed Range

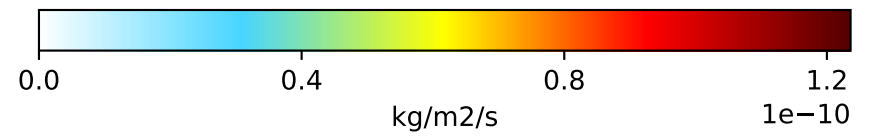
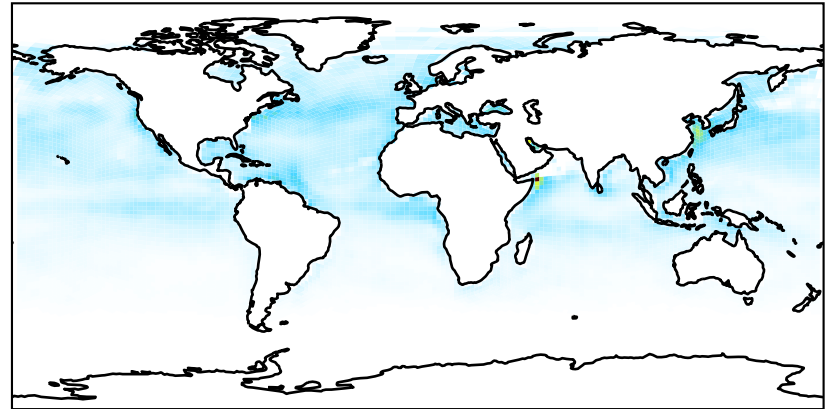


# EmisALD2\_Ocean (Jul2019)

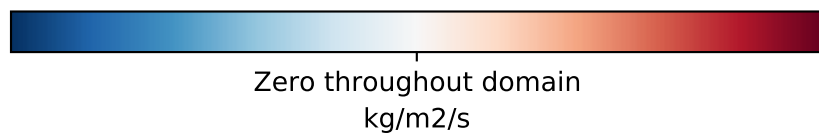
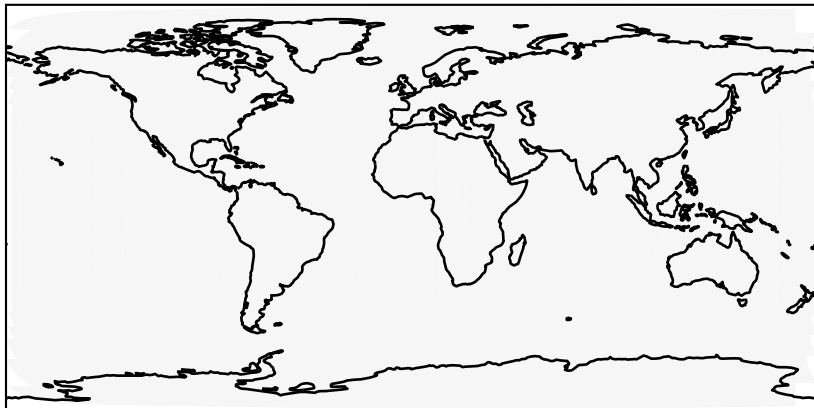
GCHP\_13.0.0-beta.1 (Ref)  
c48



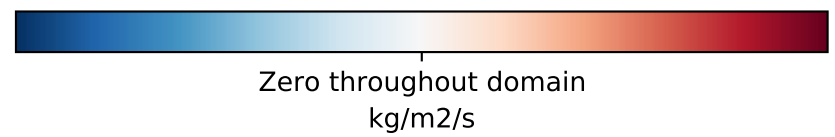
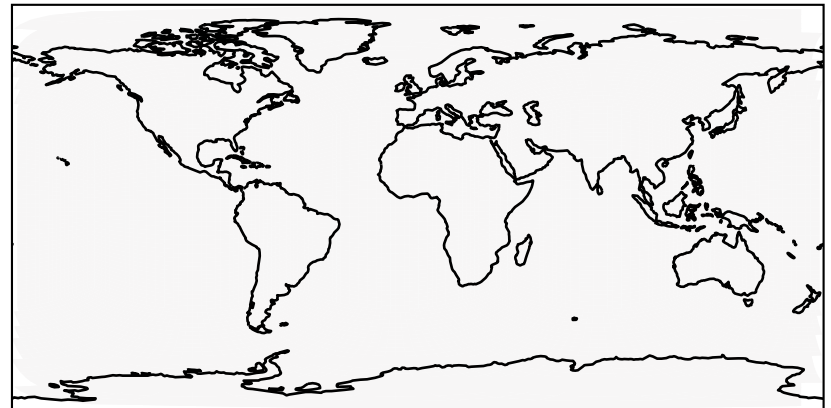
GCHP\_13.0.0-rc.0 (Dev)  
c48



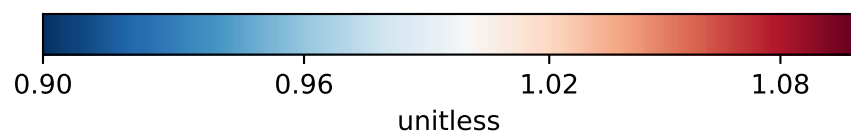
Difference  
Dev - Ref, Dynamic Range



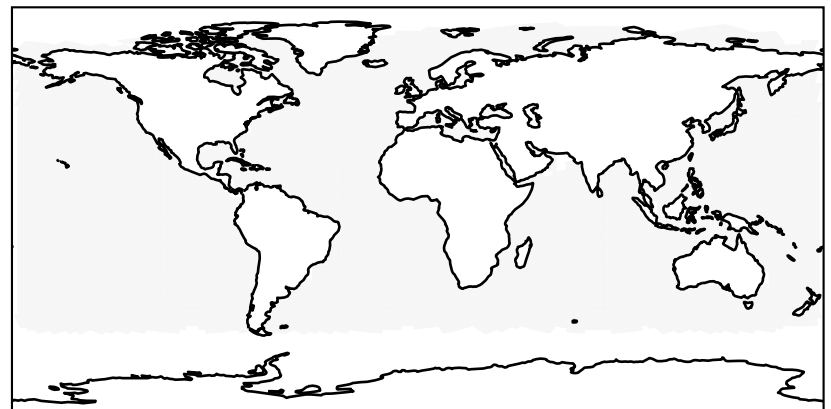
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

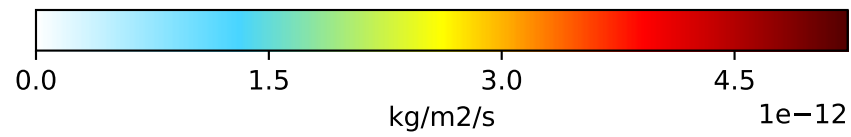
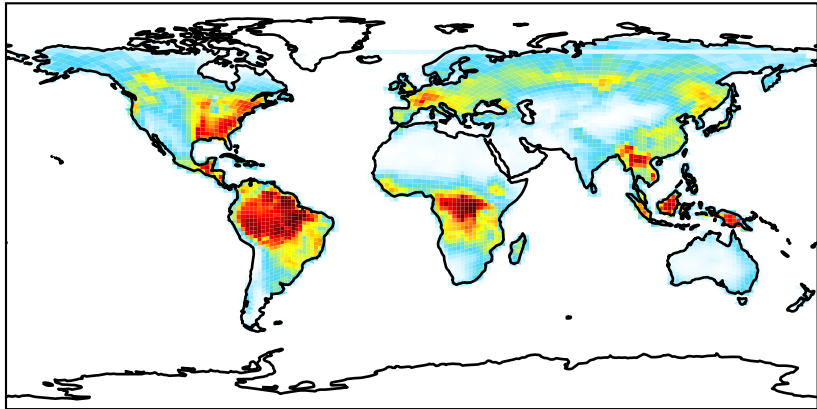


Ratio  
Dev/Ref, Fixed Range

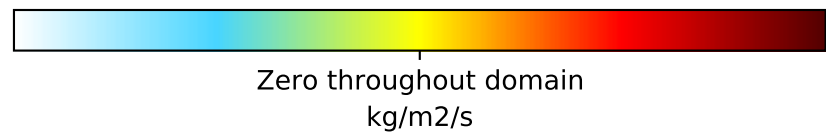
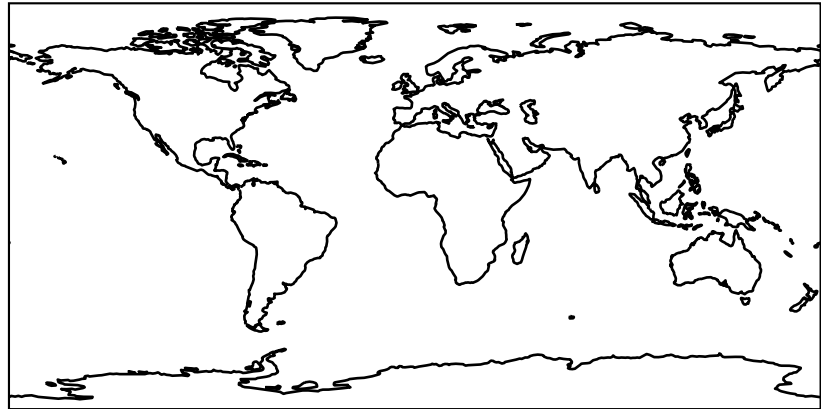


# EmisALD2\_PlantDecay (Jul2019)

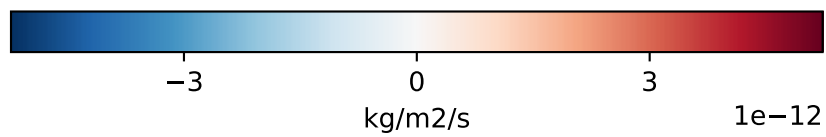
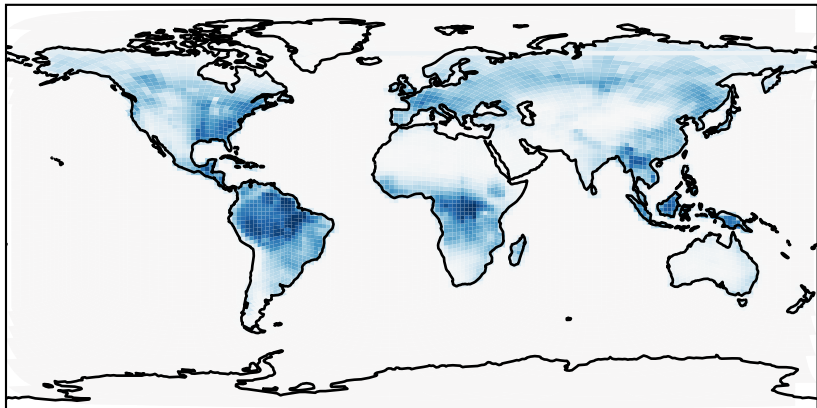
GCHP\_13.0.0-beta.1 (Ref)  
c48



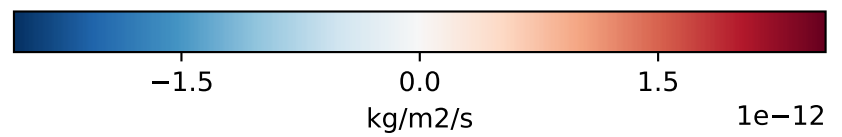
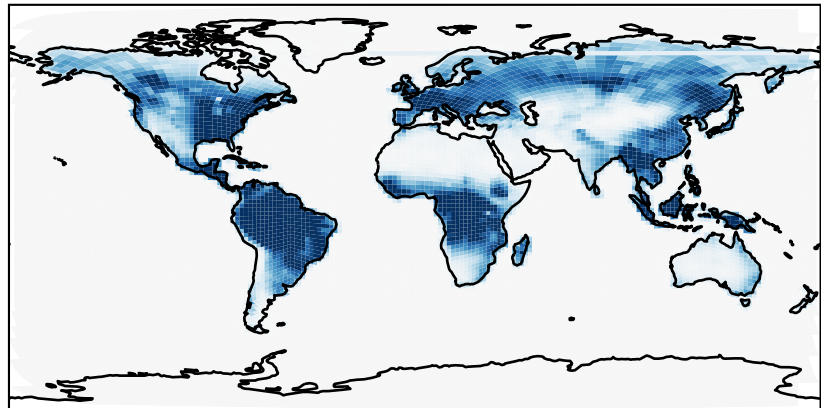
GCHP\_13.0.0-rc.0 (Dev)  
c48



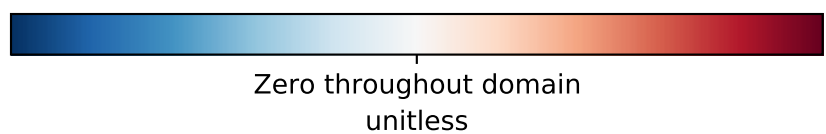
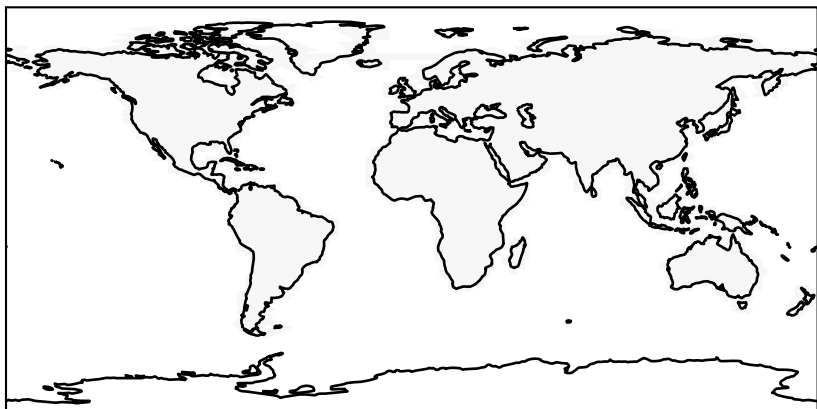
Difference  
Dev - Ref, Dynamic Range



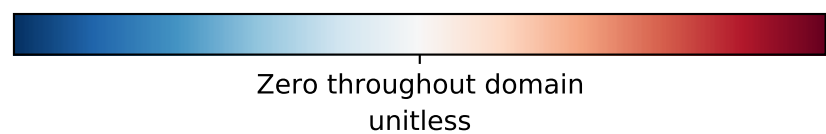
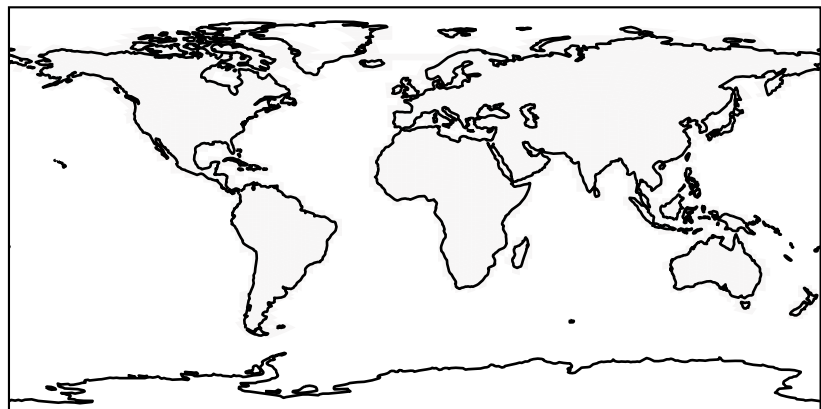
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

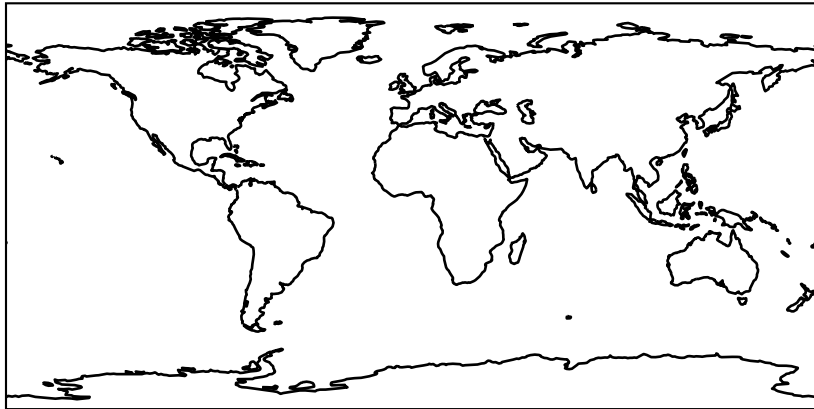


Ratio  
Dev/Ref, Fixed Range



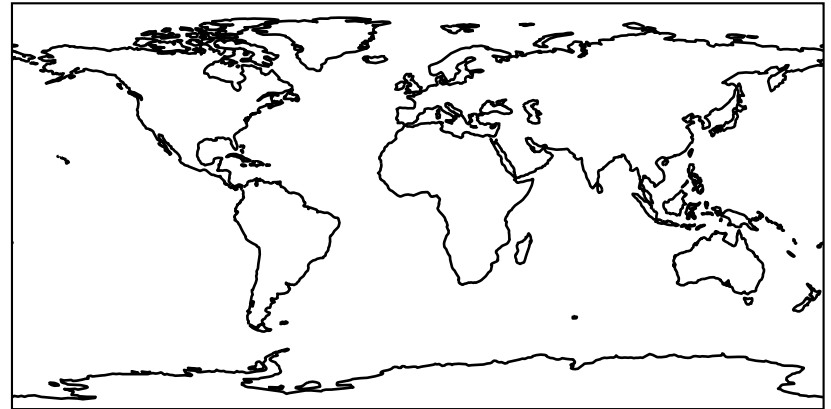
# EmisALD2\_Ship (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



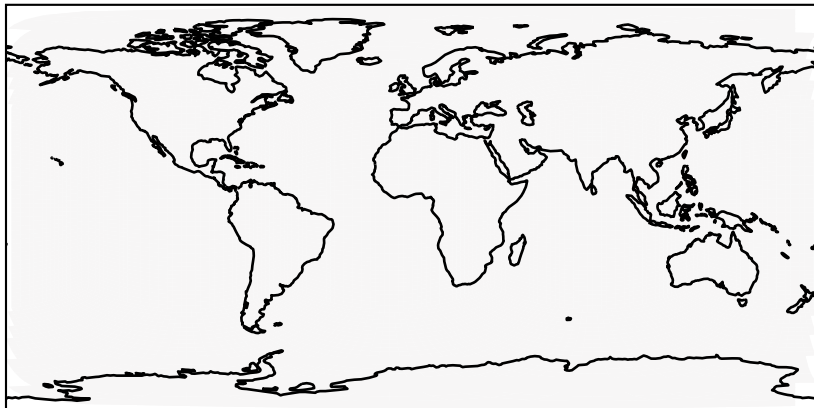
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



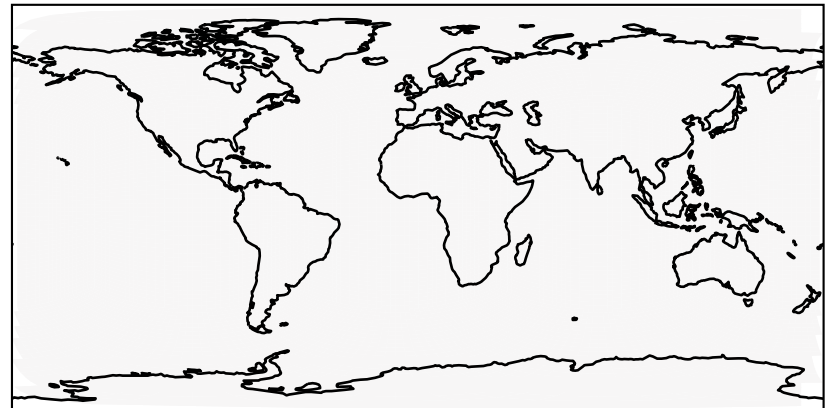
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

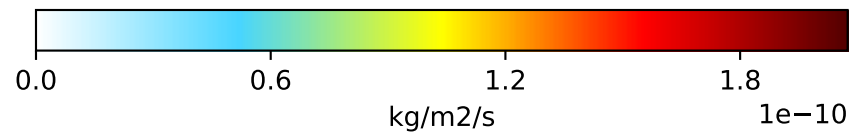
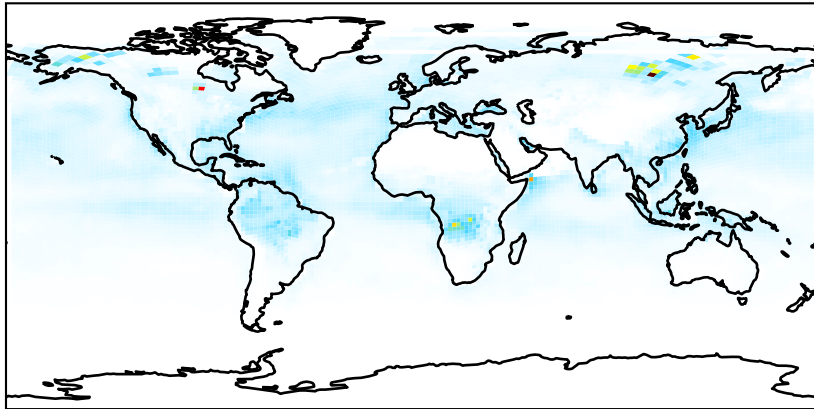
Ratio  
Dev/Ref, Fixed Range



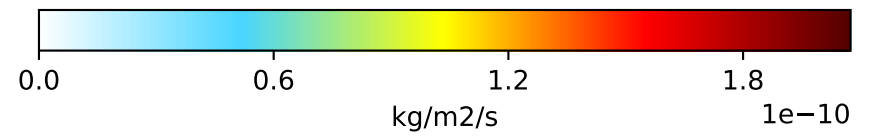
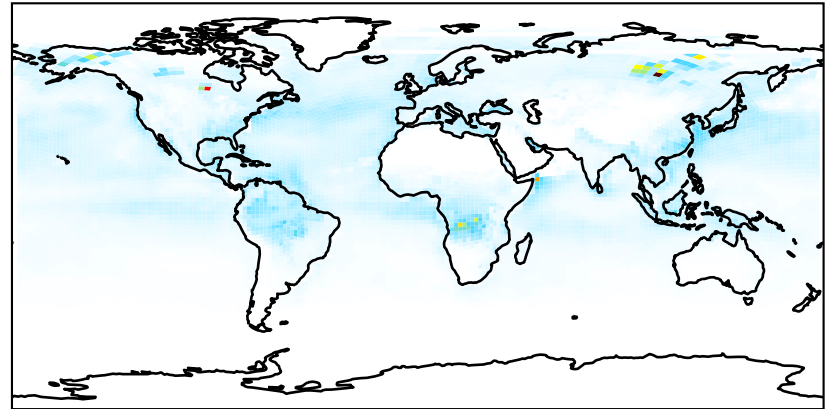
Undefined throughout domain  
unitless

# EmisALD2\_Total (Jul2019)

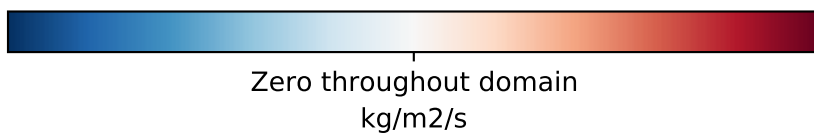
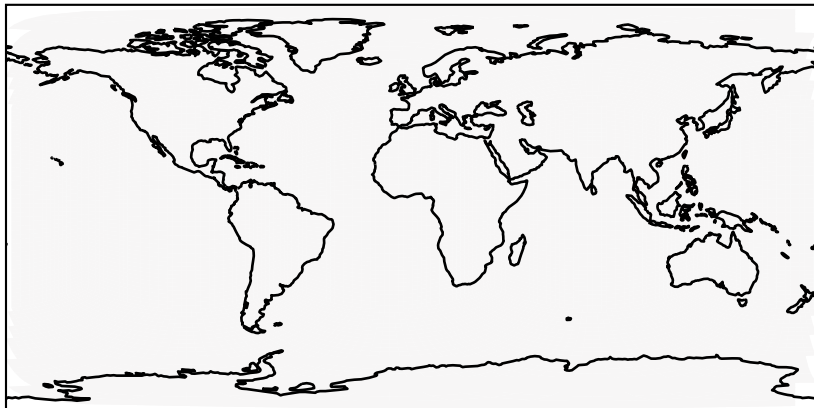
GCHP\_13.0.0-beta.1 (Ref)  
c48



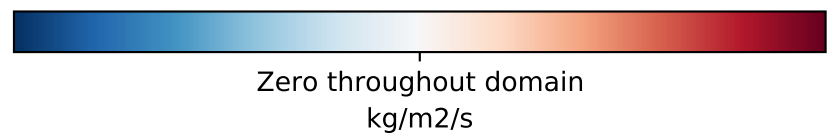
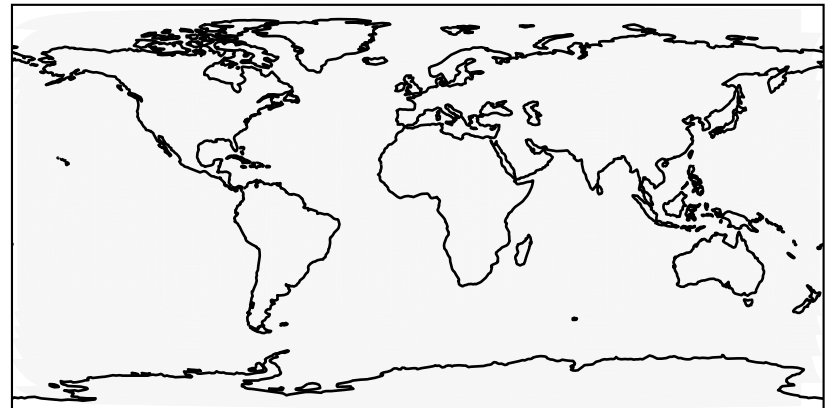
GCHP\_13.0.0-rc.0 (Dev)  
c48



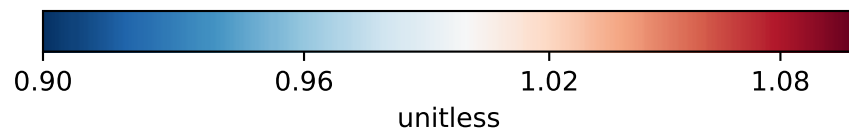
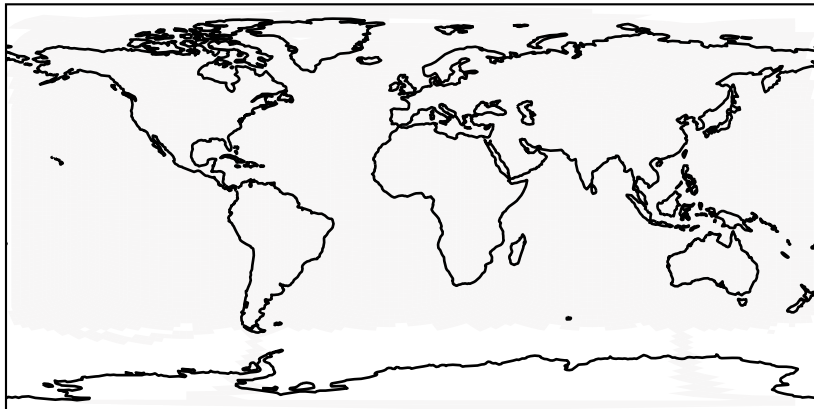
Difference  
Dev - Ref, Dynamic Range



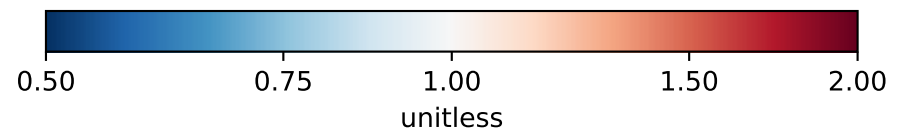
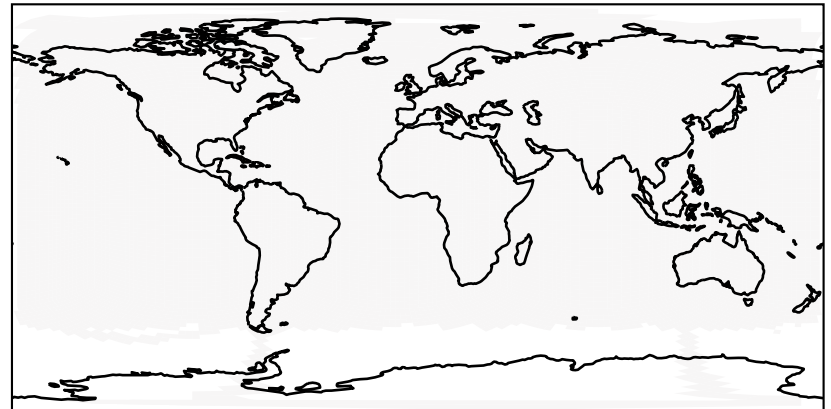
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

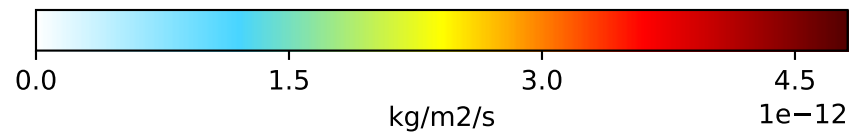
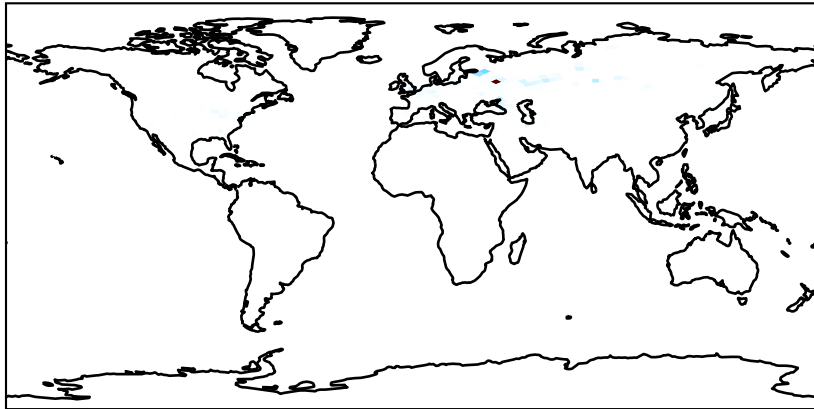


Ratio  
Dev/Ref, Fixed Range

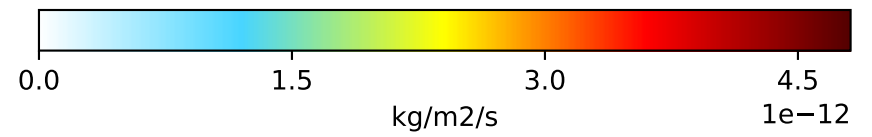
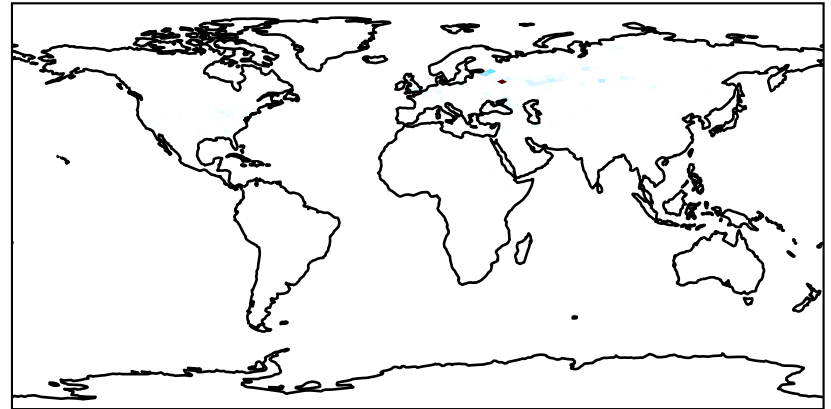


# EmisCH20\_Aircraft (Jul2019)

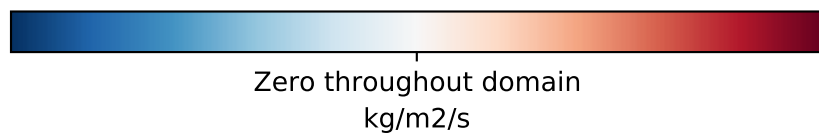
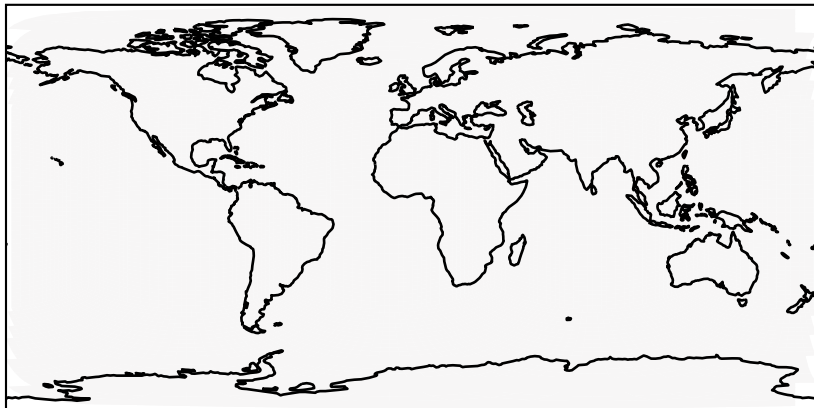
GCHP\_13.0.0-beta.1 (Ref)  
c48



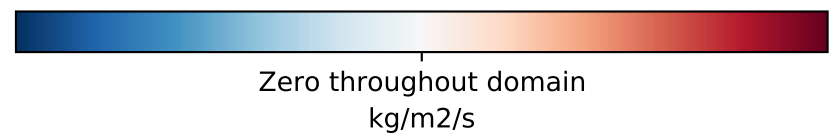
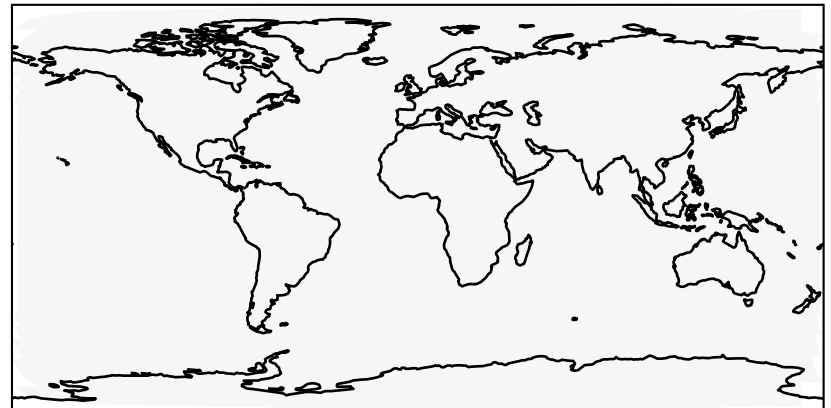
GCHP\_13.0.0-rc.0 (Dev)  
c48



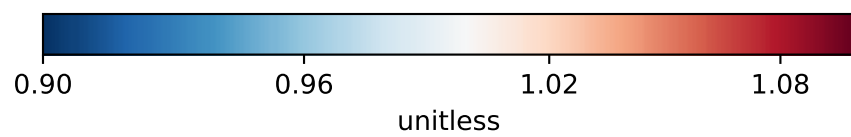
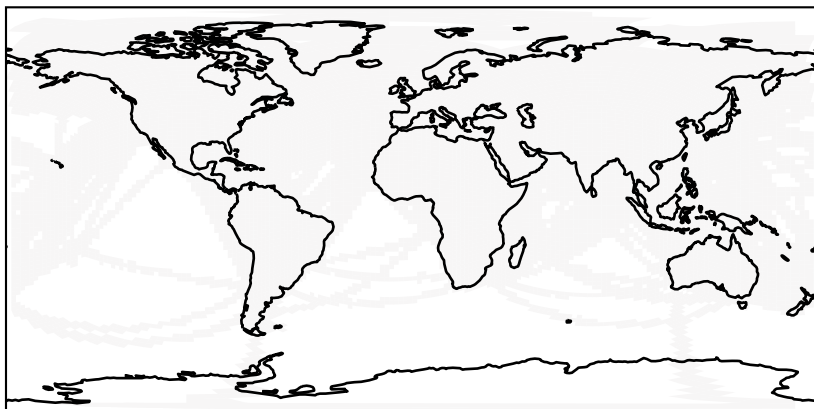
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range



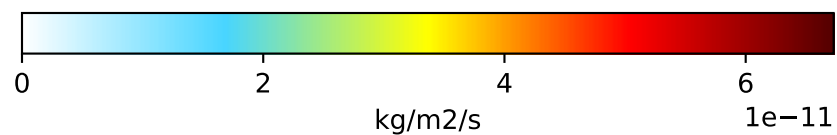
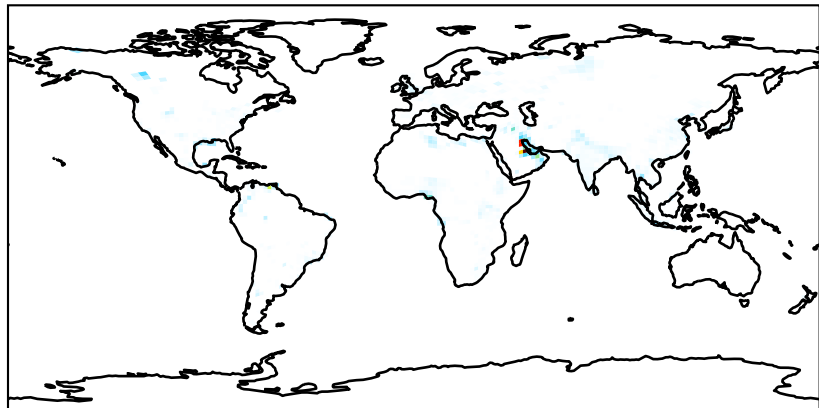
Ratio  
Dev/Ref, Fixed Range



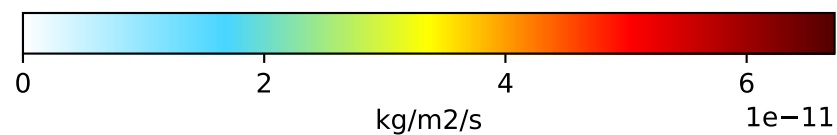
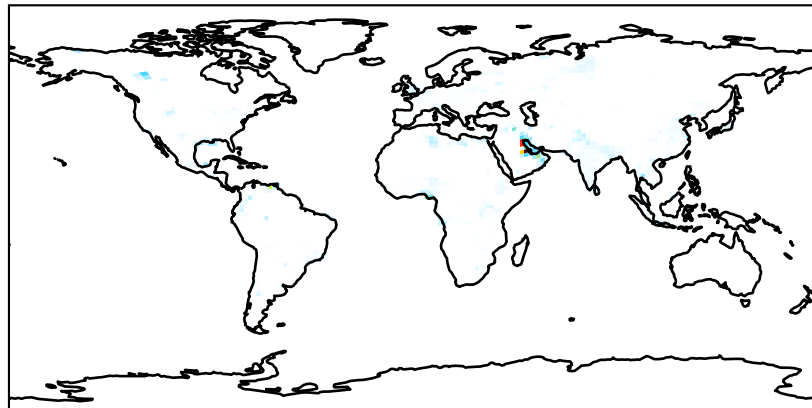


# EmisCH2O\_Anthro (Jul2019)

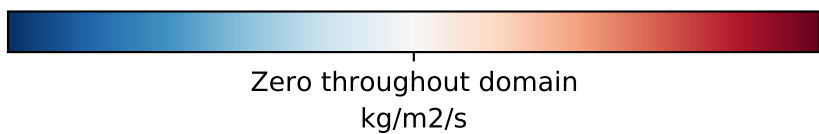
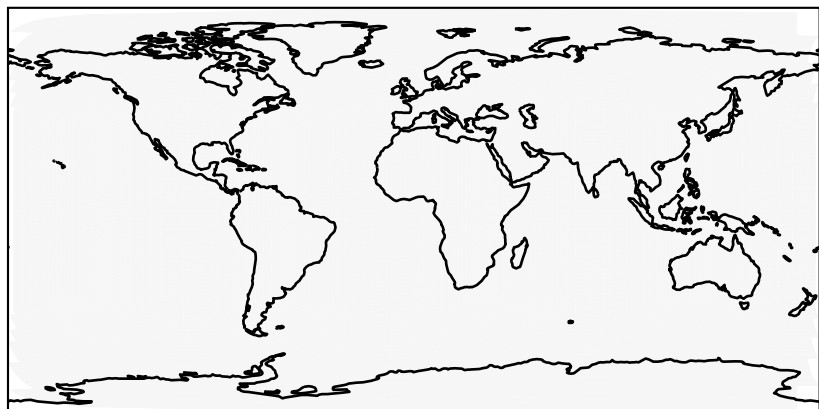
GCHP\_13.0.0-beta.1 (Ref)  
c48



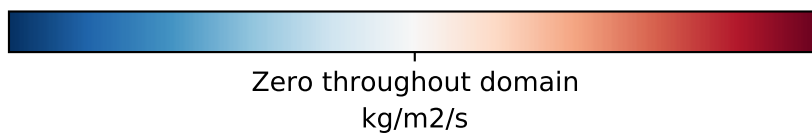
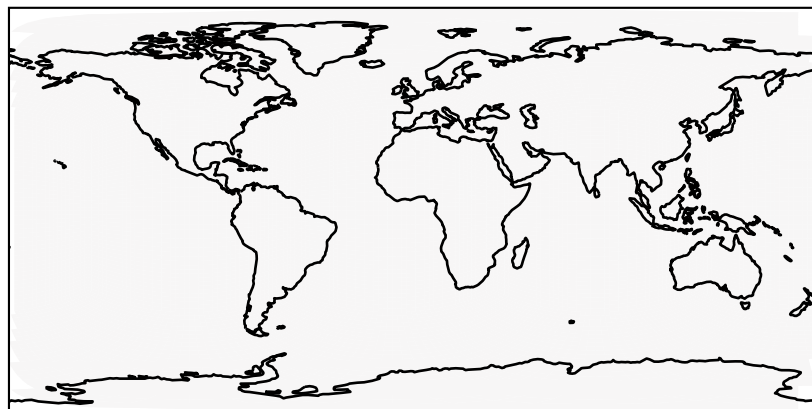
GCHP\_13.0.0-rc.0 (Dev)  
c48



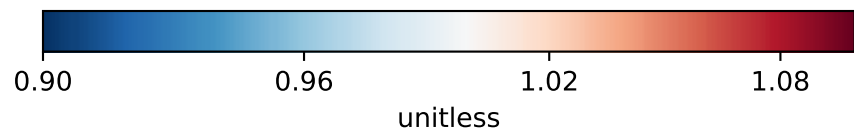
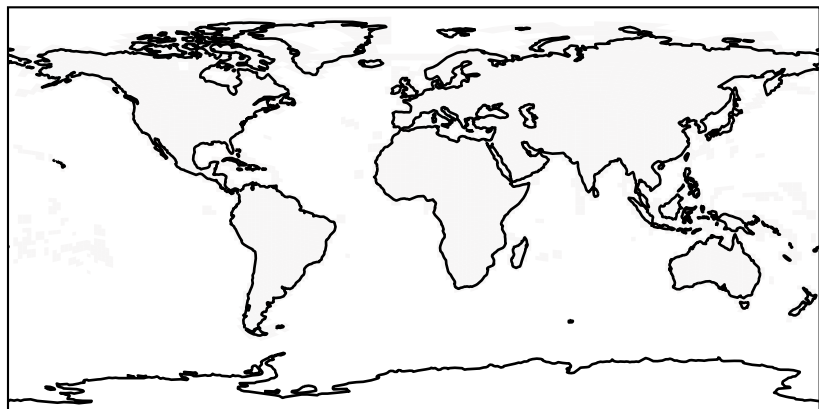
Difference  
Dev - Ref, Dynamic Range



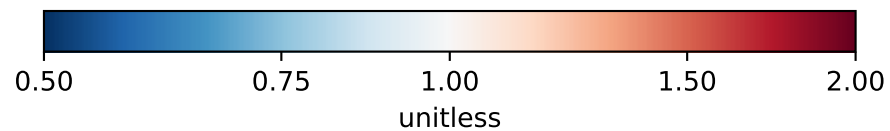
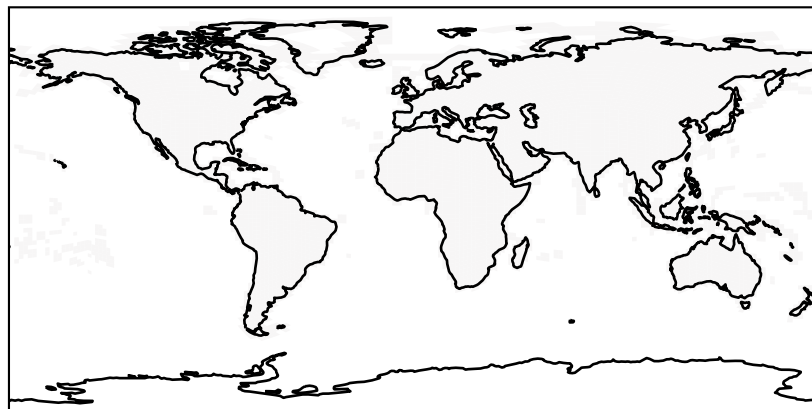
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

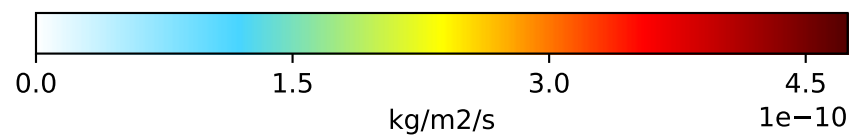
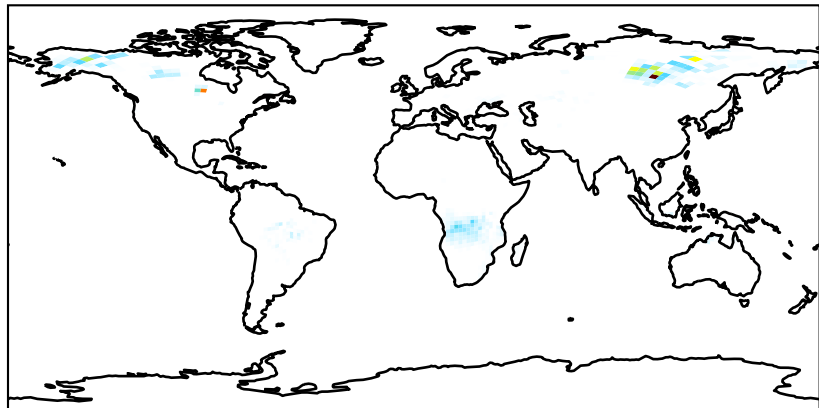


Ratio  
Dev/Ref, Fixed Range

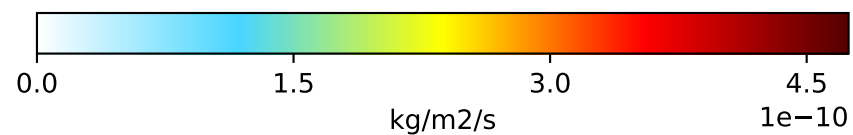
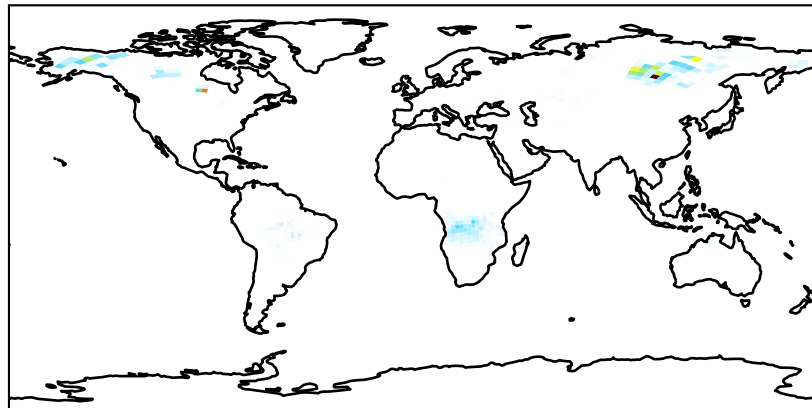


# EmisCH2O\_BioBurn (Jul2019)

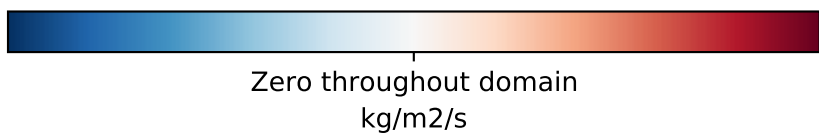
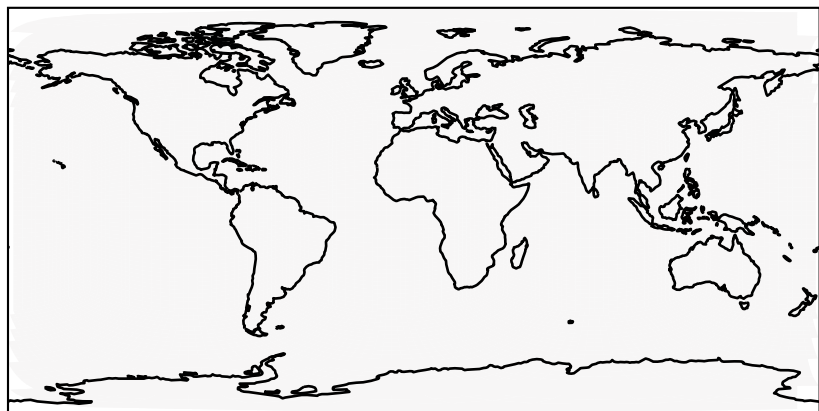
GCHP\_13.0.0-beta.1 (Ref)  
c48



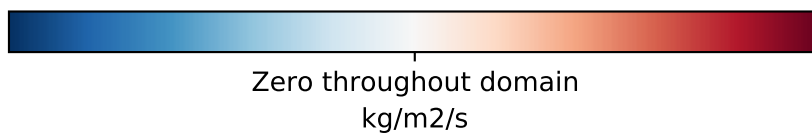
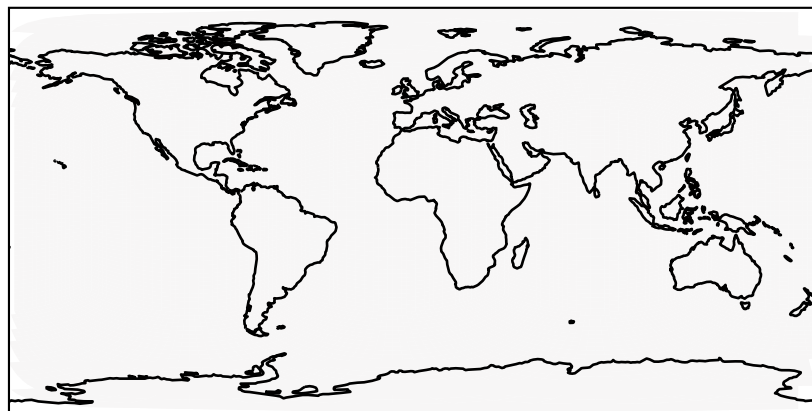
GCHP\_13.0.0-rc.0 (Dev)  
c48



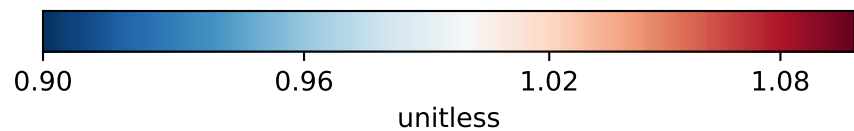
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

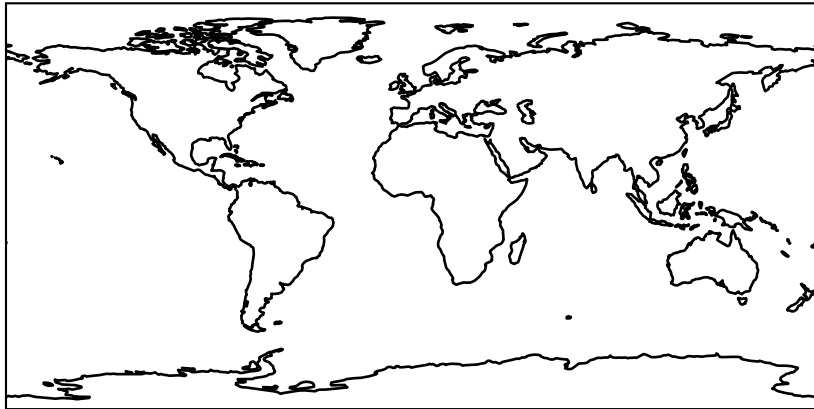


Ratio  
Dev/Ref, Fixed Range



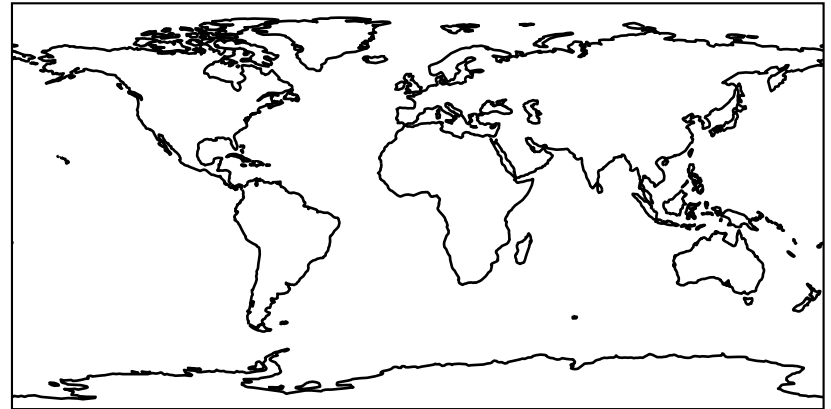
# EmisCH2O\_Ship (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



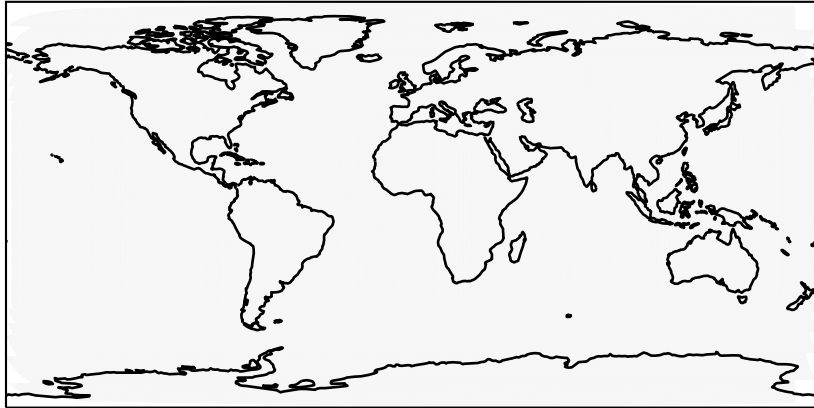
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



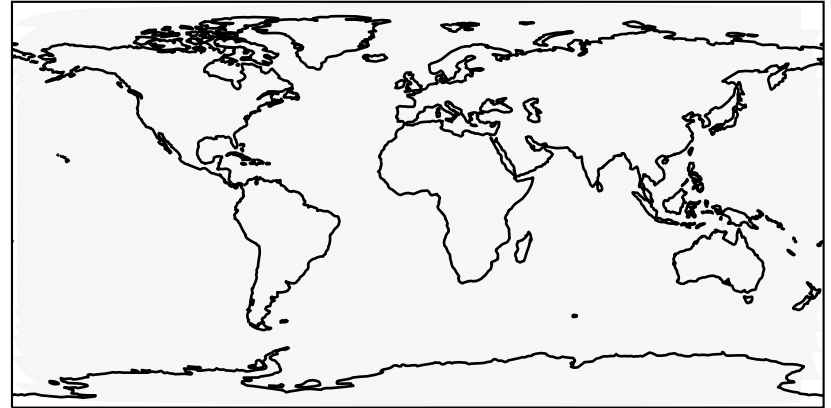
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



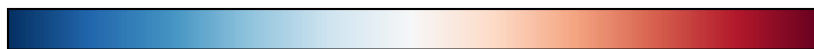
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



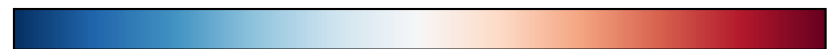
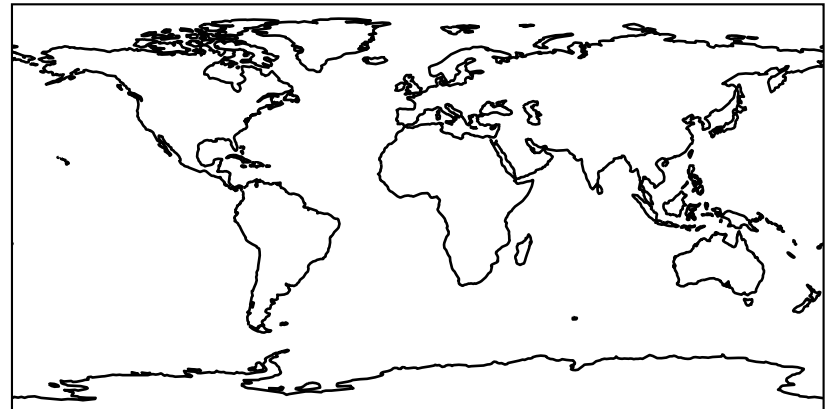
Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

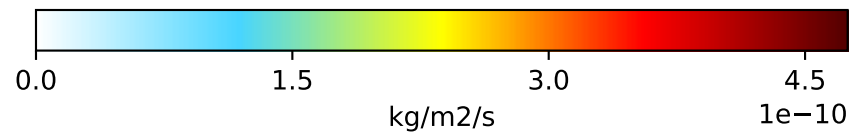
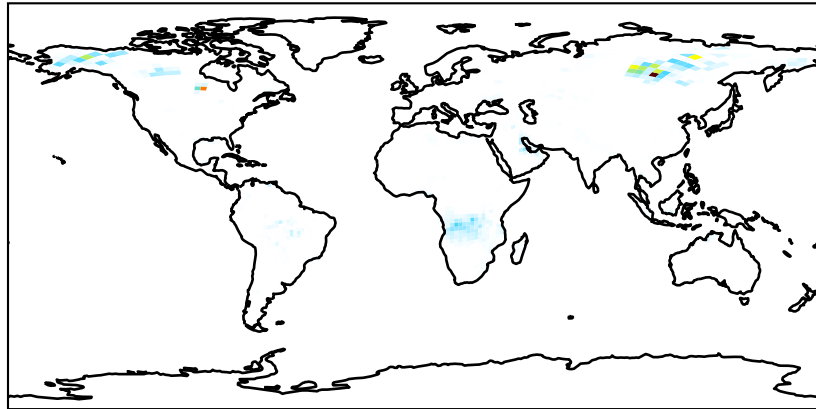
Ratio  
Dev/Ref, Fixed Range



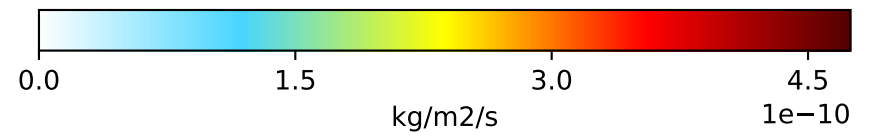
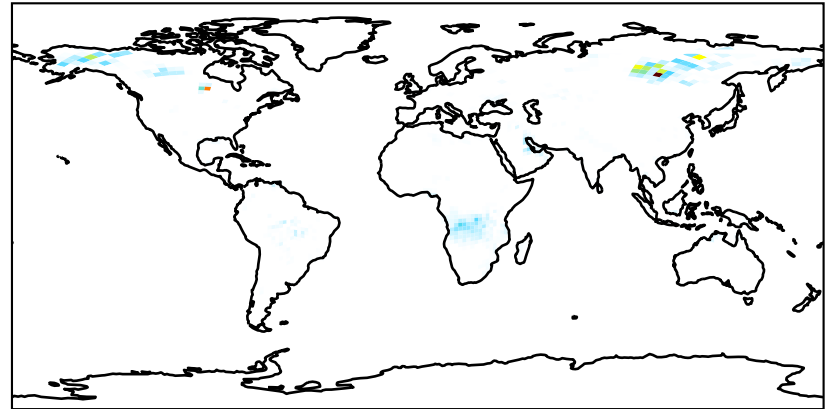
Undefined throughout domain  
unitless

# EmisCH2O\_Total (Jul2019)

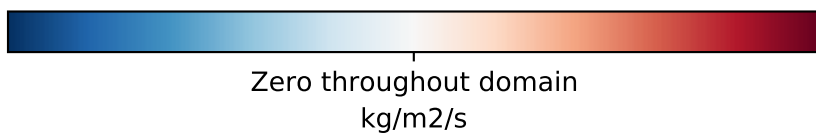
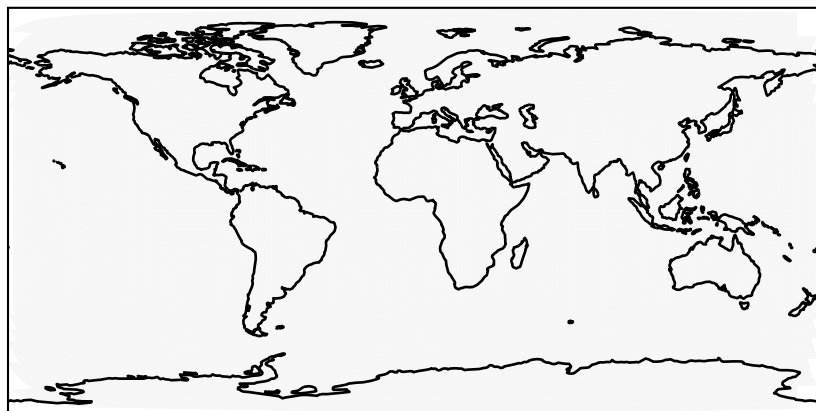
GCHP\_13.0.0-beta.1 (Ref)  
c48



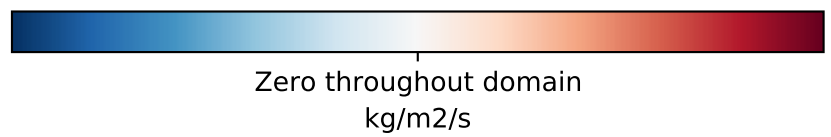
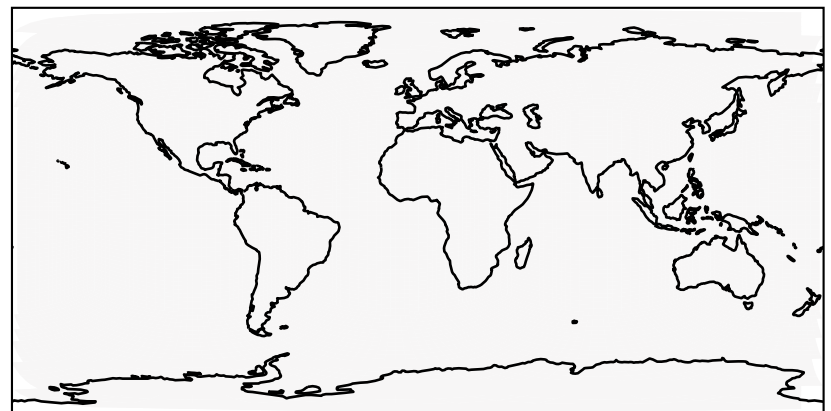
GCHP\_13.0.0-rc.0 (Dev)  
c48



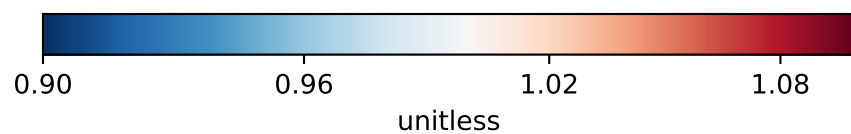
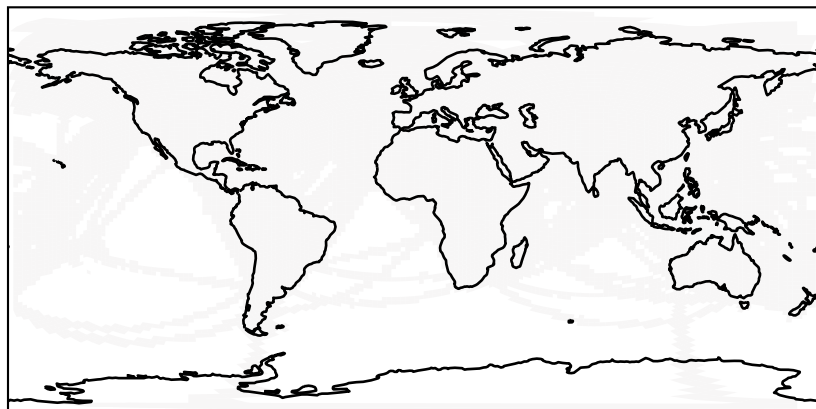
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

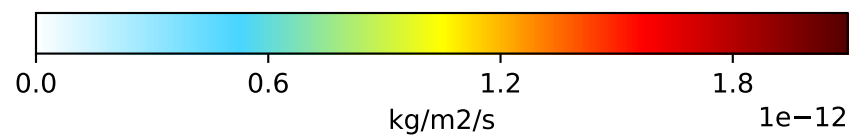


Ratio  
Dev/Ref, Fixed Range

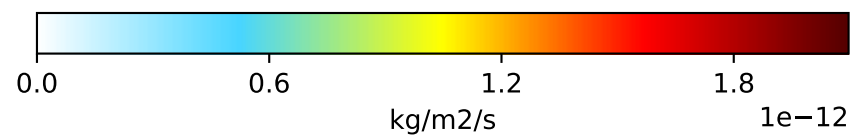


# EmisMACR\_Aircraft (Jul2019)

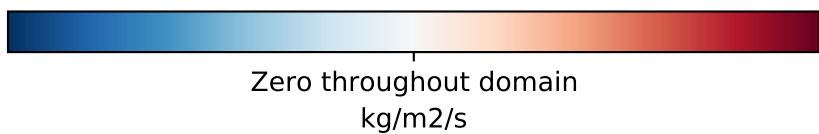
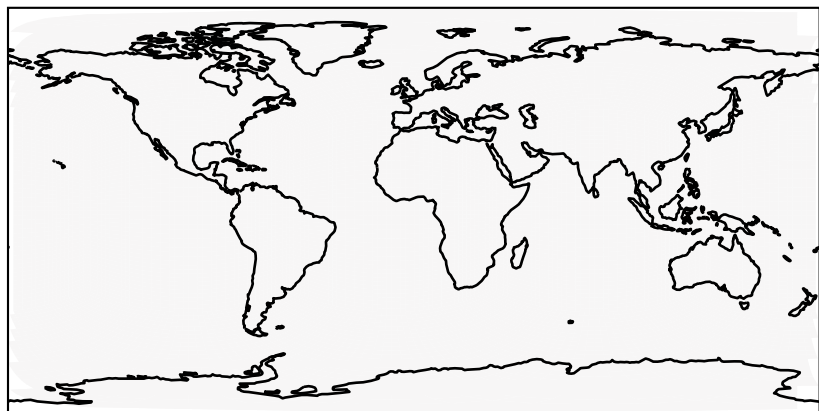
GCHP\_13.0.0-beta.1 (Ref)  
c48



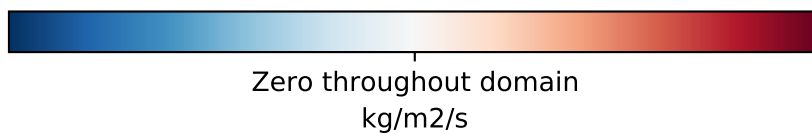
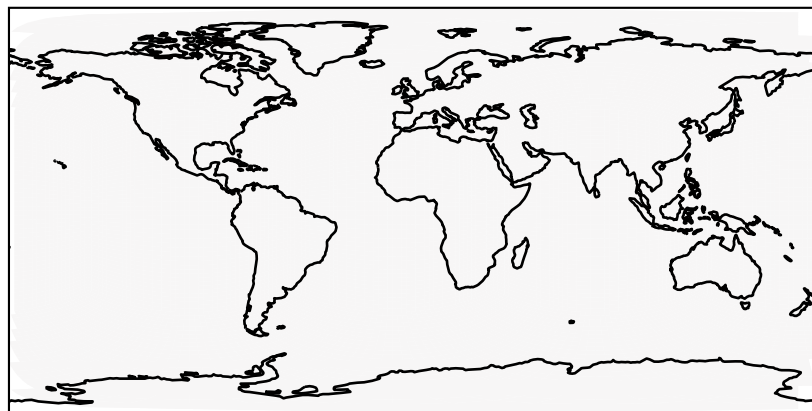
GCHP\_13.0.0-rc.0 (Dev)  
c48



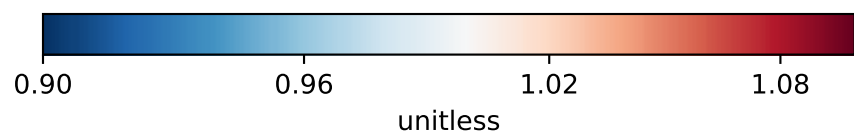
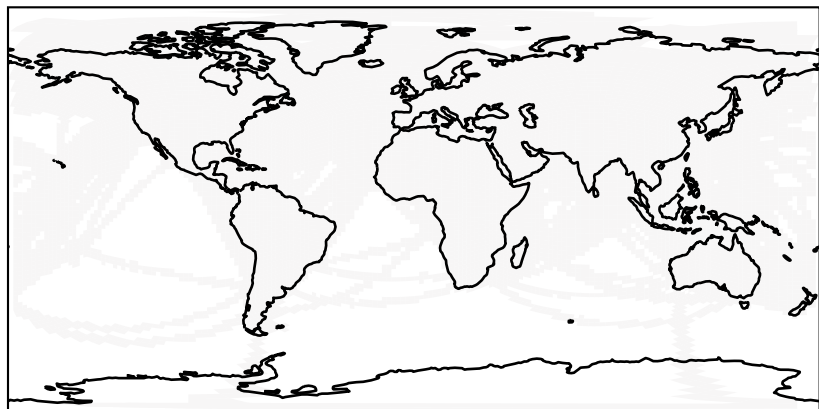
Difference  
Dev - Ref, Dynamic Range



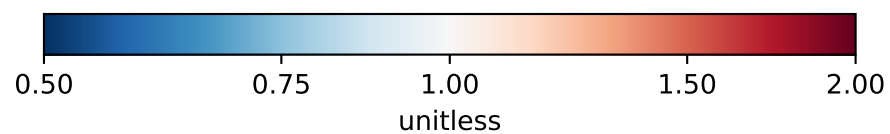
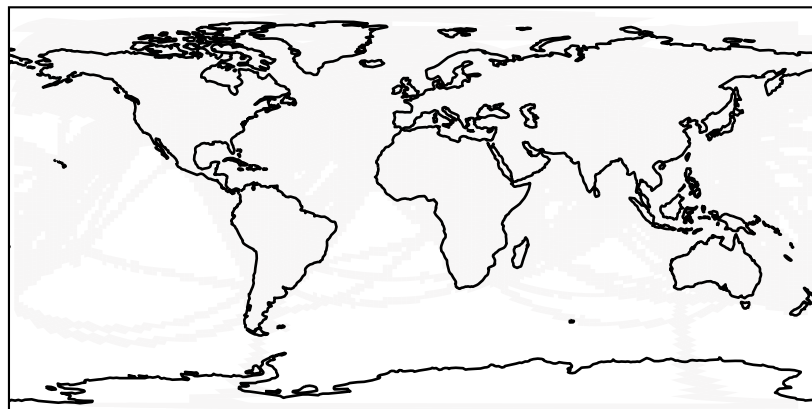
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

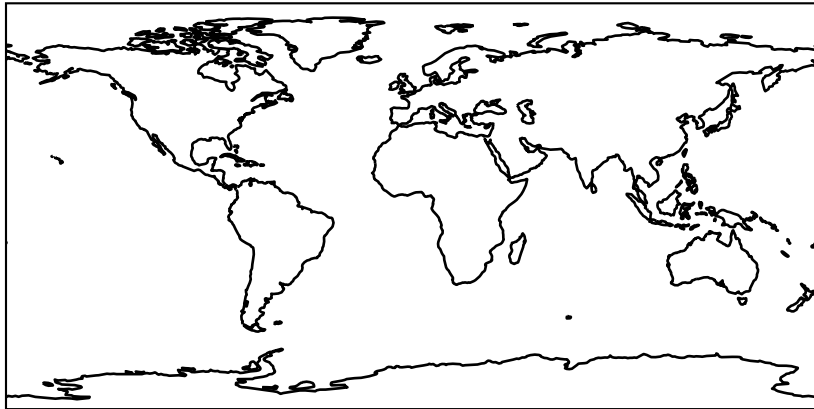


Ratio  
Dev/Ref, Fixed Range



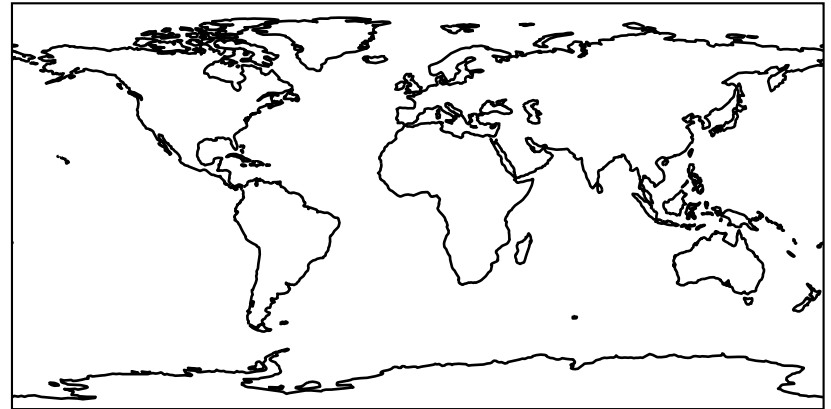
# EmisMACR\_Anthro (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



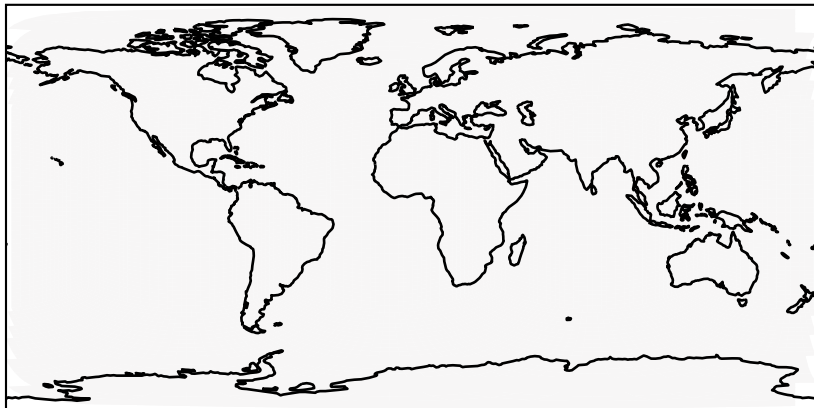
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



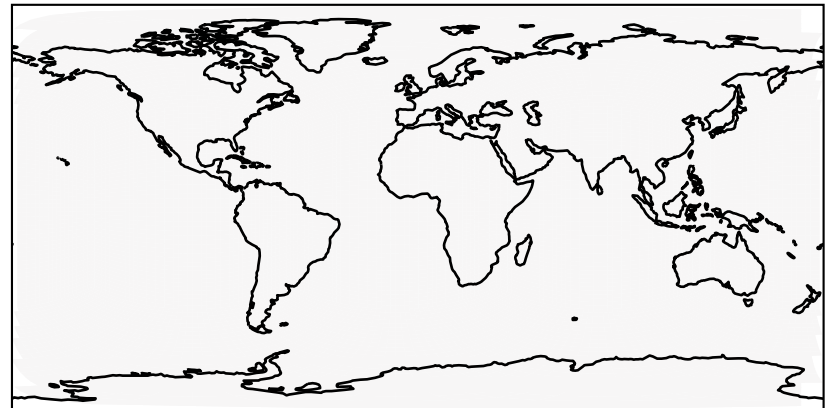
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

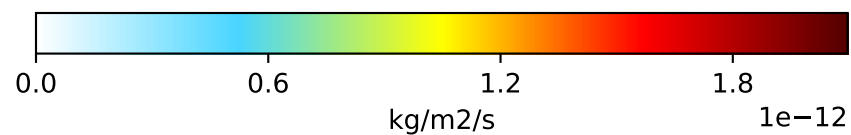
Ratio  
Dev/Ref, Fixed Range



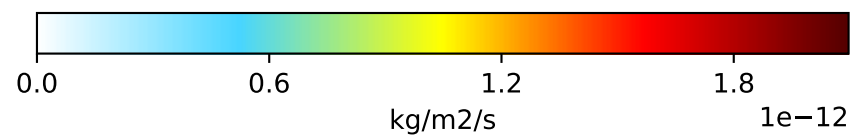
Undefined throughout domain  
unitless

# EmisMACR\_Total (Jul2019)

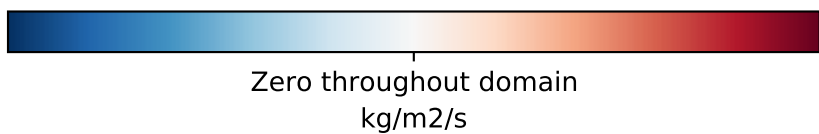
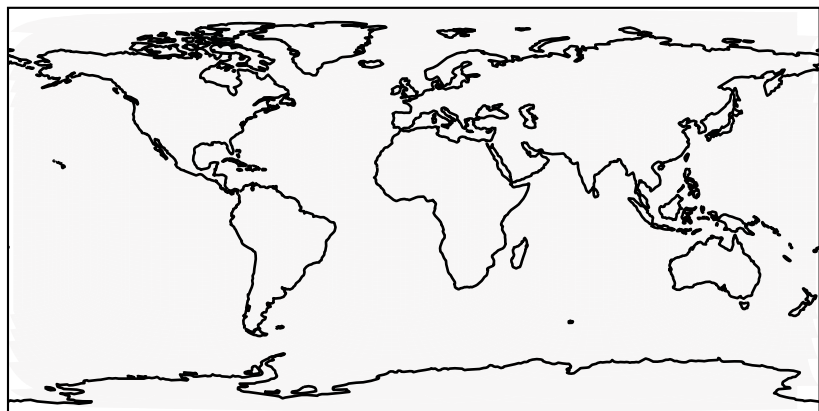
GCHP\_13.0.0-beta.1 (Ref)  
c48



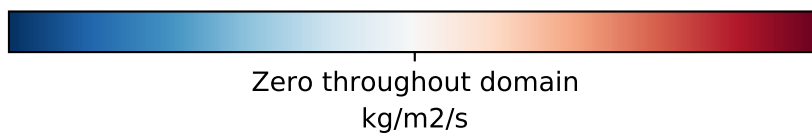
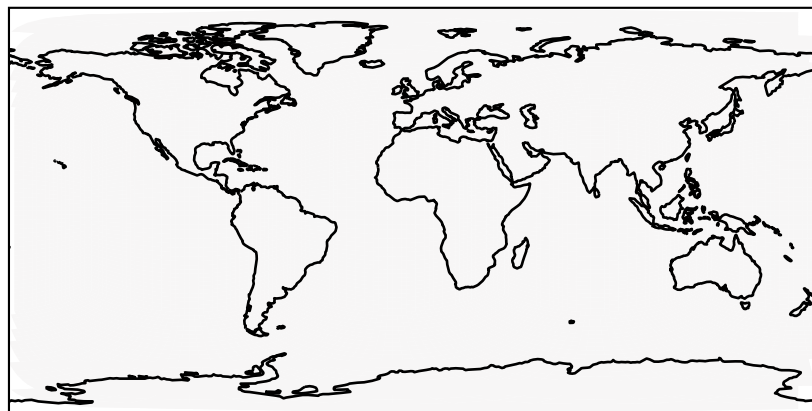
GCHP\_13.0.0-rc.0 (Dev)  
c48



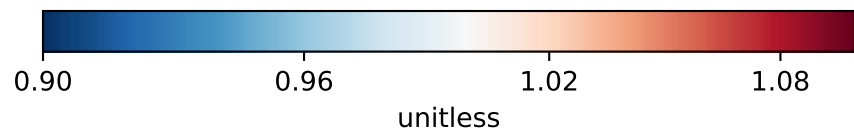
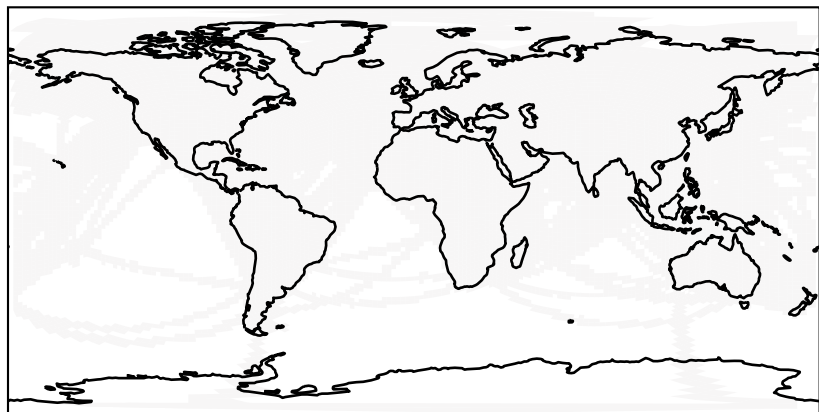
Difference  
Dev - Ref, Dynamic Range



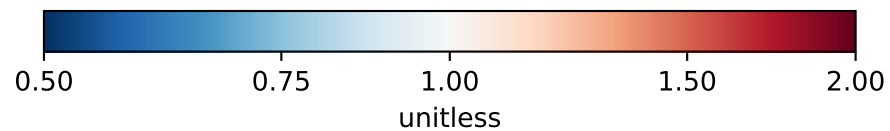
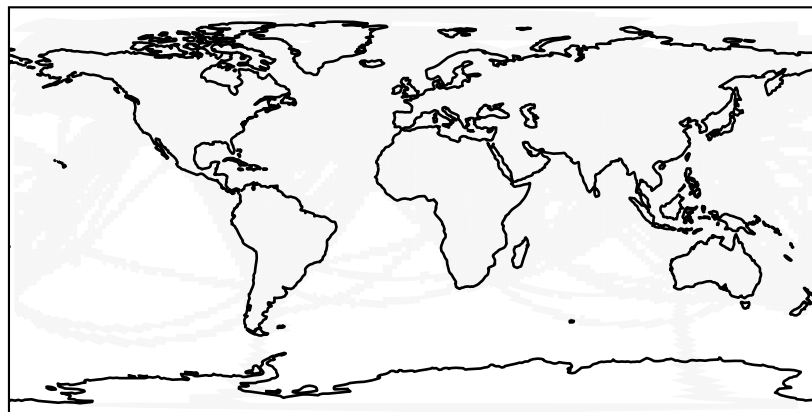
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

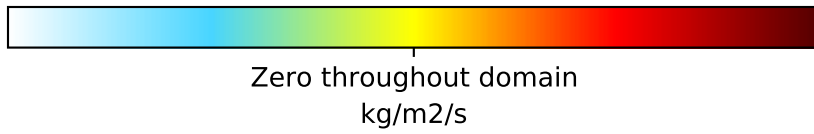
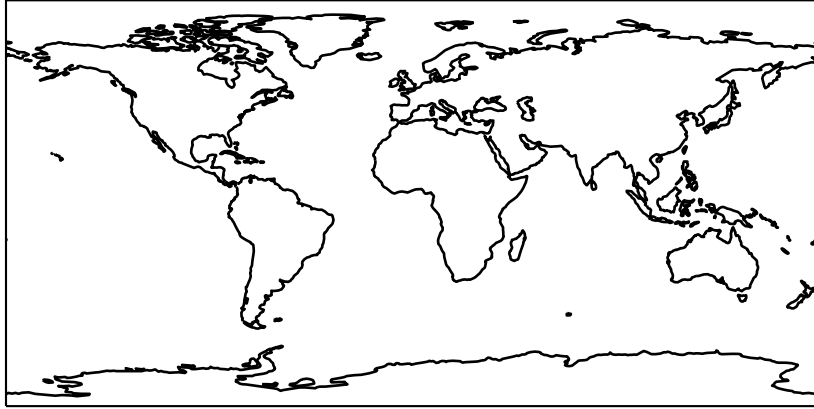


Ratio  
Dev/Ref, Fixed Range

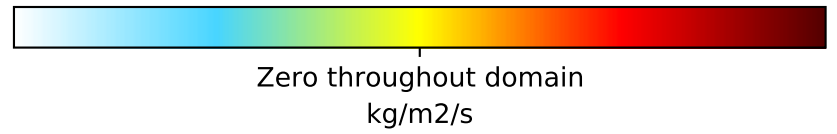
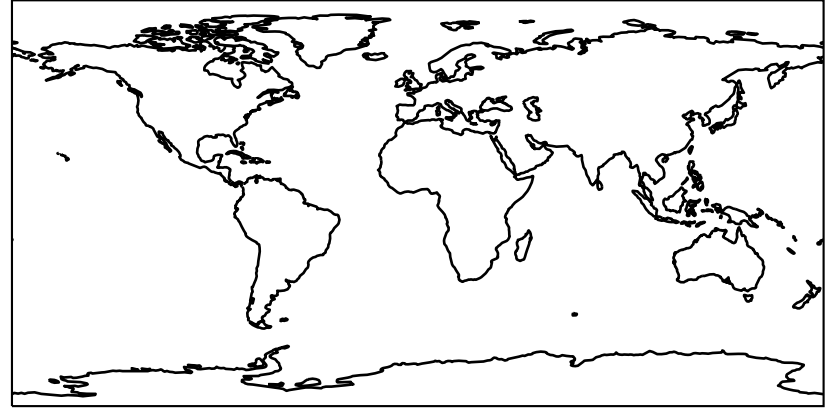


# EmisACET\_Anthro (Jul2019)

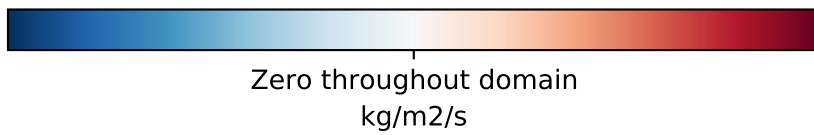
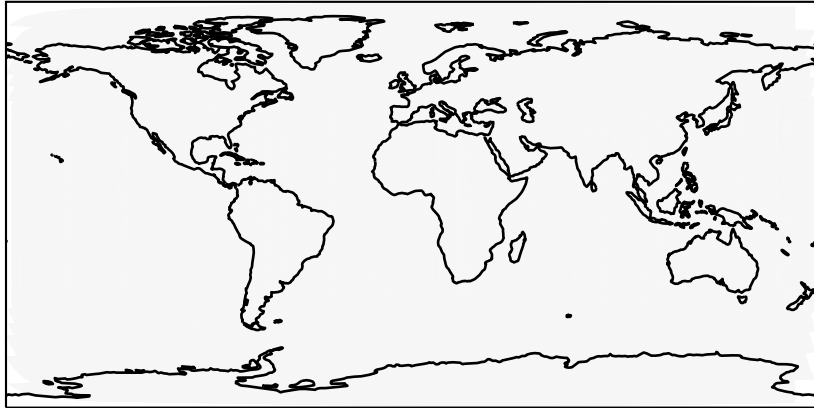
GCHP\_13.0.0-beta.1 (Ref)  
c48



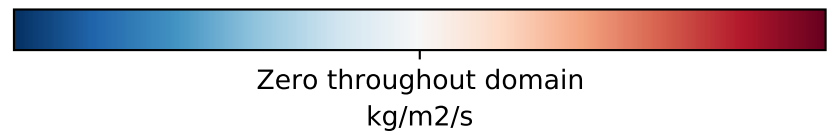
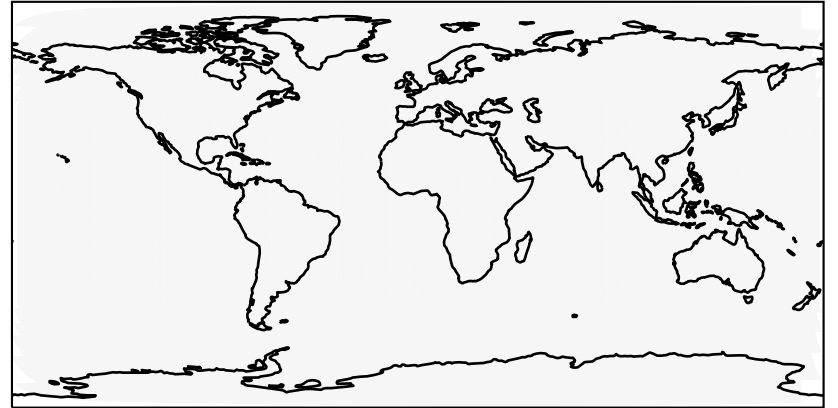
GCHP\_13.0.0-rc.0 (Dev)  
c48



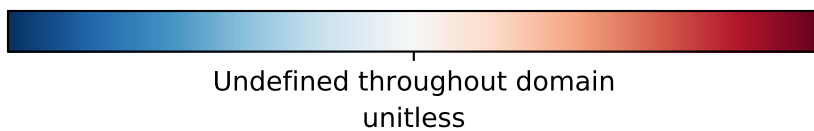
Difference  
Dev - Ref, Dynamic Range



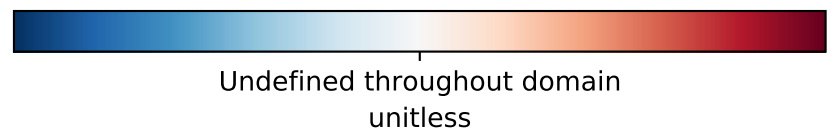
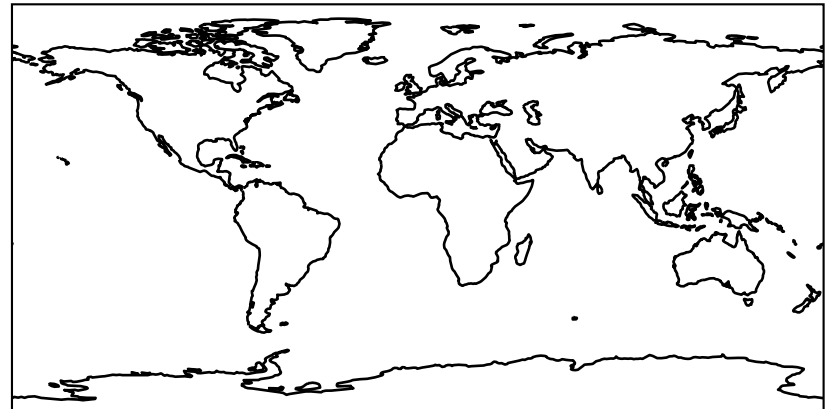
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range



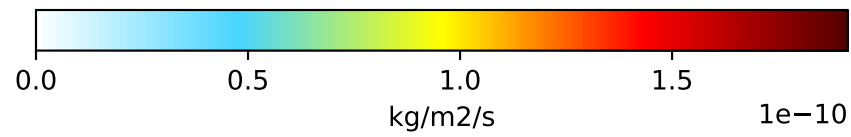
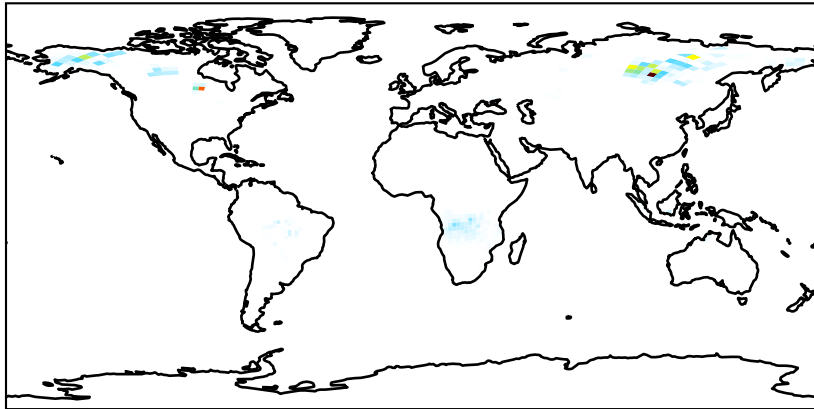
Ratio  
Dev/Ref, Fixed Range



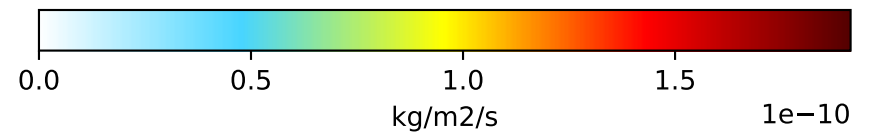
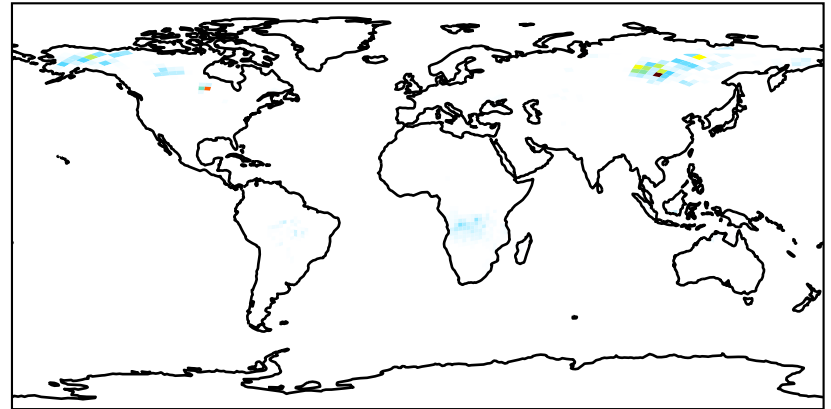


# EmisACET\_BioBurn (Jul2019)

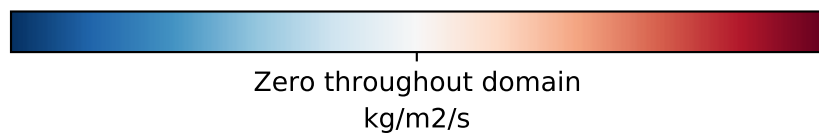
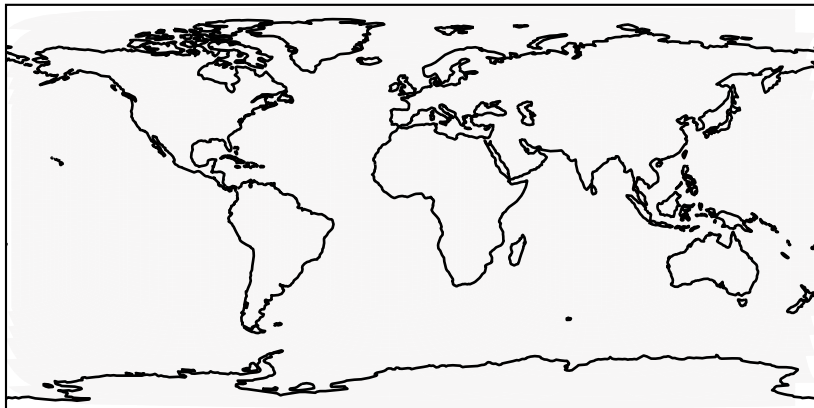
GCHP\_13.0.0-beta.1 (Ref)  
c48



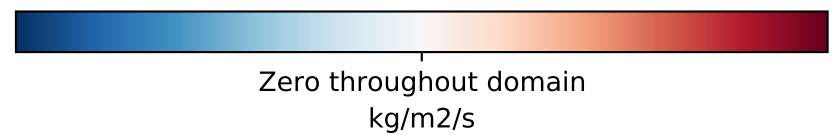
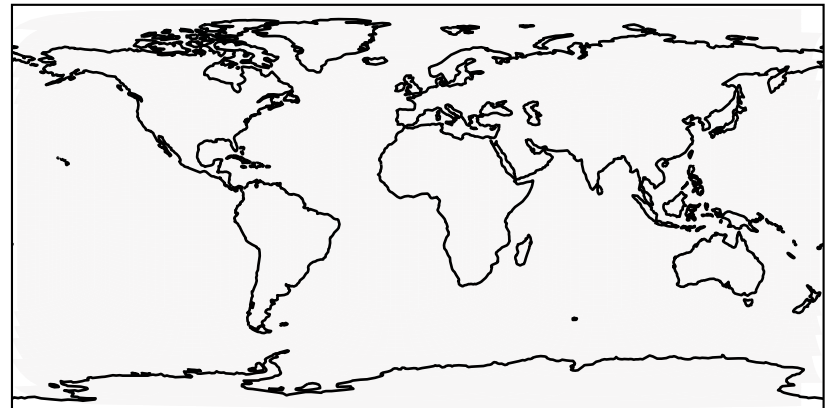
GCHP\_13.0.0-rc.0 (Dev)  
c48



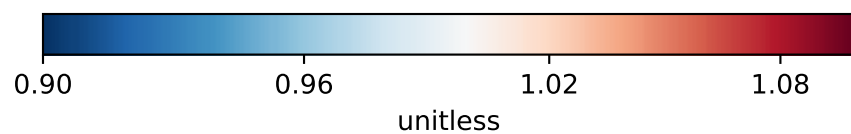
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

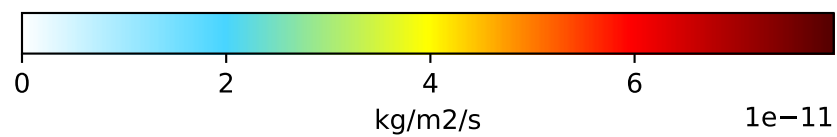
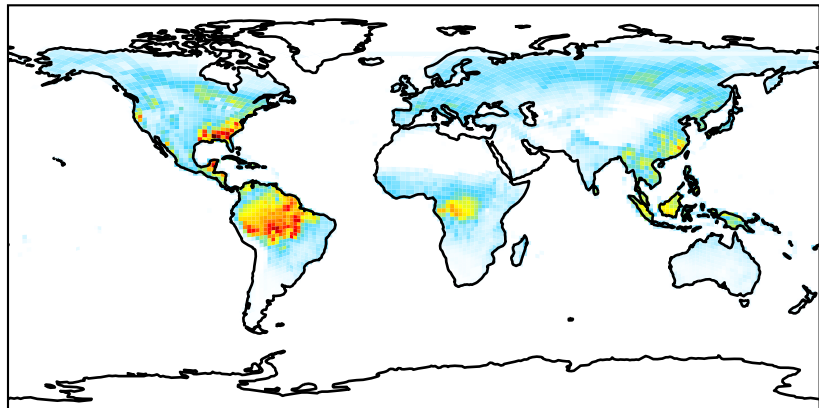


Ratio  
Dev/Ref, Fixed Range

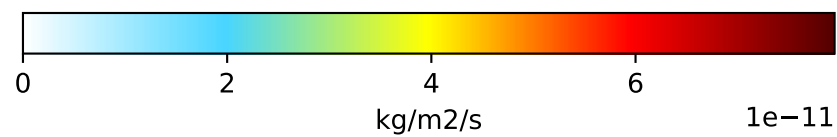
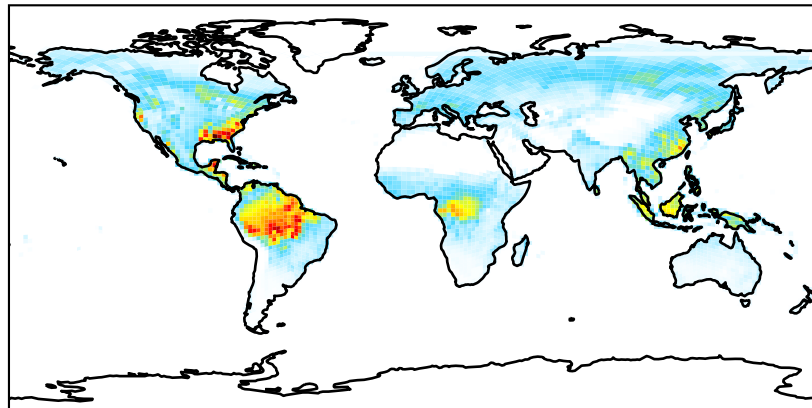


# EmisACET\_Biogenic (Jul2019)

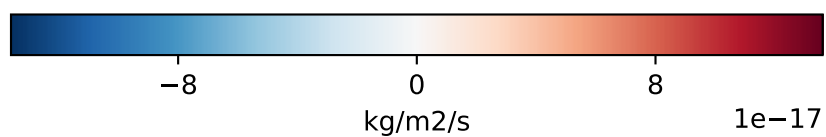
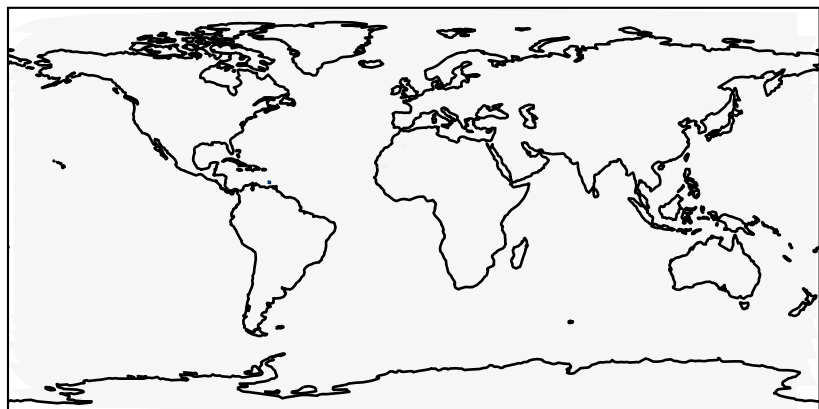
GCHP\_13.0.0-beta.1 (Ref)  
c48



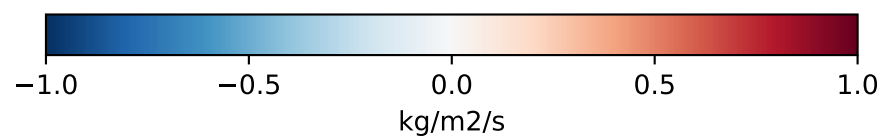
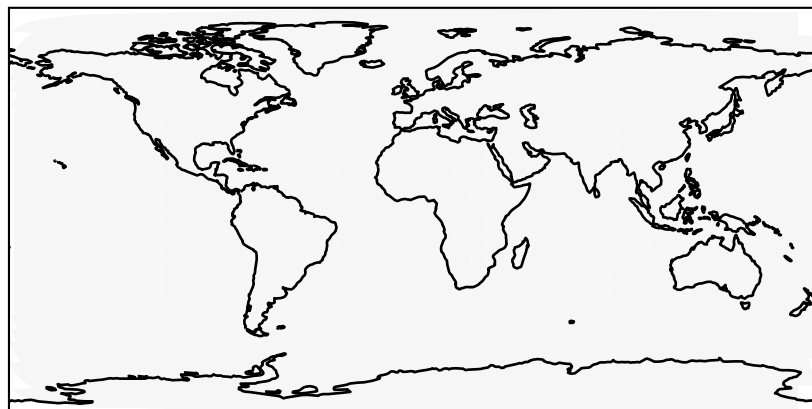
GCHP\_13.0.0-rc.0 (Dev)  
c48



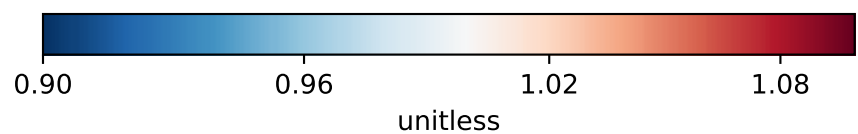
Difference  
Dev - Ref, Dynamic Range



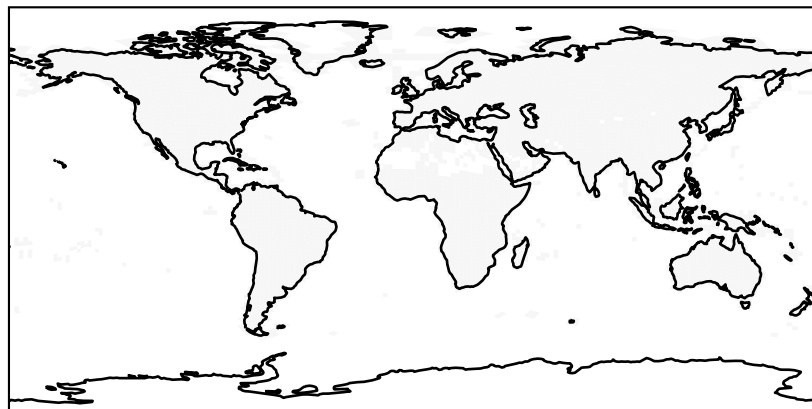
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

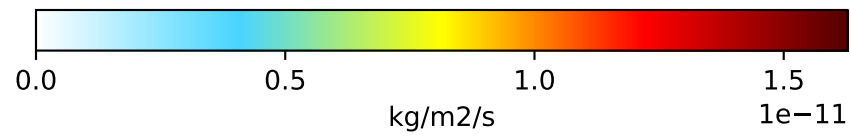
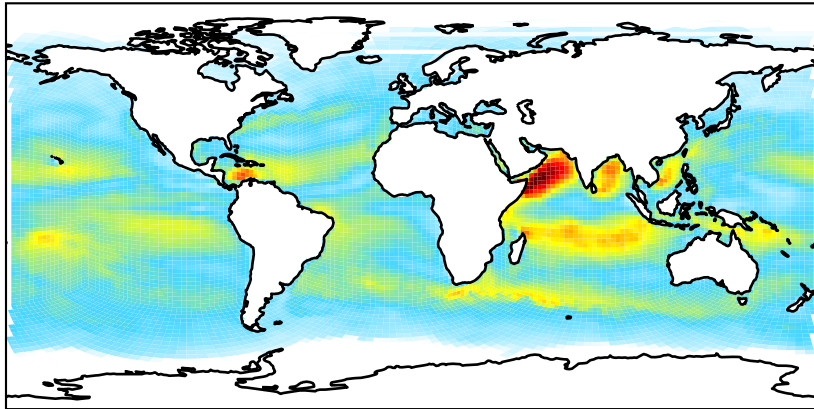


Ratio  
Dev/Ref, Fixed Range

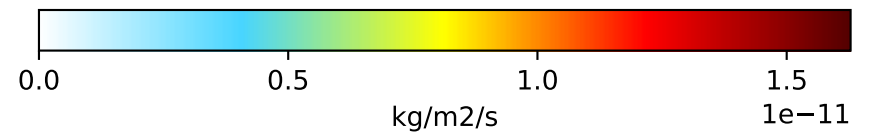
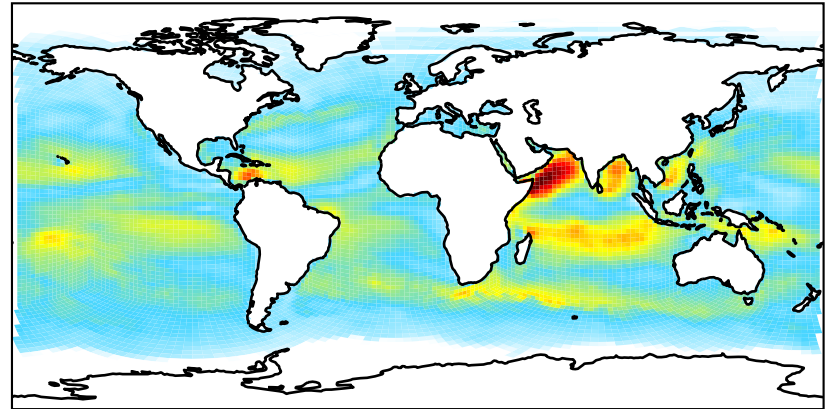


# EmisACET\_Ocean (Jul2019)

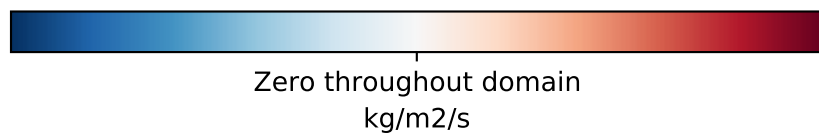
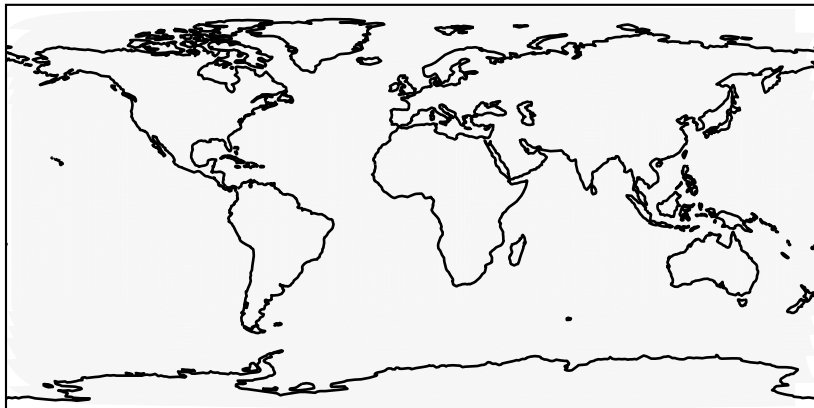
GCHP\_13.0.0-beta.1 (Ref)  
c48



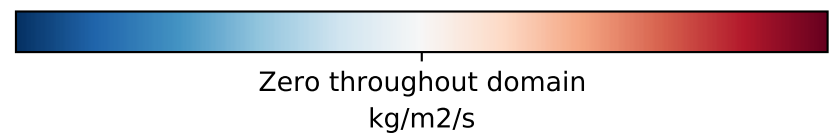
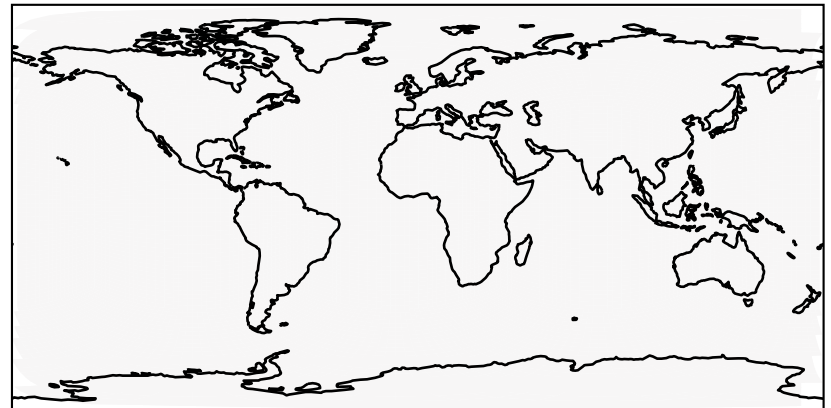
GCHP\_13.0.0-rc.0 (Dev)  
c48



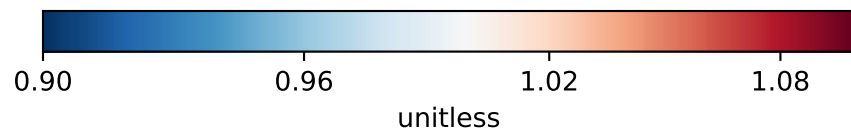
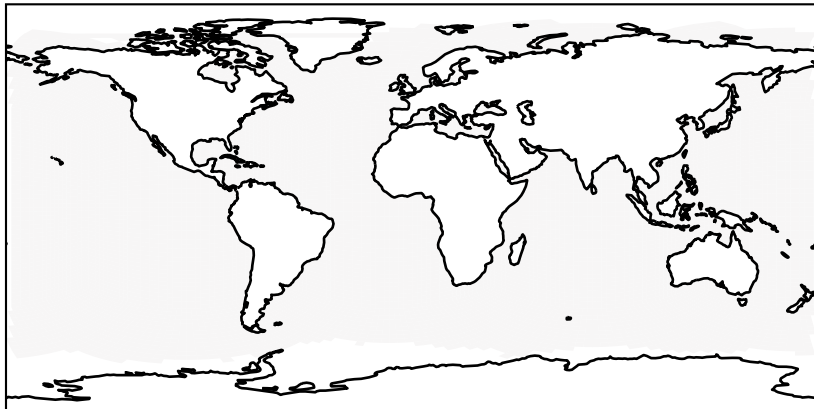
Difference  
Dev - Ref, Dynamic Range



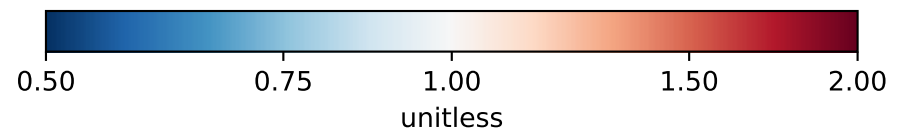
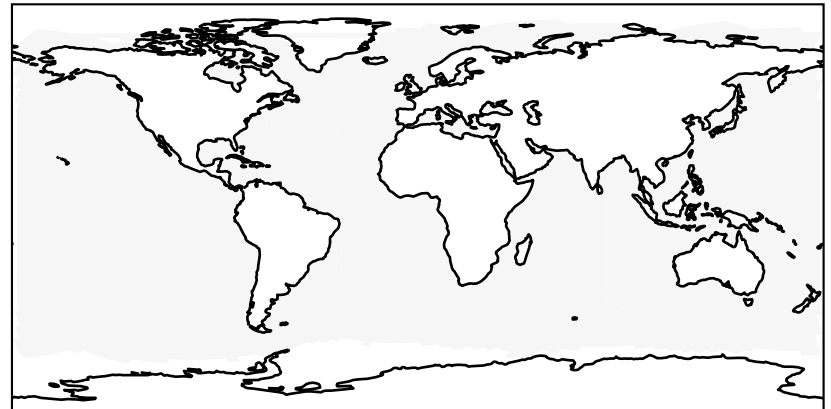
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

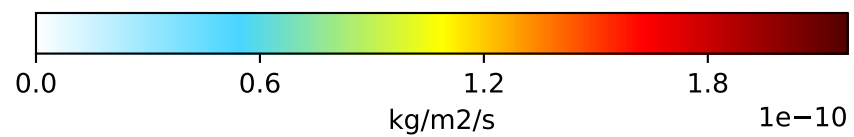
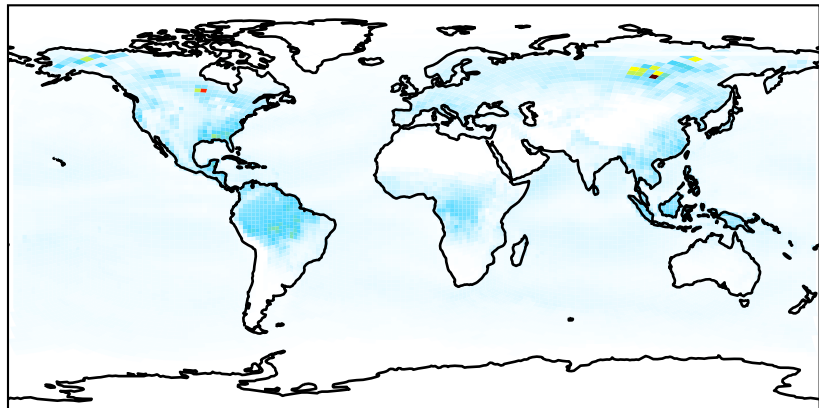


Ratio  
Dev/Ref, Fixed Range

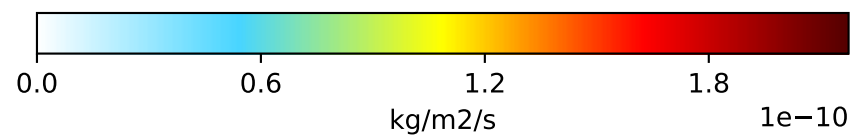
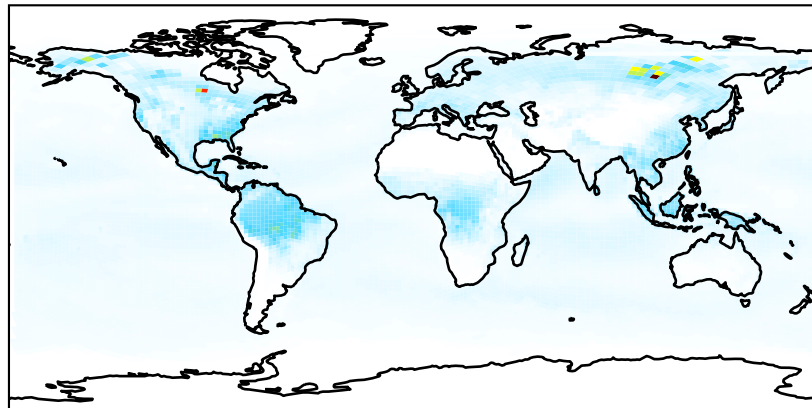


# EmisACET\_Total (Jul2019)

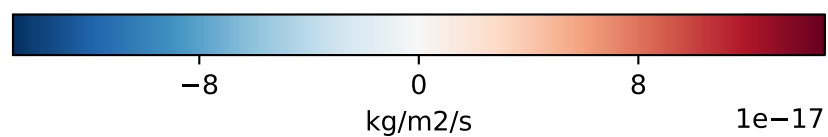
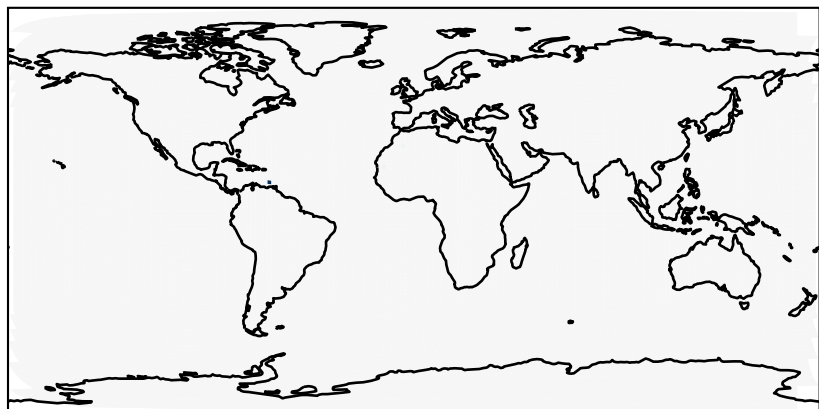
GCHP\_13.0.0-beta.1 (Ref)  
c48



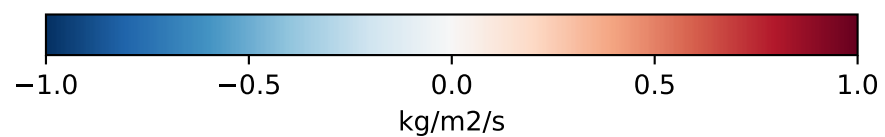
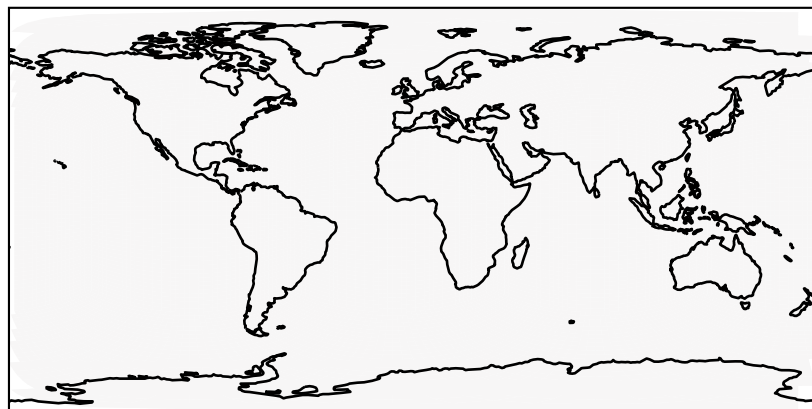
GCHP\_13.0.0-rc.0 (Dev)  
c48



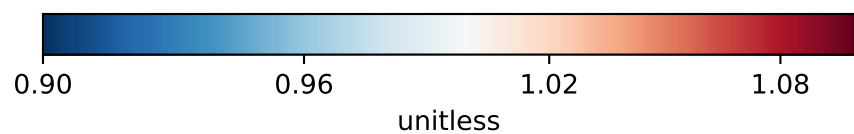
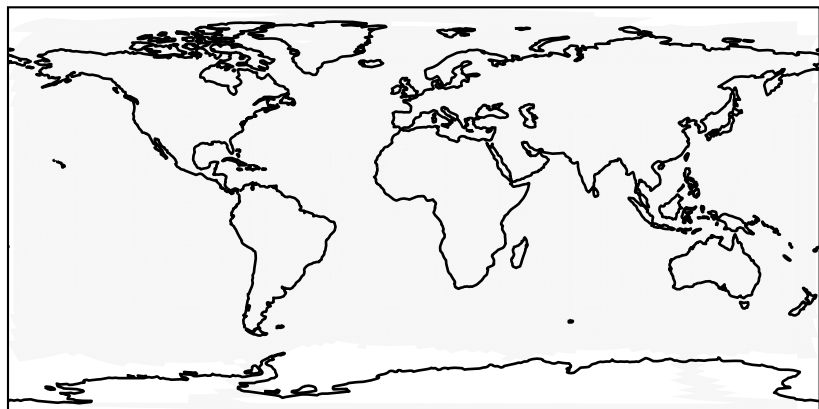
Difference  
Dev - Ref, Dynamic Range



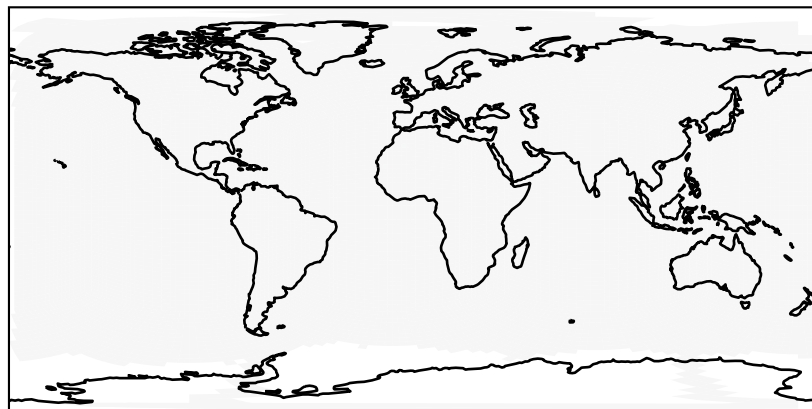
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

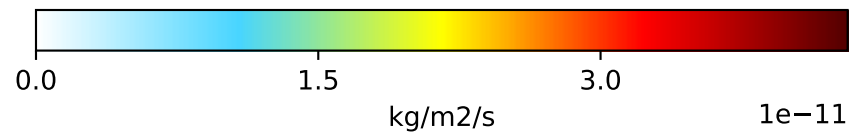
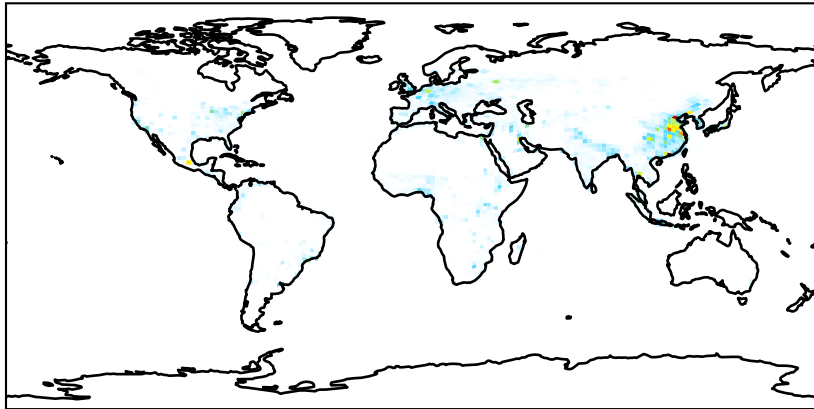


Ratio  
Dev/Ref, Fixed Range

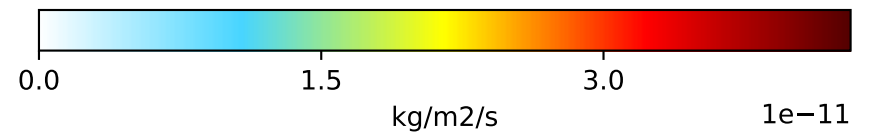
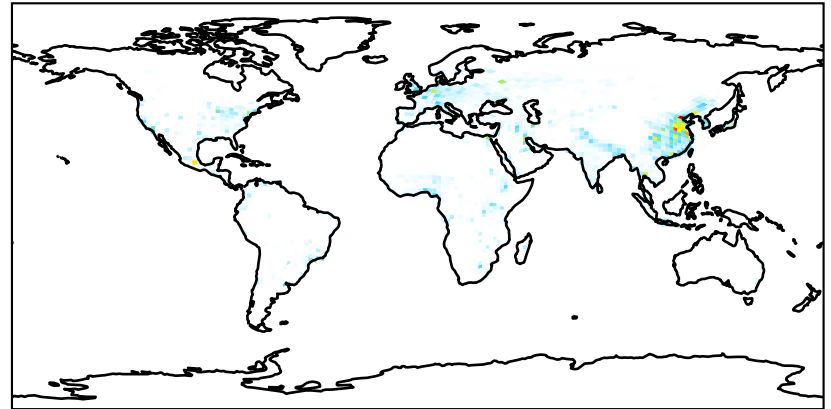


# EmisMEK\_Anthro (Jul2019)

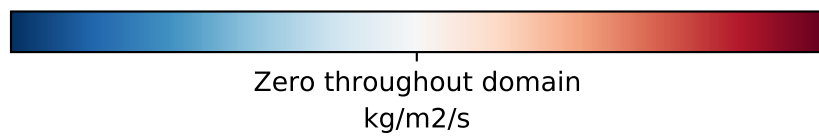
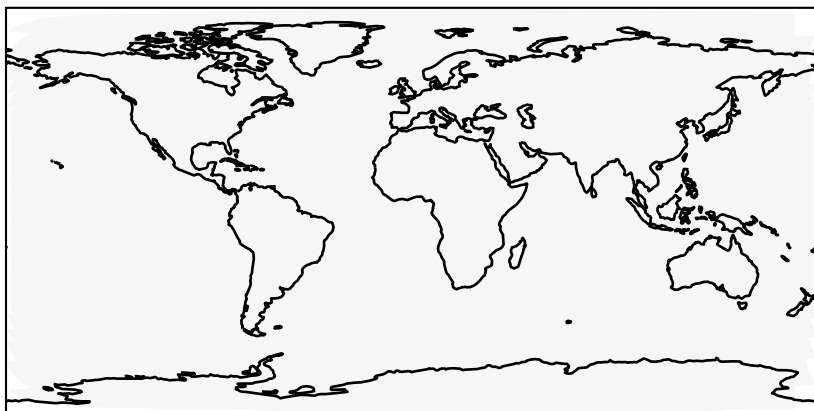
GCHP\_13.0.0-beta.1 (Ref)  
c48



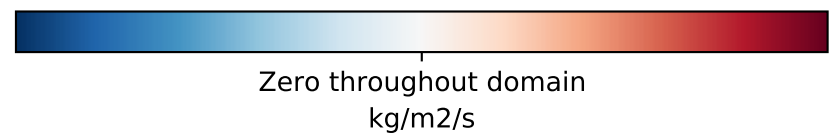
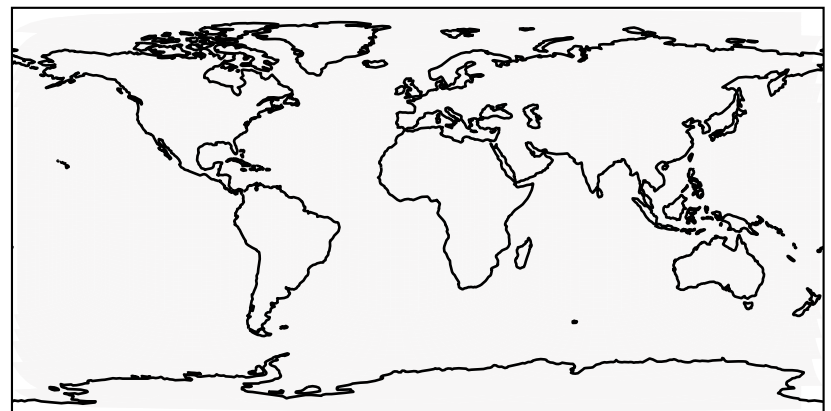
GCHP\_13.0.0-rc.0 (Dev)  
c48



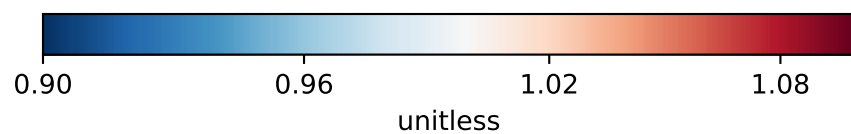
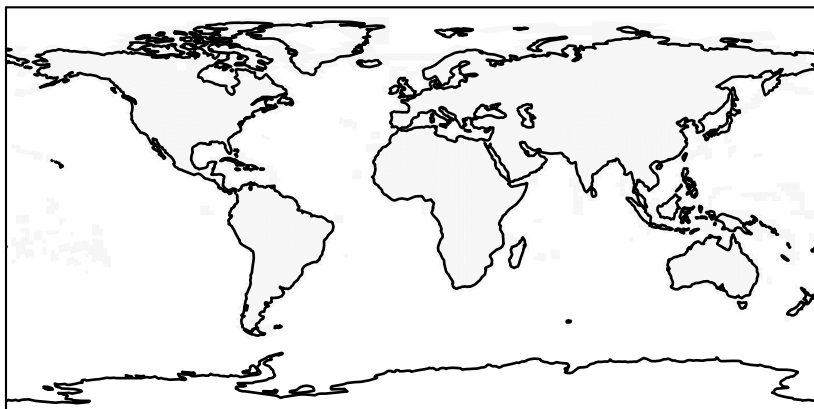
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

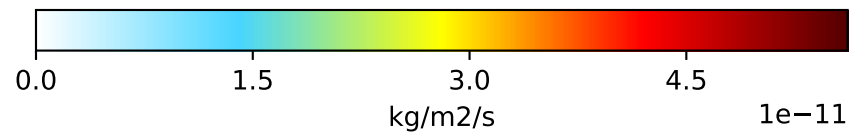
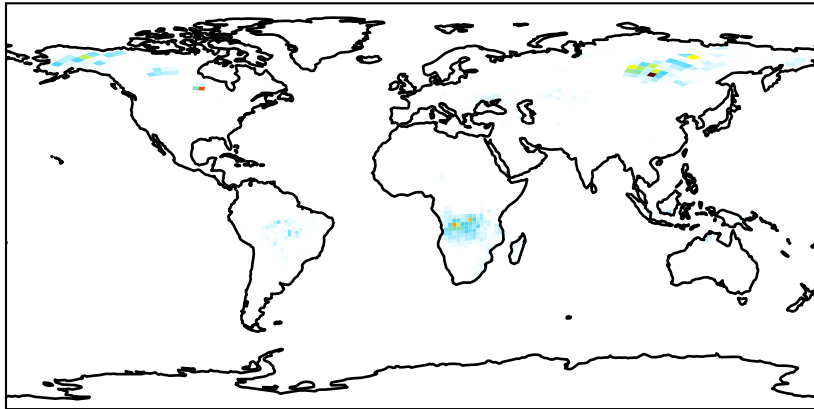


Ratio  
Dev/Ref, Fixed Range

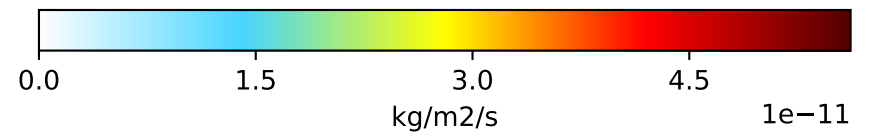
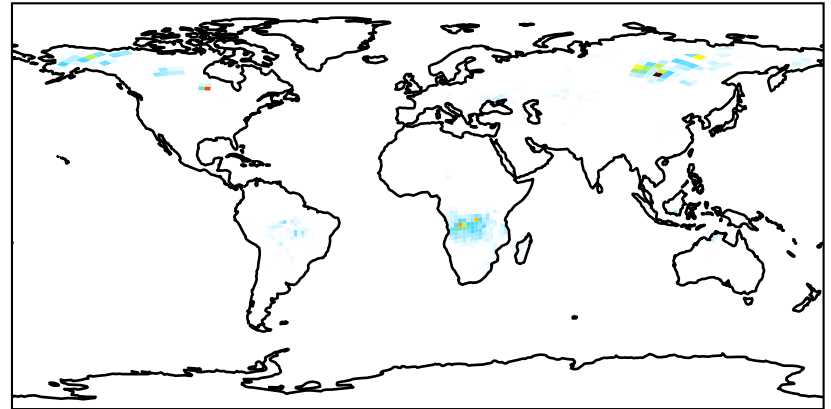


# EmisMEK\_BioBurn (Jul2019)

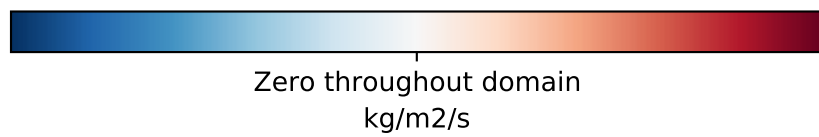
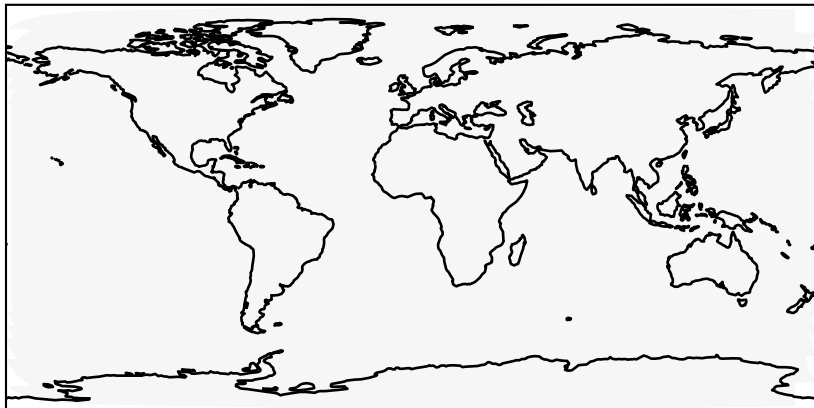
GCHP\_13.0.0-beta.1 (Ref)  
c48



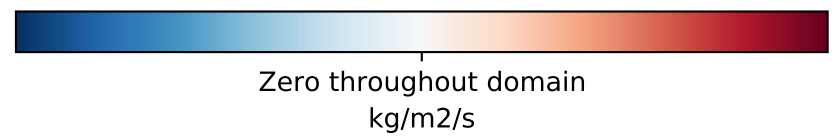
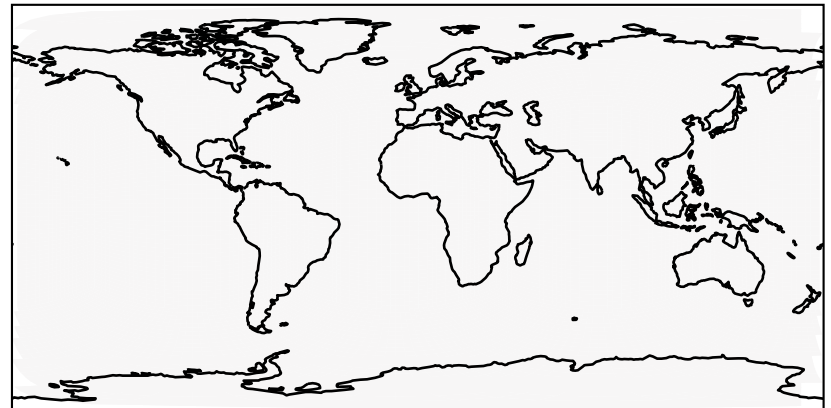
GCHP\_13.0.0-rc.0 (Dev)  
c48



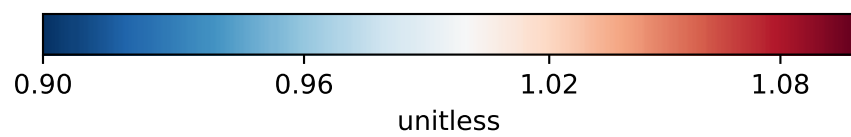
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

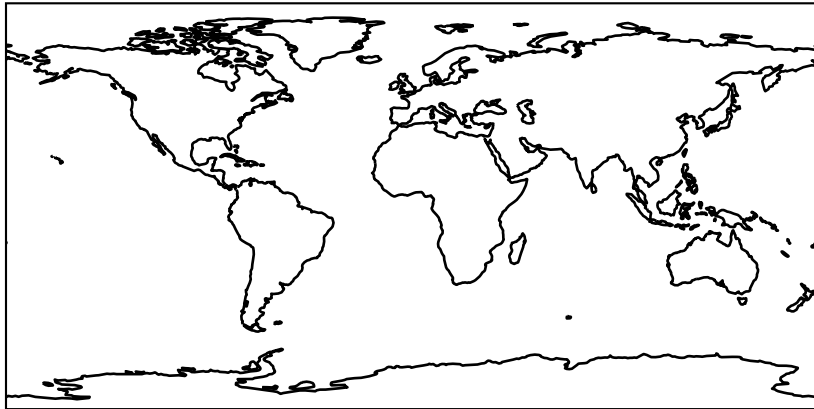


Ratio  
Dev/Ref, Fixed Range



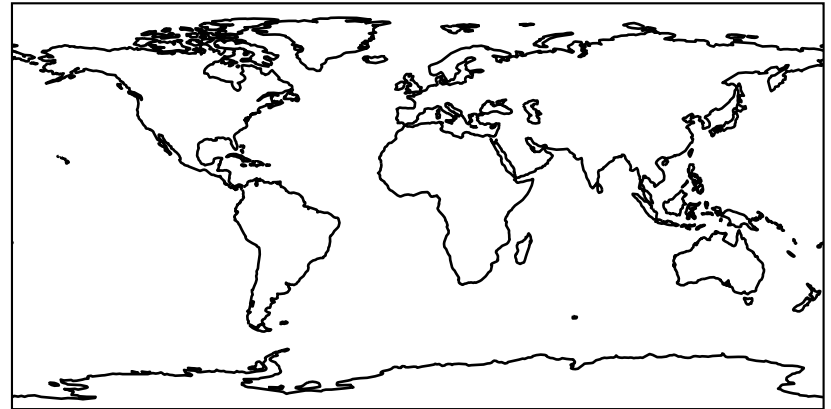
# EmisMEK\_Ship (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



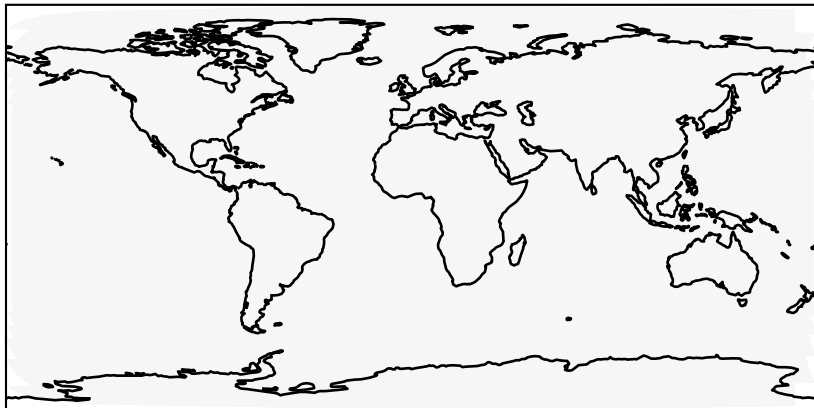
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



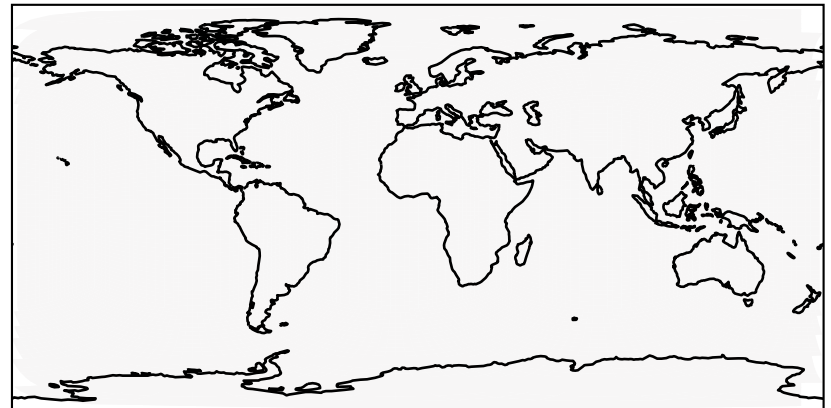
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



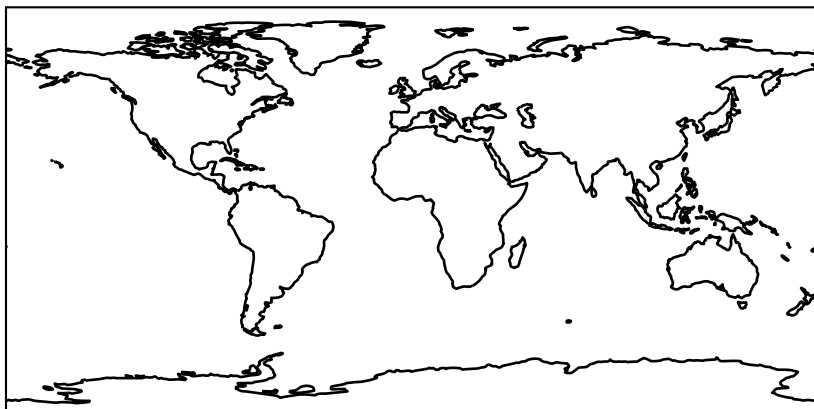
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

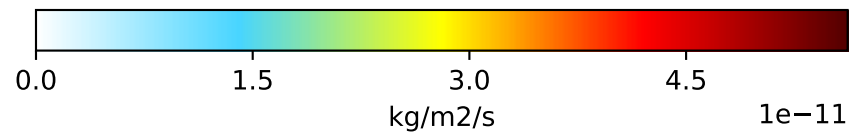
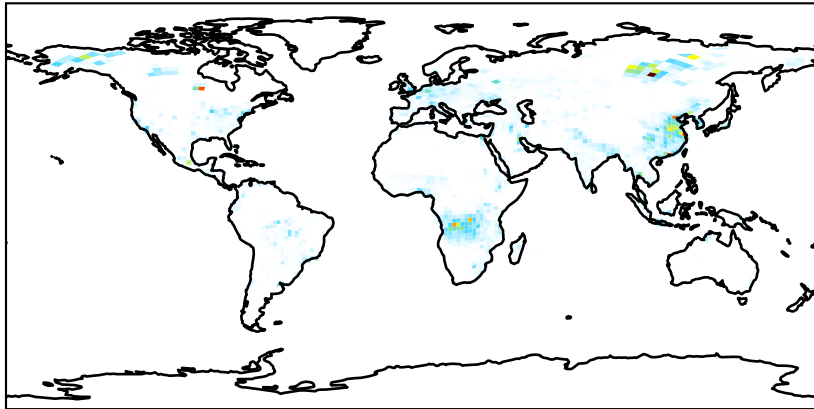
Ratio  
Dev/Ref, Fixed Range



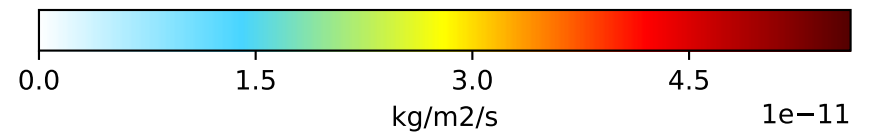
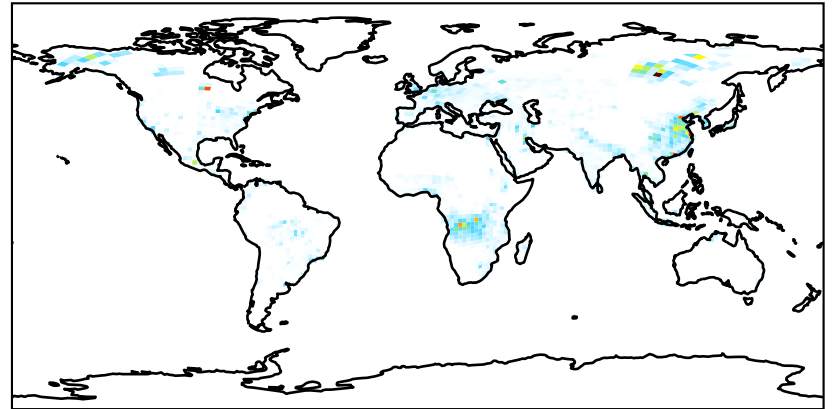
Undefined throughout domain  
unitless

# EmisMEK\_Total (Jul2019)

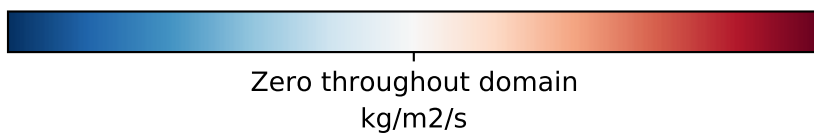
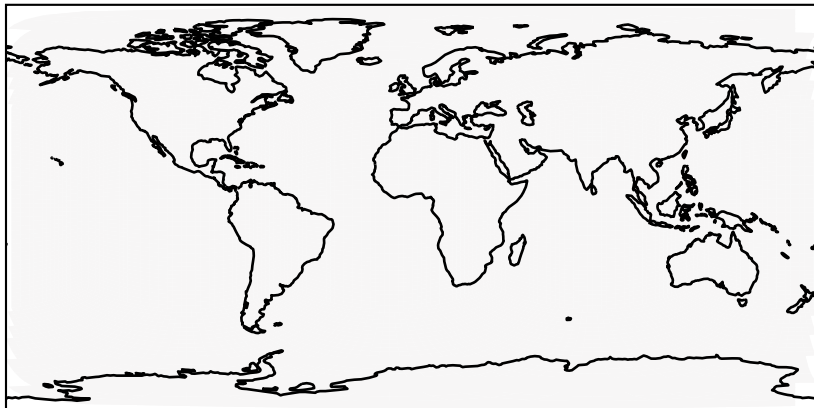
GCHP\_13.0.0-beta.1 (Ref)  
c48



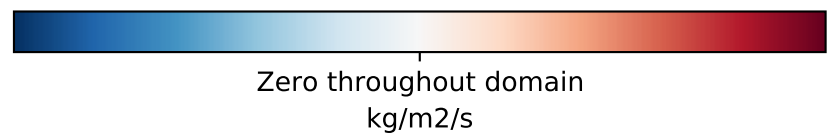
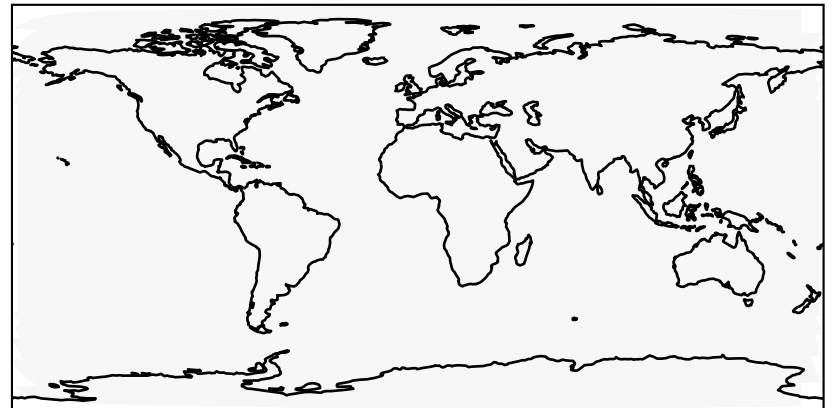
GCHP\_13.0.0-rc.0 (Dev)  
c48



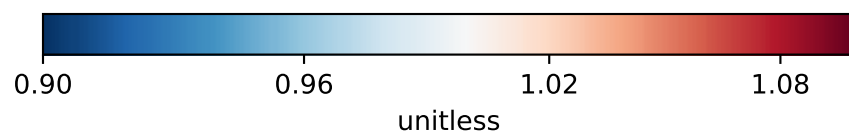
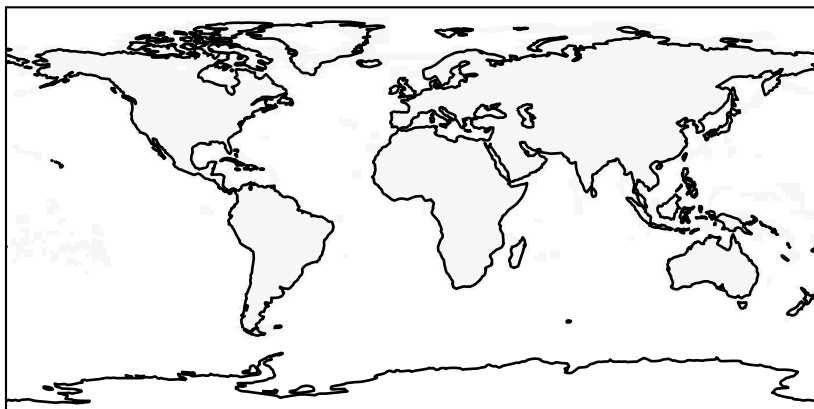
Difference  
Dev - Ref, Dynamic Range



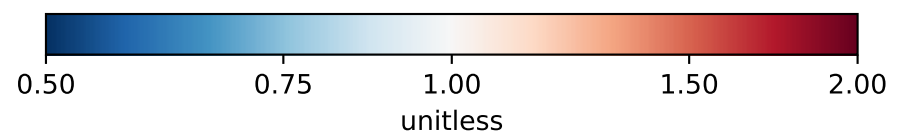
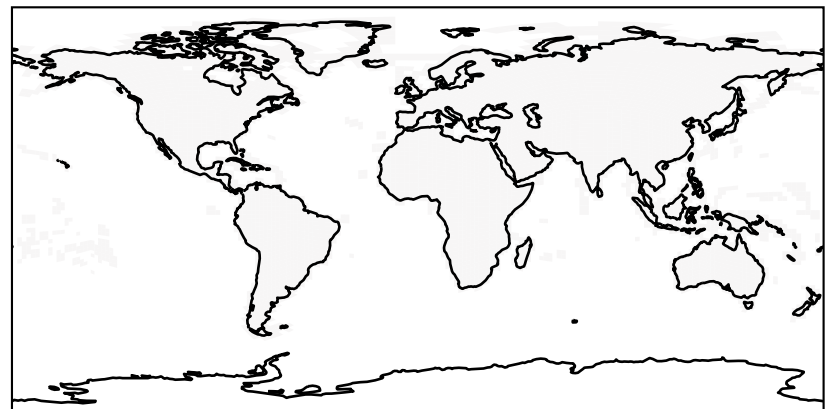
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range



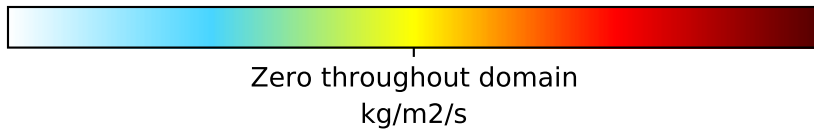
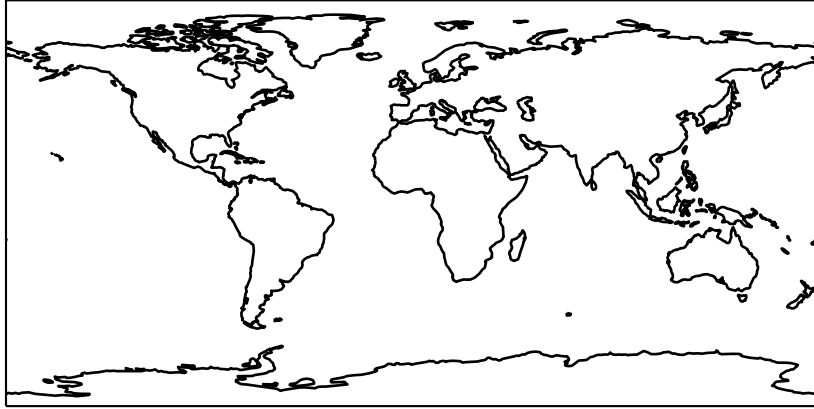
Ratio  
Dev/Ref, Fixed Range



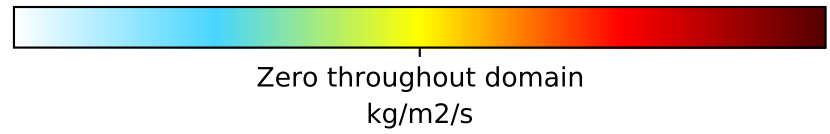
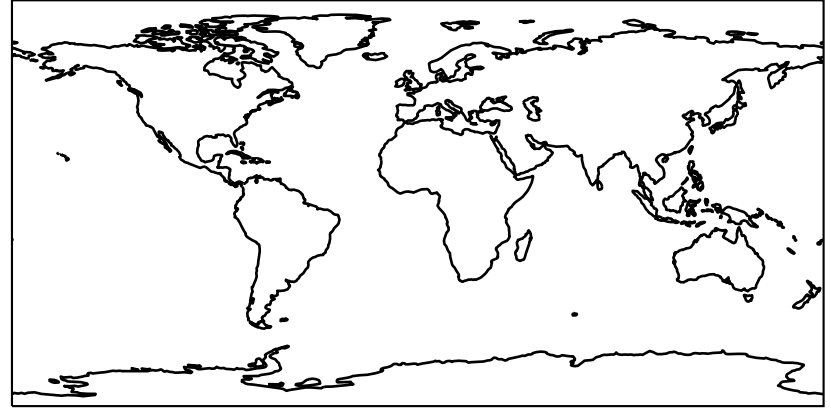


# EmisMVK\_Anthro (Jul2019)

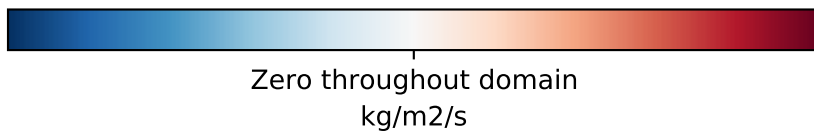
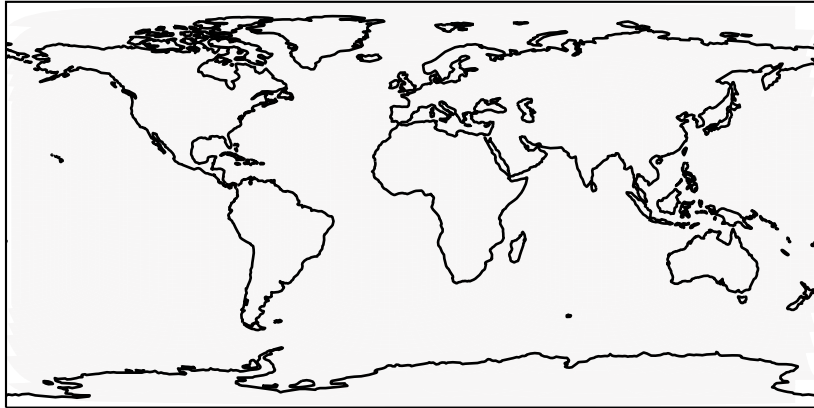
GCHP\_13.0.0-beta.1 (Ref)  
c48



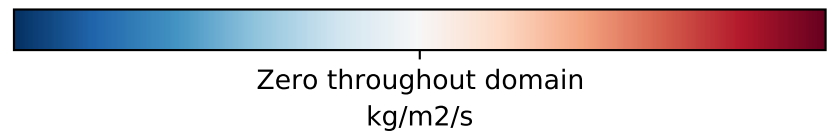
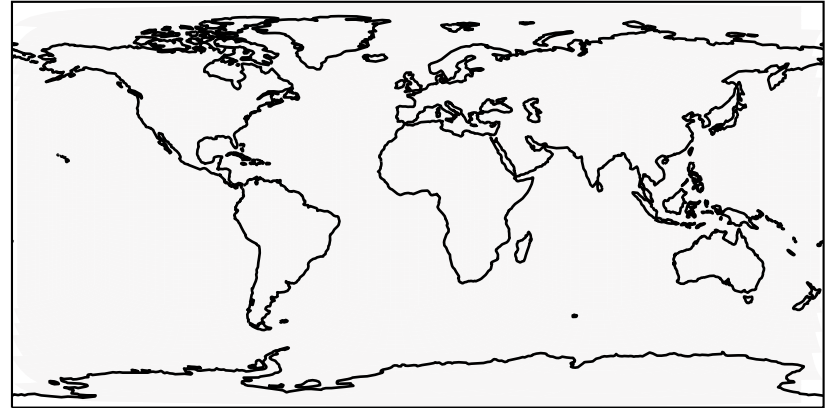
GCHP\_13.0.0-rc.0 (Dev)  
c48



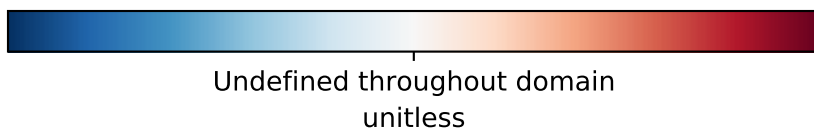
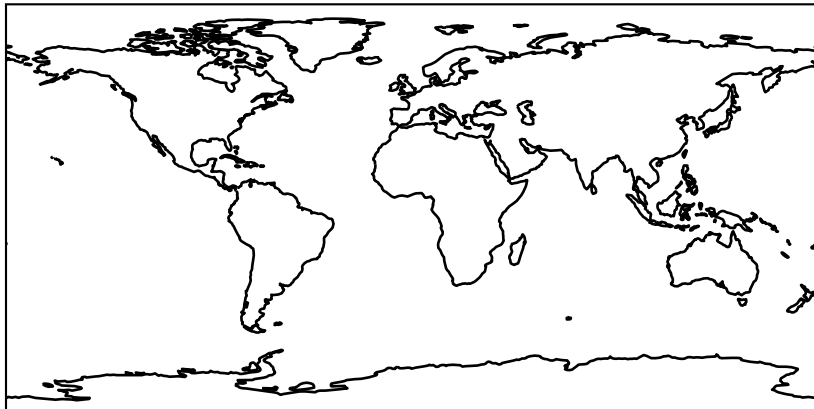
Difference  
Dev - Ref, Dynamic Range



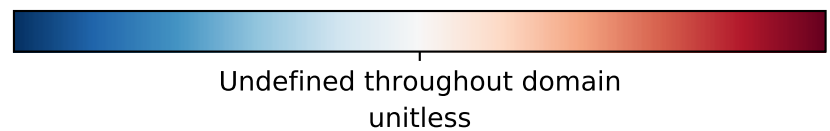
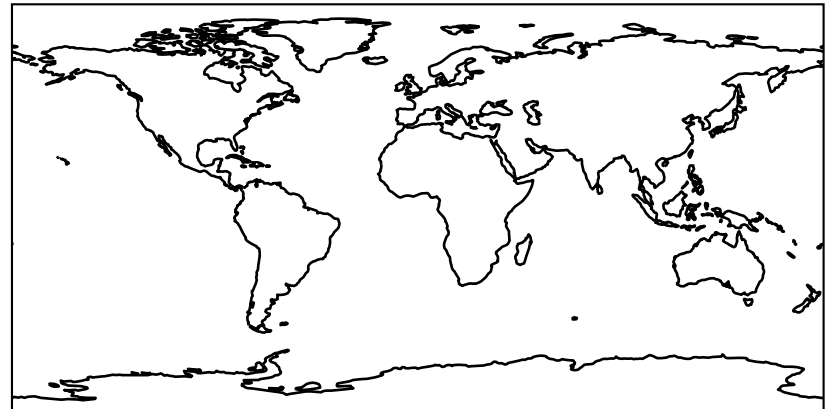
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

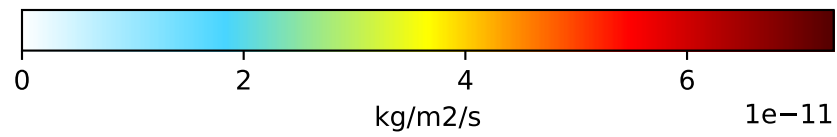
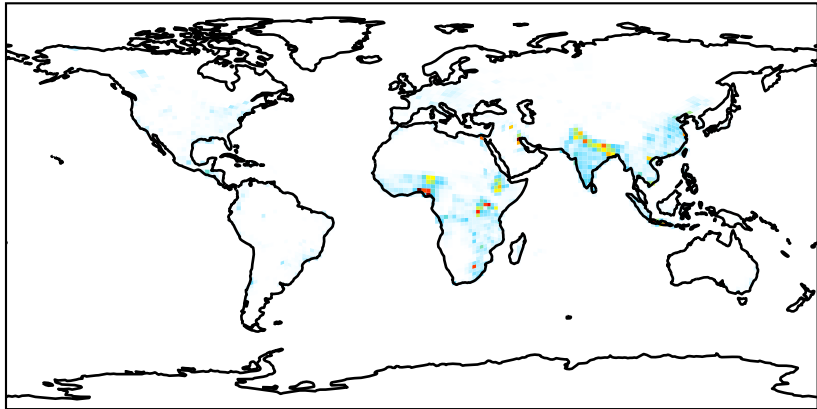


Ratio  
Dev/Ref, Fixed Range

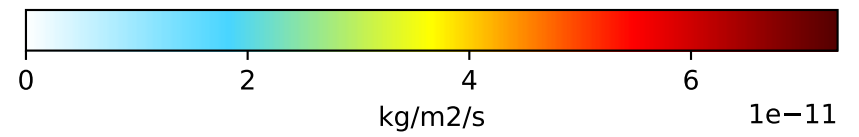
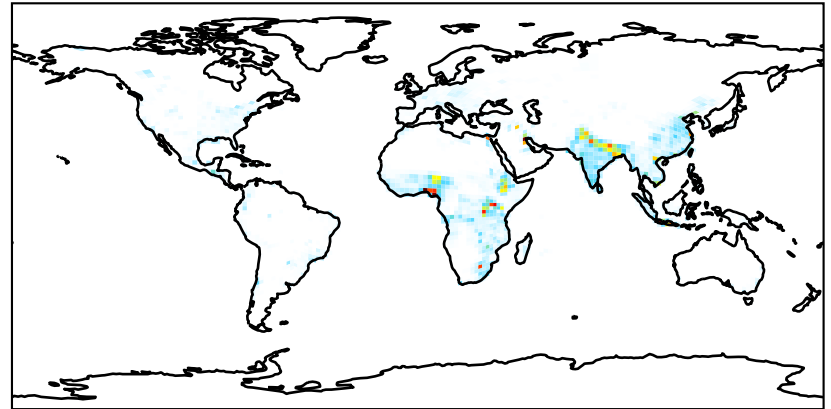


# EmisHCOOH\_Anthro (Jul2019)

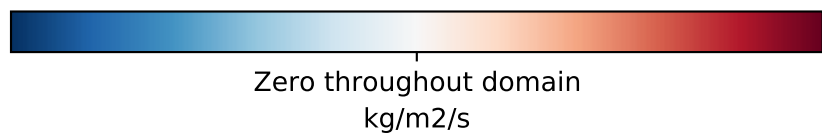
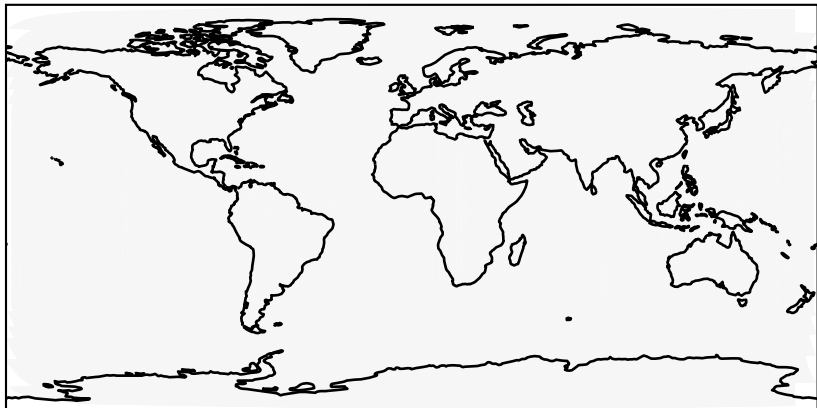
GCHP\_13.0.0-beta.1 (Ref)  
c48



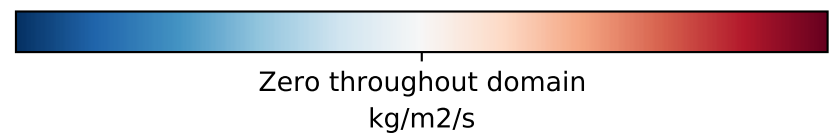
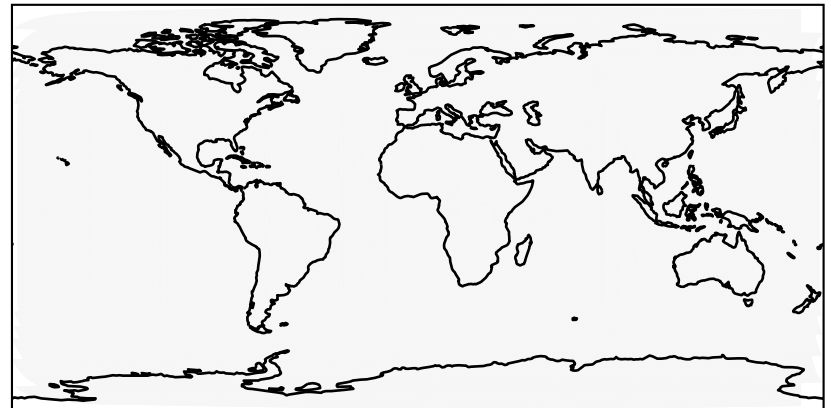
GCHP\_13.0.0-rc.0 (Dev)  
c48



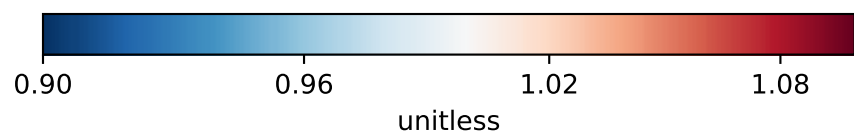
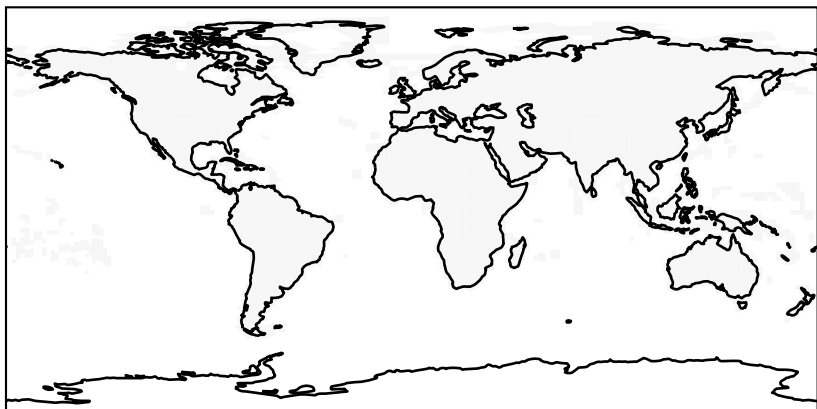
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

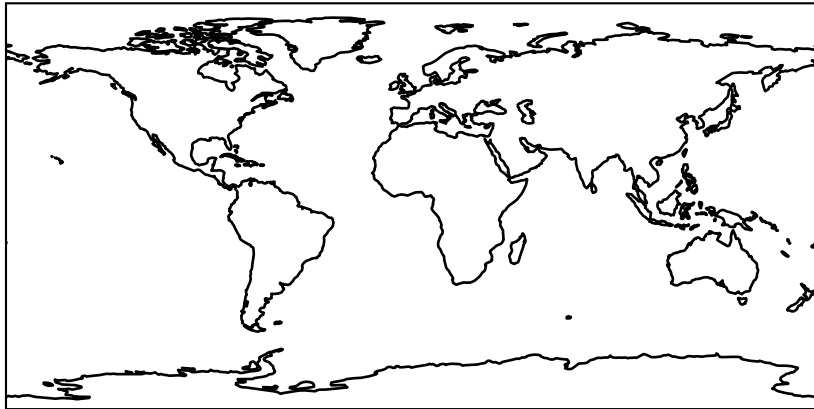


Ratio  
Dev/Ref, Fixed Range



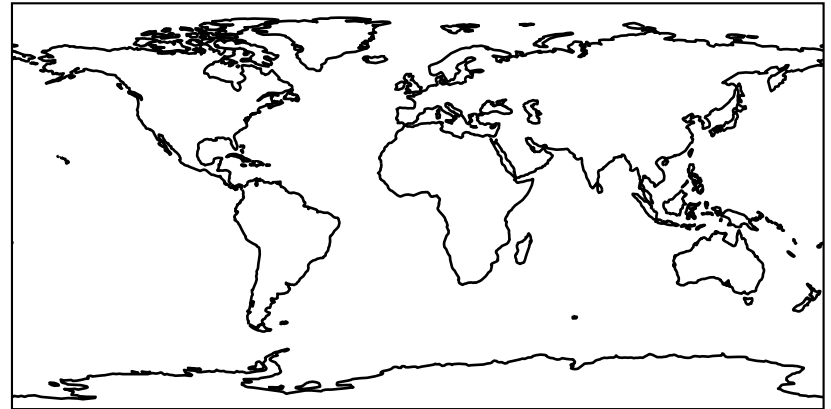
# EmisHCOOH\_Ship (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



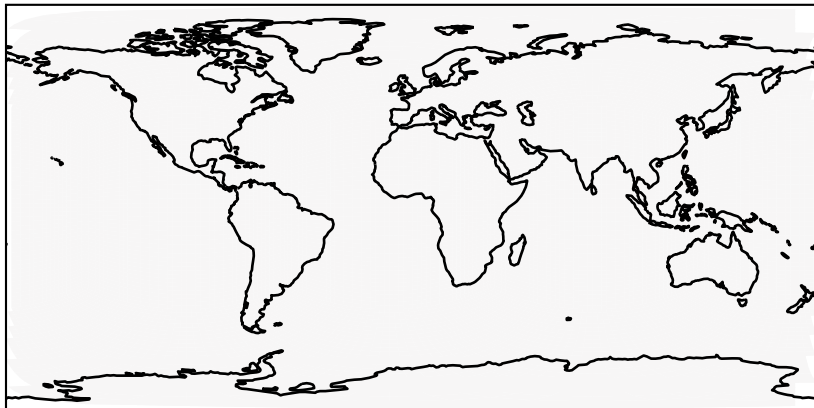
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



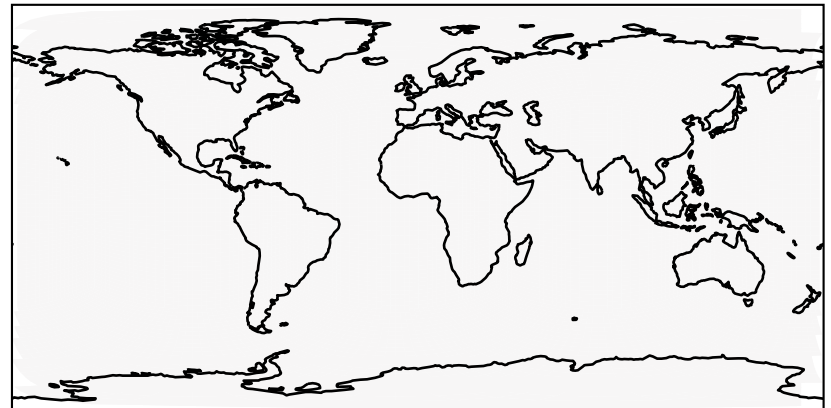
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

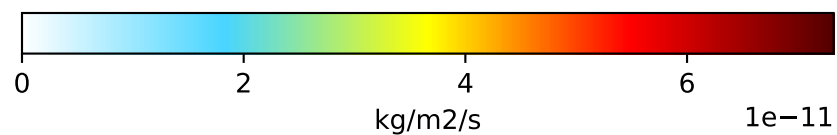
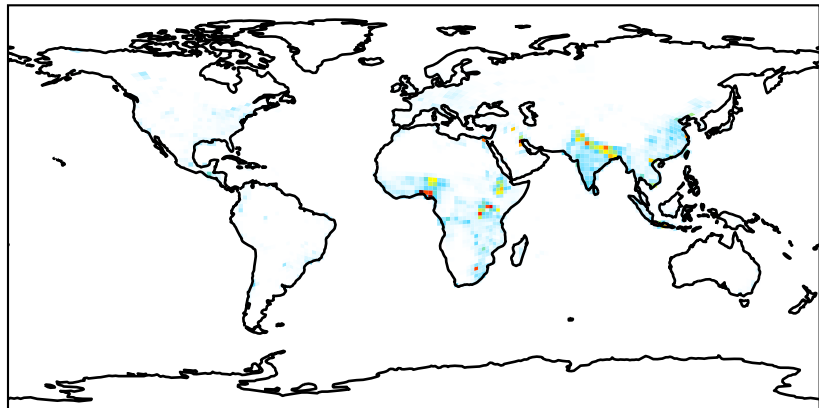
Ratio  
Dev/Ref, Fixed Range



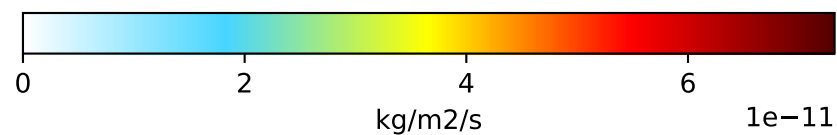
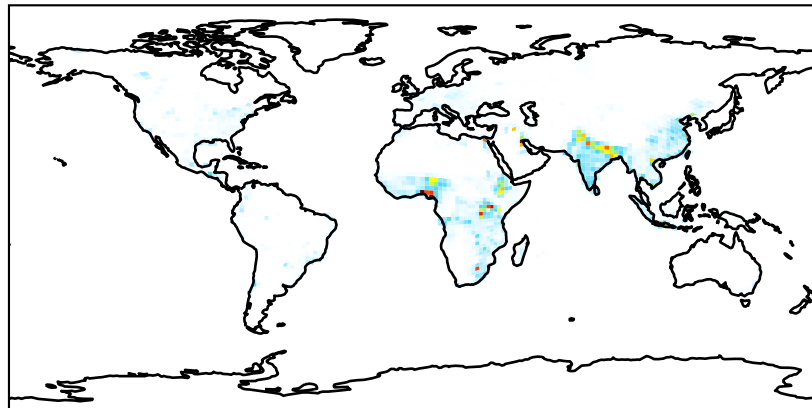
Undefined throughout domain  
unitless

# EmisHCOOH\_Total (Jul2019)

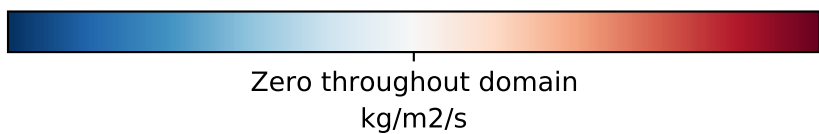
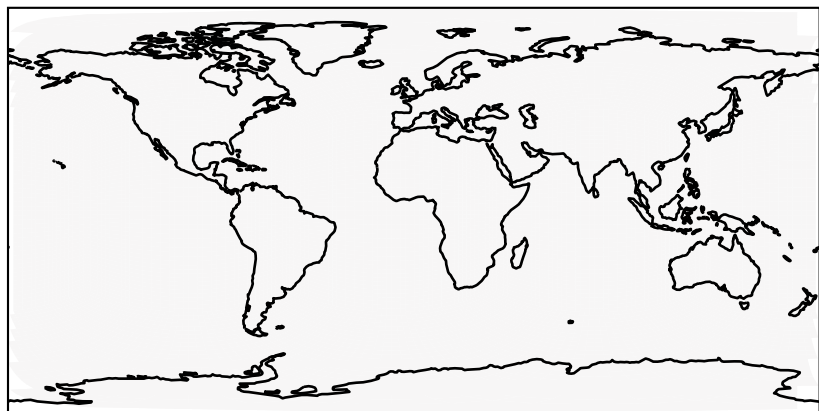
GCHP\_13.0.0-beta.1 (Ref)  
c48



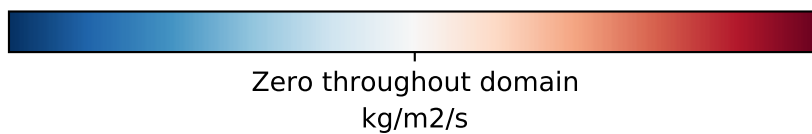
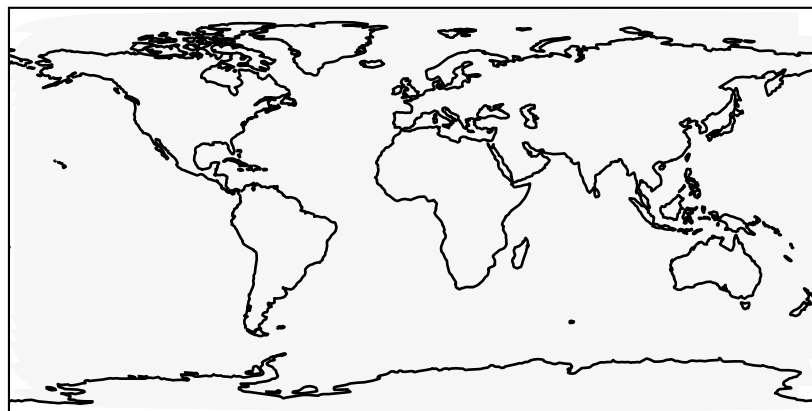
GCHP\_13.0.0-rc.0 (Dev)  
c48



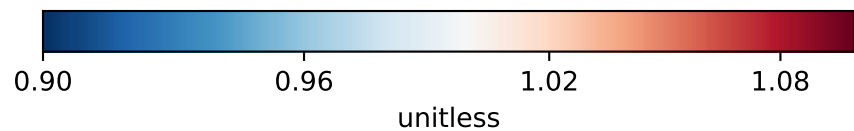
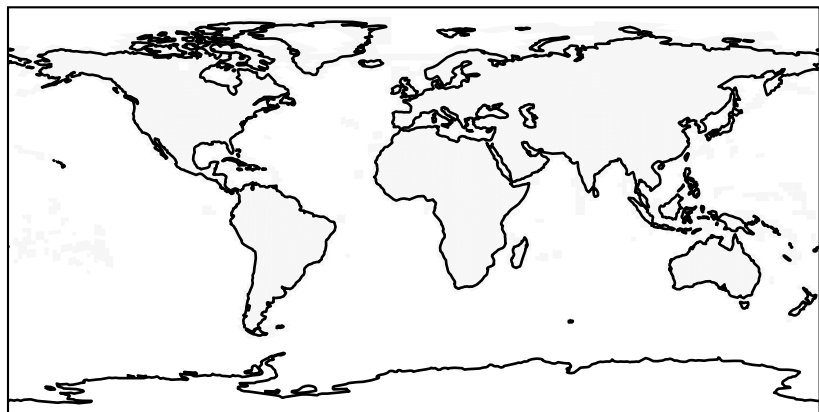
Difference  
Dev - Ref, Dynamic Range



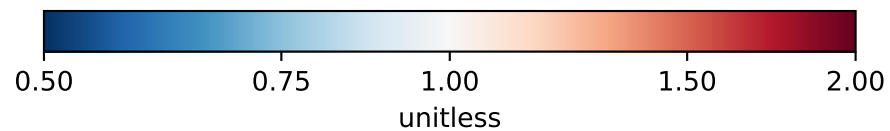
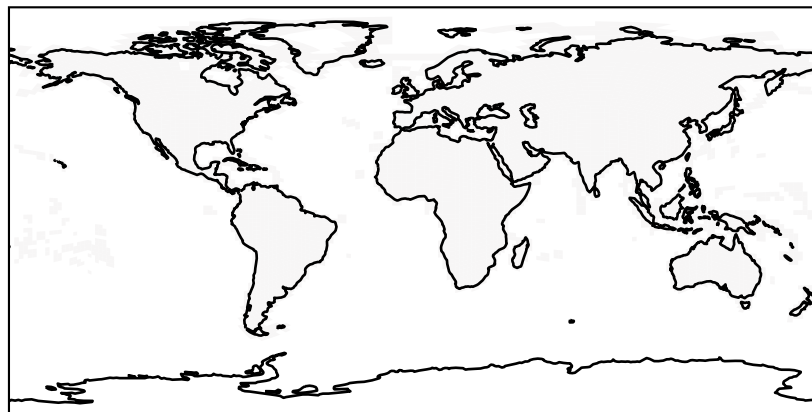
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

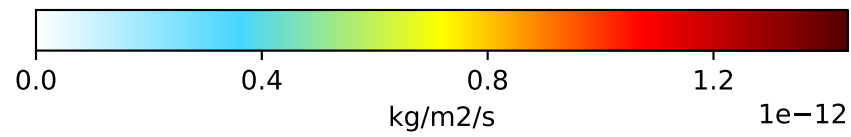


Ratio  
Dev/Ref, Fixed Range

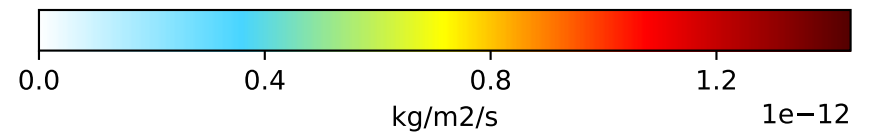
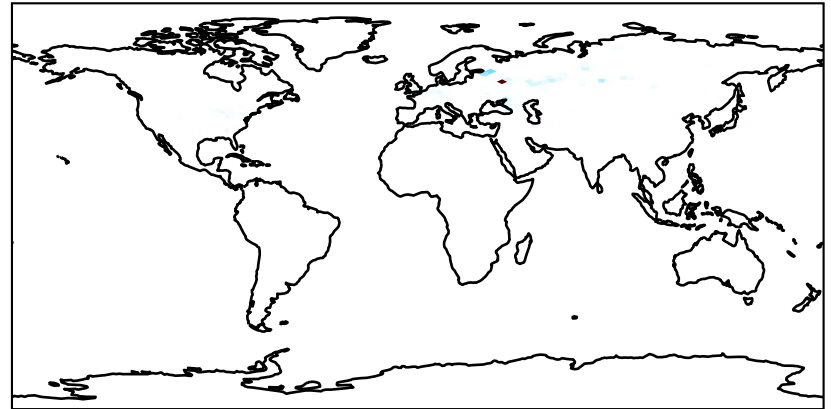


# EmisRCHO\_Aircraft (Jul2019)

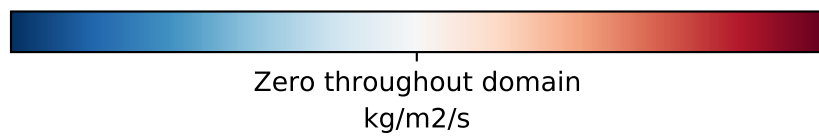
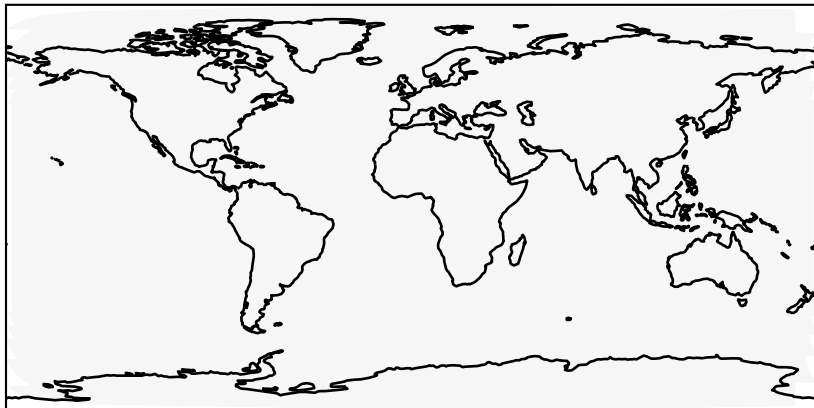
GCHP\_13.0.0-beta.1 (Ref)  
c48



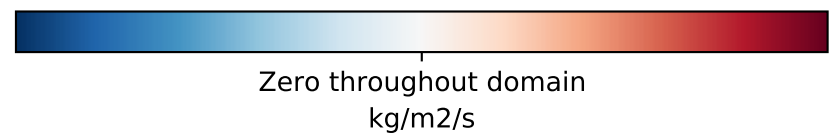
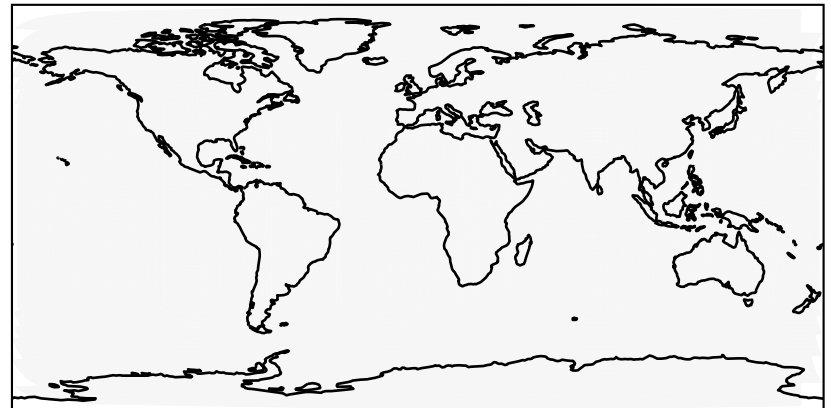
GCHP\_13.0.0-rc.0 (Dev)  
c48



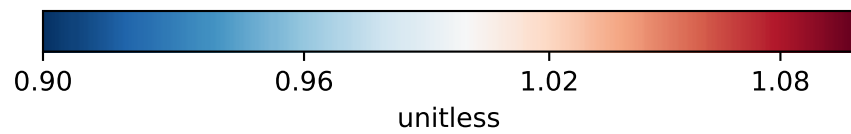
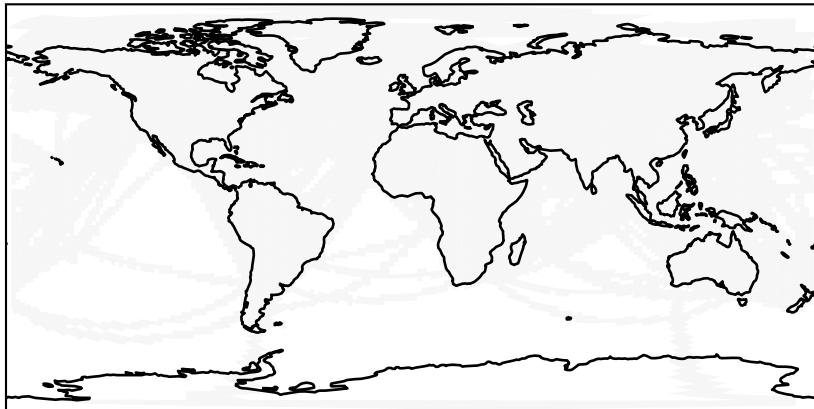
Difference  
Dev - Ref, Dynamic Range



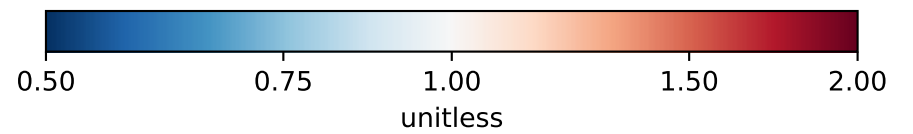
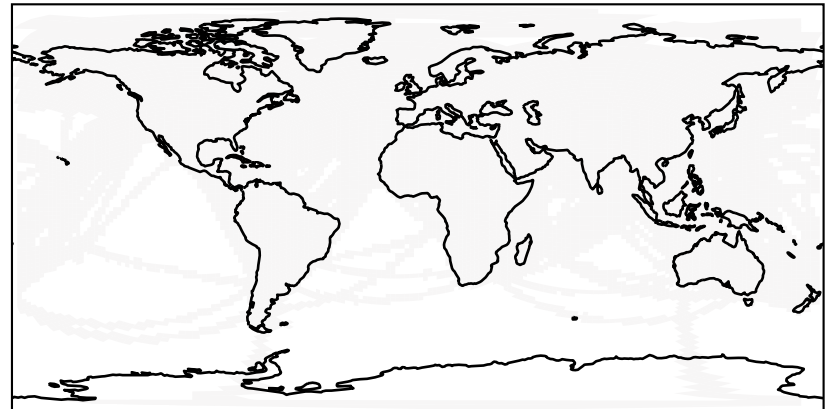
Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range

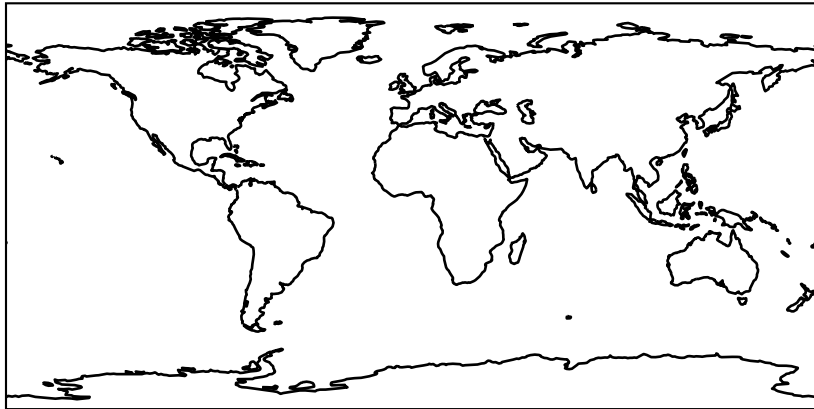


Ratio  
Dev/Ref, Fixed Range



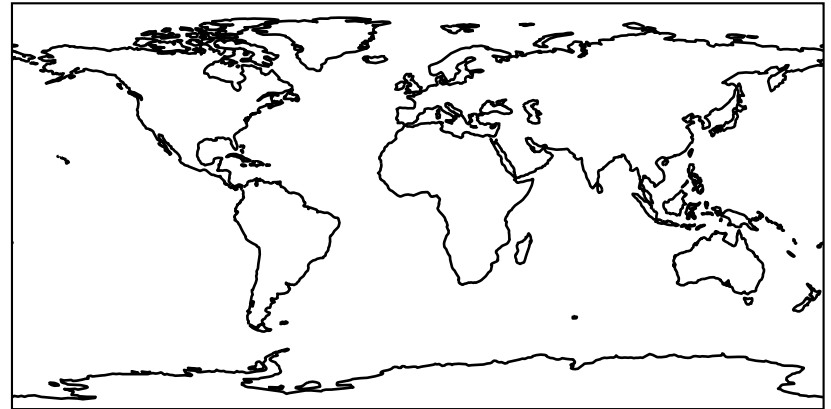
# EmisRCHO\_Anthro (Jul2019)

GCHP\_13.0.0-beta.1 (Ref)  
c48



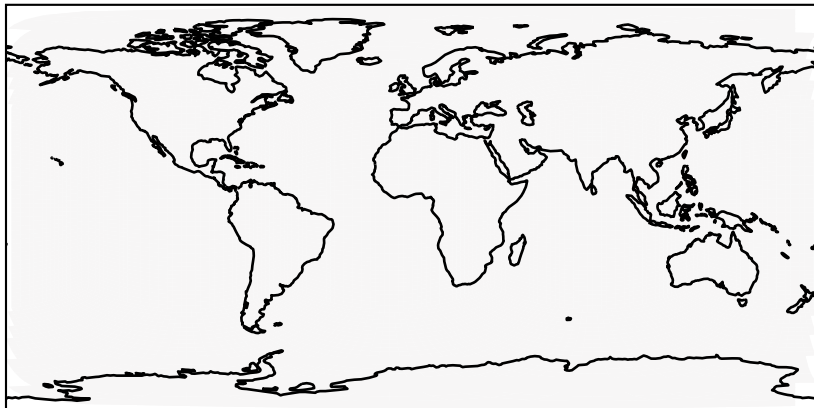
Zero throughout domain  
kg/m2/s

GCHP\_13.0.0-rc.0 (Dev)  
c48



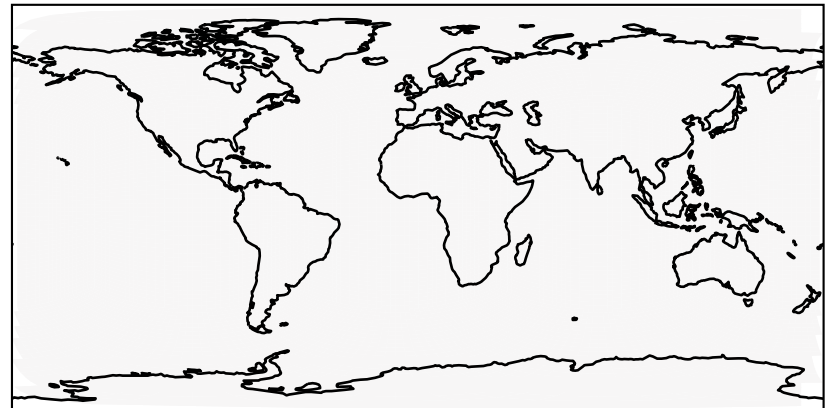
Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Dynamic Range



Zero throughout domain  
kg/m2/s

Difference  
Dev - Ref, Restricted Range [5%,95%]



Zero throughout domain  
kg/m2/s

Ratio  
Dev/Ref, Dynamic Range



Undefined throughout domain  
unitless

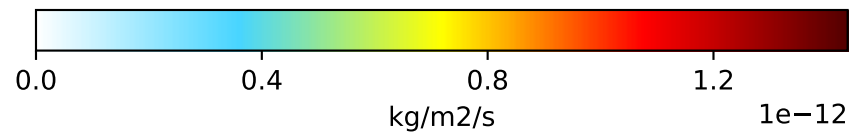
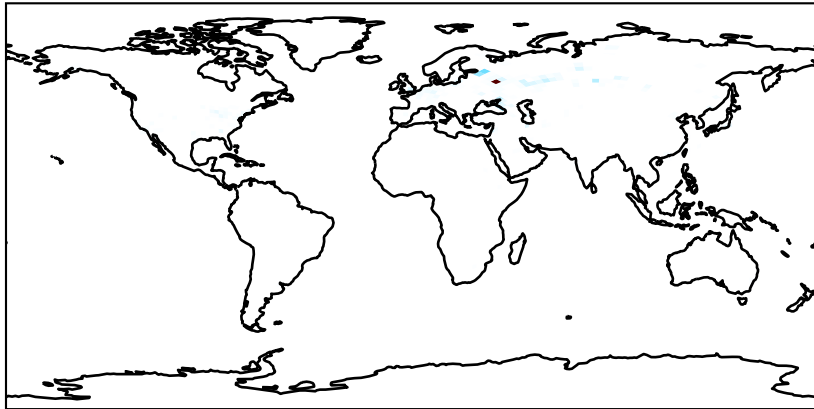
Ratio  
Dev/Ref, Fixed Range



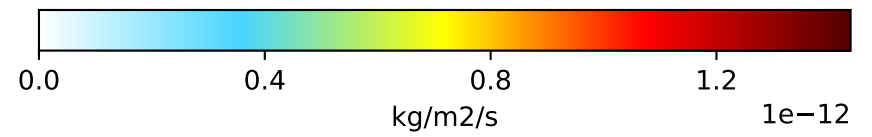
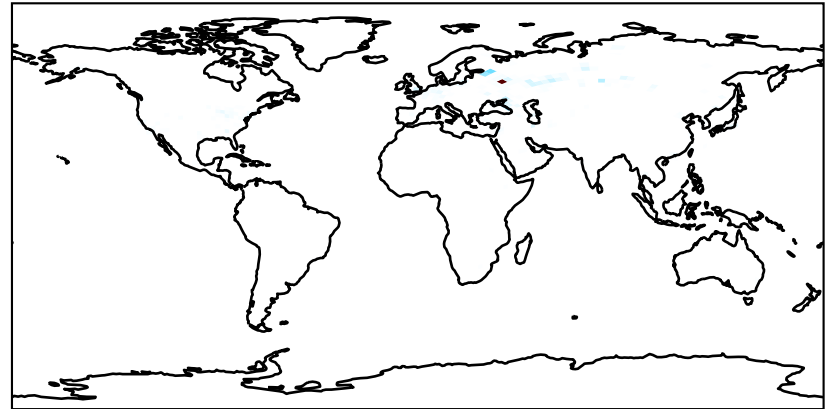
Undefined throughout domain  
unitless

# EmisRCHO\_Total (Jul2019)

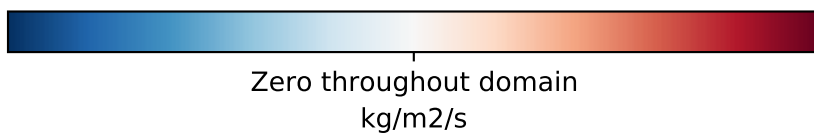
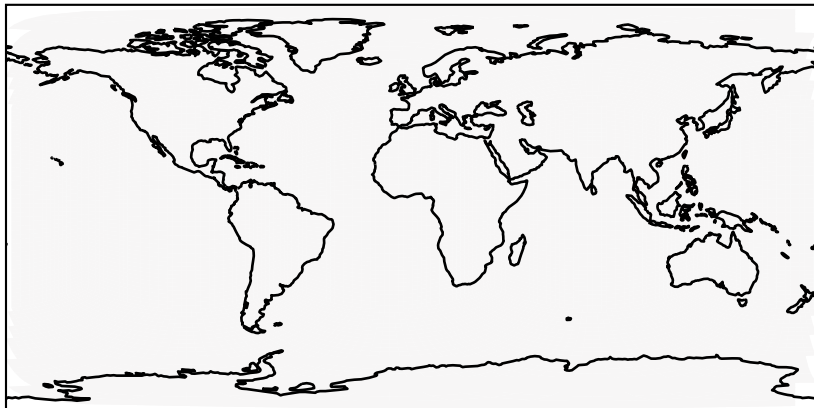
GCHP\_13.0.0-beta.1 (Ref)  
c48



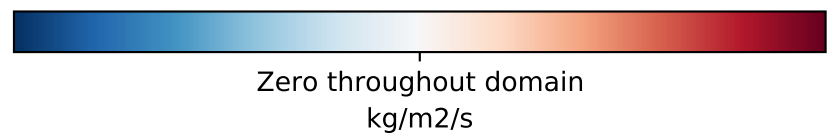
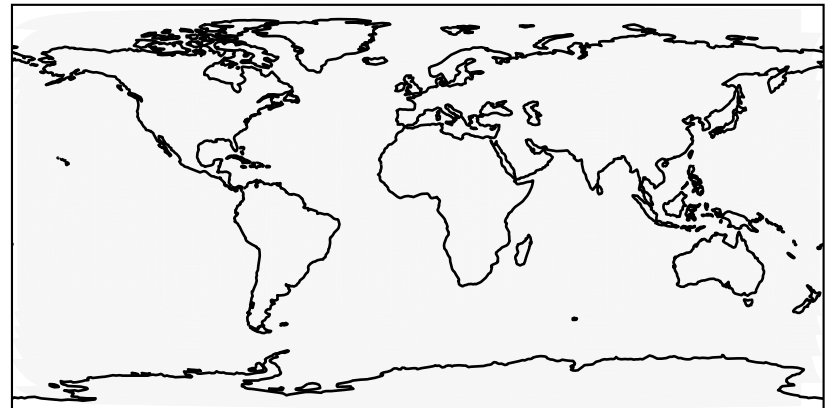
GCHP\_13.0.0-rc.0 (Dev)  
c48



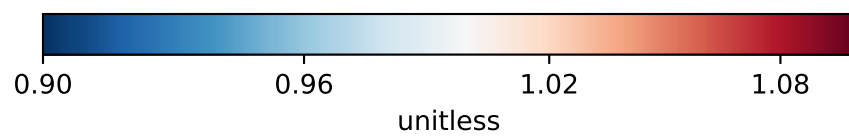
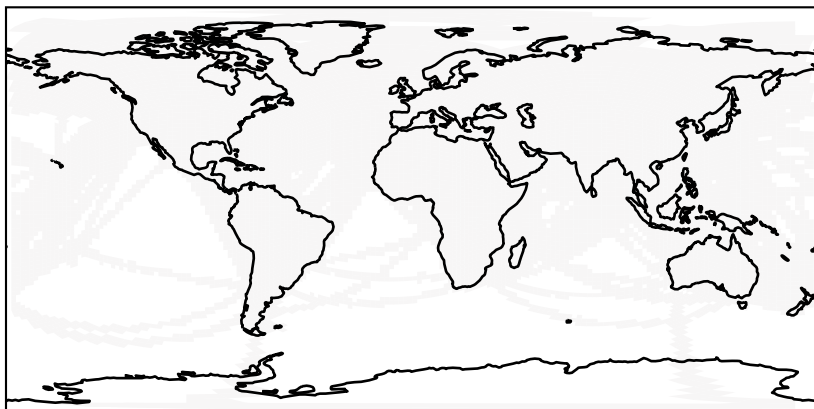
Difference  
Dev - Ref, Dynamic Range



Difference  
Dev - Ref, Restricted Range [5%,95%]



Ratio  
Dev/Ref, Dynamic Range



Ratio  
Dev/Ref, Fixed Range

