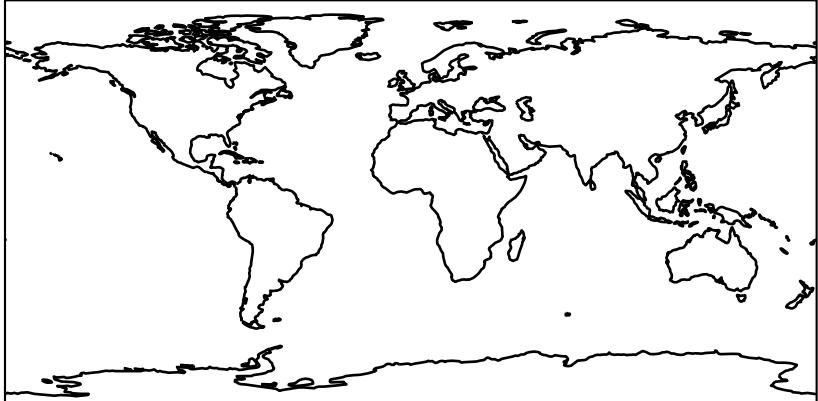


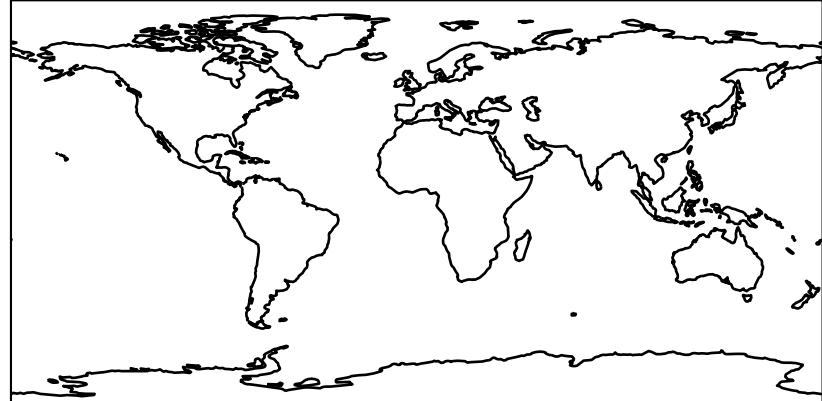
EmisALD2_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



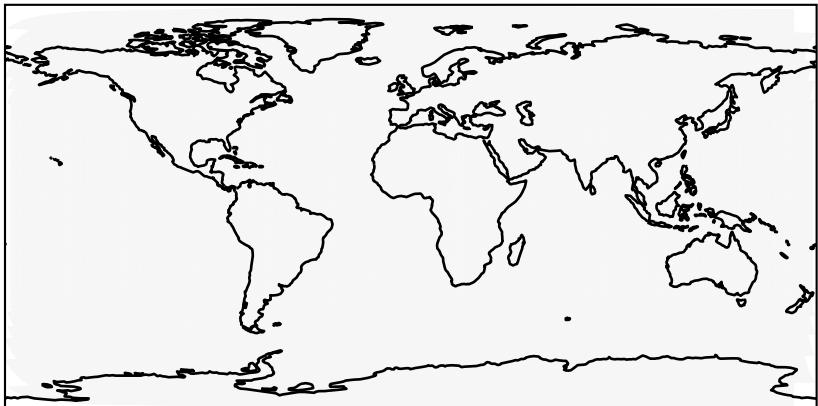
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



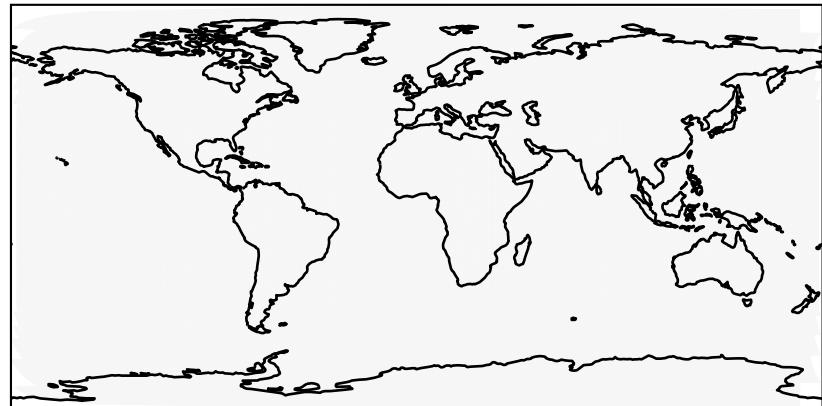
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



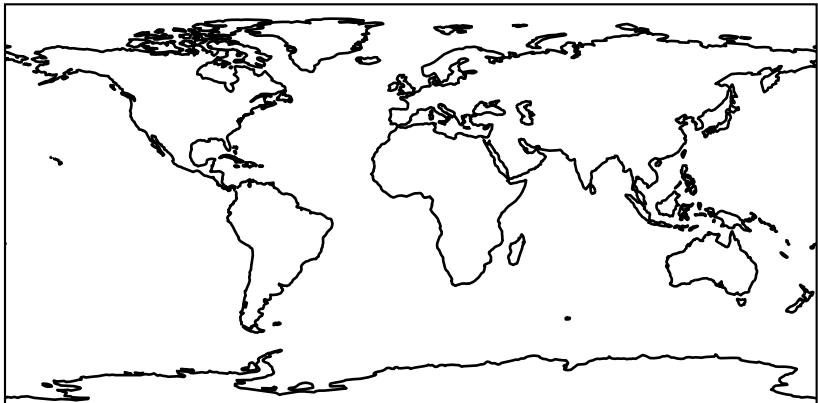
Zero throughout domain
kg/m²/s

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



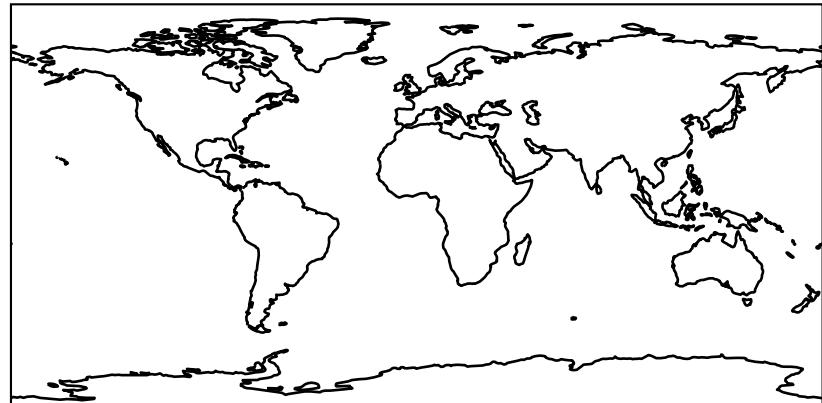
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



Undefined throughout domain
unitless

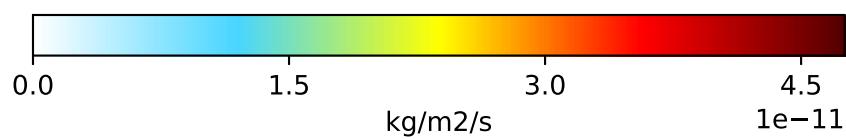
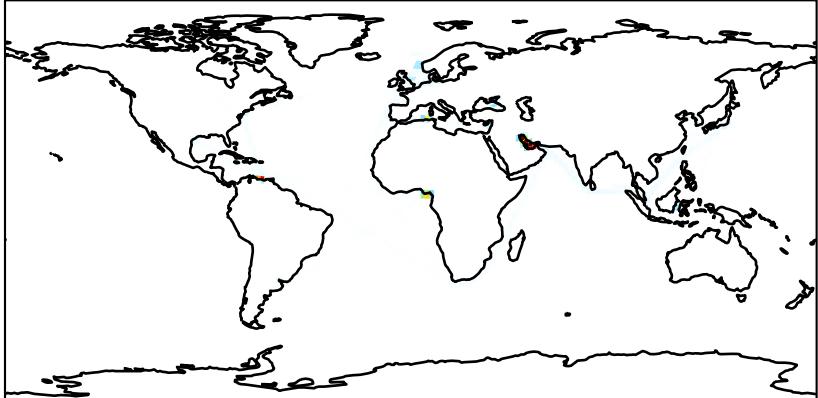
Ratio
Dev/Ref, Fixed Range



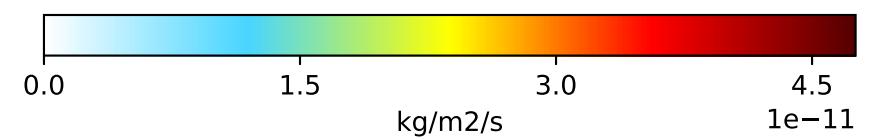
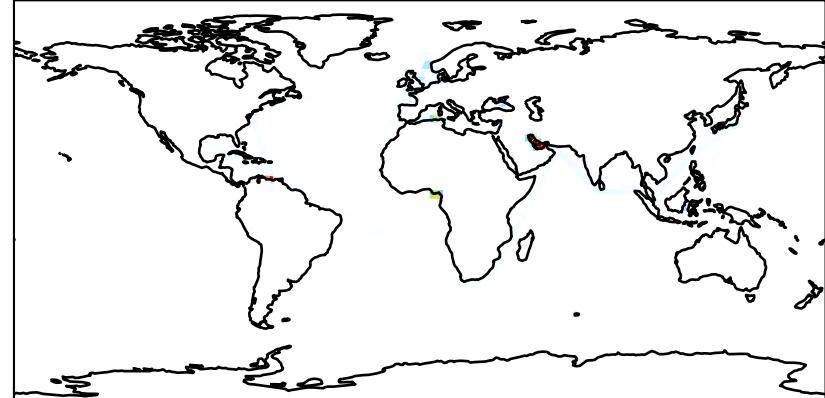
Undefined throughout domain
unitless

EmisALK4_Ship

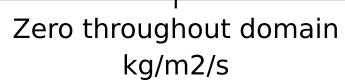
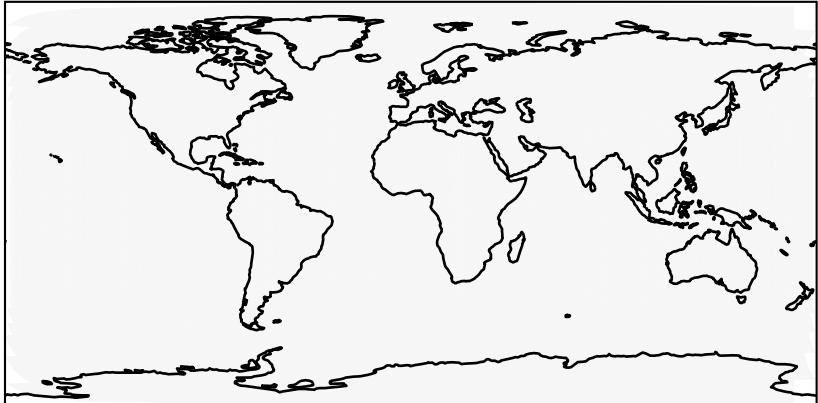
GCHP_13.3.0-rc.1 (Ref)
c48



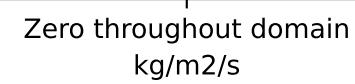
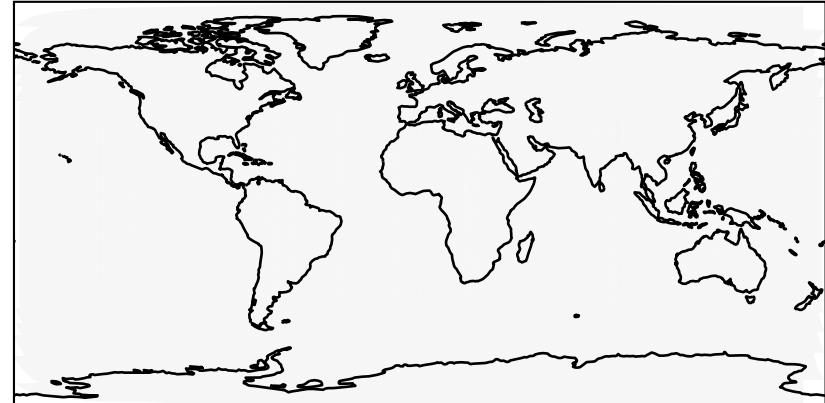
GCHP_13.4.0-rc.2 (Dev)
c48



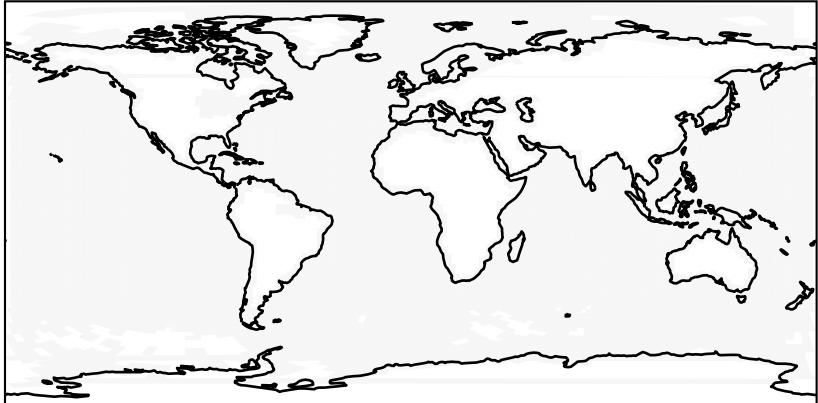
Difference
Dev - Ref, Dynamic Range



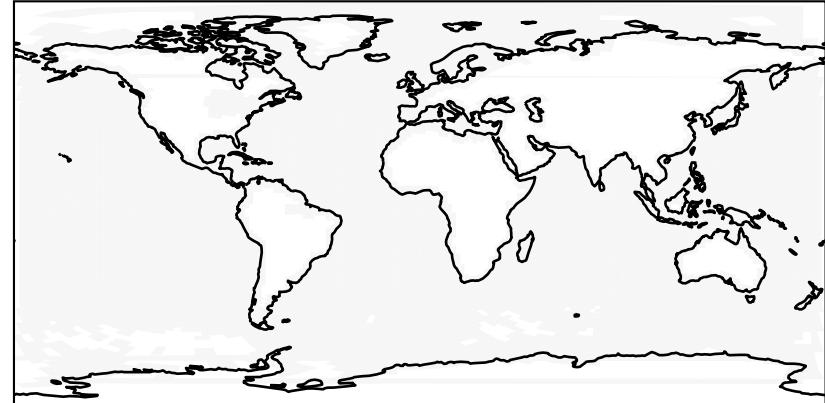
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

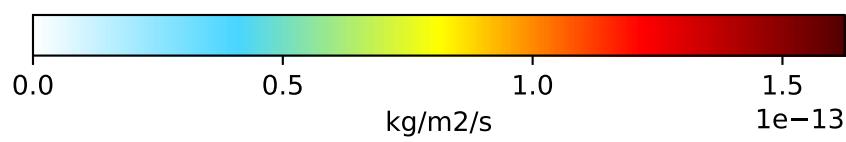
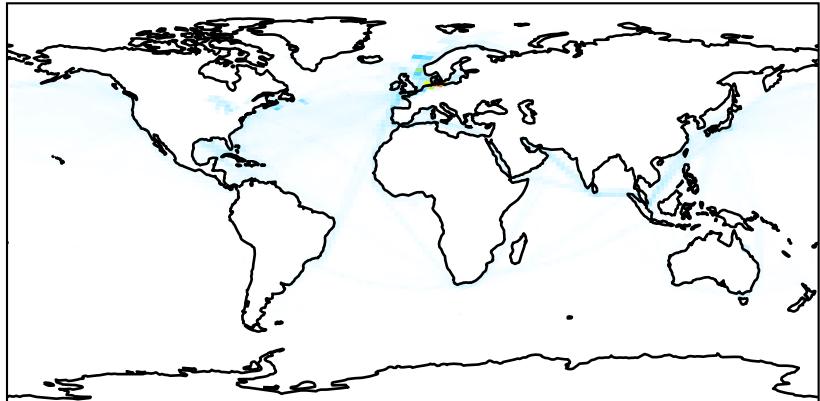


Ratio
Dev/Ref, Fixed Range

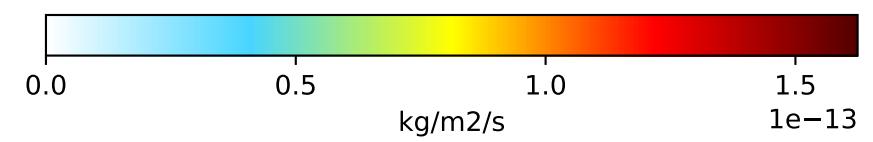
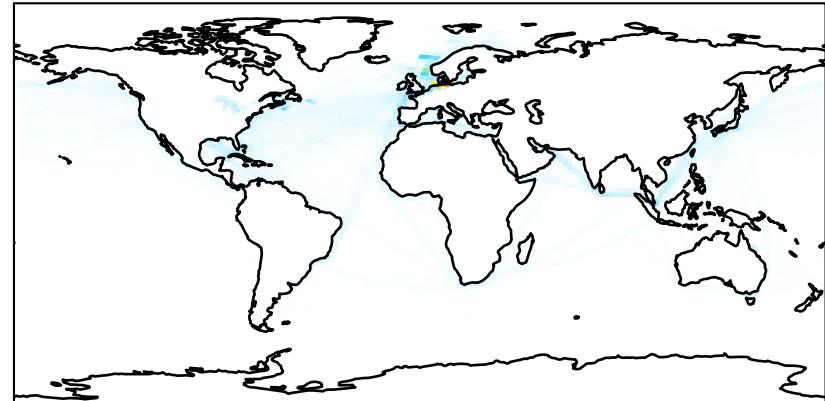


EmisBCPI_Ship

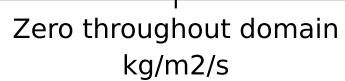
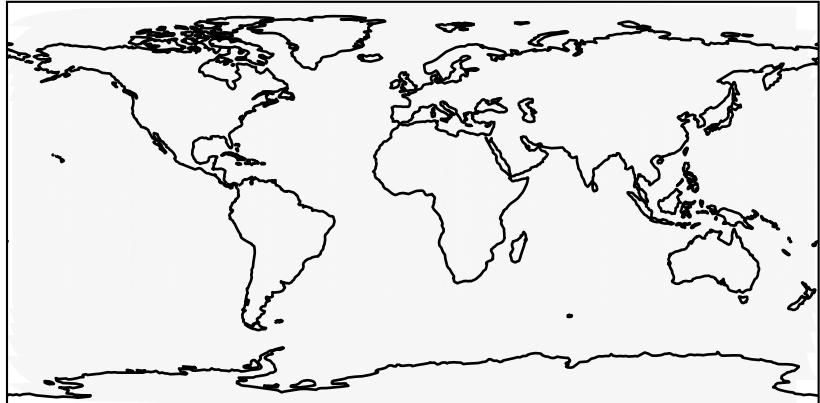
GCHP_13.3.0-rc.1 (Ref)
c48



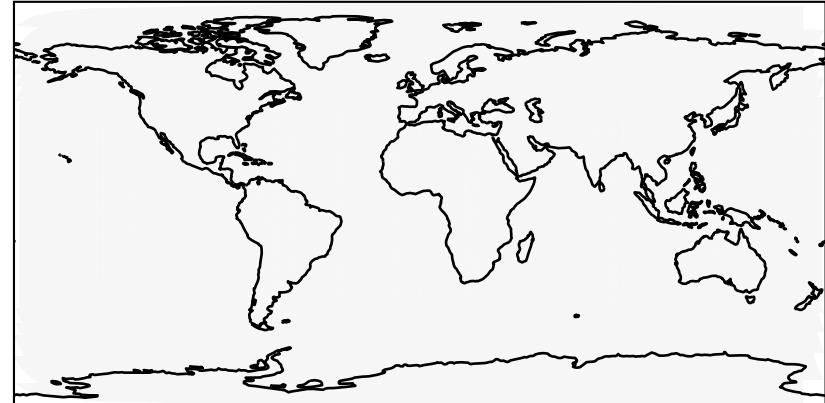
GCHP_13.4.0-rc.2 (Dev)
c48



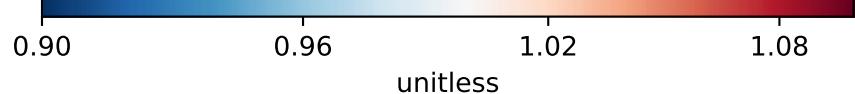
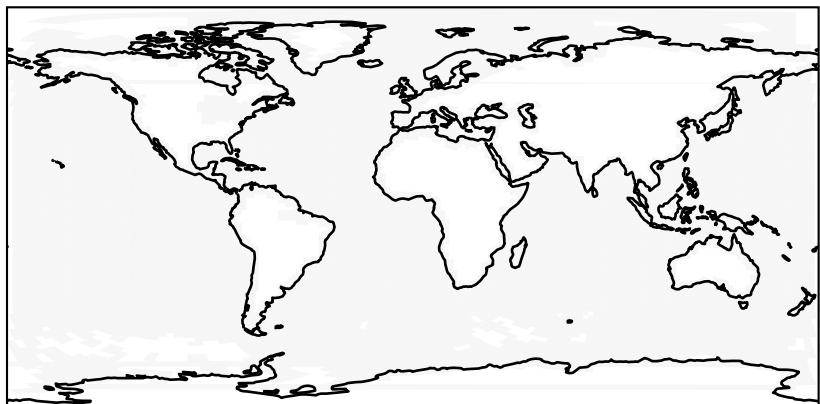
Difference
Dev - Ref, Dynamic Range



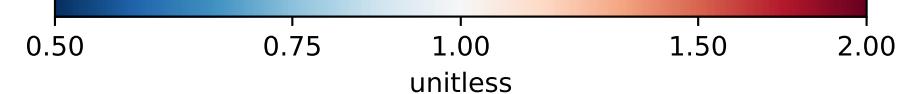
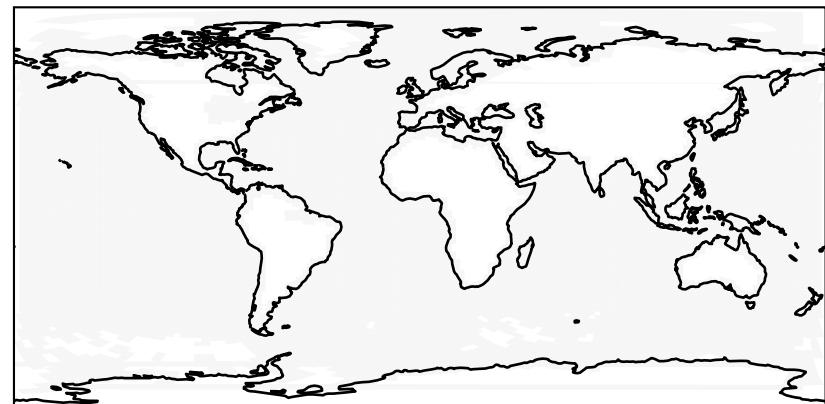
Difference
Dev - Ref, Restricted Range [5%, 95%]



Ratio
Dev/Ref, Dynamic Range

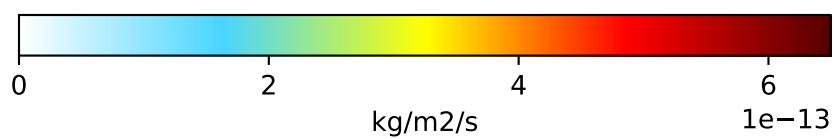


Ratio
Dev/Ref, Fixed Range

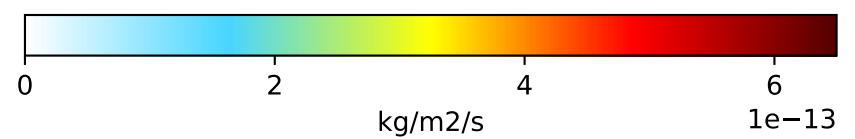
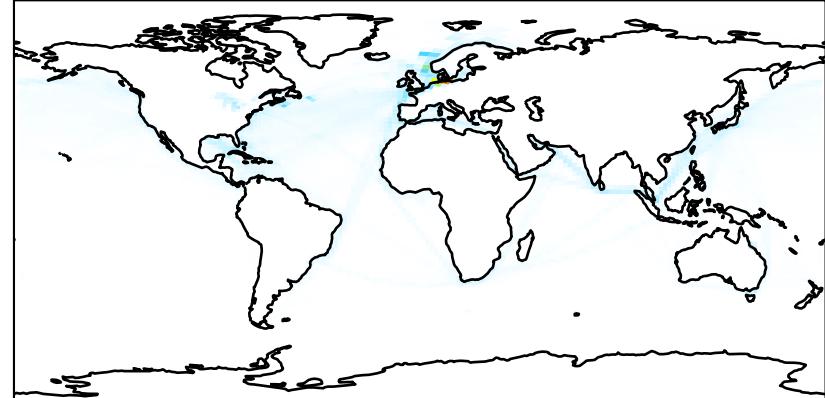


EmisBCPO_Ship

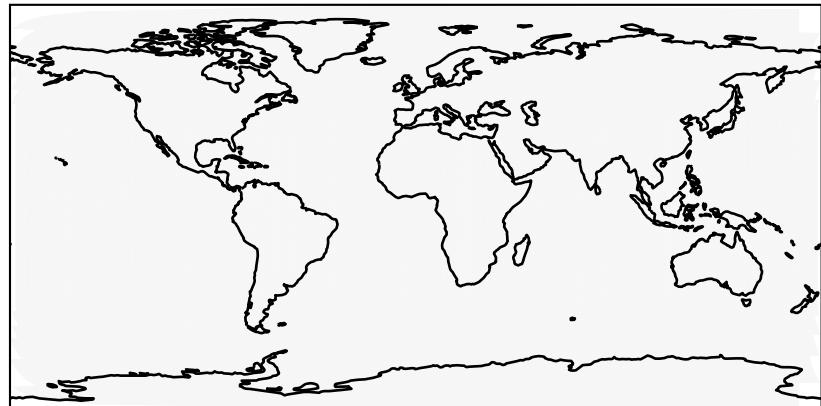
GCHP_13.3.0-rc.1 (Ref)
c48



GCHP_13.4.0-rc.2 (Dev)
c48

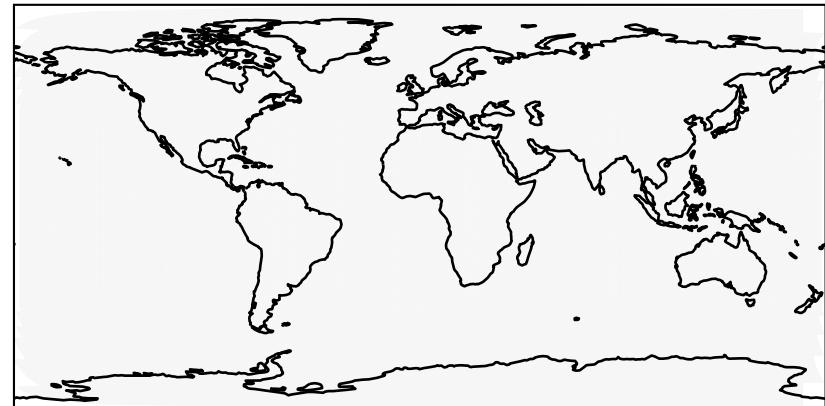


Difference
Dev - Ref, Dynamic Range



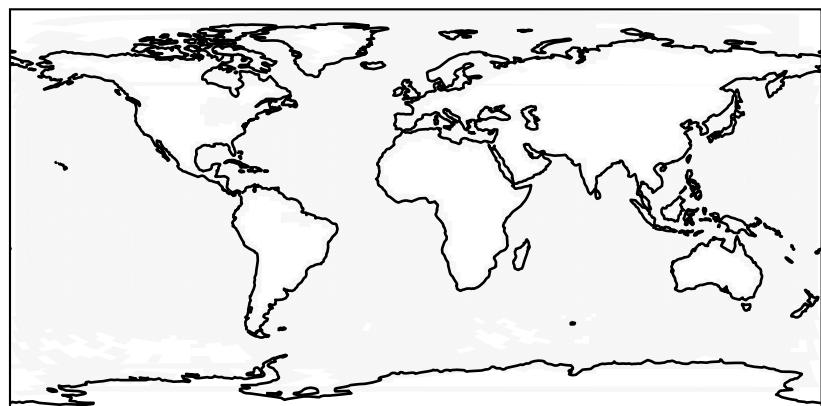
Zero throughout domain
kg/m²/s

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



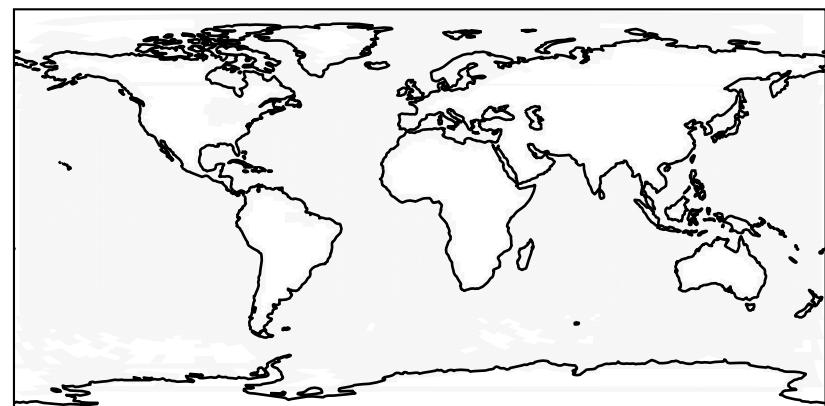
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



0.90 0.96 1.02 1.08
unitless

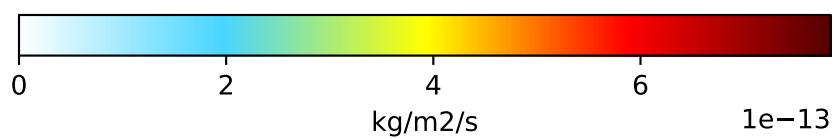
Ratio
Dev/Ref, Fixed Range



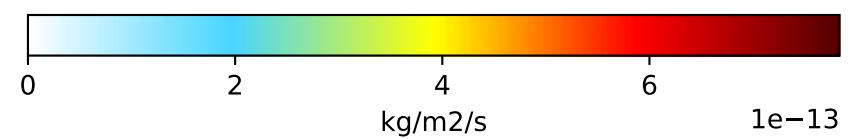
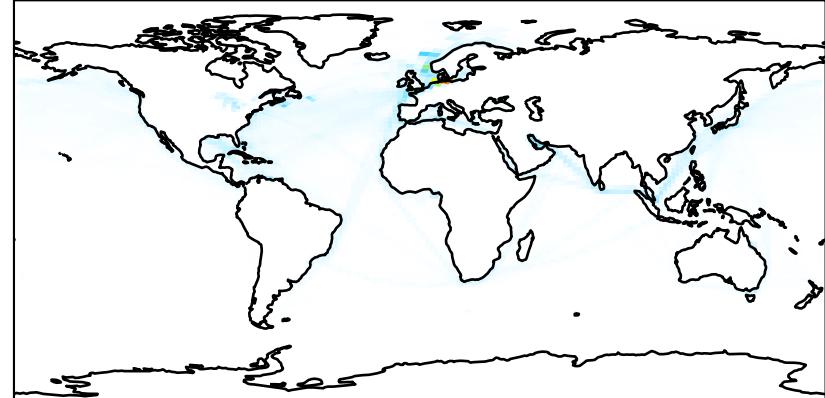
0.50 0.75 1.00 1.50 2.00
unitless

EmisBENZ_Ship

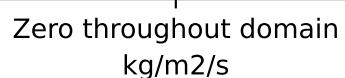
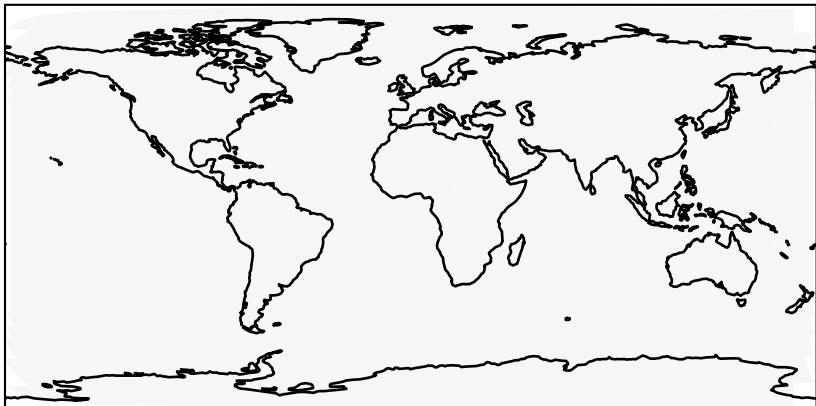
GCHP_13.3.0-rc.1 (Ref)
c48



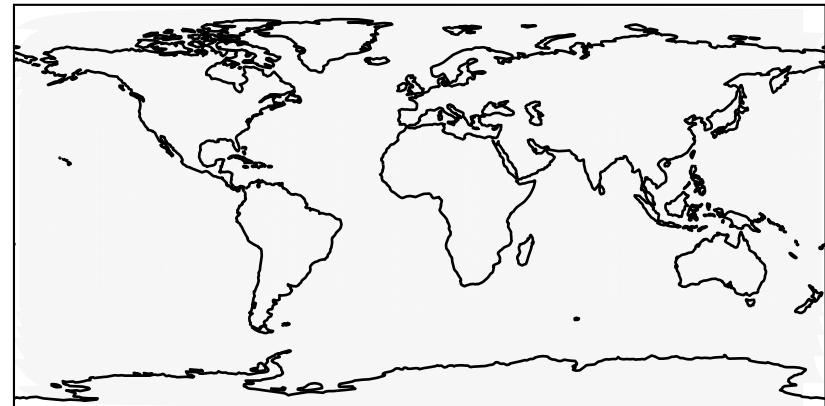
GCHP_13.4.0-rc.2 (Dev)
c48



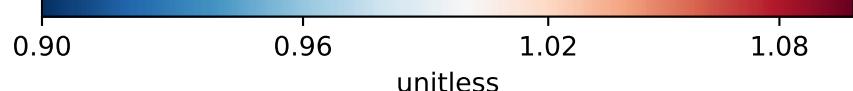
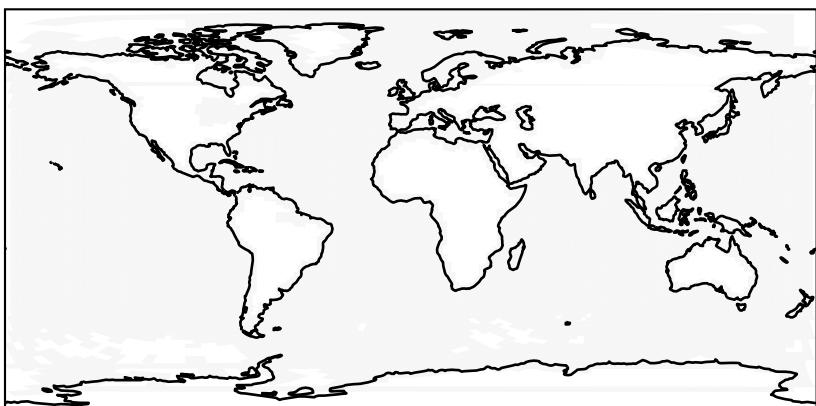
Difference
Dev - Ref, Dynamic Range



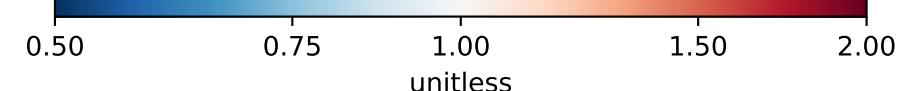
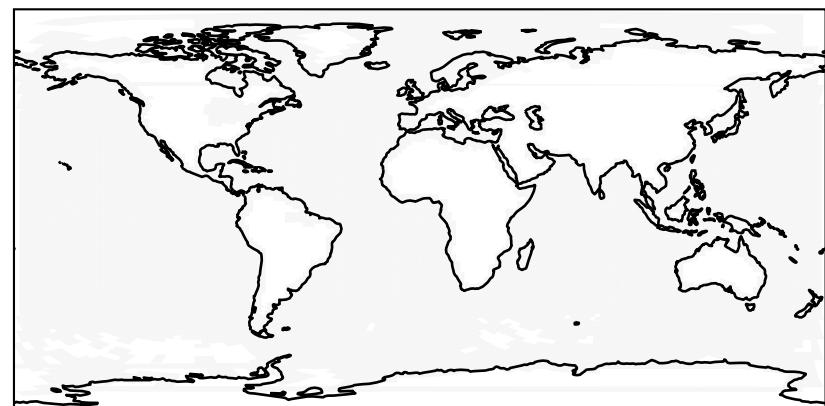
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

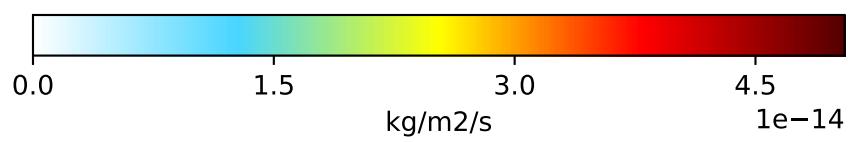
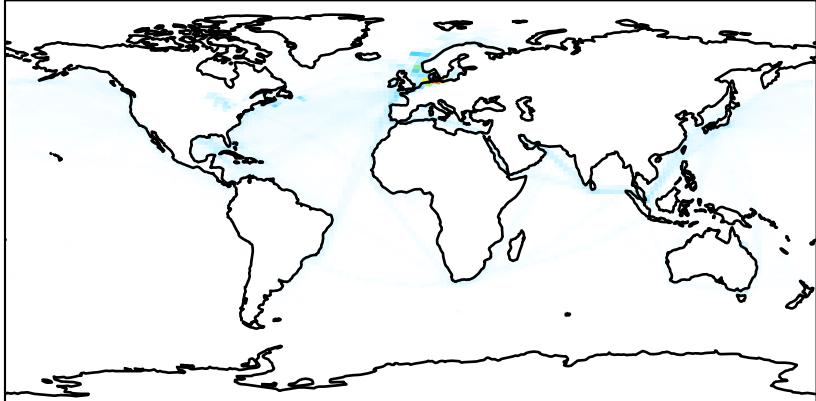


Ratio
Dev/Ref, Fixed Range

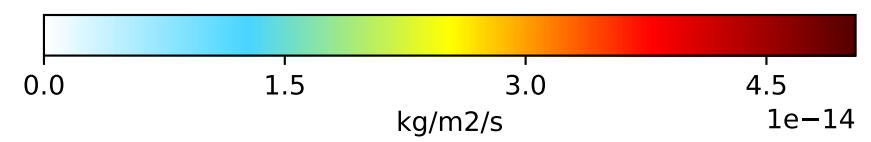


EmisC2H2_Ship

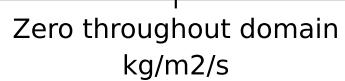
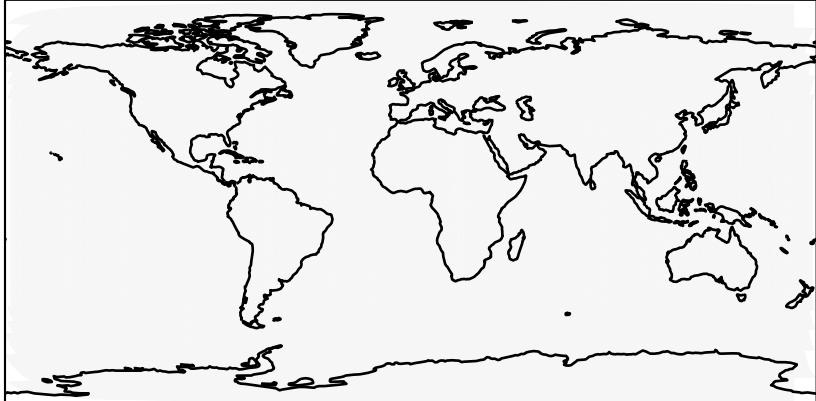
GCHP_13.3.0-rc.1 (Ref)
c48



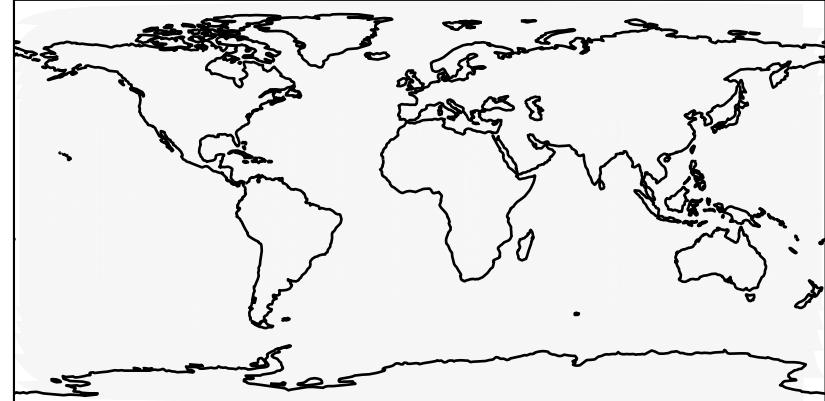
GCHP_13.4.0-rc.2 (Dev)
c48



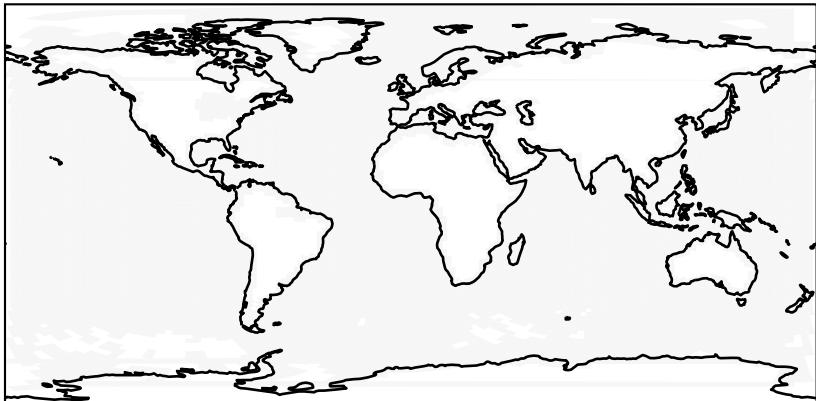
Difference
Dev - Ref, Dynamic Range



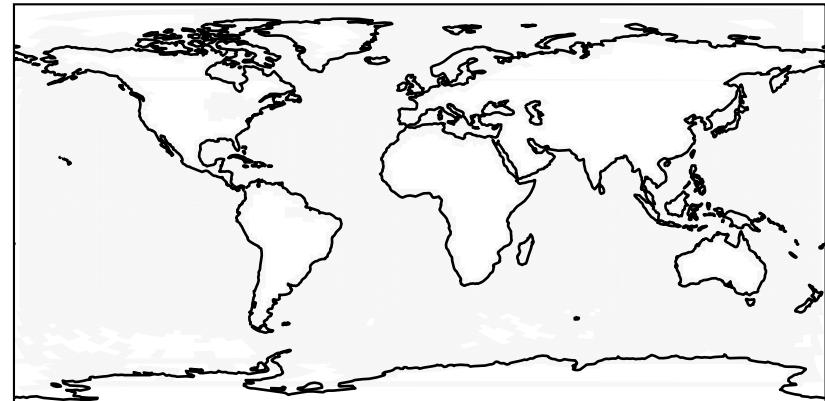
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

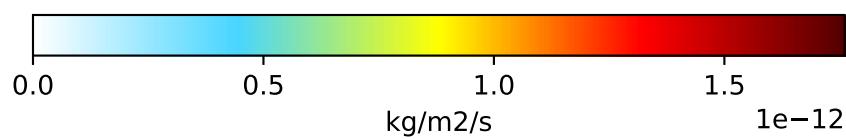


Ratio
Dev/Ref, Fixed Range

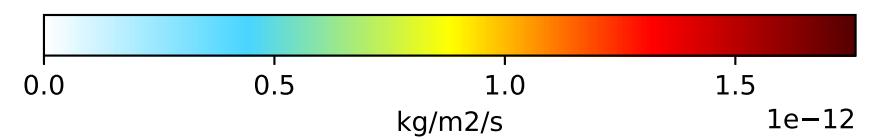
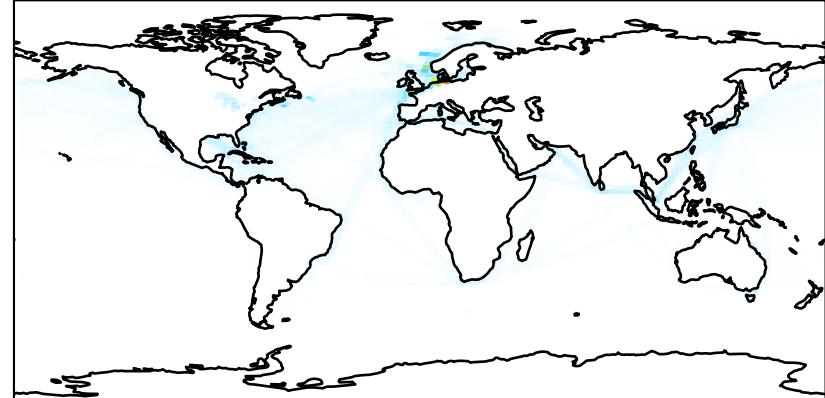


EmisC2H4_Ship

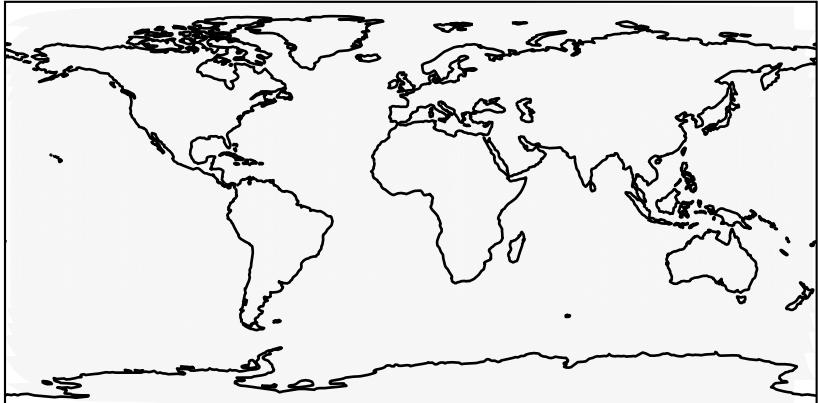
GCHP_13.3.0-rc.1 (Ref)
c48



GCHP_13.4.0-rc.2 (Dev)
c48

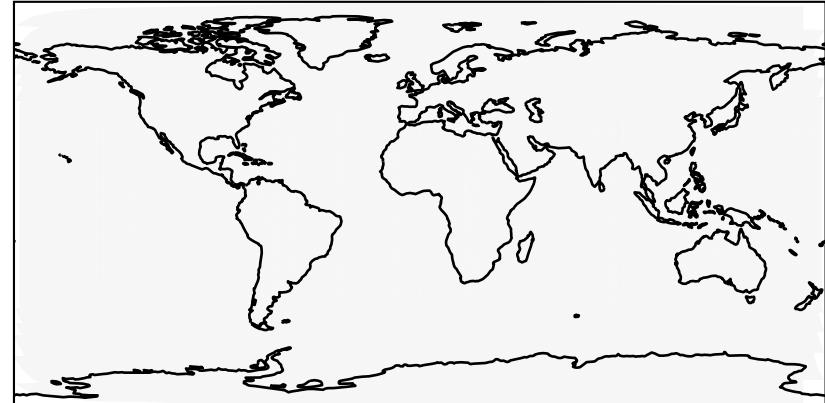


Difference
Dev - Ref, Dynamic Range



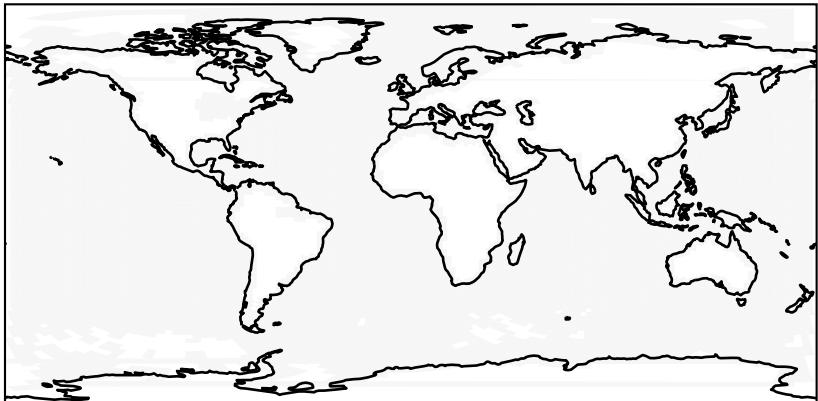
Zero throughout domain
kg/m²/s

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



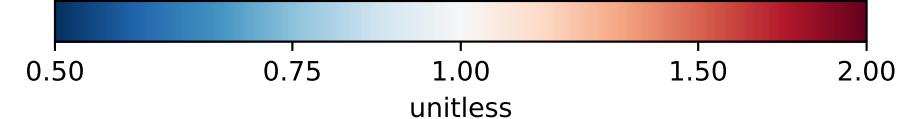
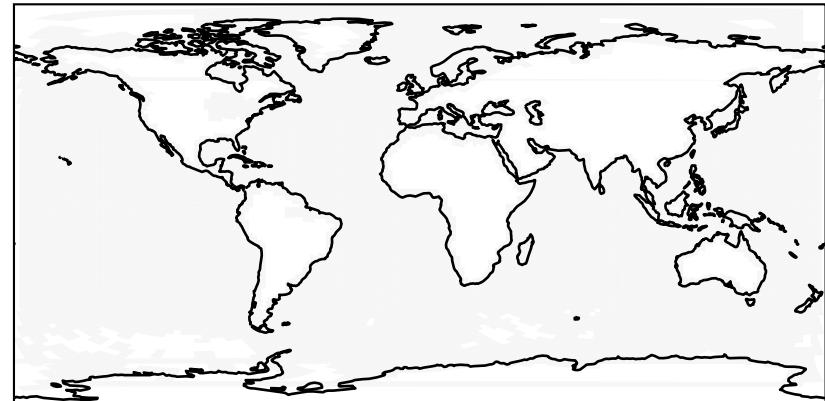
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



unitless

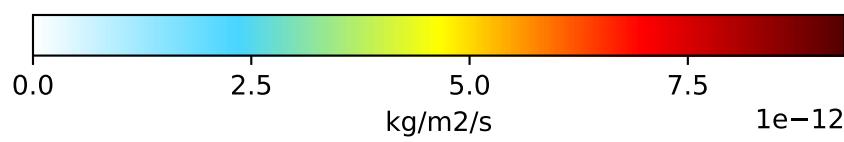
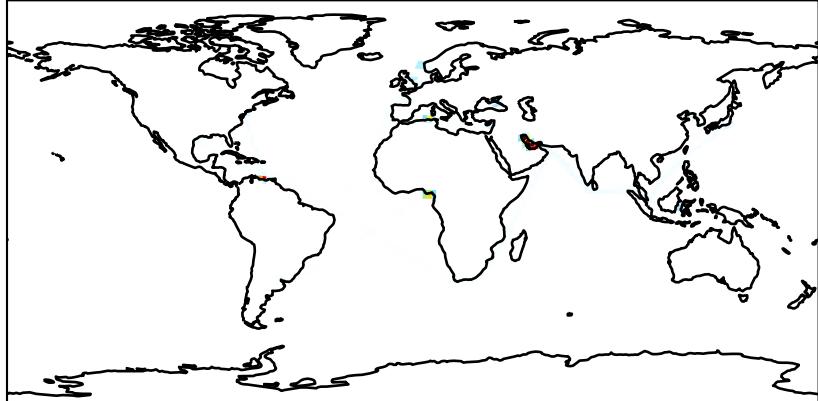
Ratio
Dev/Ref, Fixed Range



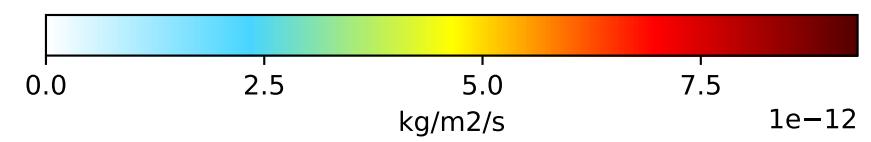
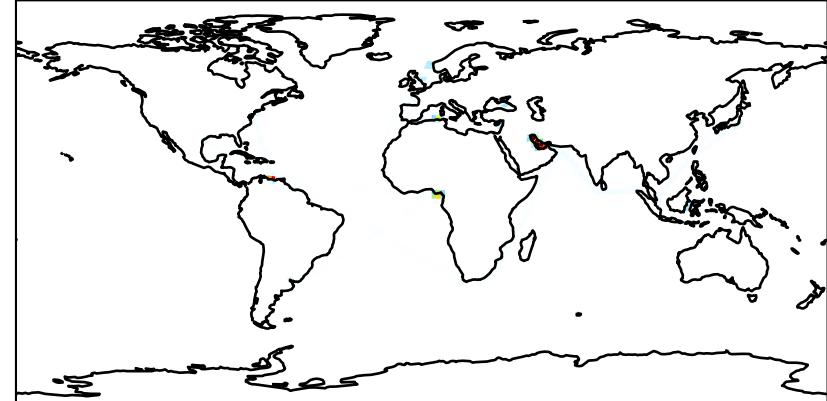
unitless

EmisC2H6_Ship

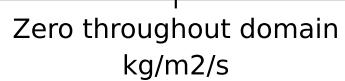
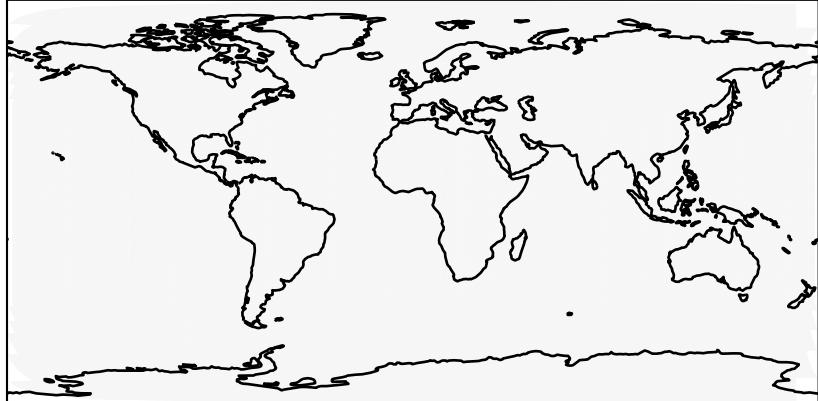
GCHP_13.3.0-rc.1 (Ref)
c48



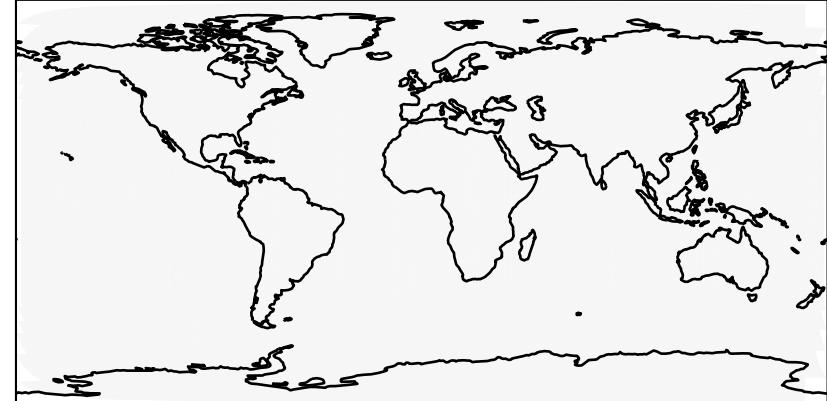
GCHP_13.4.0-rc.2 (Dev)
c48



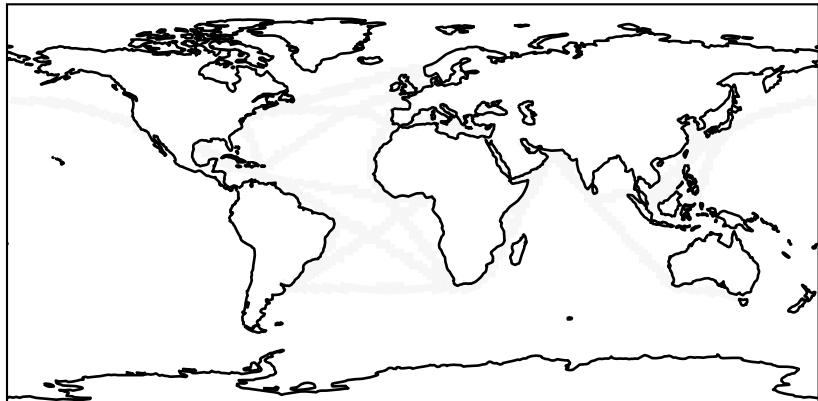
Difference
Dev - Ref, Dynamic Range



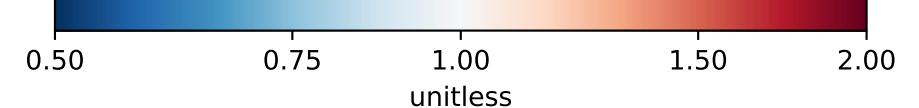
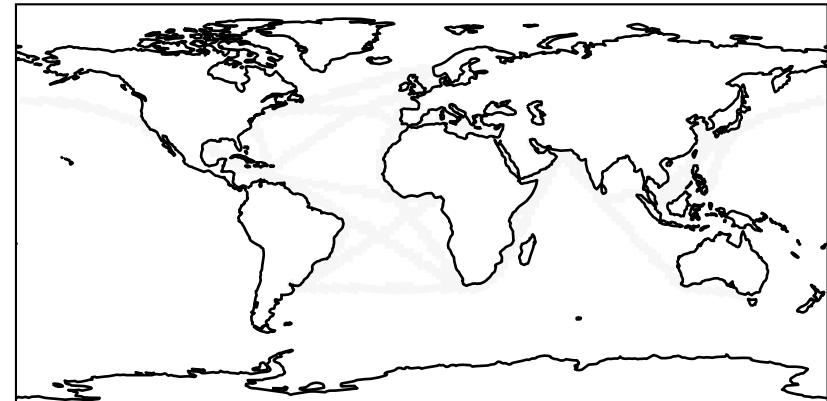
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

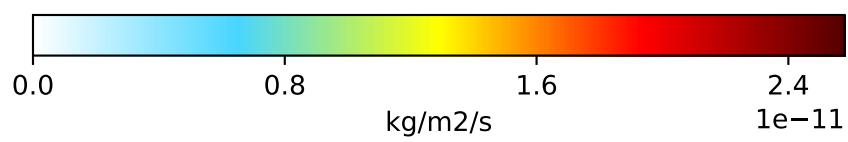
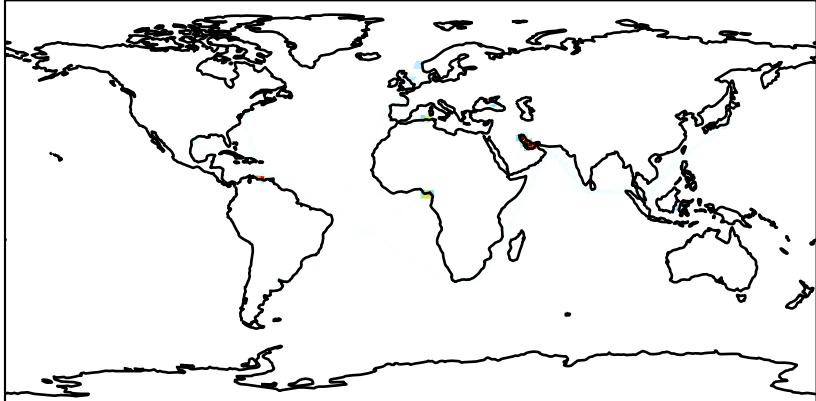


Ratio
Dev/Ref, Fixed Range

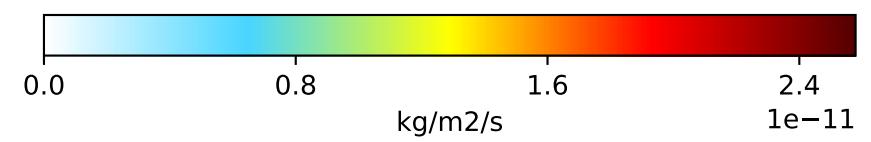
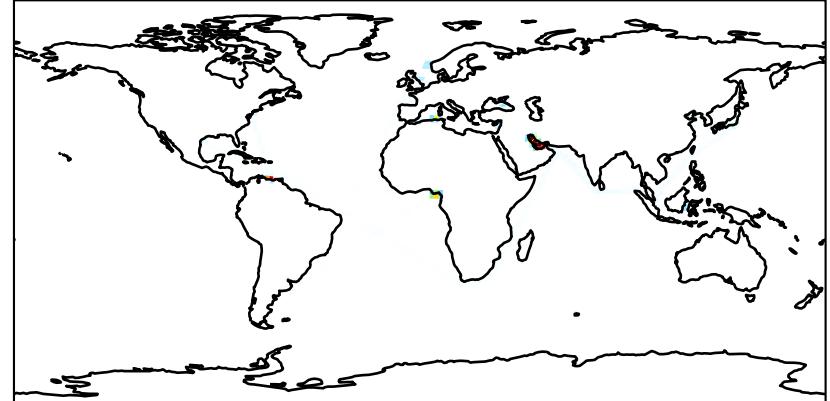


EmisC3H8_Ship

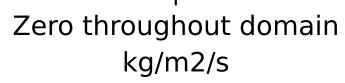
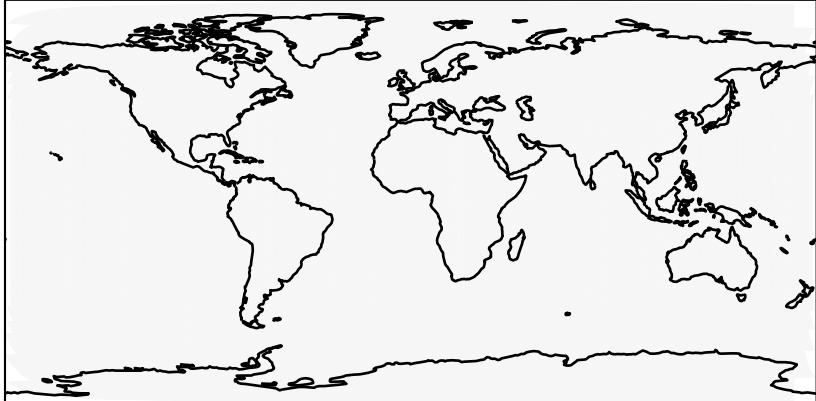
GCHP_13.3.0-rc.1 (Ref)
c48



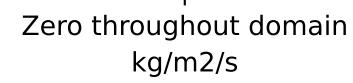
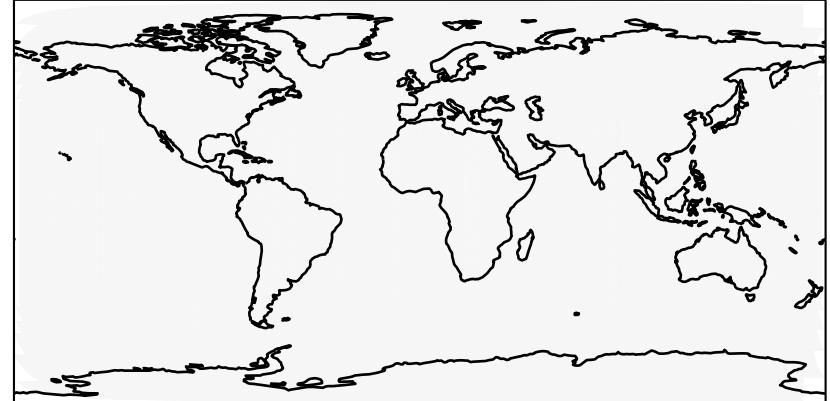
GCHP_13.4.0-rc.2 (Dev)
c48



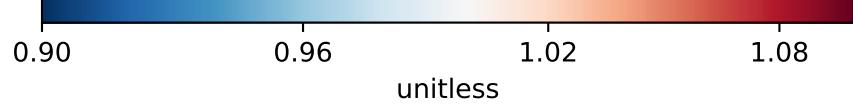
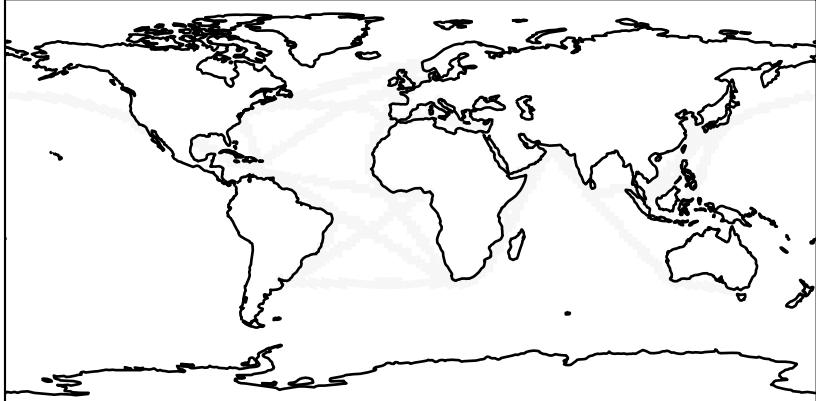
Difference
Dev - Ref, Dynamic Range



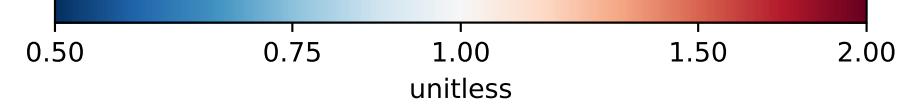
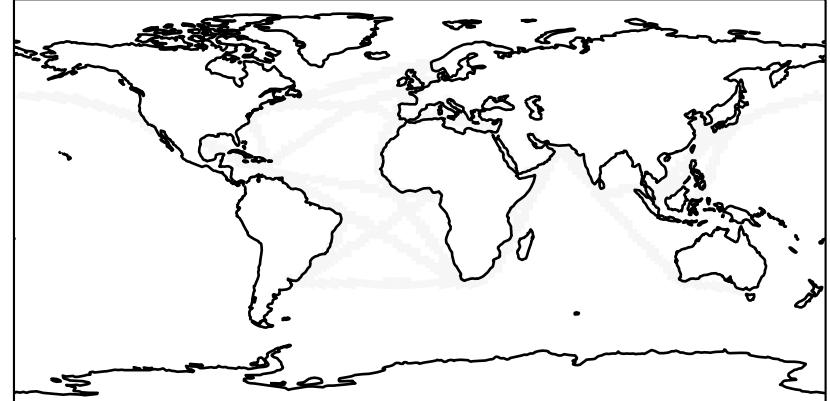
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

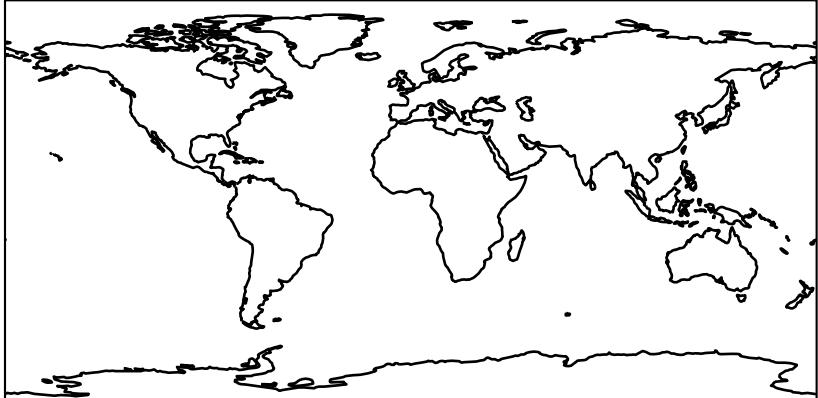


Ratio
Dev/Ref, Fixed Range



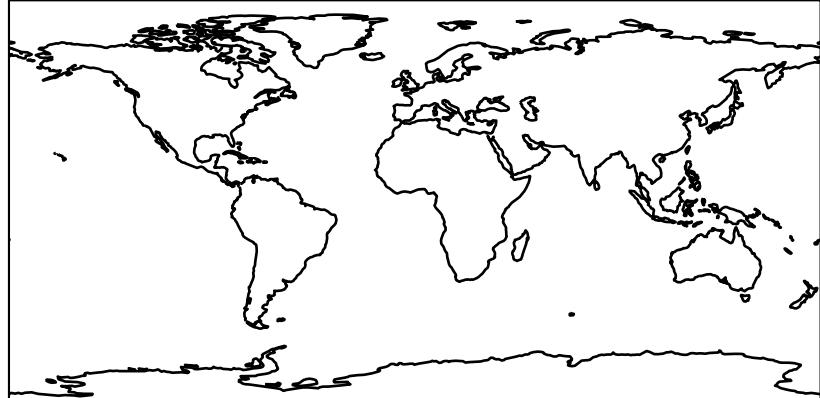
EmisCH2O_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



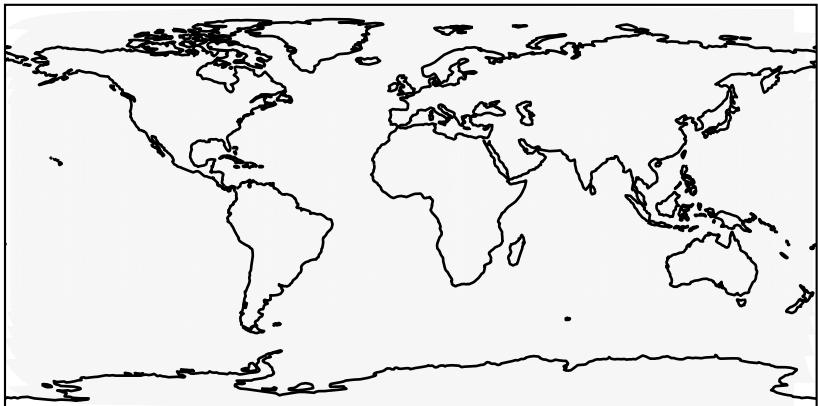
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



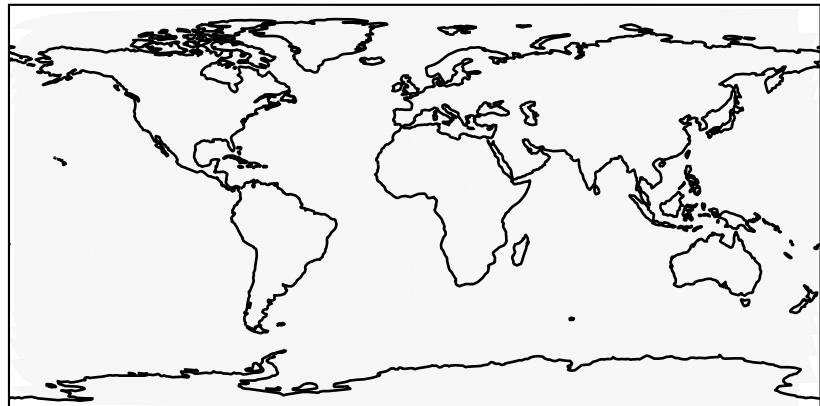
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



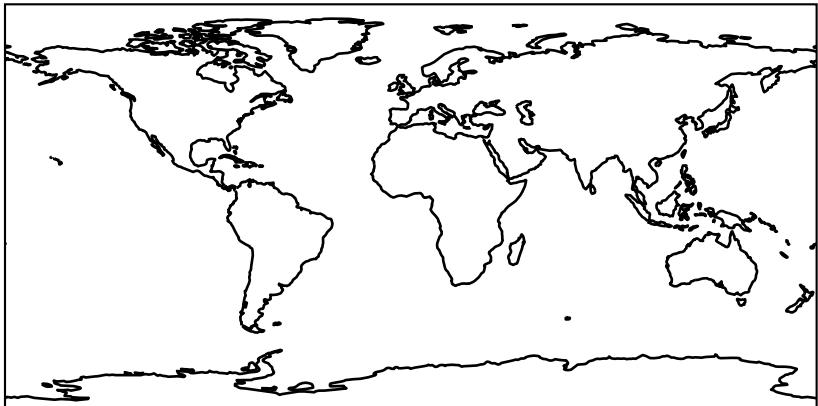
Zero throughout domain
kg/m²/s

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



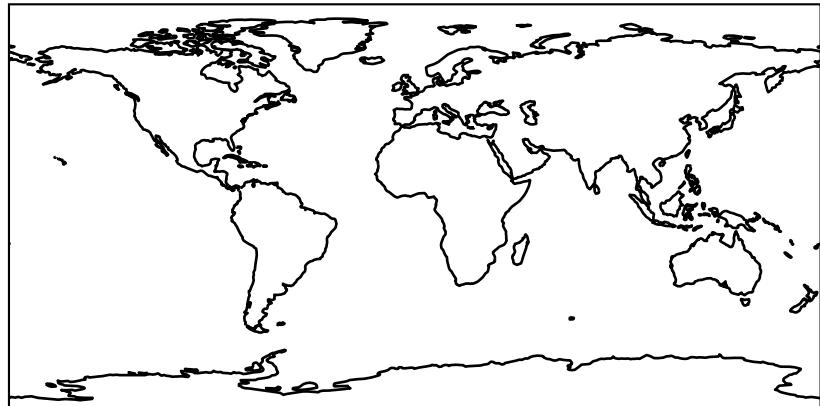
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



Undefined throughout domain
unitless

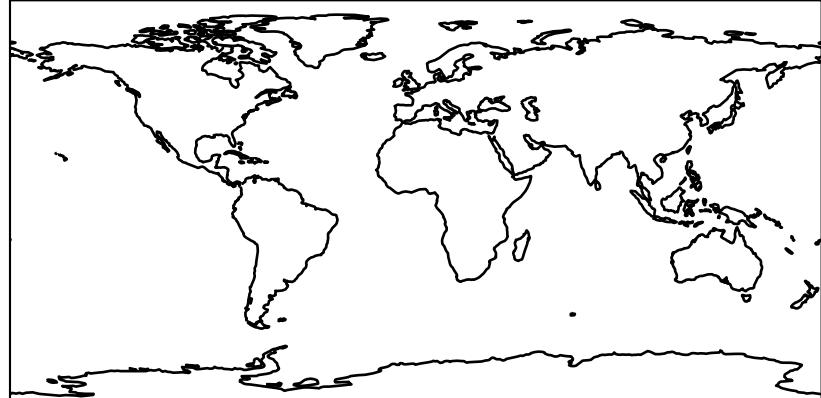
Ratio
Dev/Ref, Fixed Range



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EmisCO2_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



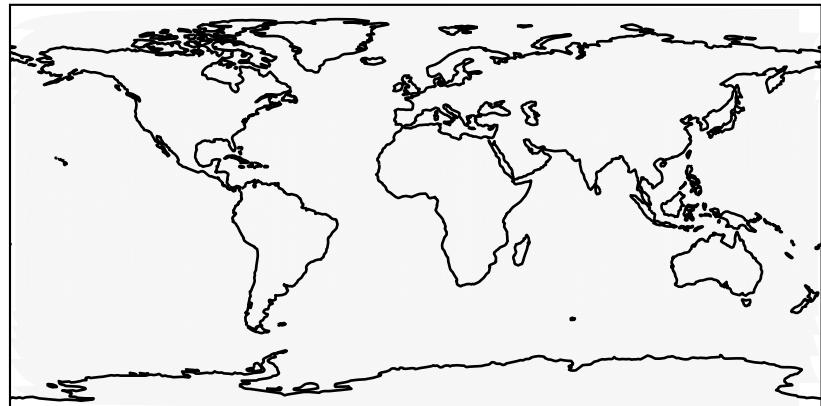
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



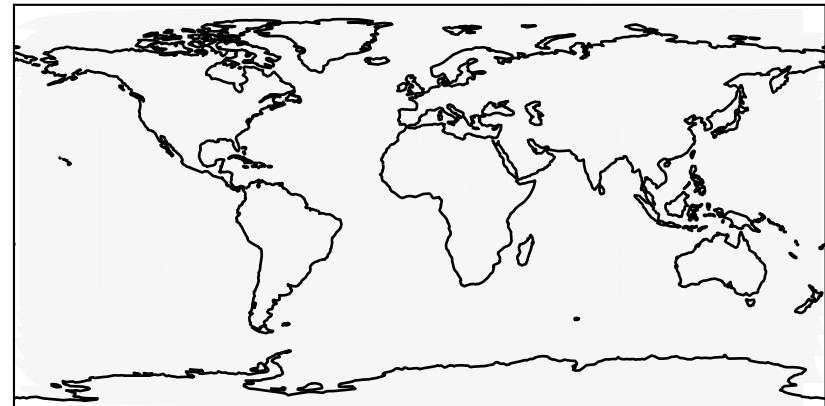
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



Zero throughout domain
kg/m²/s

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



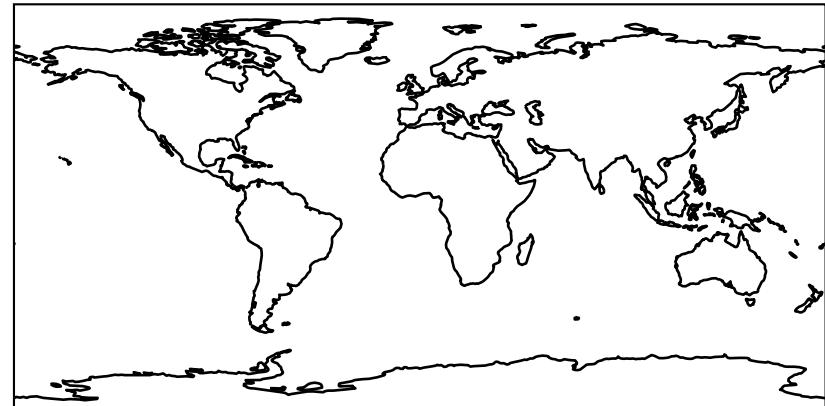
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



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unitless

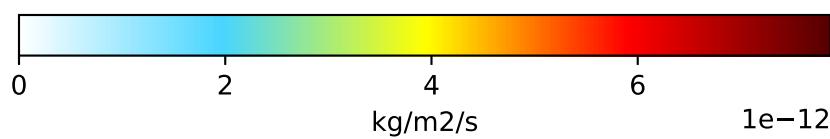
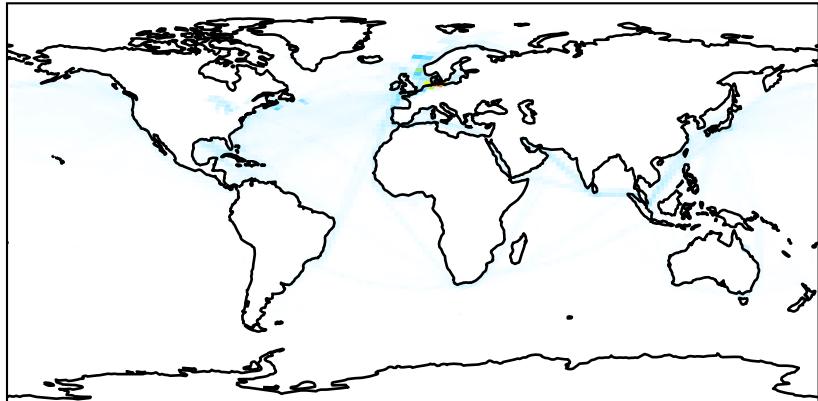
Ratio
Dev/Ref, Fixed Range



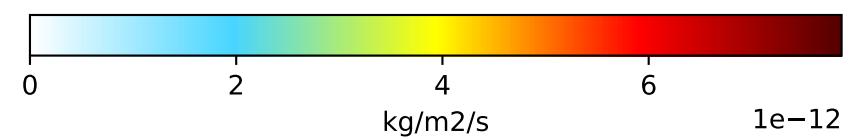
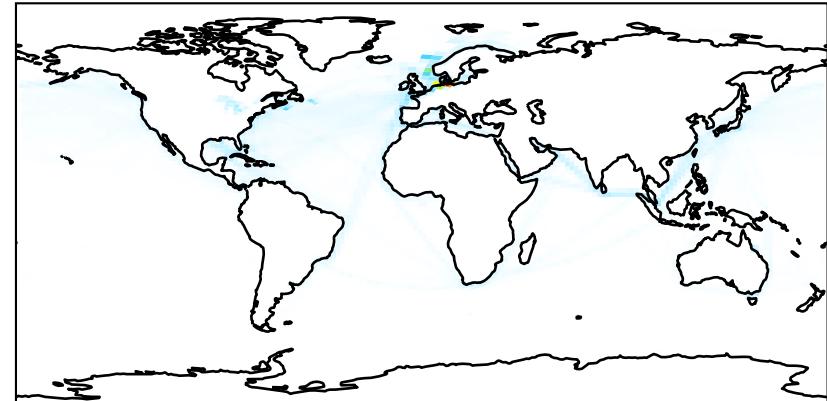
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EmisCO_Ship

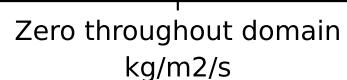
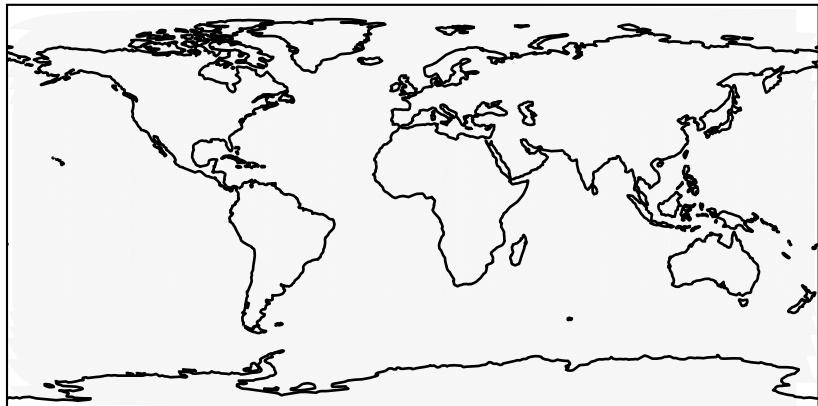
GCHP_13.3.0-rc.1 (Ref)
c48



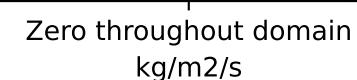
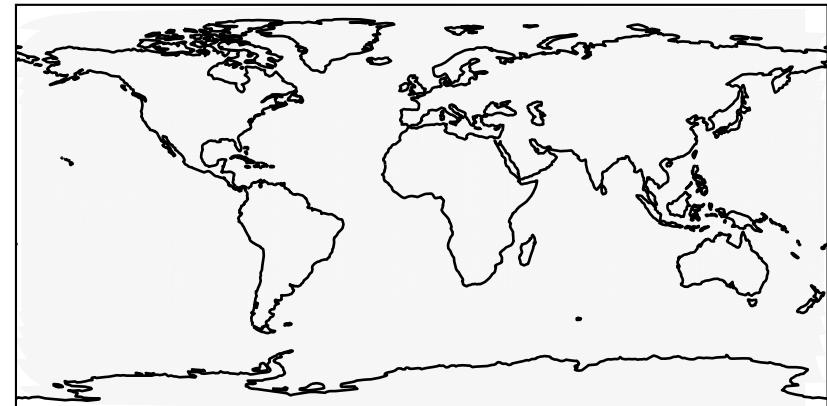
GCHP_13.4.0-rc.2 (Dev)
c48



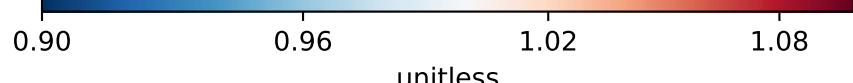
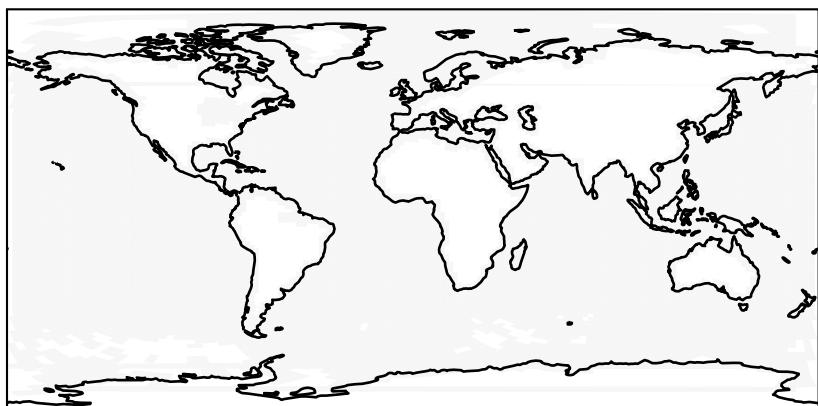
Difference
Dev - Ref, Dynamic Range



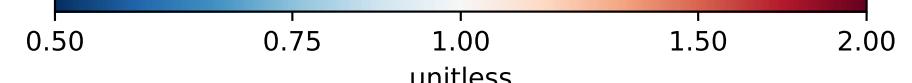
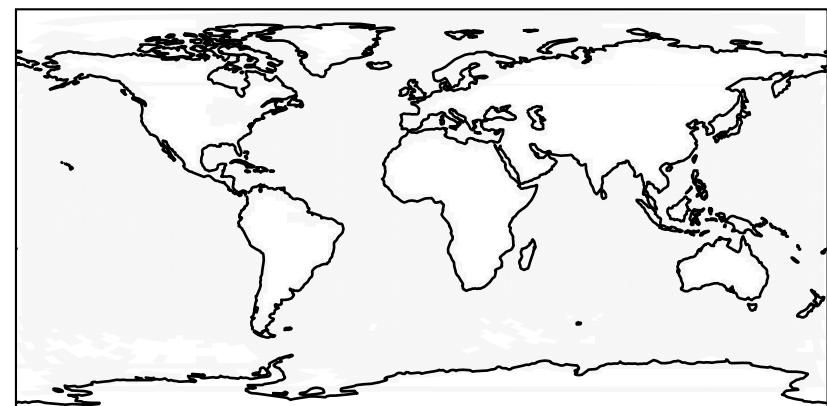
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

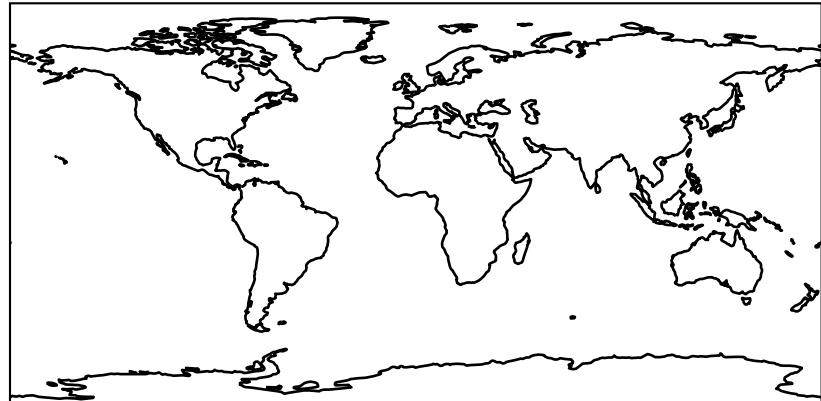


Ratio
Dev/Ref, Fixed Range



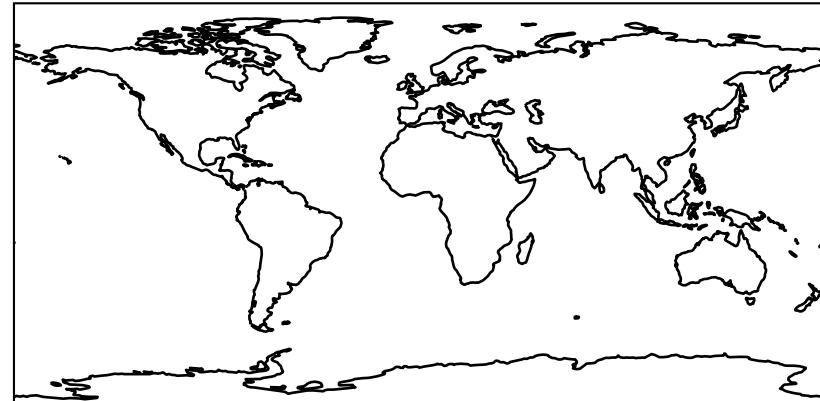
EmisEOH_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



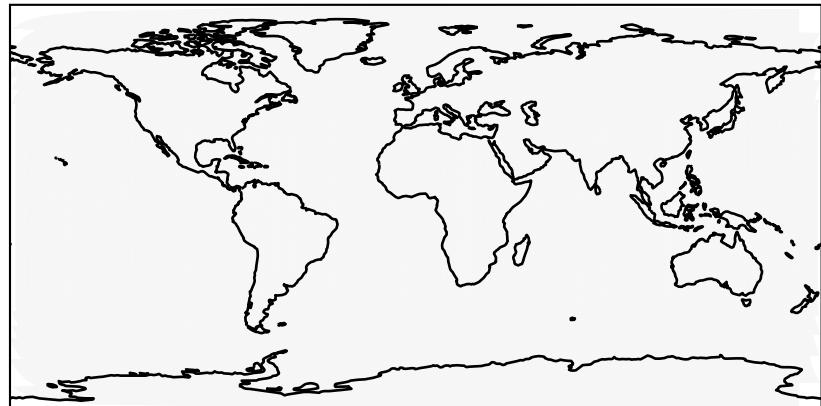
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



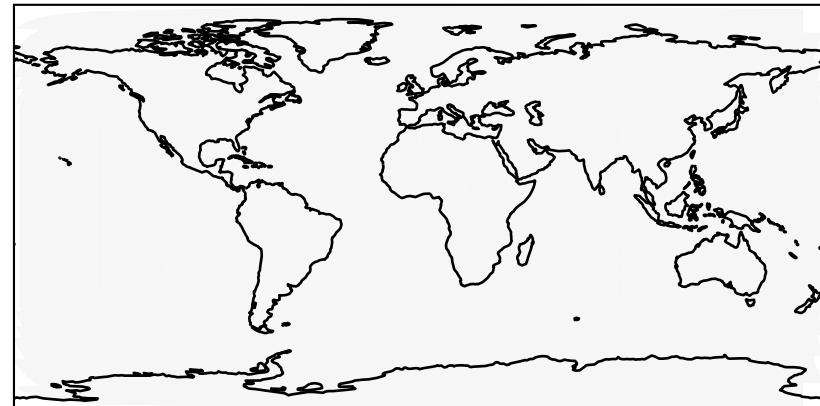
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



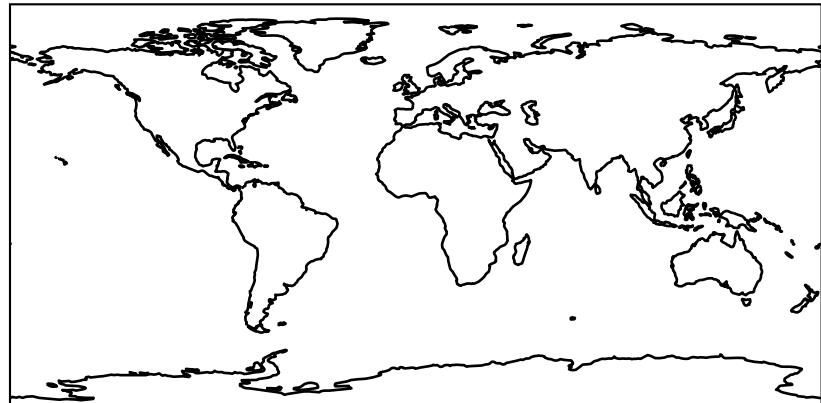
Zero throughout domain
kg/m²/s

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



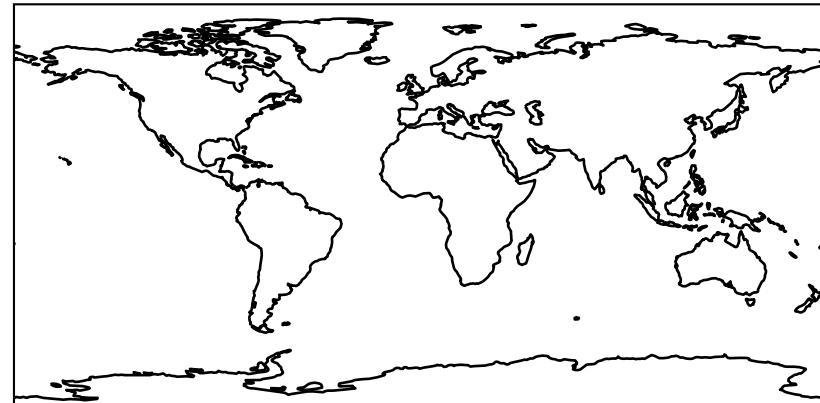
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



Undefined throughout domain
unitless

Ratio
Dev/Ref, Fixed Range



Undefined throughout domain
unitless

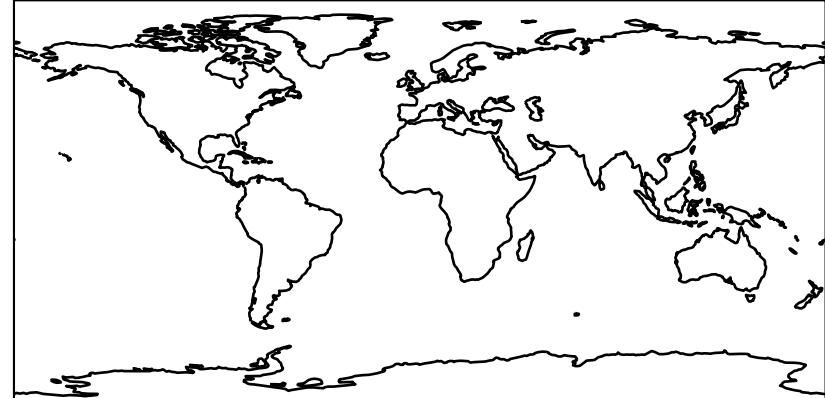
EmisHCOOH_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



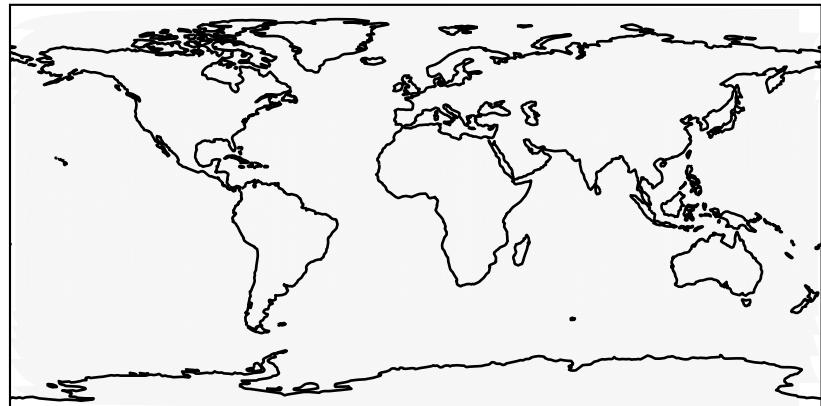
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



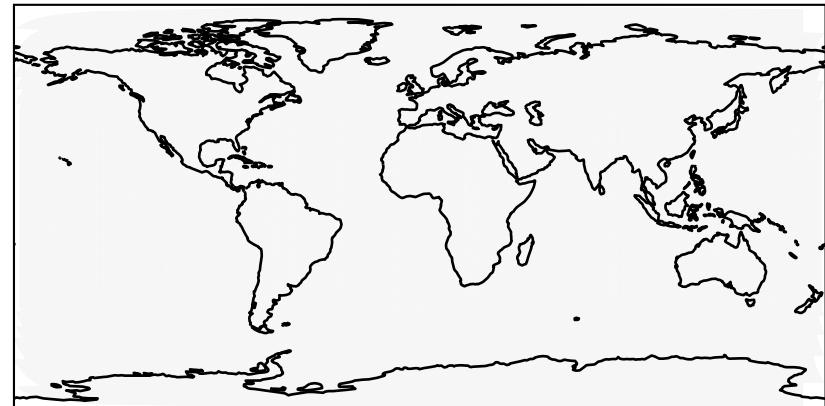
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



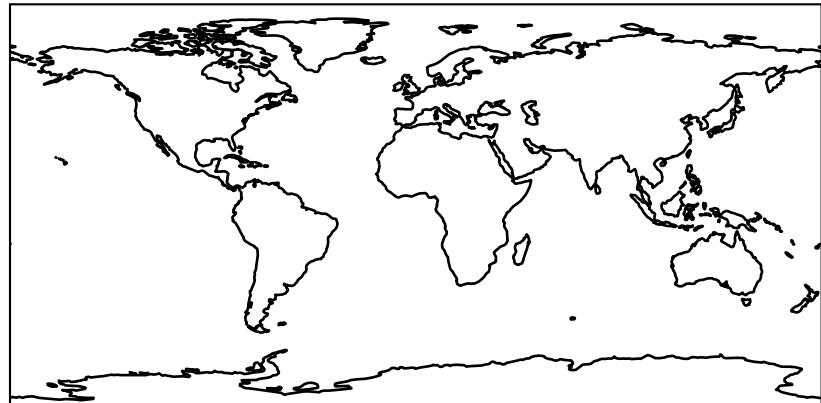
Zero throughout domain
kg/m²/s

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



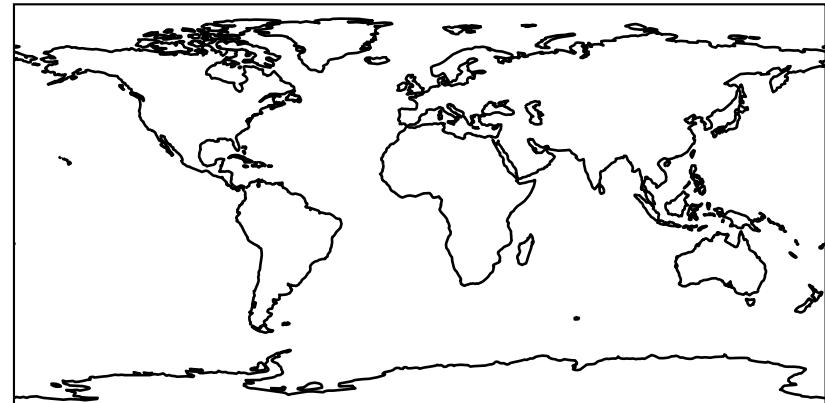
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



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unitless

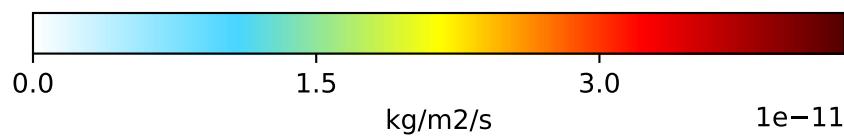
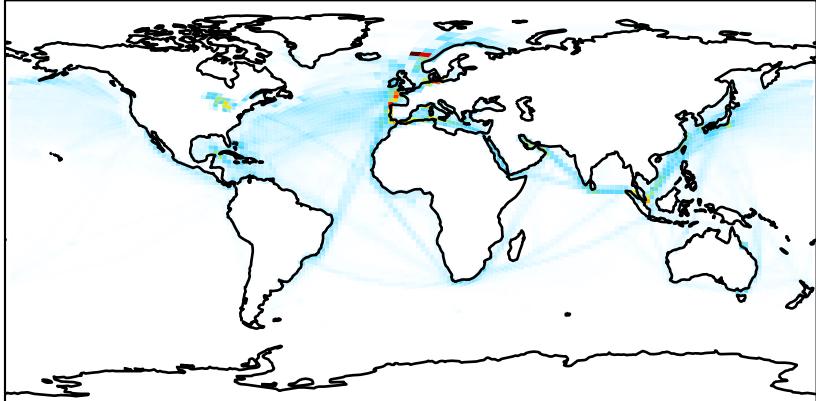
Ratio
Dev/Ref, Fixed Range



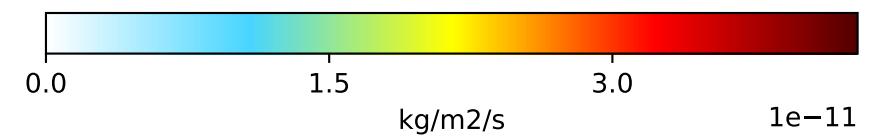
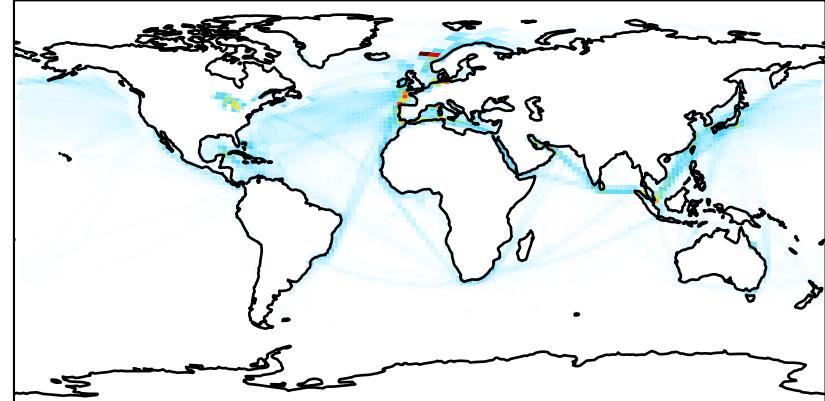
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EmisHNO3_Ship

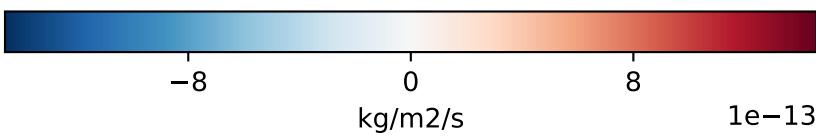
GCHP_13.3.0-rc.1 (Ref)
c48



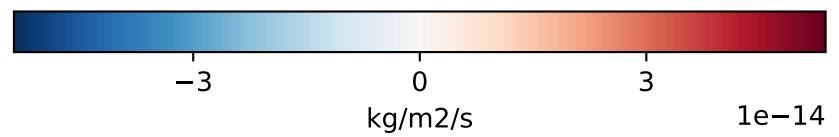
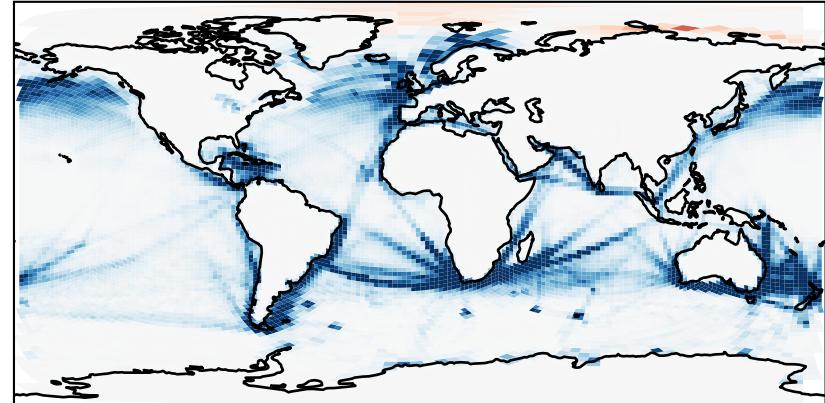
GCHP_13.4.0-rc.2 (Dev)
c48



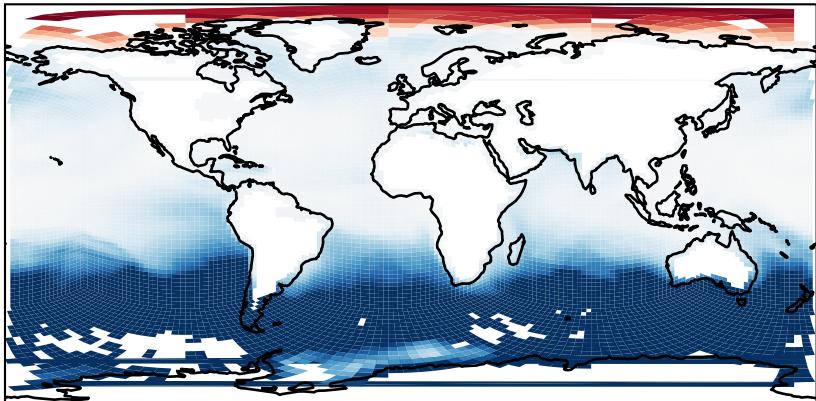
Difference
Dev - Ref, Dynamic Range



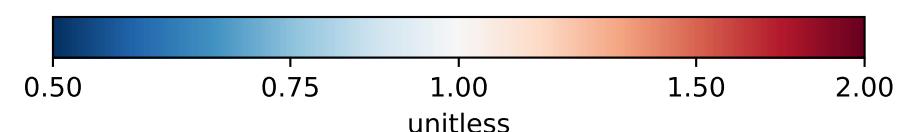
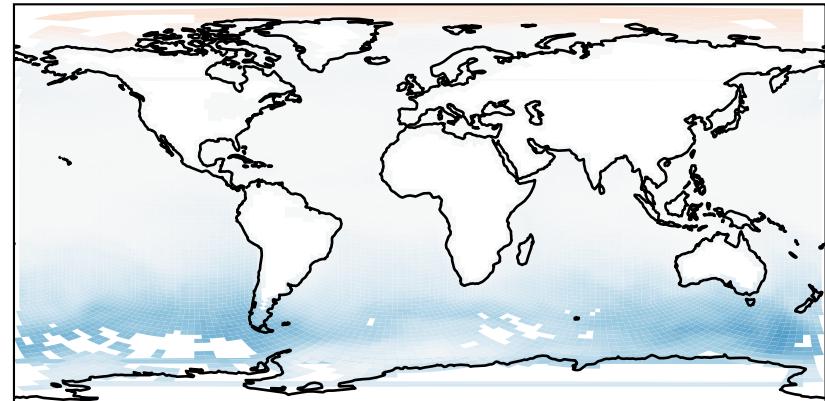
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

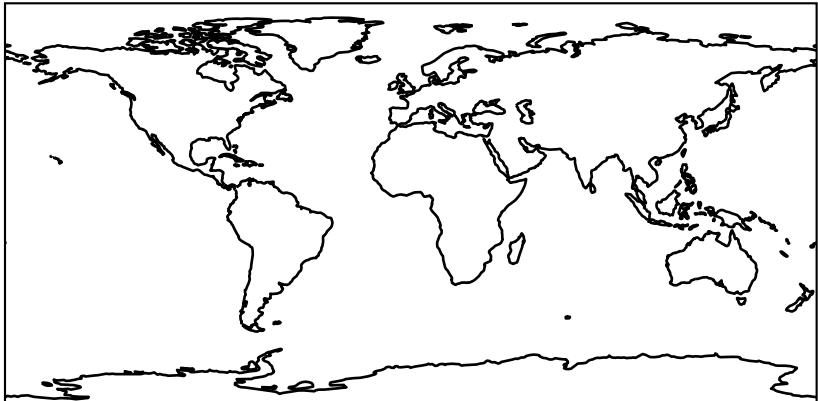


Ratio
Dev/Ref, Fixed Range



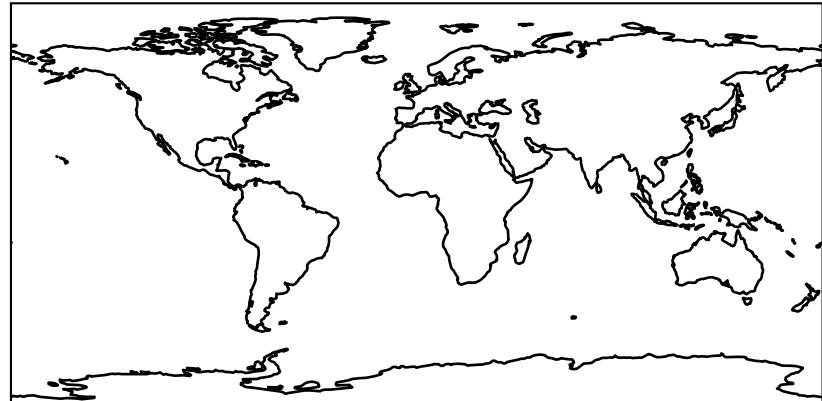
EmisMEK_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



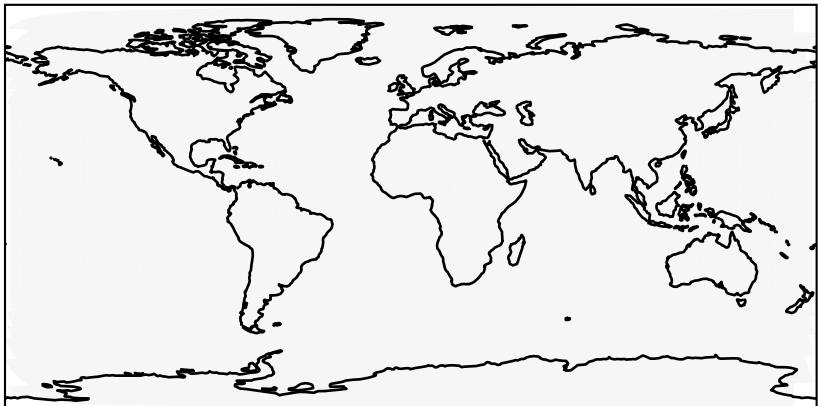
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



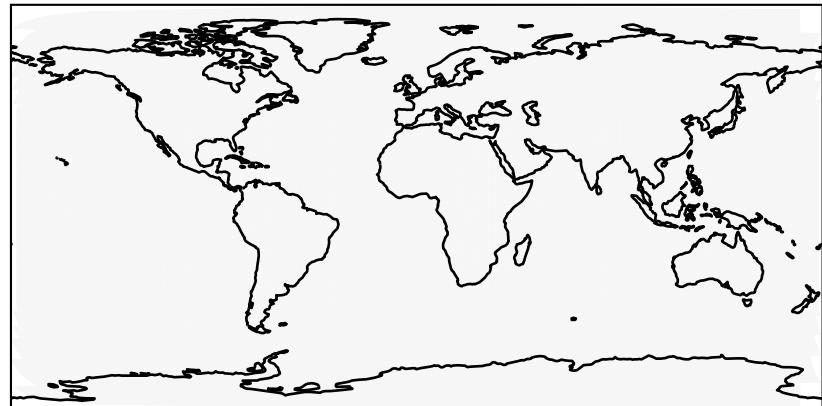
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



Zero throughout domain
kg/m²/s

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



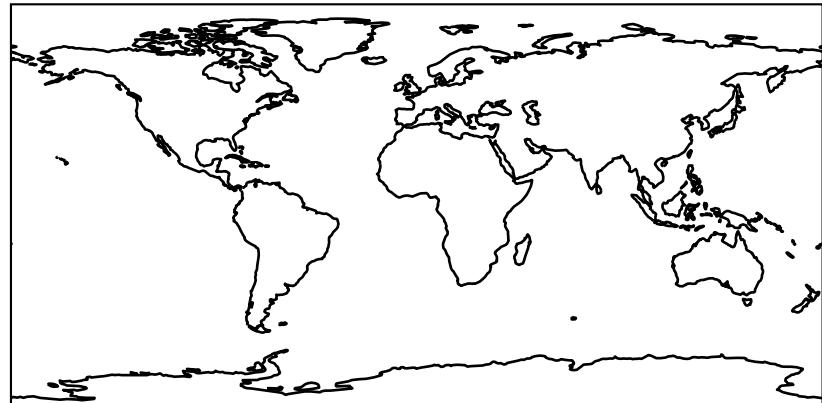
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



Undefined throughout domain
unitless

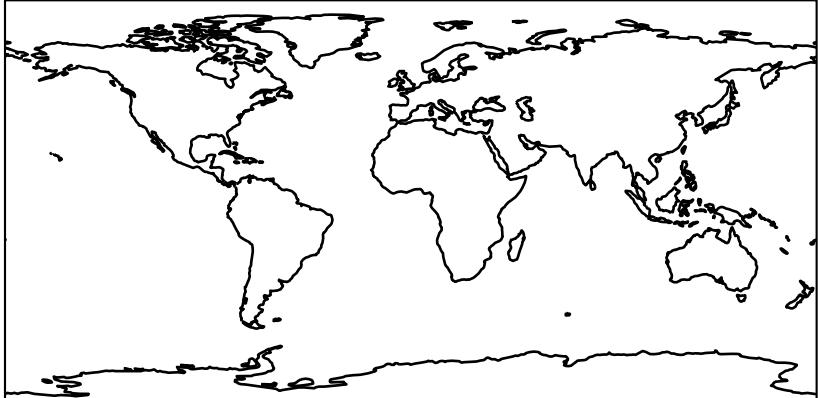
Ratio
Dev/Ref, Fixed Range



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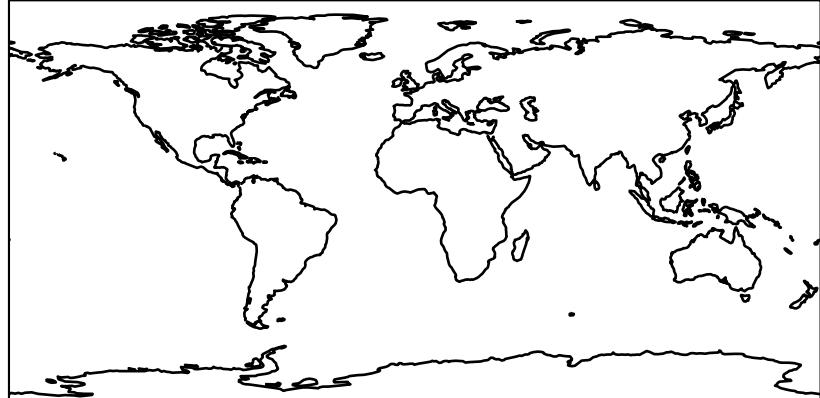
EmisMOH_Ship

GCHP_13.3.0-rc.1 (Ref)
c48



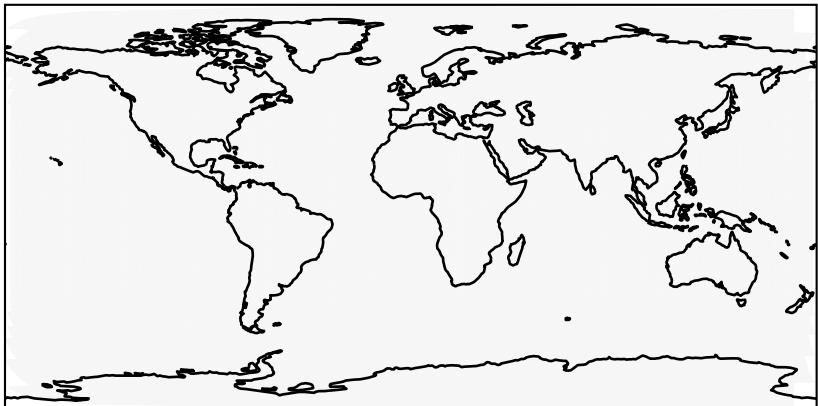
Zero throughout domain
kg/m²/s

GCHP_13.4.0-rc.2 (Dev)
c48



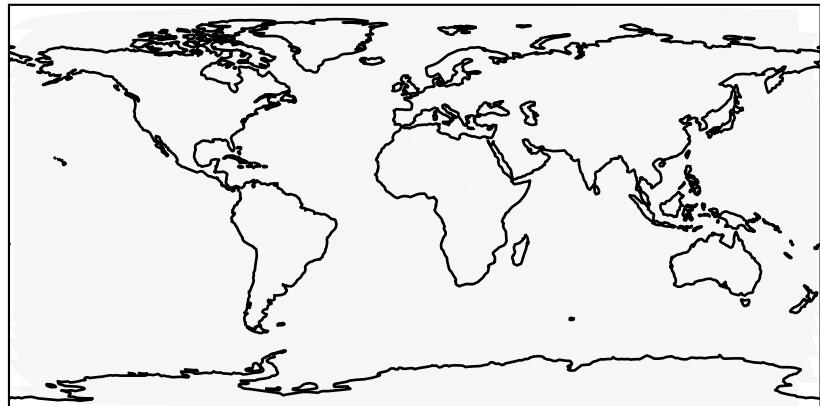
Zero throughout domain
kg/m²/s

Difference
Dev - Ref, Dynamic Range



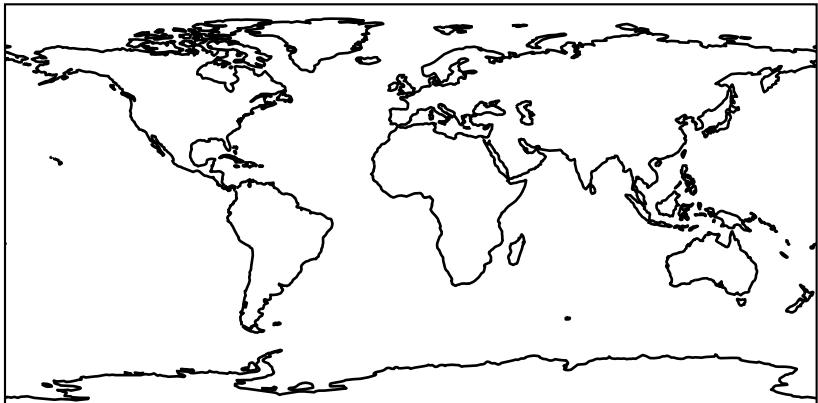
Zero throughout domain
kg/m²/s

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



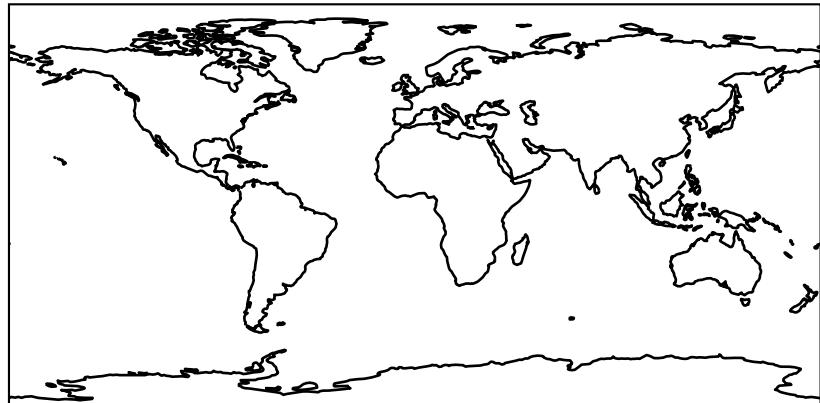
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



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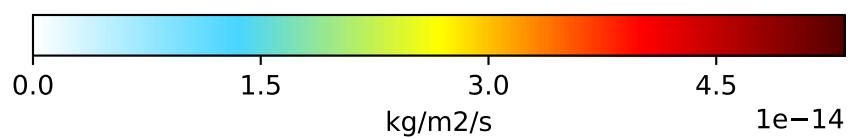
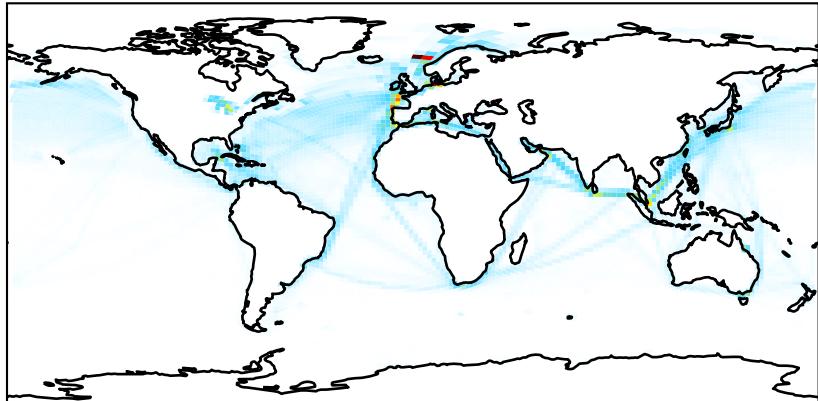
Ratio
Dev/Ref, Fixed Range



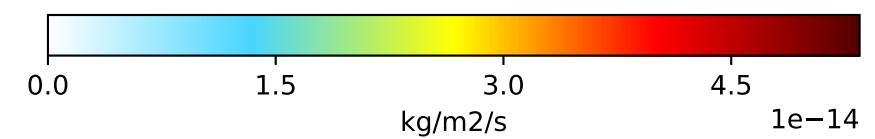
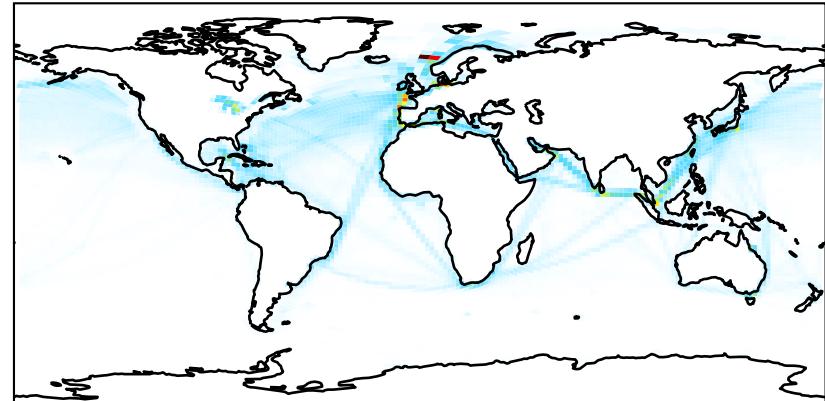
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EmisNH3_Ship

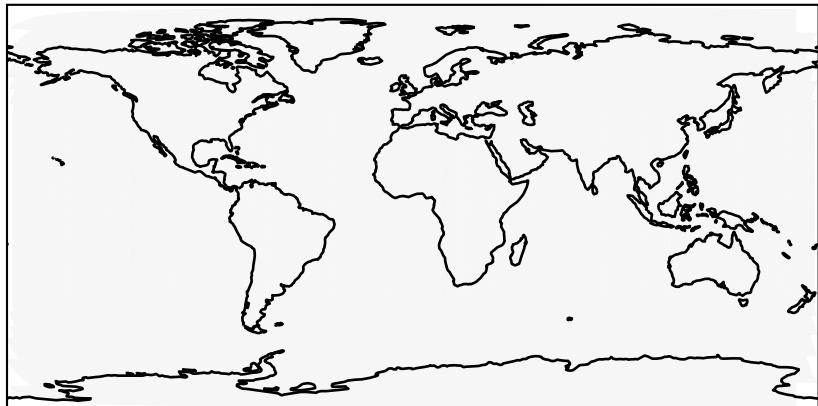
GCHP_13.3.0-rc.1 (Ref)
c48



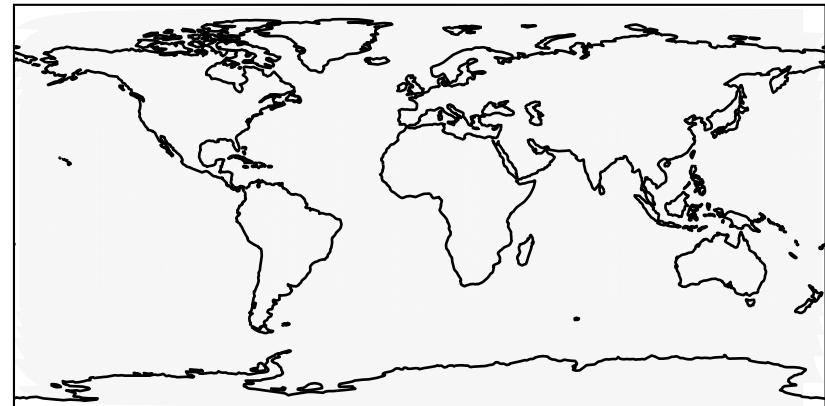
GCHP_13.4.0-rc.2 (Dev)
c48



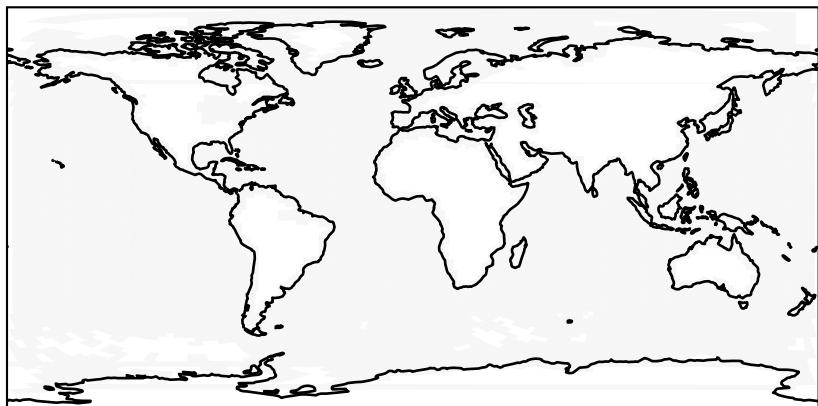
Difference
Dev - Ref, Dynamic Range



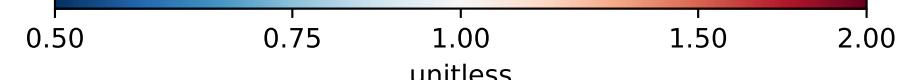
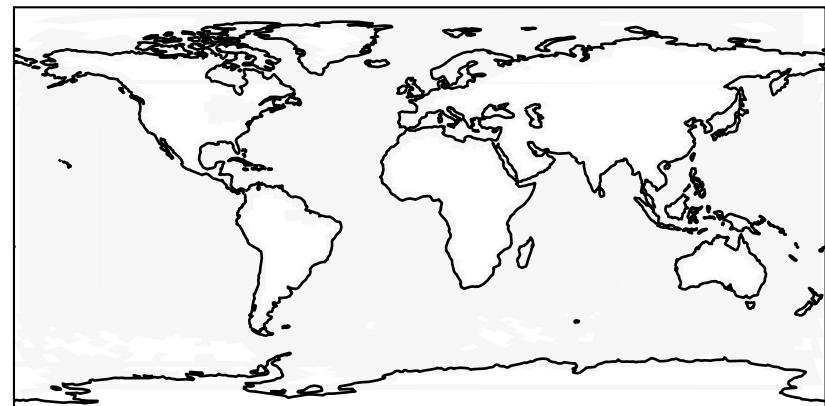
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

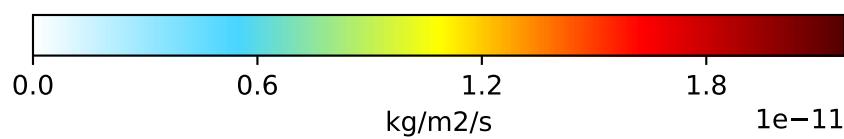
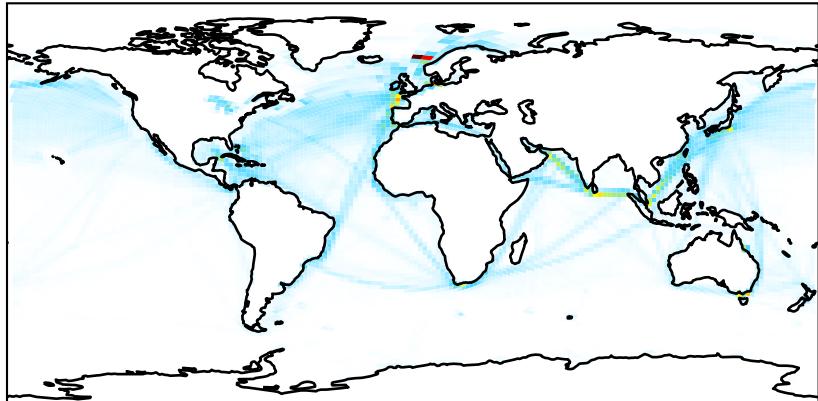


Ratio
Dev/Ref, Fixed Range

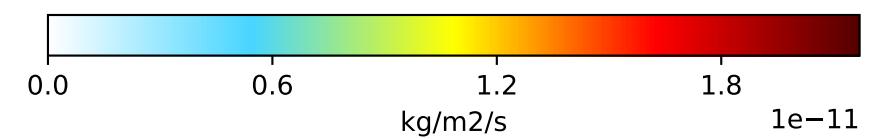
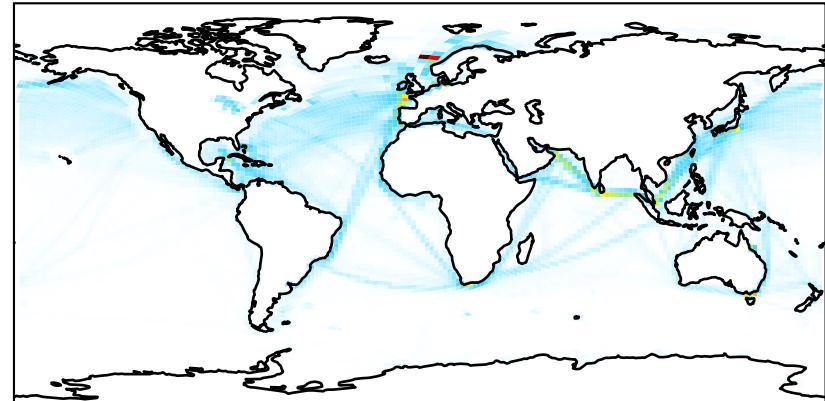


EmisNO2_Ship

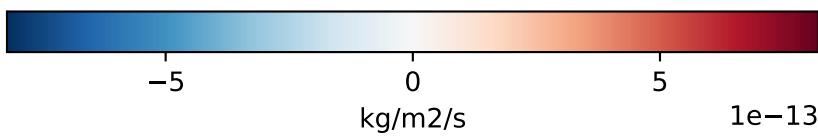
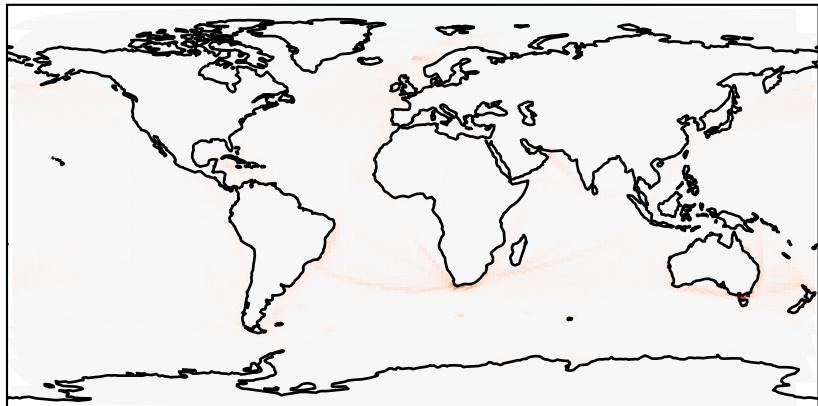
GCHP_13.3.0-rc.1 (Ref)
c48



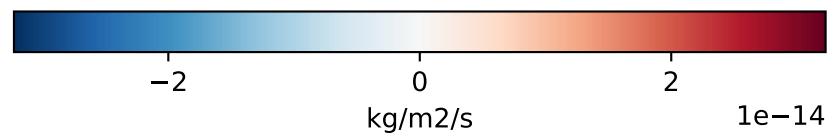
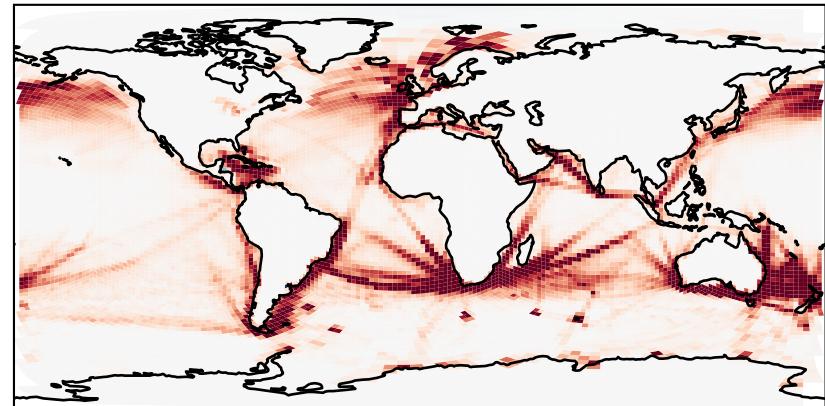
GCHP_13.4.0-rc.2 (Dev)
c48



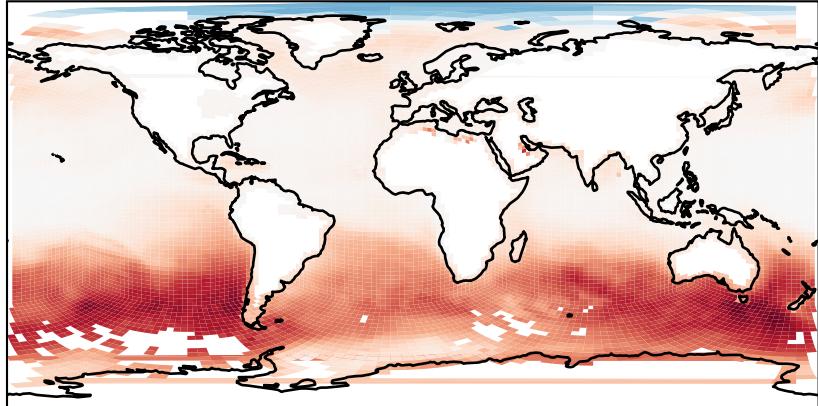
Difference
Dev - Ref, Dynamic Range



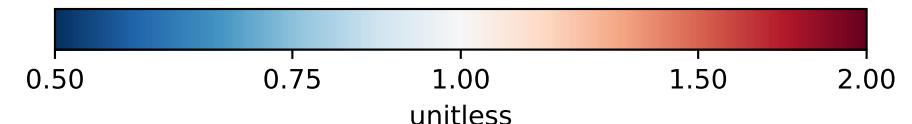
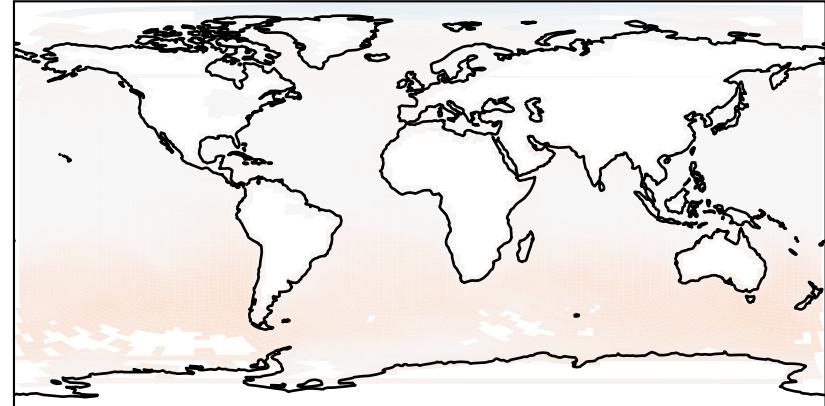
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

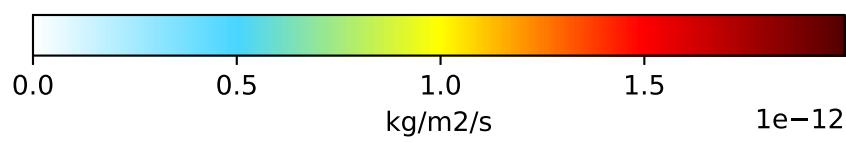
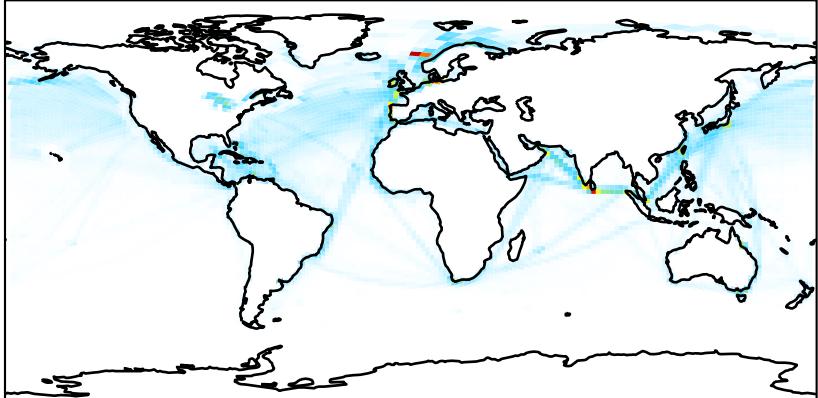


Ratio
Dev/Ref, Fixed Range

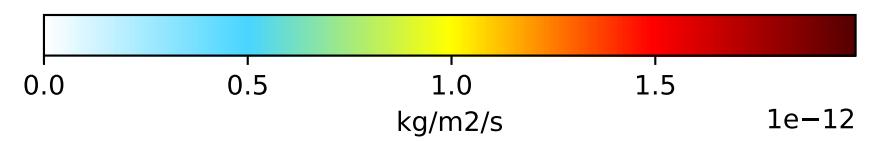
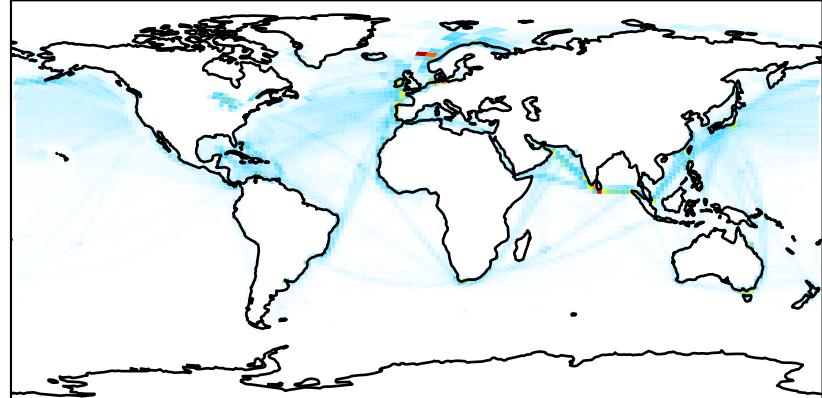


EmisNO_Ship

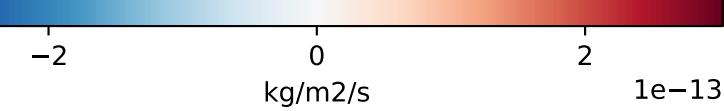
GCHP_13.3.0-rc.1 (Ref)
c48



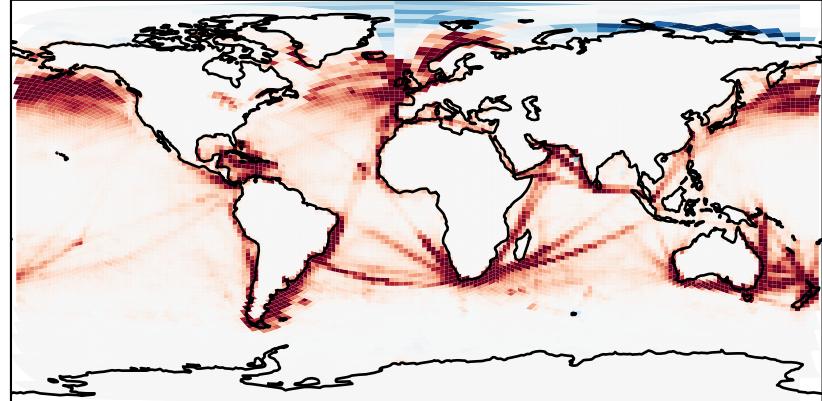
GCHP_13.4.0-rc.2 (Dev)
c48



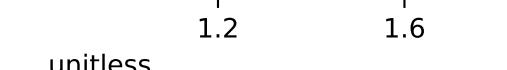
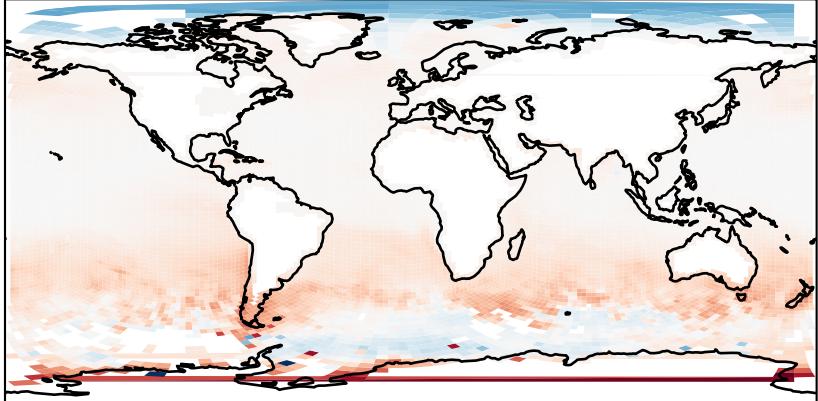
Difference
Dev - Ref, Dynamic Range



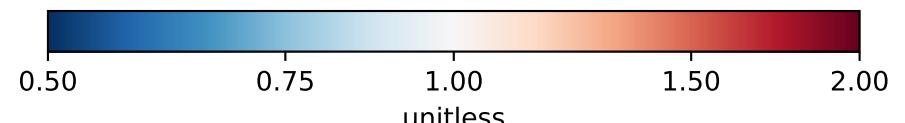
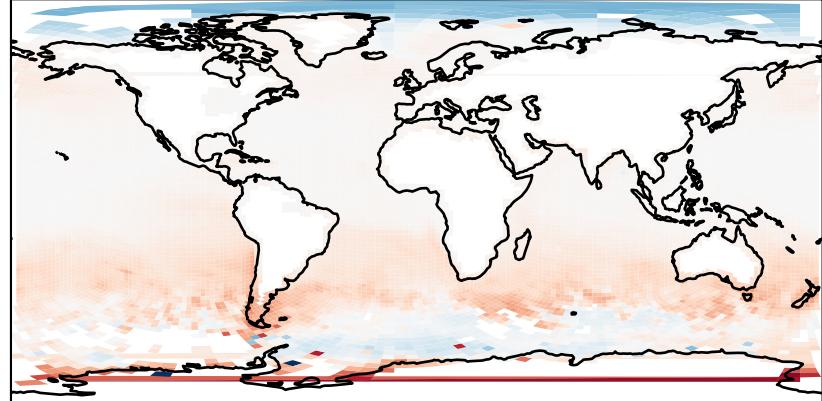
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

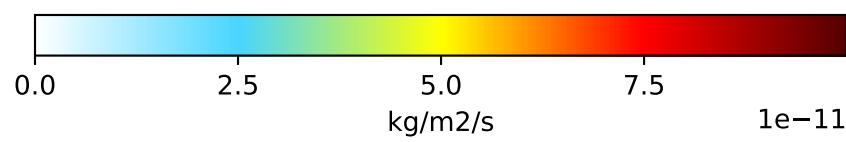
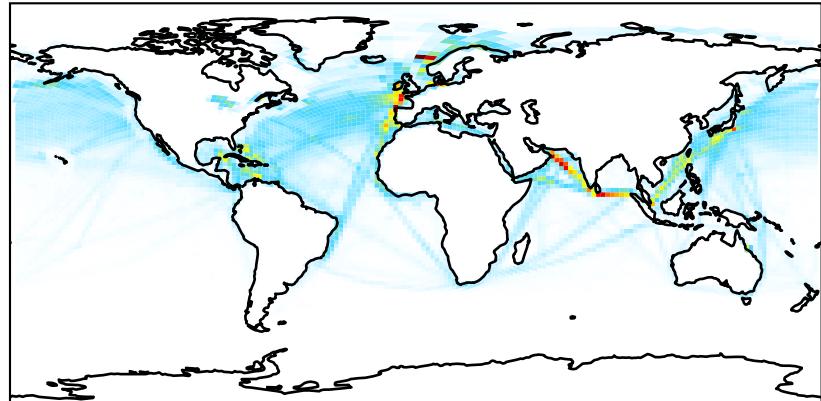


Ratio
Dev/Ref, Fixed Range

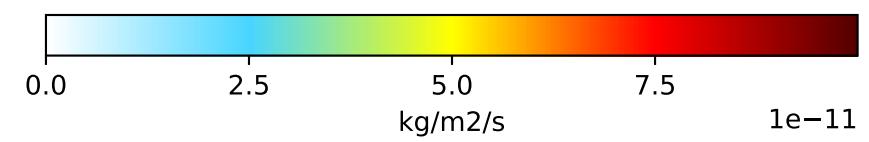
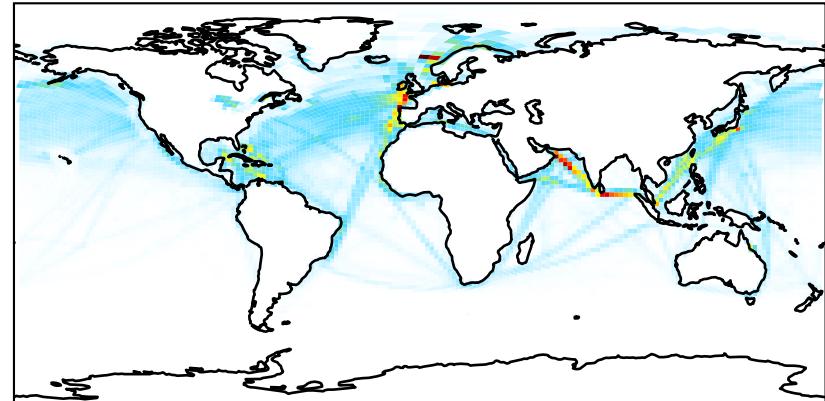


EmisO3_Ship

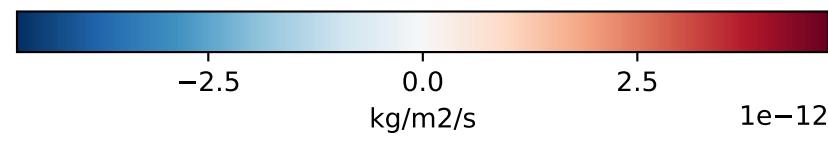
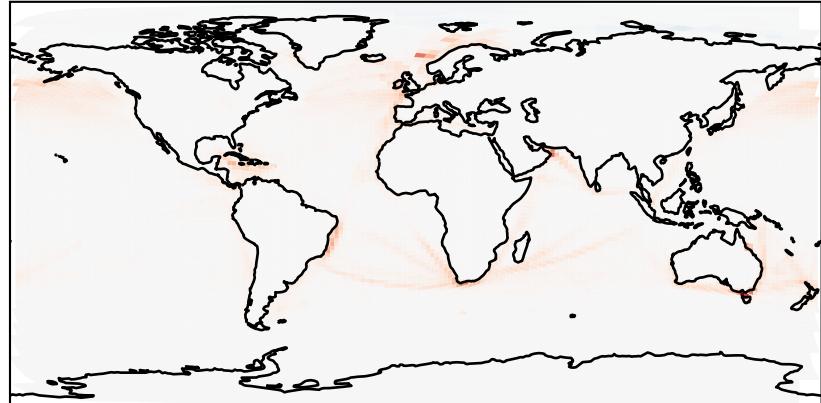
GCHP_13.3.0-rc.1 (Ref)
c48



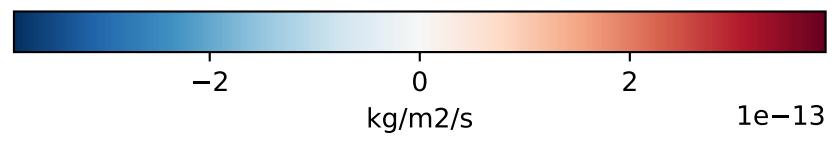
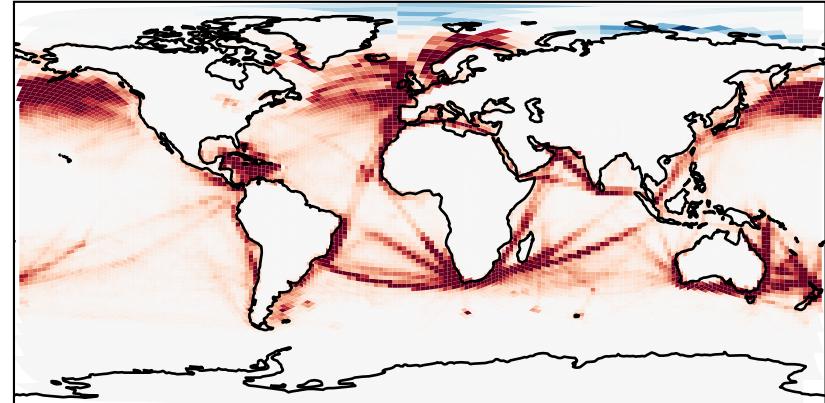
GCHP_13.4.0-rc.2 (Dev)
c48



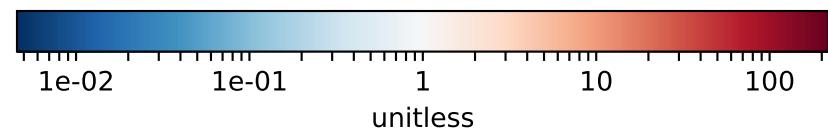
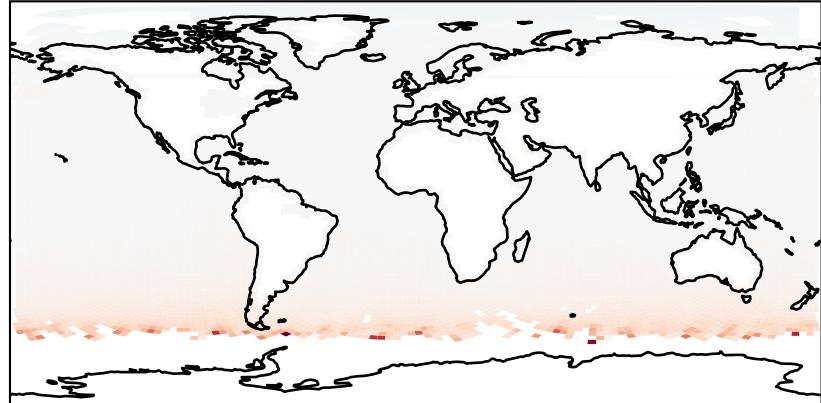
Difference
Dev - Ref, Dynamic Range



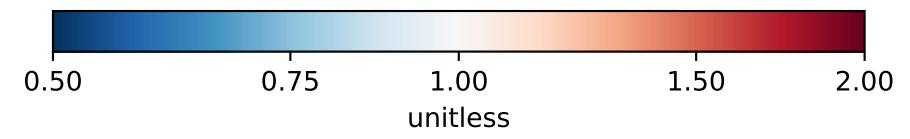
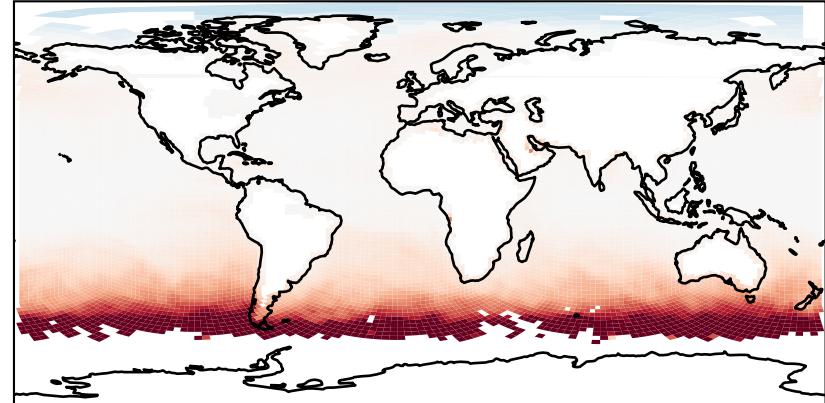
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

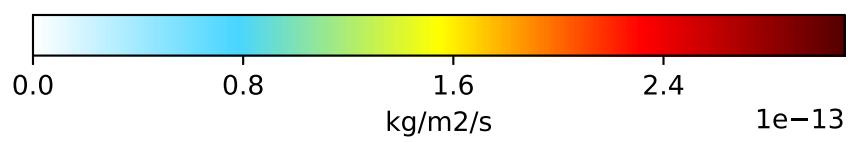


Ratio
Dev/Ref, Fixed Range

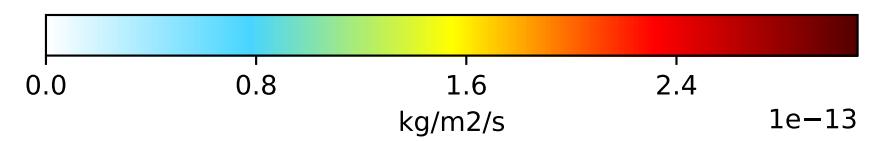
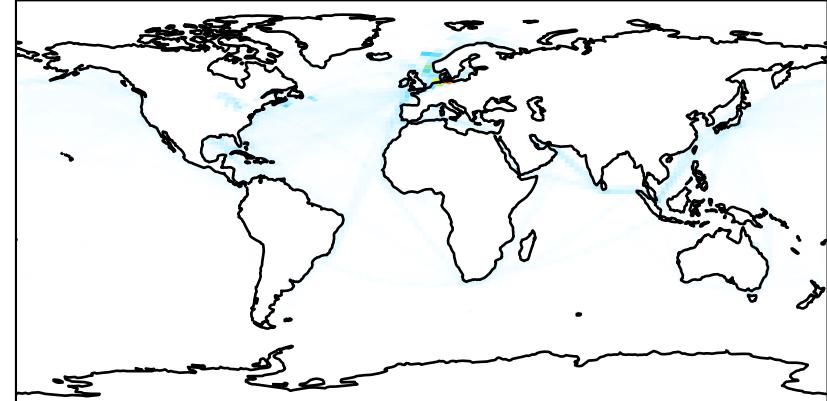


EmisOCPI_Ship

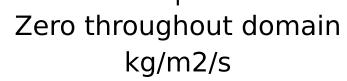
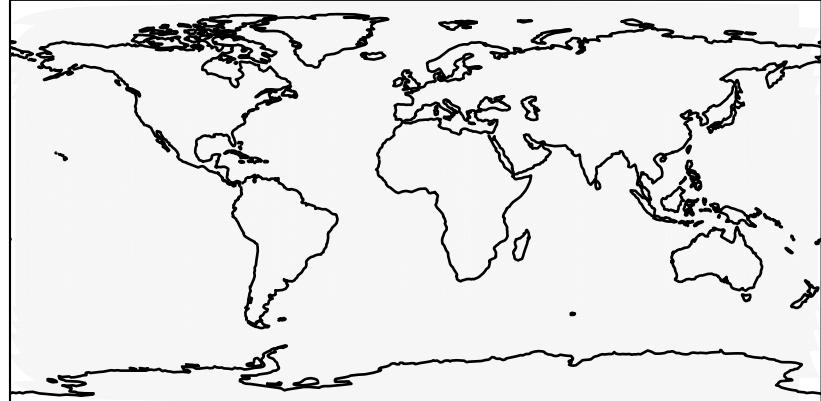
GCHP_13.3.0-rc.1 (Ref)
c48



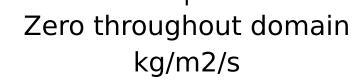
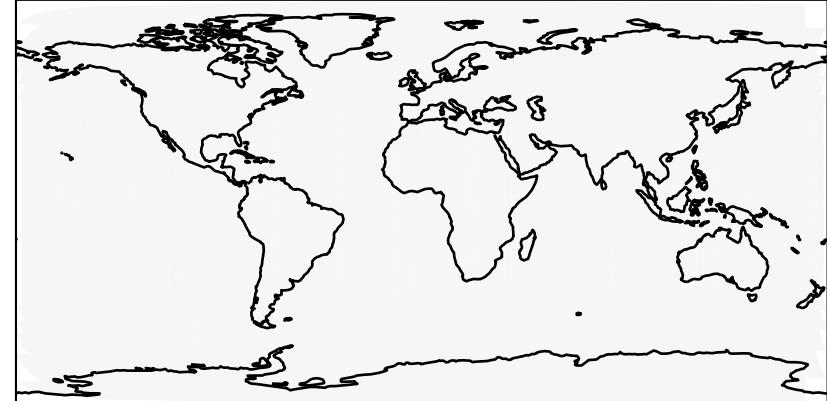
GCHP_13.4.0-rc.2 (Dev)
c48



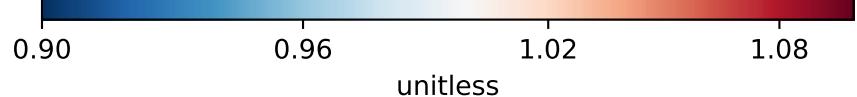
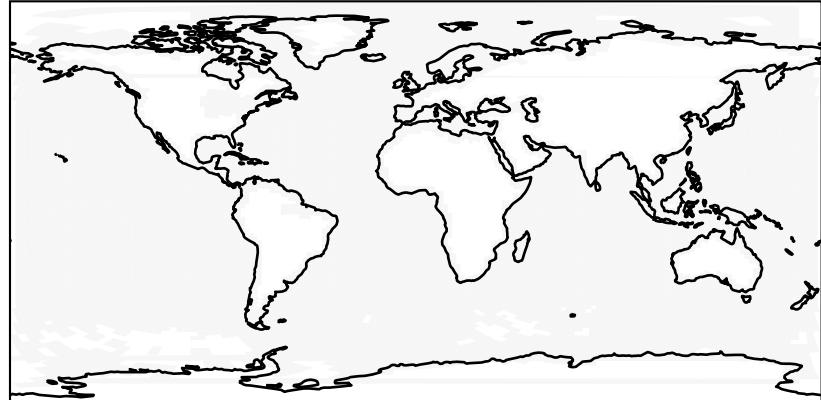
Difference
Dev - Ref, Dynamic Range



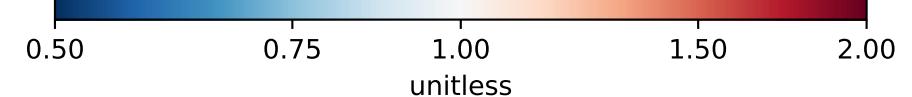
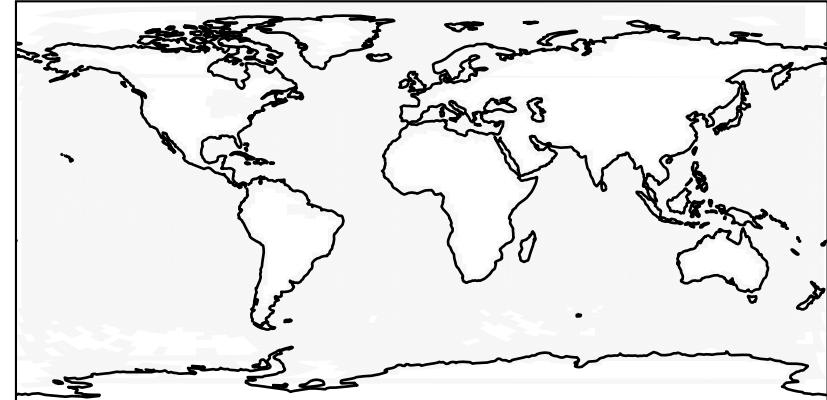
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

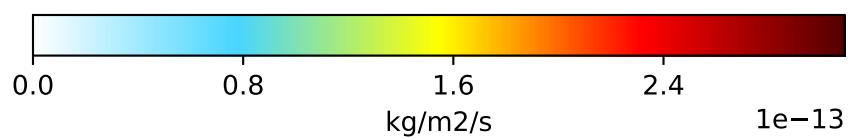


Ratio
Dev/Ref, Fixed Range

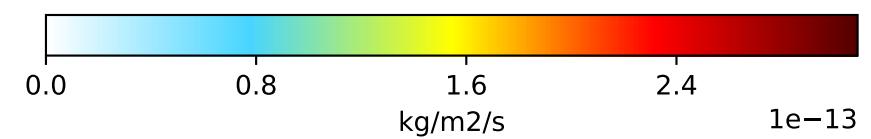
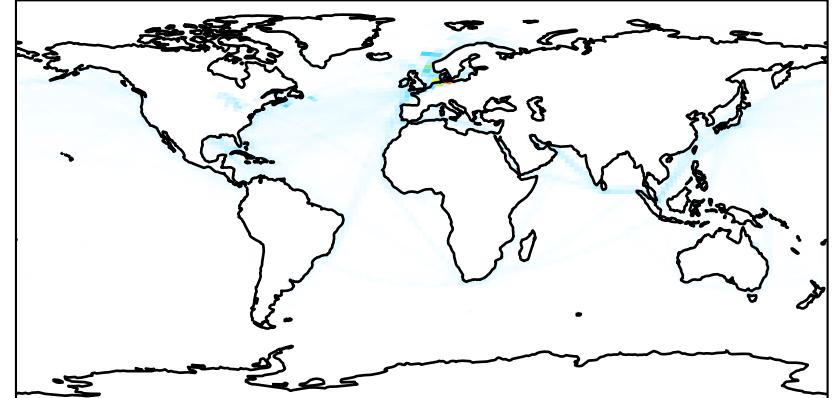


EmisOCPO_Ship

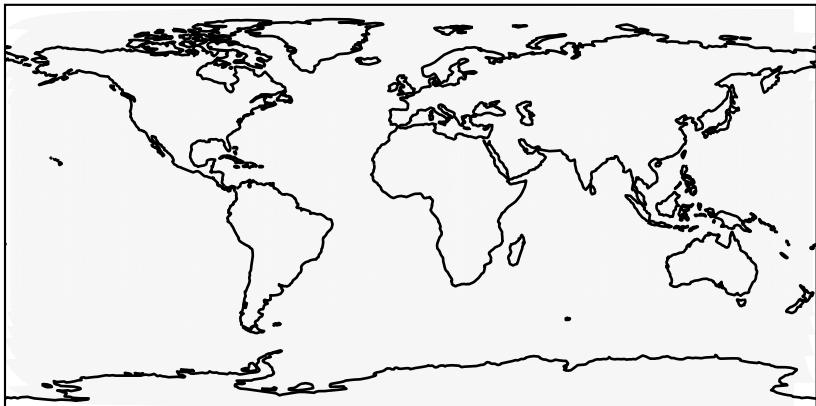
GCHP_13.3.0-rc.1 (Ref)
c48



GCHP_13.4.0-rc.2 (Dev)
c48

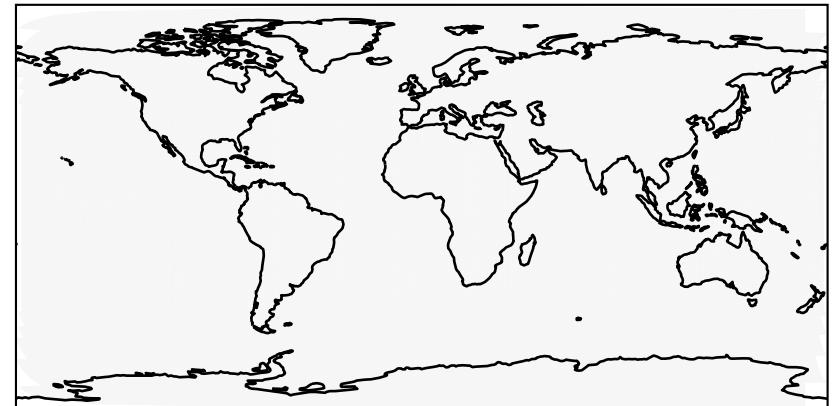


Difference
Dev - Ref, Dynamic Range



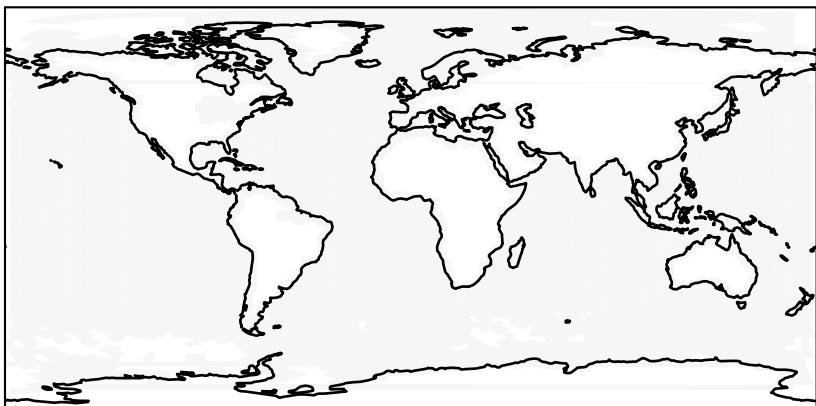
Zero throughout domain
kg/m²/s

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



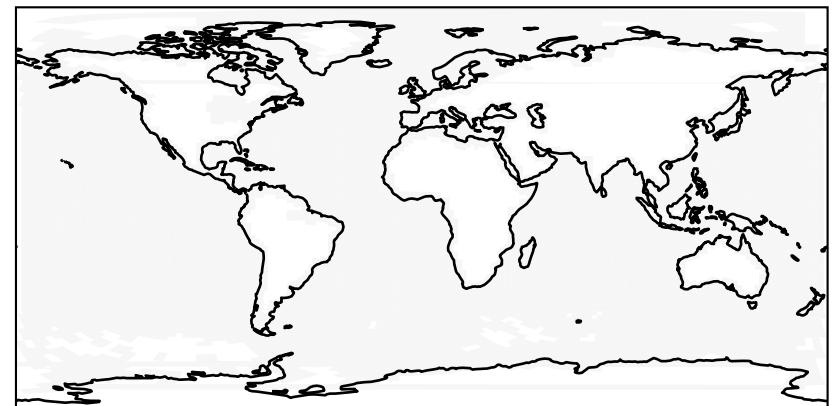
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



0.90 0.96 1.02 1.08
unitless

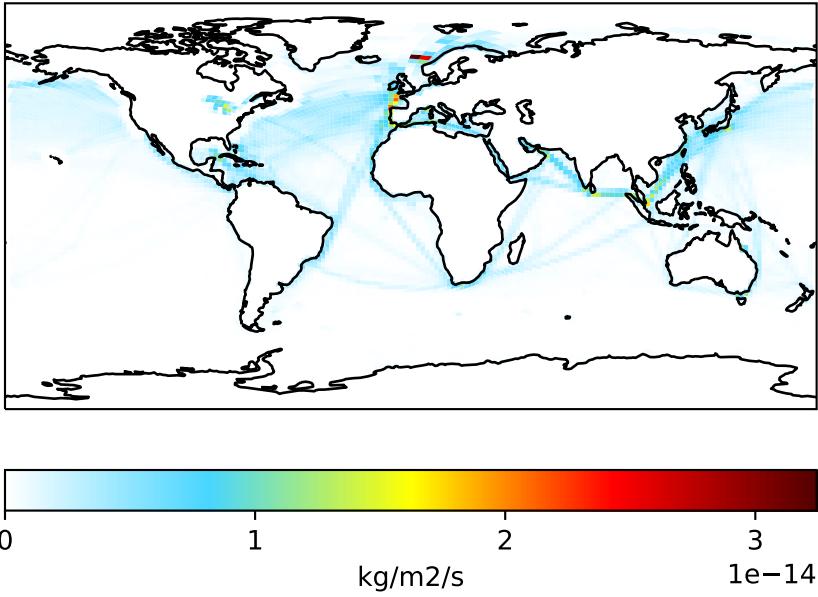
Ratio
Dev/Ref, Fixed Range



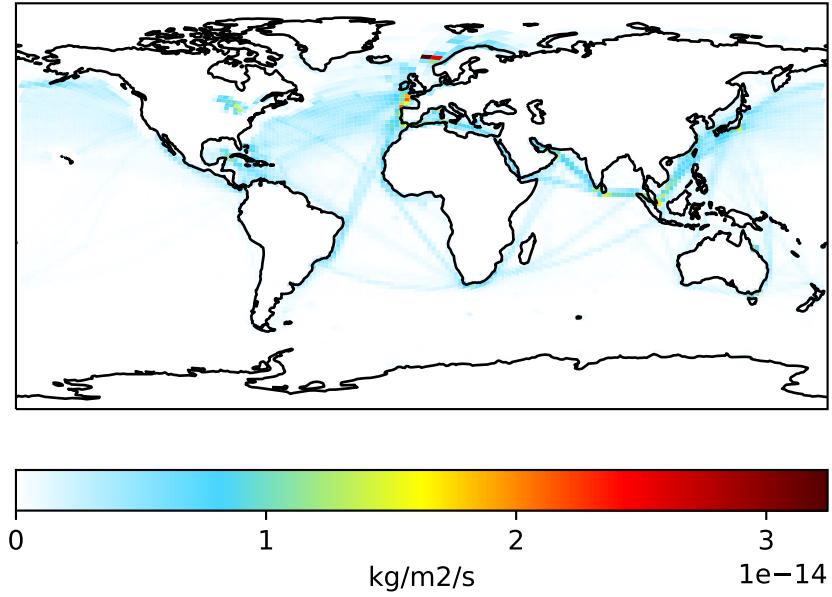
0.50 0.75 1.00 1.50 2.00
unitless

EmispFe_Ship

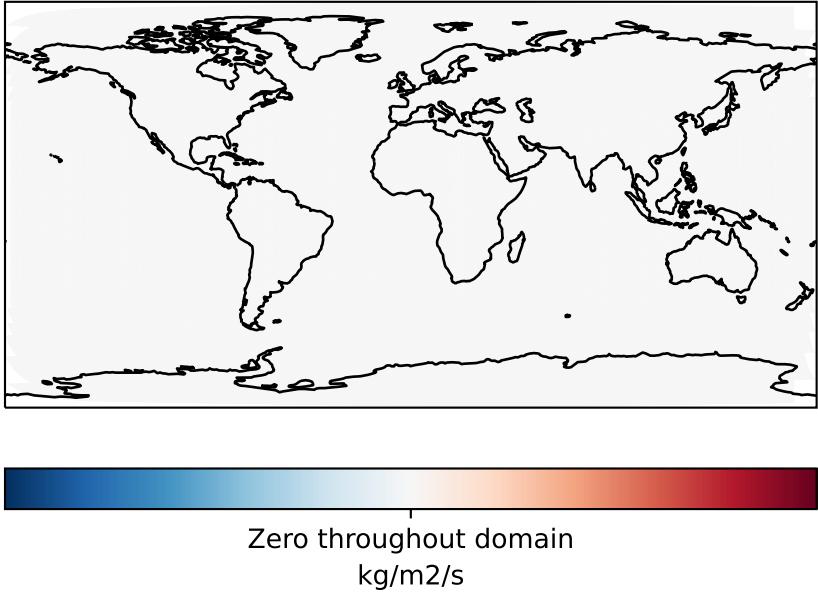
GCHP_13.3.0-rc.1 (Ref)
c48



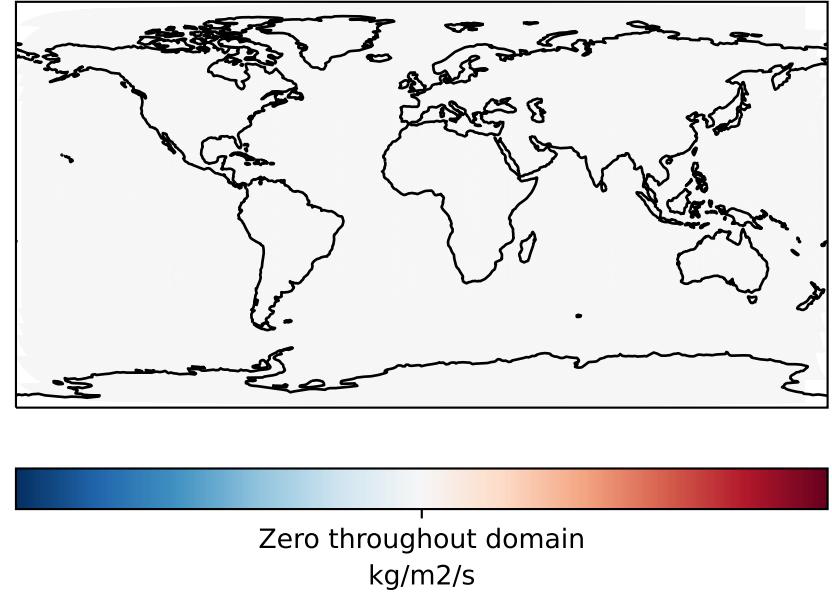
GCHP_13.4.0-rc.2 (Dev)
c48



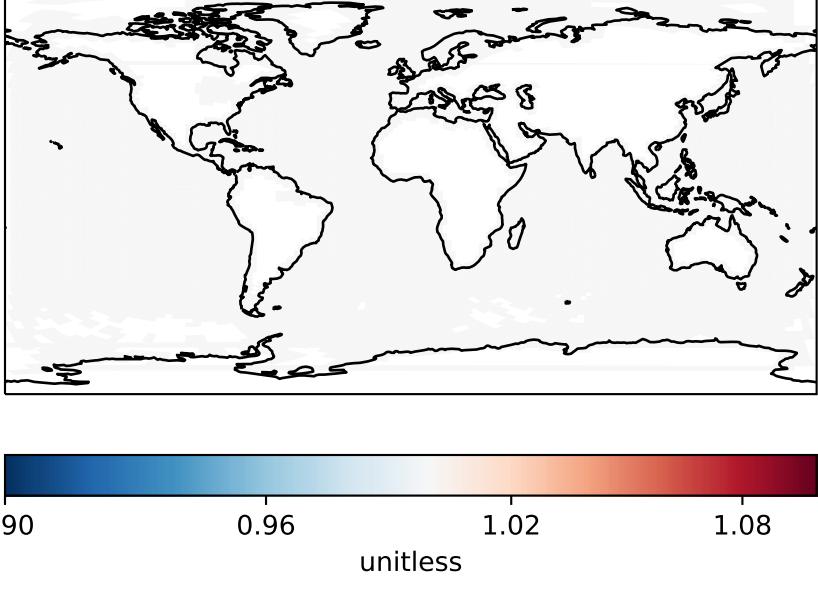
Difference
Dev - Ref, Dynamic Range



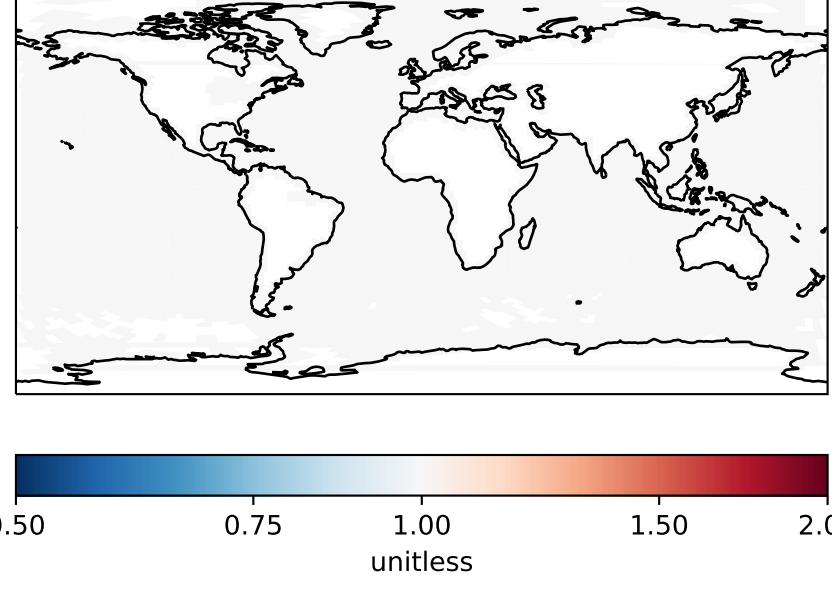
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

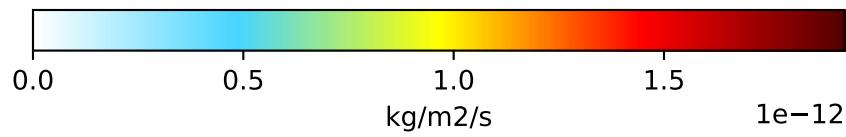


Ratio
Dev/Ref, Fixed Range

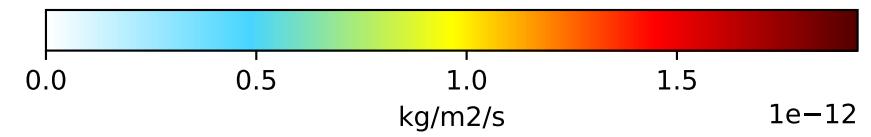
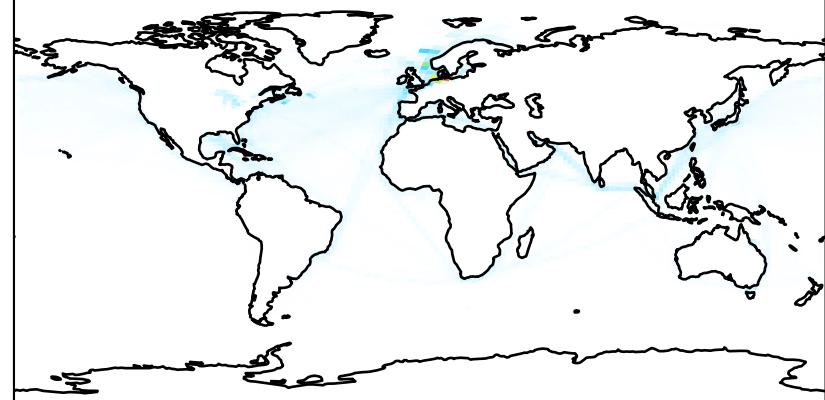


EmisPRPE_Ship

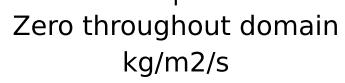
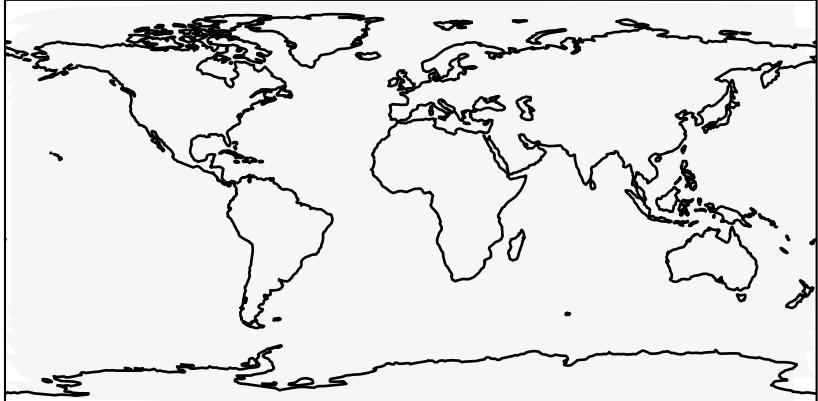
GCHP_13.3.0-rc.1 (Ref)
c48



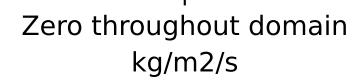
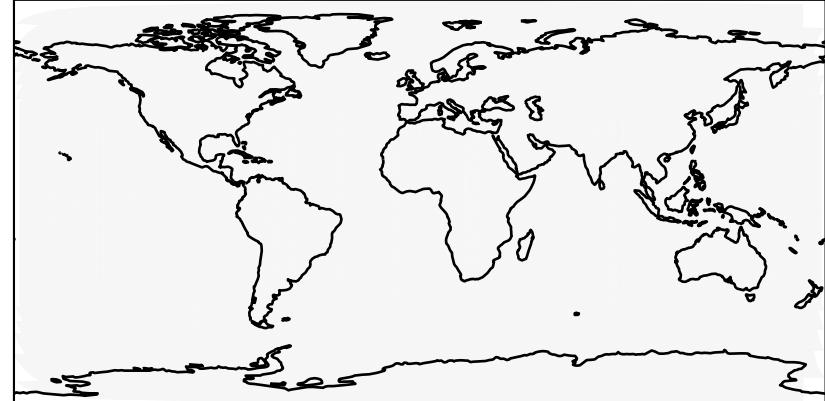
GCHP_13.4.0-rc.2 (Dev)
c48



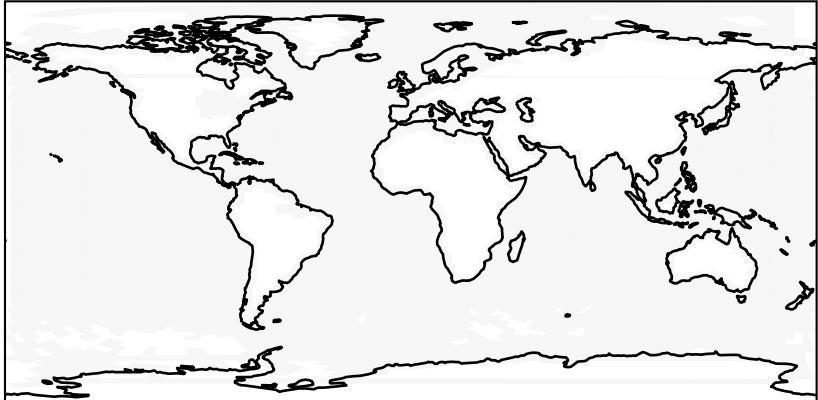
Difference
Dev - Ref, Dynamic Range



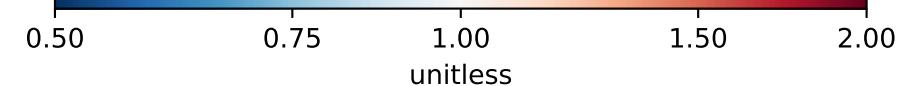
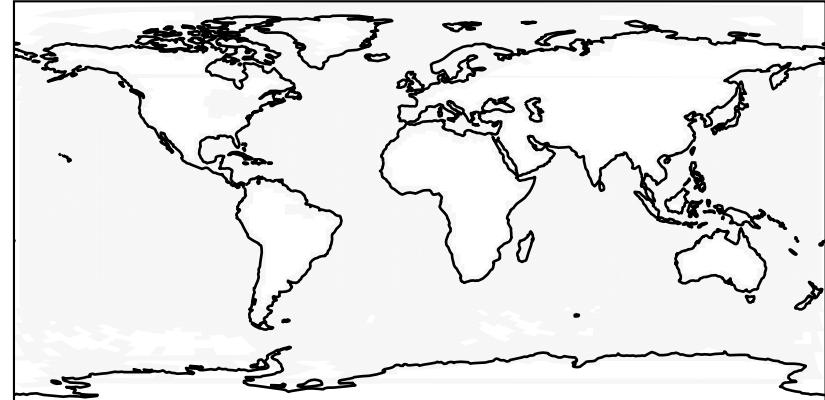
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

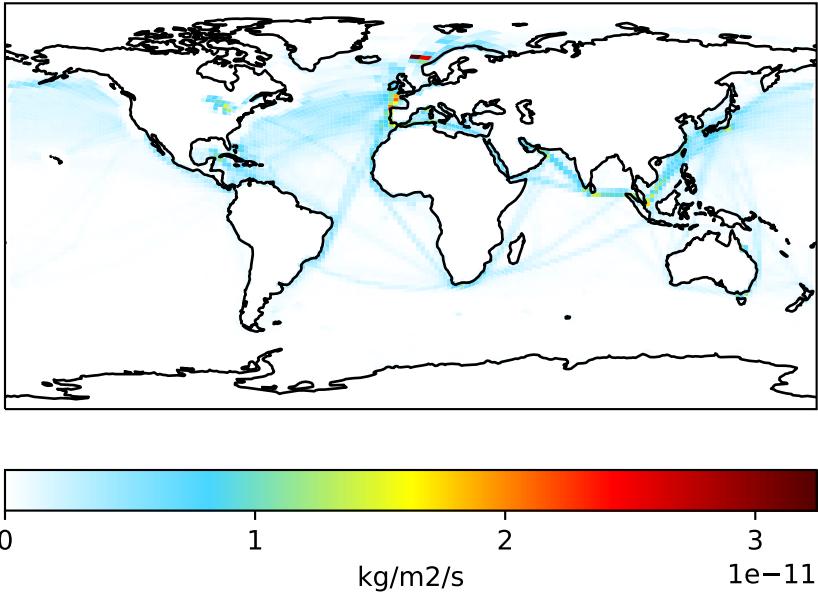


Ratio
Dev/Ref, Fixed Range

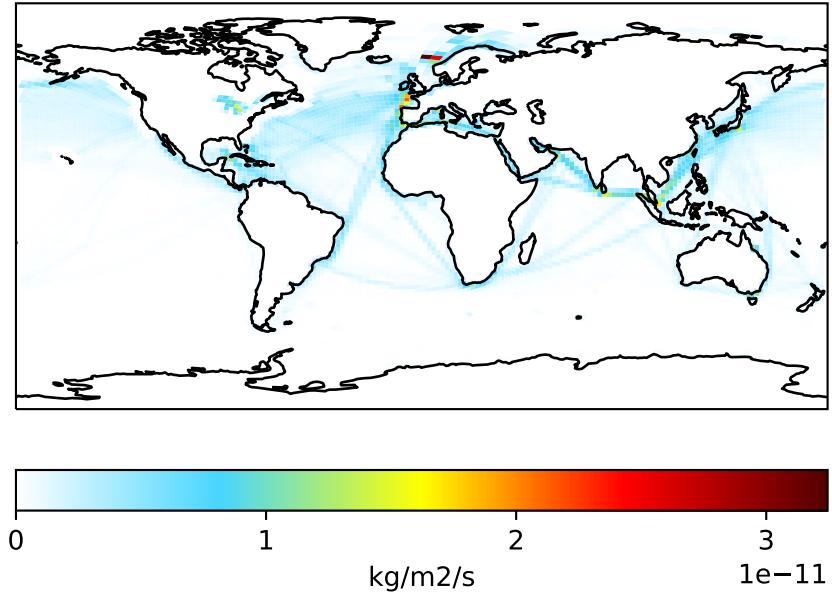


EmisSO2_Ship

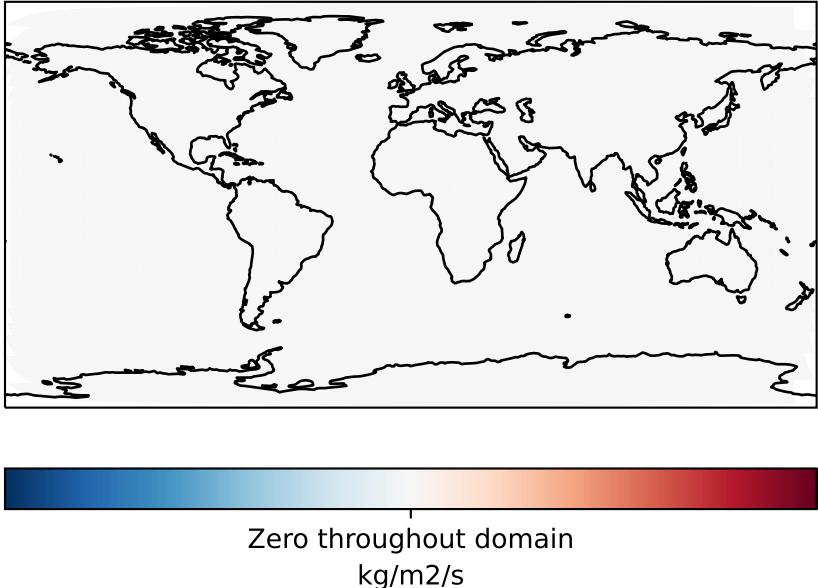
GCHP_13.3.0-rc.1 (Ref)
c48



GCHP_13.4.0-rc.2 (Dev)
c48

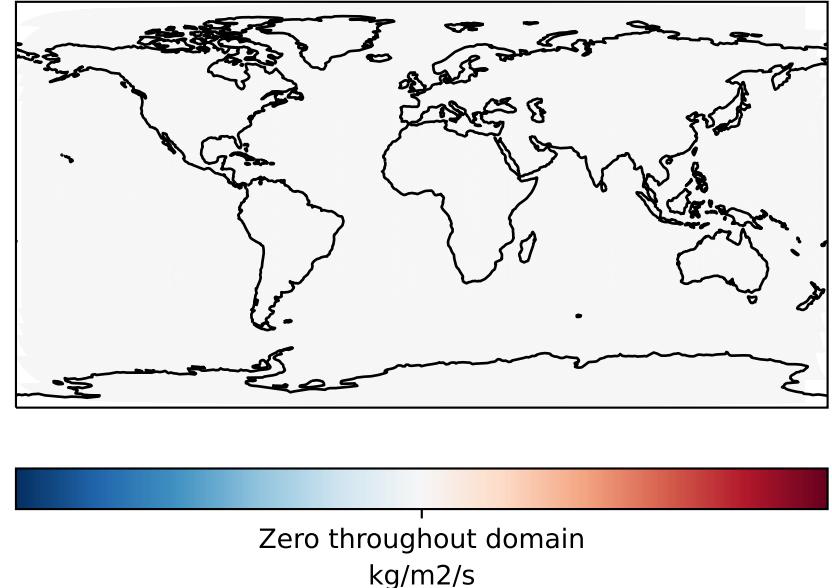


Difference
Dev - Ref, Dynamic Range



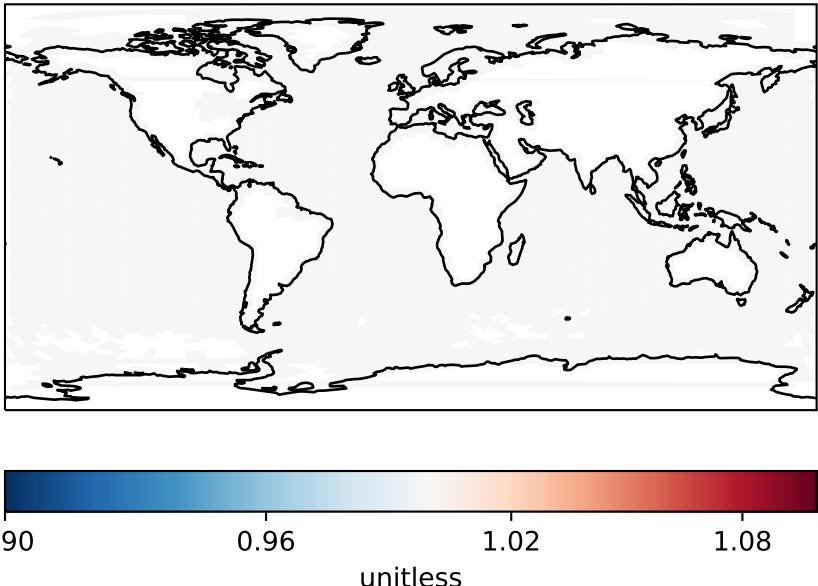
Zero throughout domain
kg/m²/s

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



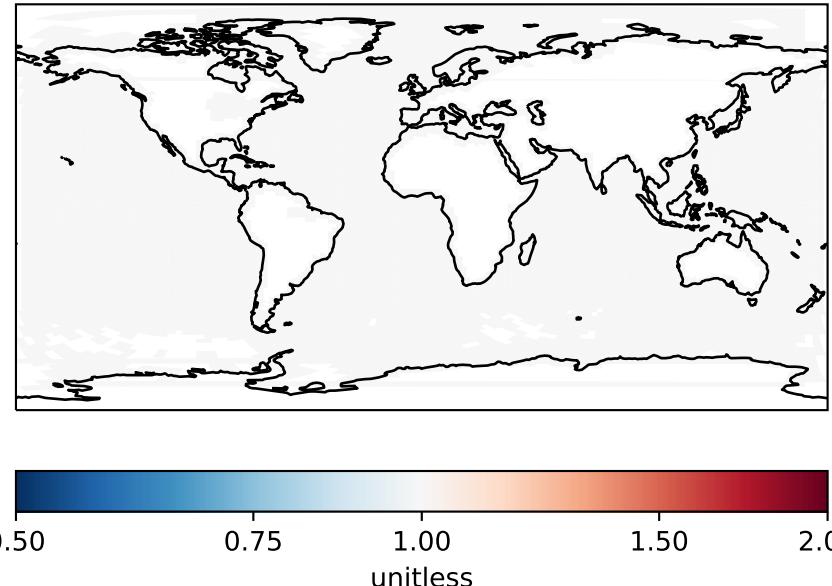
Zero throughout domain
kg/m²/s

Ratio
Dev/Ref, Dynamic Range



0.90 0.96 1.02 1.08
unitless

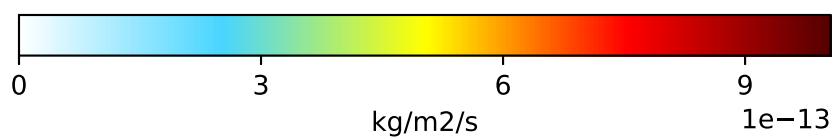
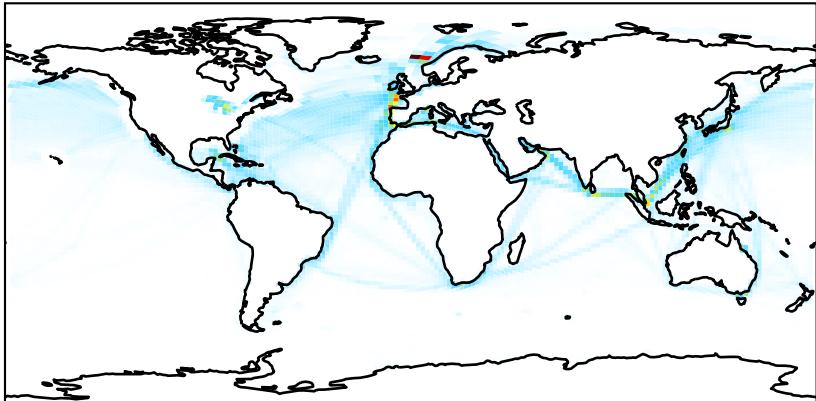
Ratio
Dev/Ref, Fixed Range



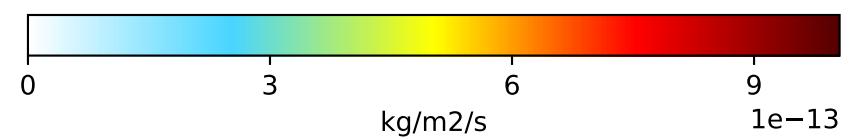
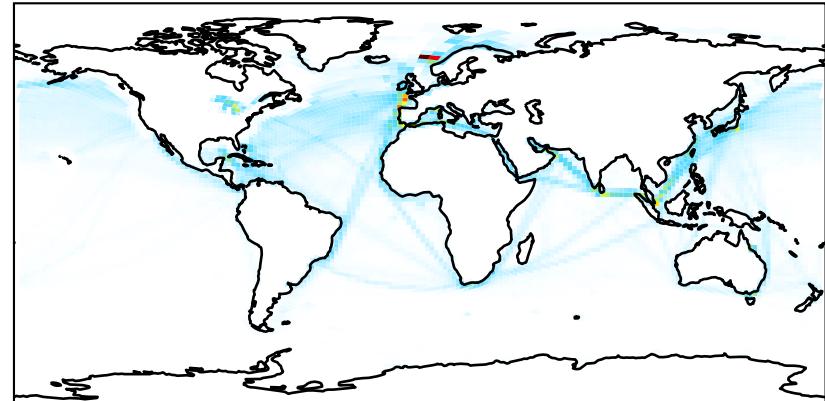
0.50 0.75 1.00 1.50 2.00
unitless

EmisSO4_Ship

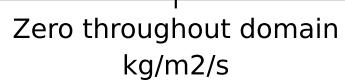
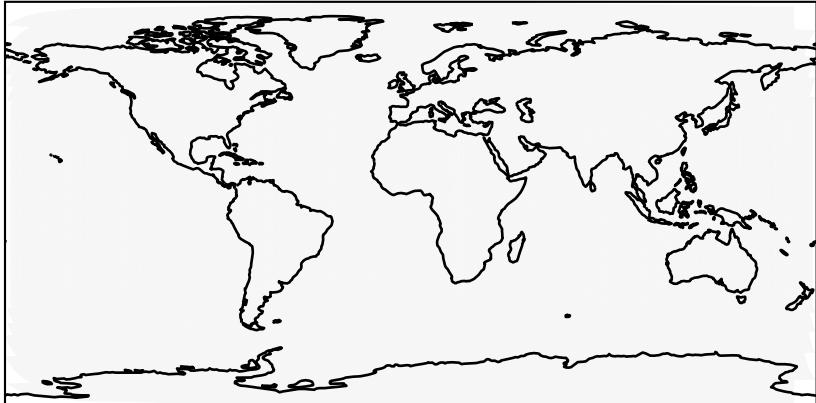
GCHP_13.3.0-rc.1 (Ref)
c48



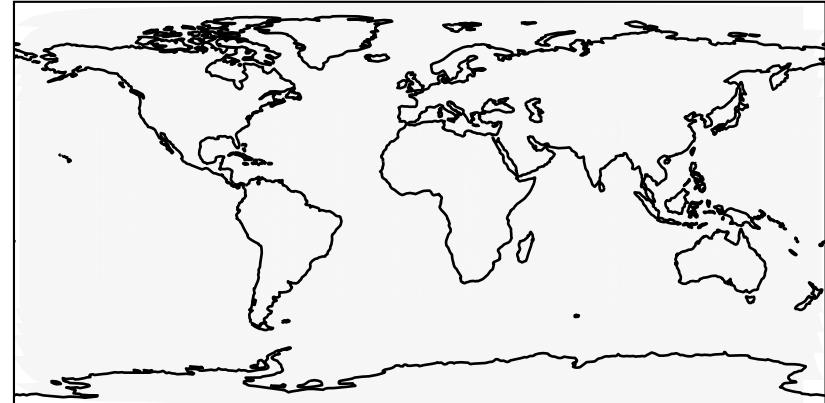
GCHP_13.4.0-rc.2 (Dev)
c48



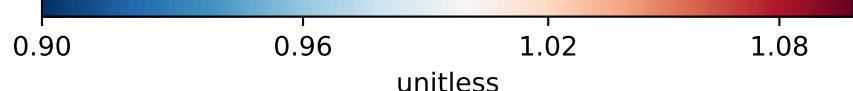
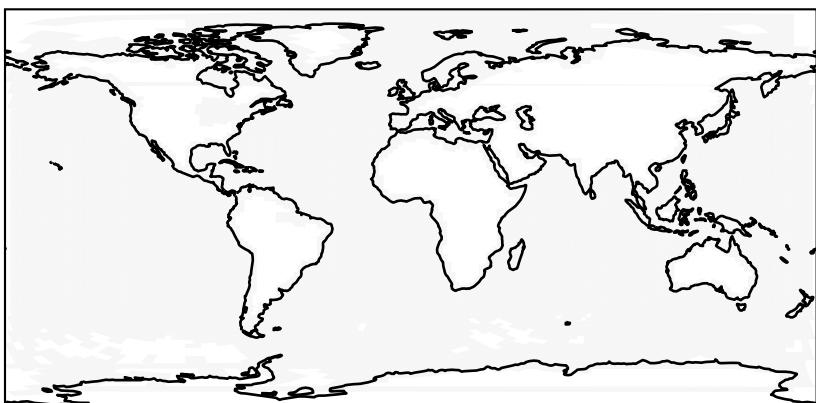
Difference
Dev - Ref, Dynamic Range



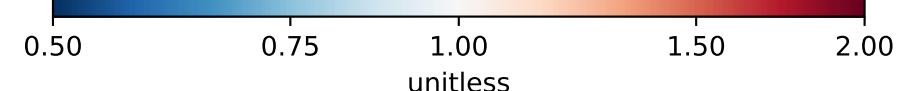
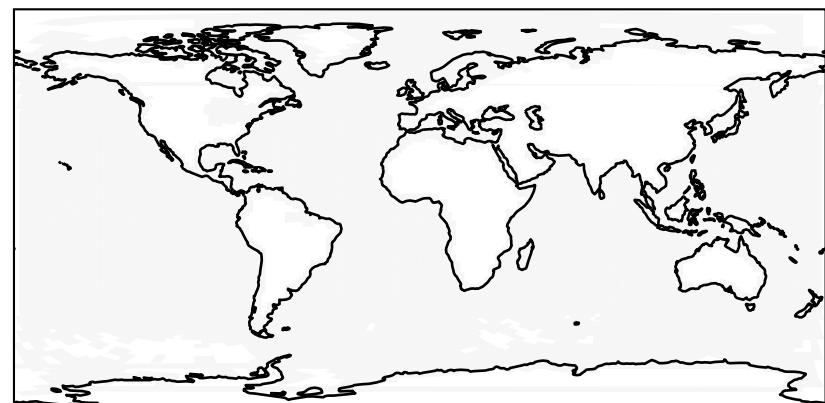
Difference
Dev - Ref, Restricted Range [5%, 95%]



Ratio
Dev/Ref, Dynamic Range

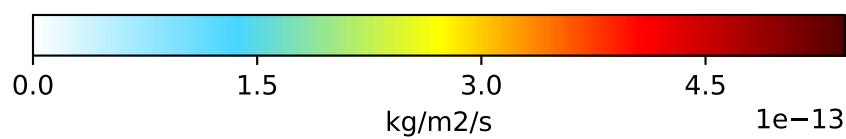


Ratio
Dev/Ref, Fixed Range

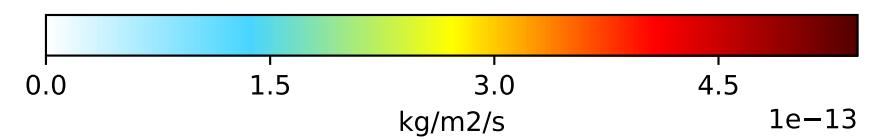
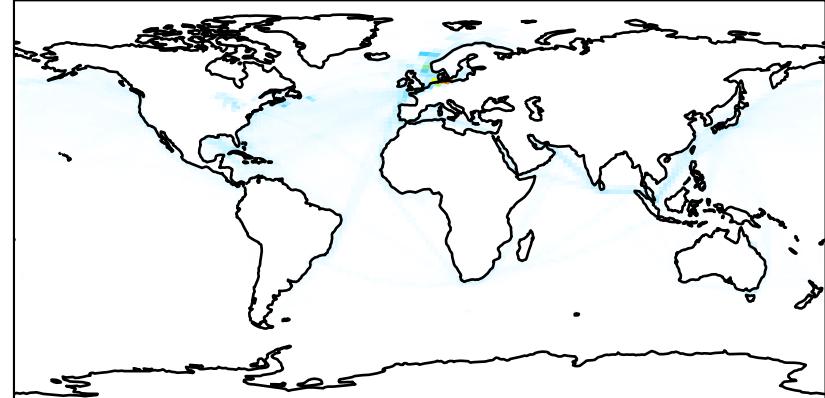


EmisSOAP_Ship

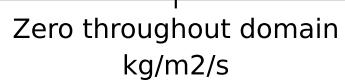
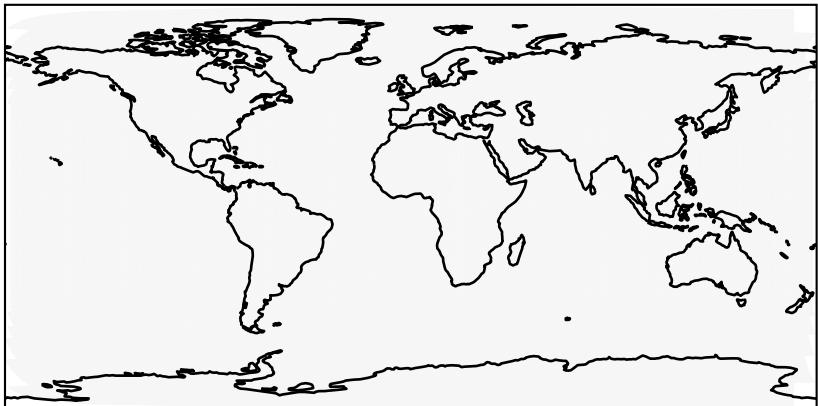
GCHP_13.3.0-rc.1 (Ref)
c48



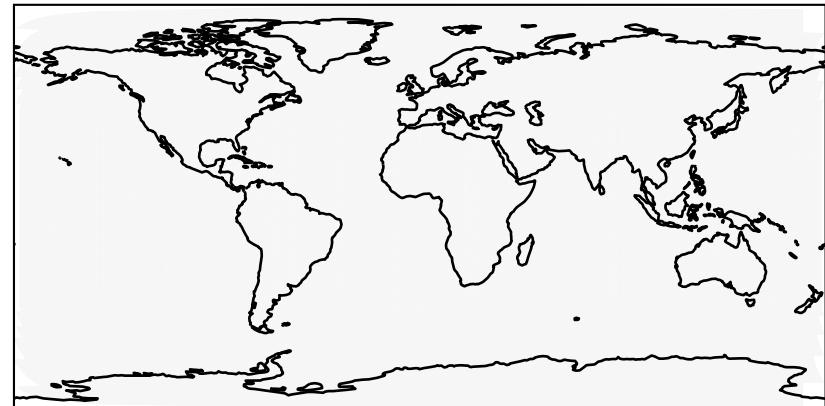
GCHP_13.4.0-rc.2 (Dev)
c48



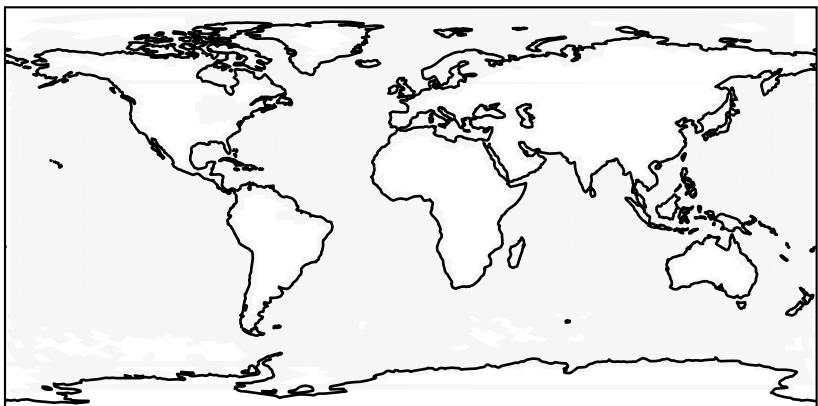
Difference
Dev - Ref, Dynamic Range



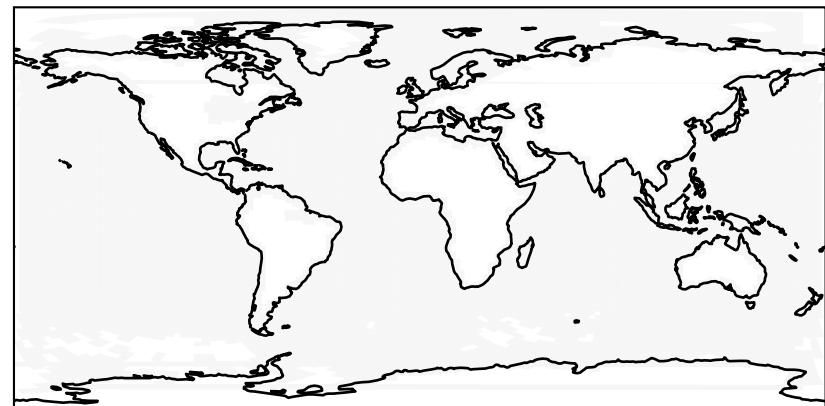
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

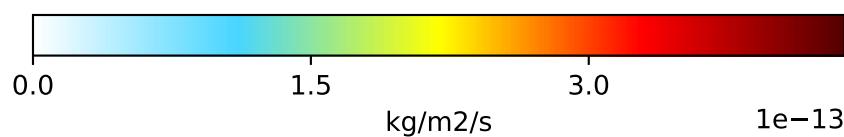
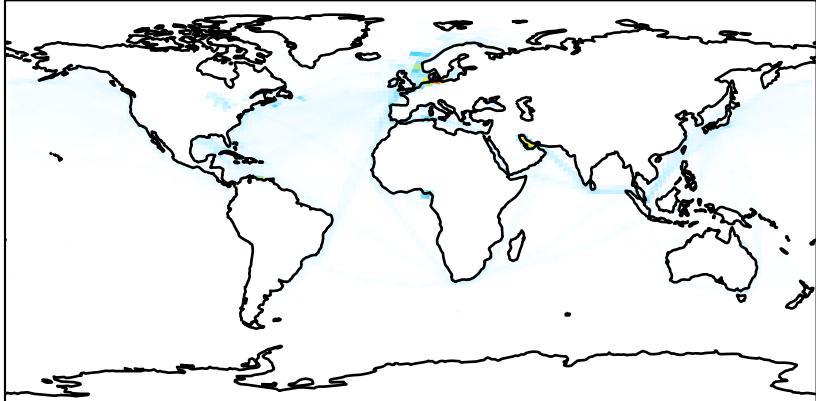


Ratio
Dev/Ref, Fixed Range

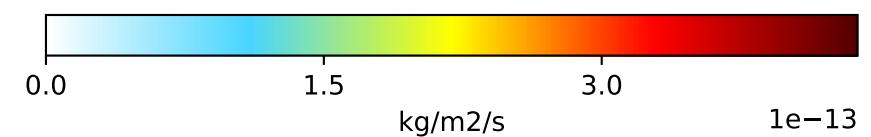
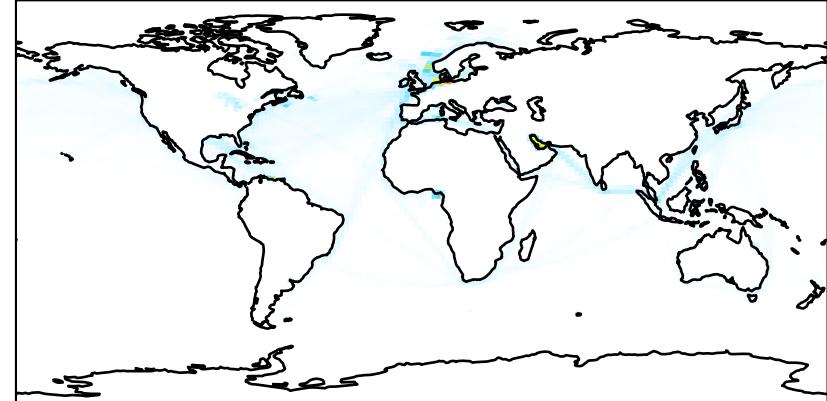


EmisTOLU_Ship

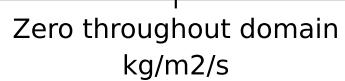
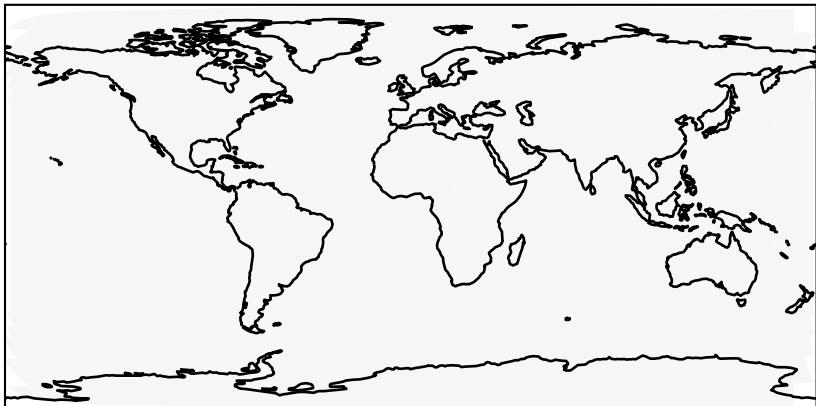
GCHP_13.3.0-rc.1 (Ref)
c48



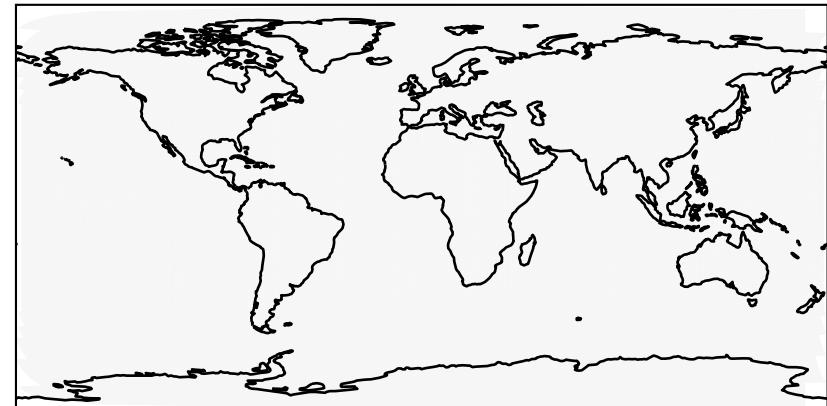
GCHP_13.4.0-rc.2 (Dev)
c48



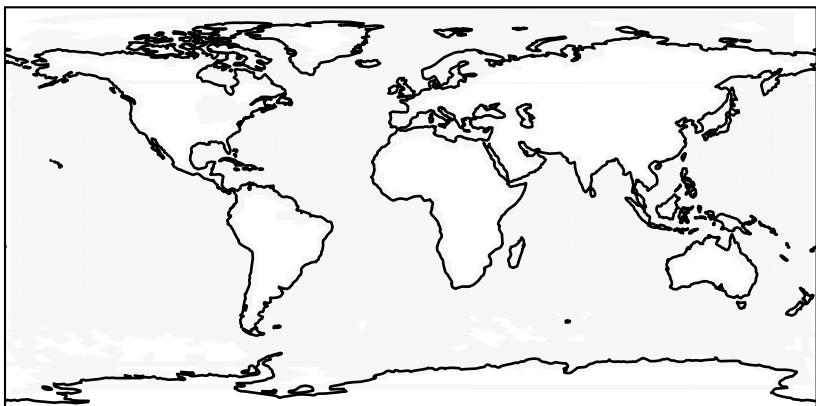
Difference
Dev - Ref, Dynamic Range



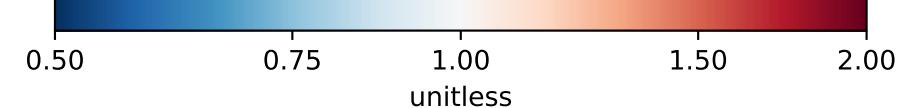
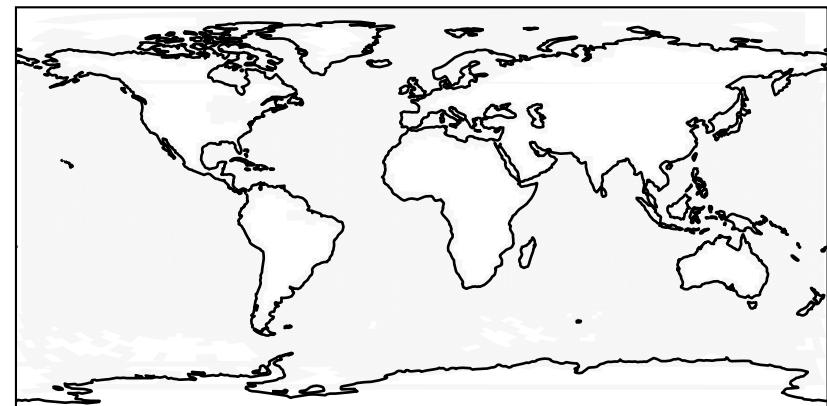
Difference
Dev - Ref, Restricted Range [5%,95%]



Ratio
Dev/Ref, Dynamic Range

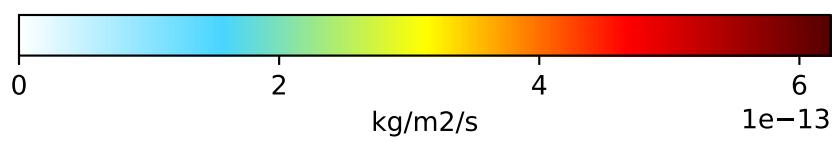
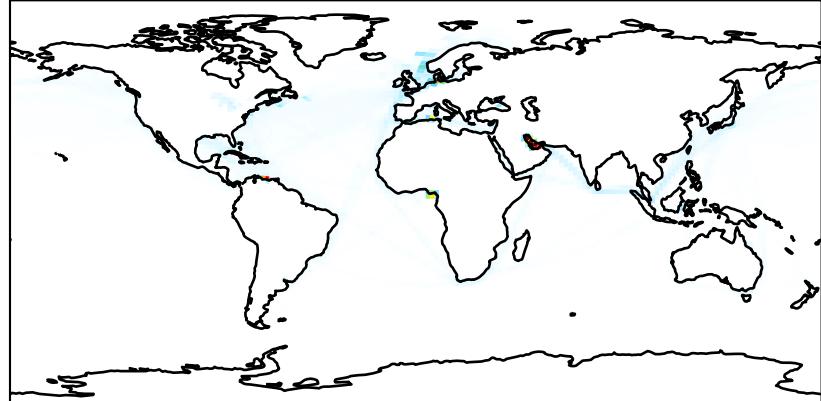


Ratio
Dev/Ref, Fixed Range

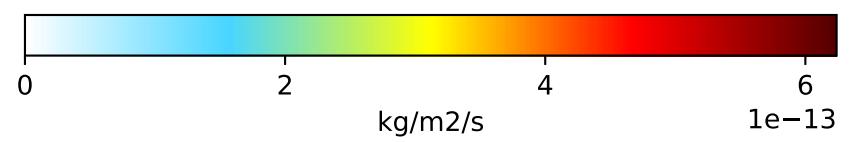
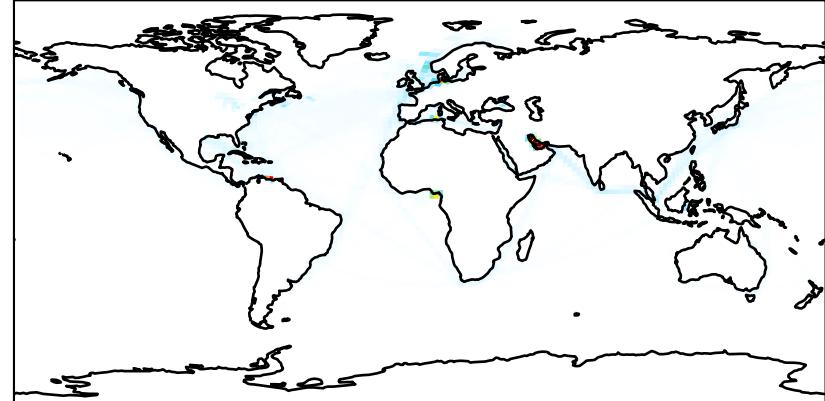


EmisXYLE_Ship

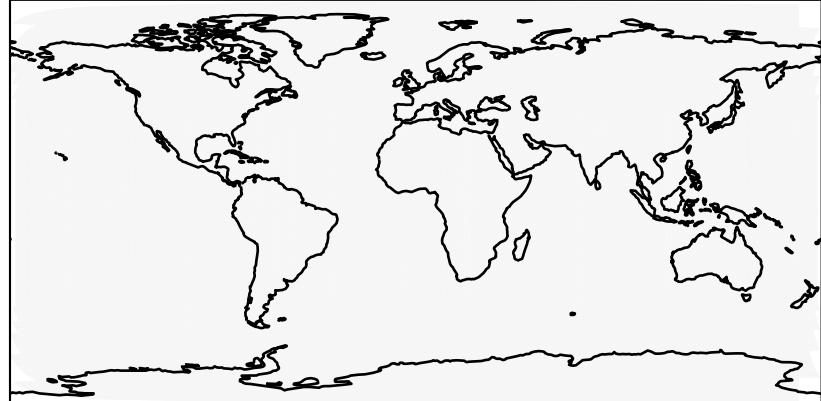
GCHP_13.3.0-rc.1 (Ref)
c48



GCHP_13.4.0-rc.2 (Dev)
c48

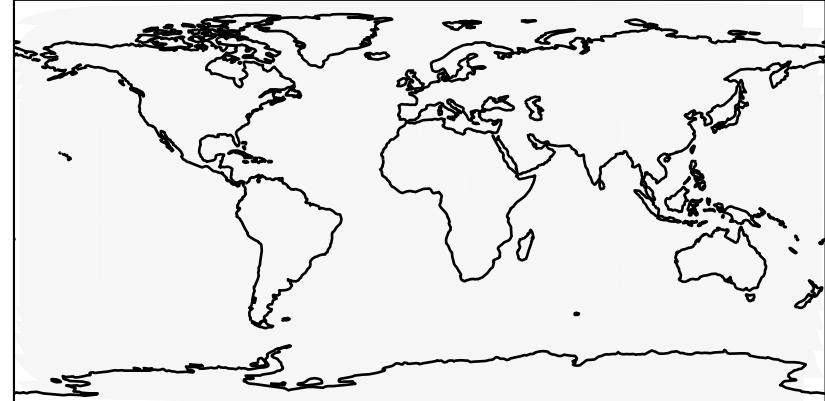


Difference
Dev - Ref, Dynamic Range



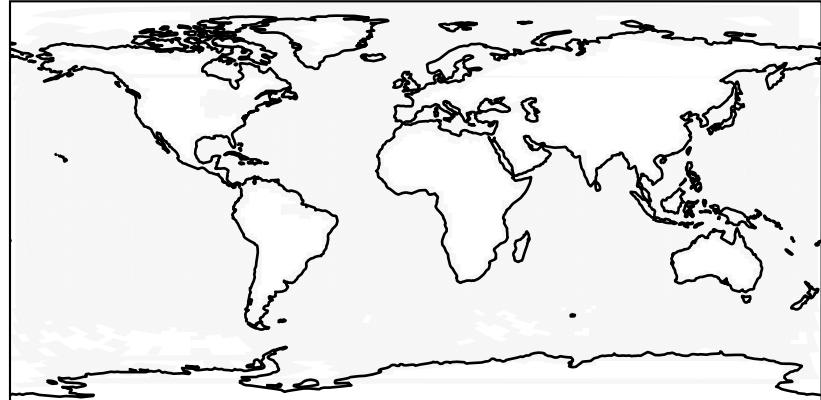
Zero throughout domain
kg/m2/s

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



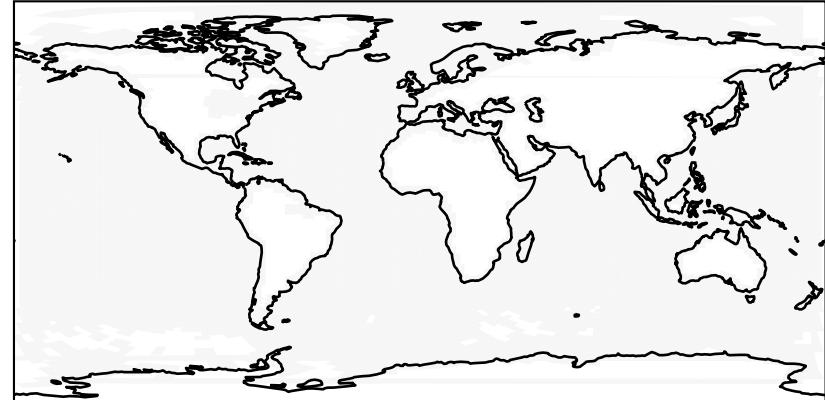
Zero throughout domain
kg/m2/s

Ratio
Dev/Ref, Dynamic Range



0.90 0.96 1.02 1.08
unitless

Ratio
Dev/Ref, Fixed Range



0.50 0.75 1.00 1.50 2.00
unitless