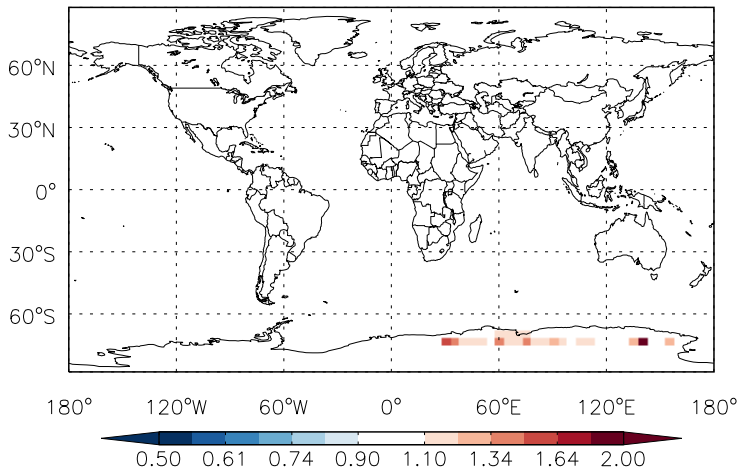


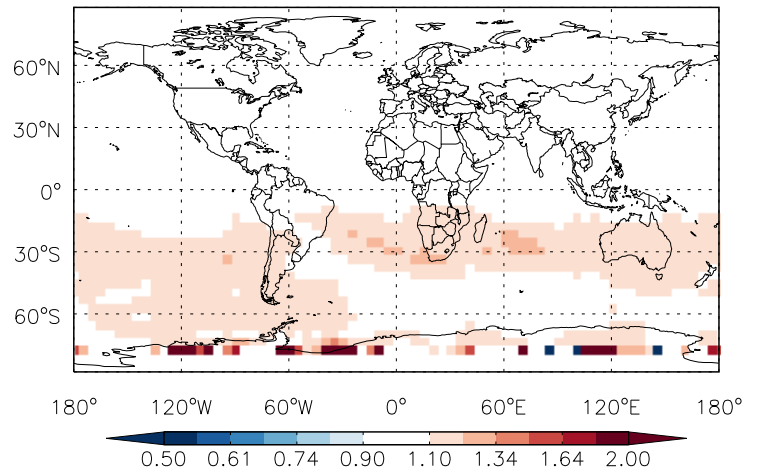
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

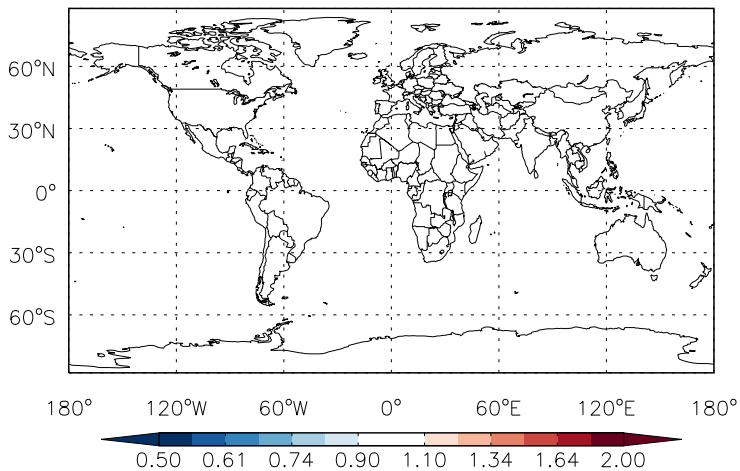
Ratio @ Surface for NO



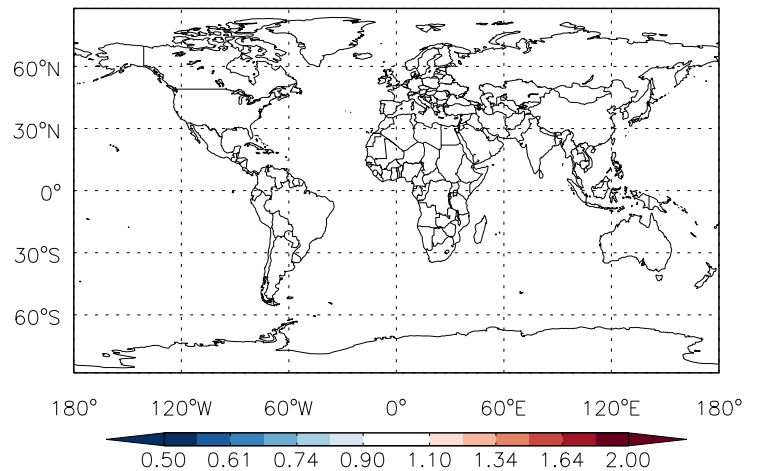
Ratio @ 500 hPa for NO



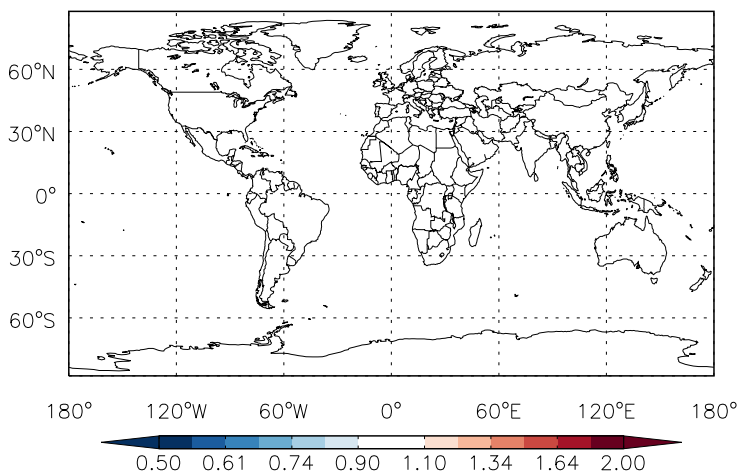
Ratio @ Surface for O3



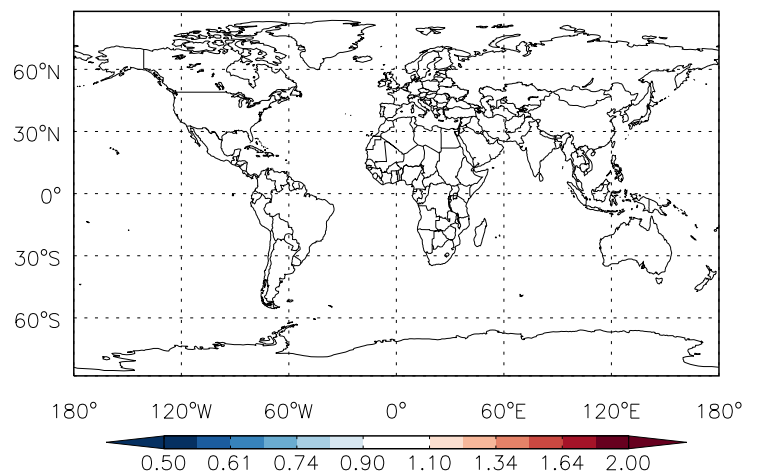
Ratio @ 500 hPa for O3



Ratio @ Surface for PAN



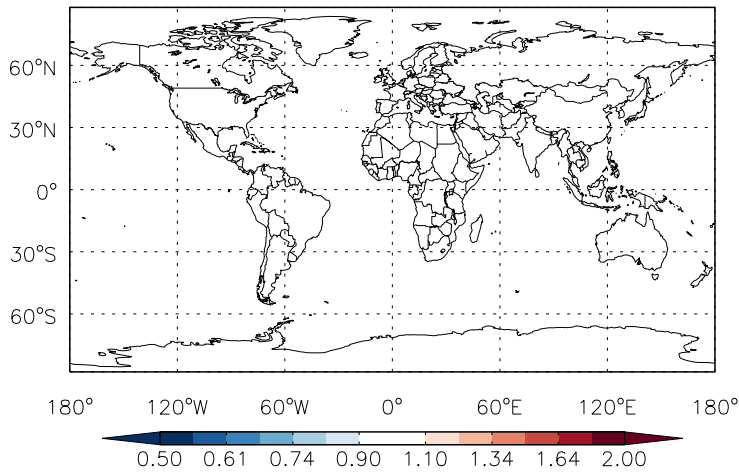
Ratio @ 500 hPa for PAN



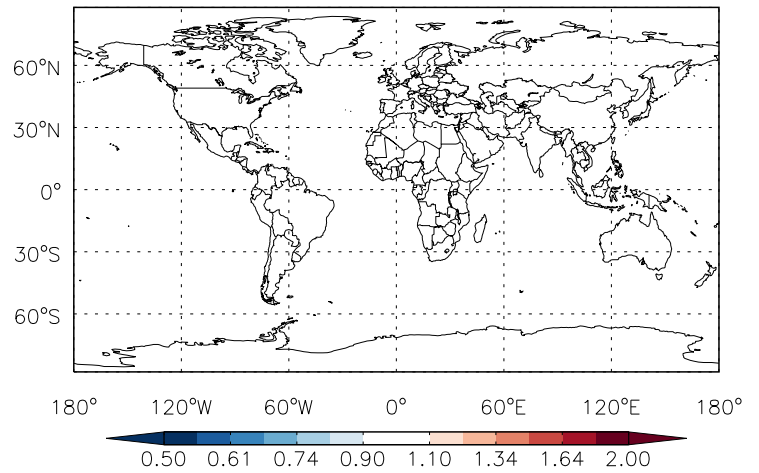
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

$$\text{ctm.bpch.v9-02o\_SOA} / \text{ctm.bpch.v9-02n\_SOA}$$

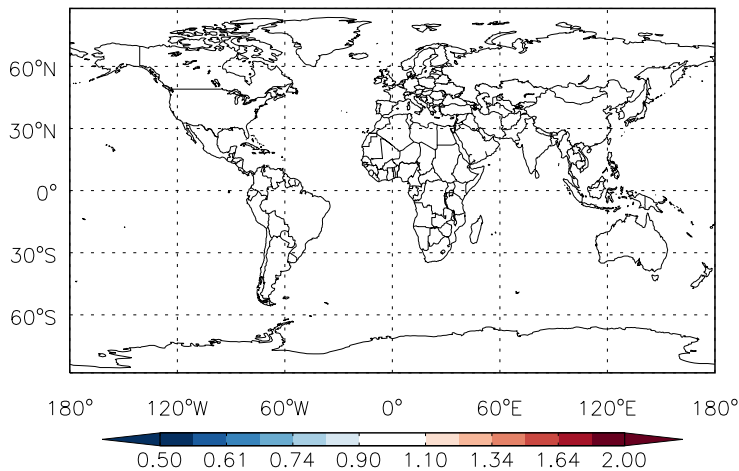
Ratio @ Surface for CO



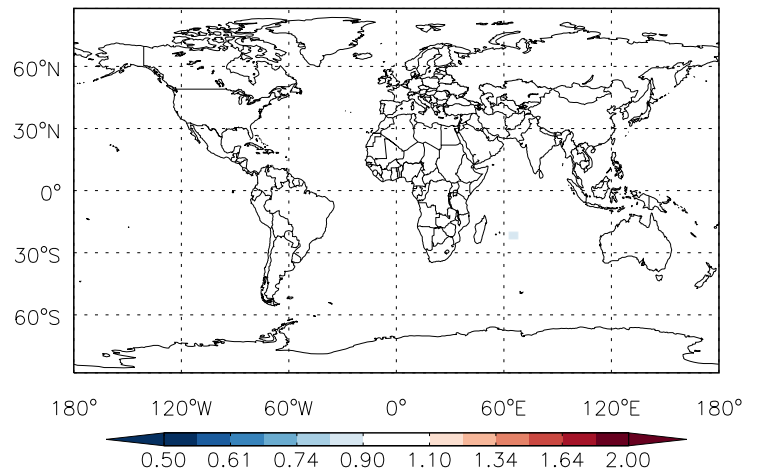
Ratio @ 500 hPa for CO



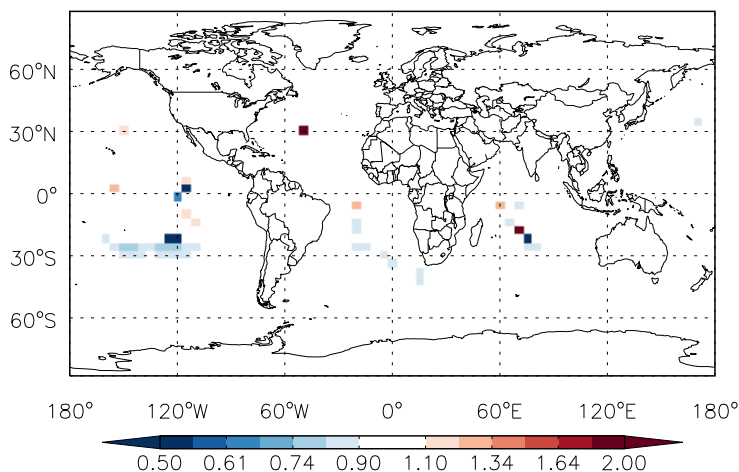
Ratio @ Surface for ALK4



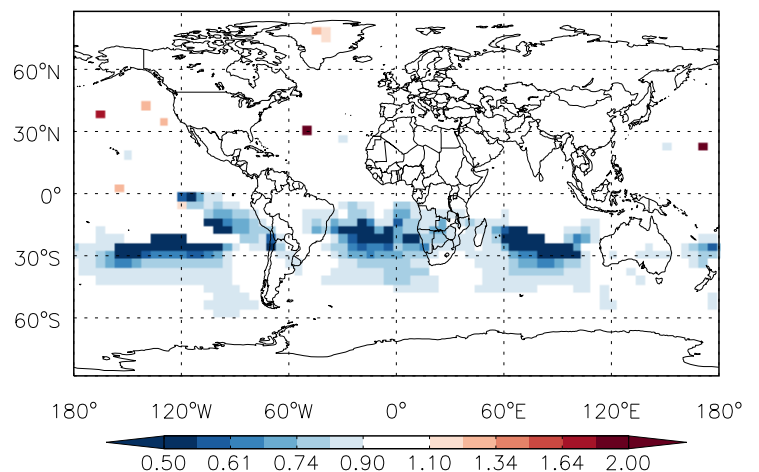
Ratio @ 500 hPa for ALK4



Ratio @ Surface for ISOP



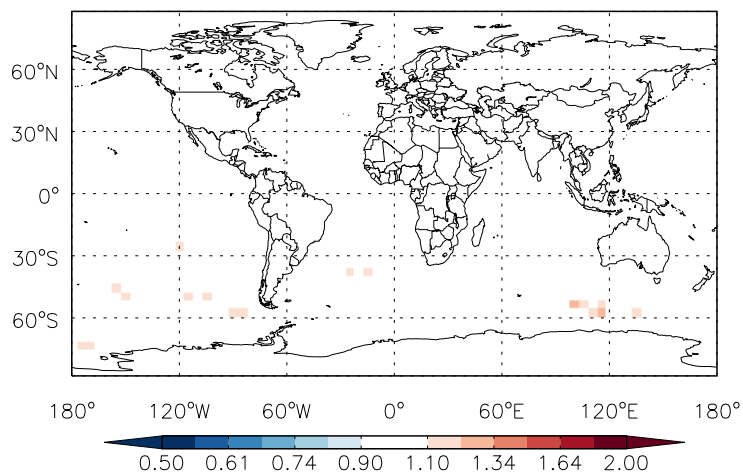
Ratio @ 500 hPa for ISOP



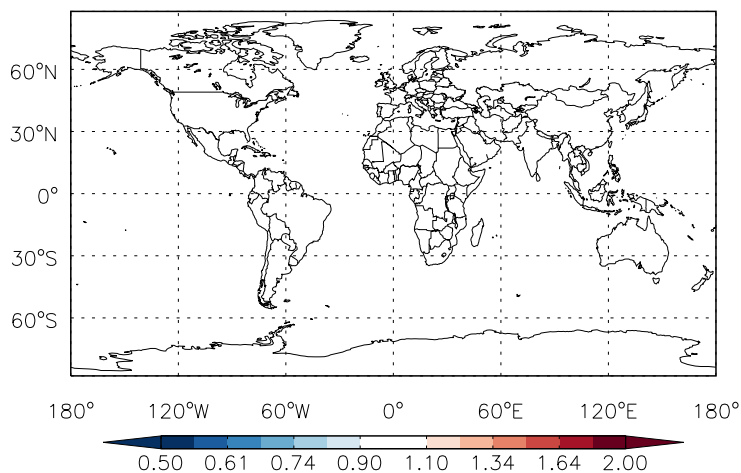
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

Ratio @ Surface for HN03



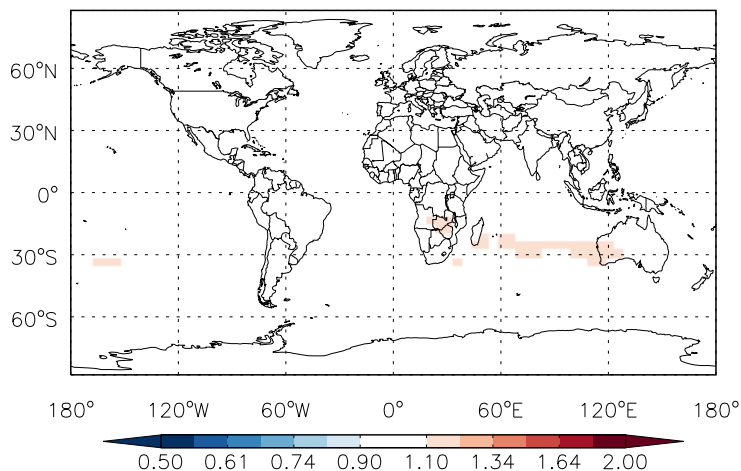
Ratio @ 500 hPa for HN03



Ratio @ Surface for H2O2



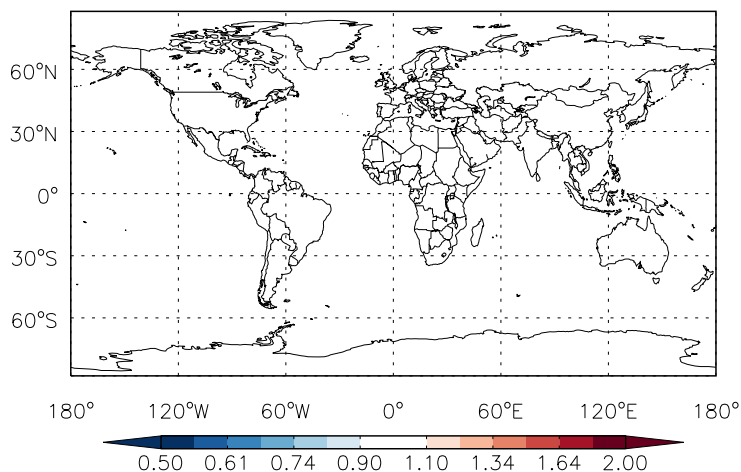
Ratio @ 500 hPa for H2O2



Ratio @ Surface for ACET



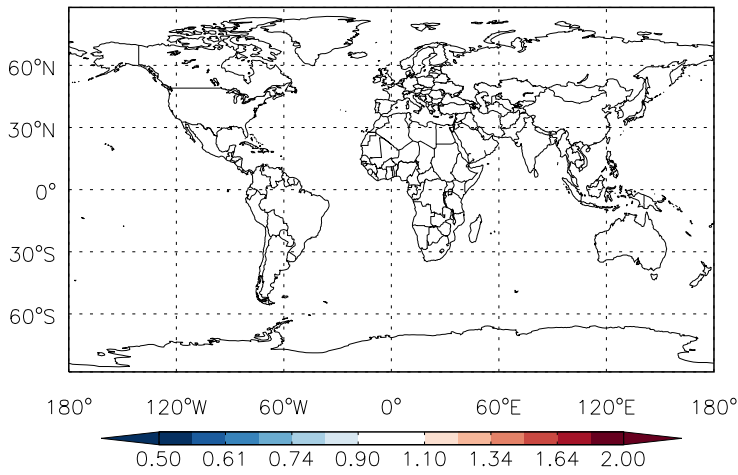
Ratio @ 500 hPa for ACET



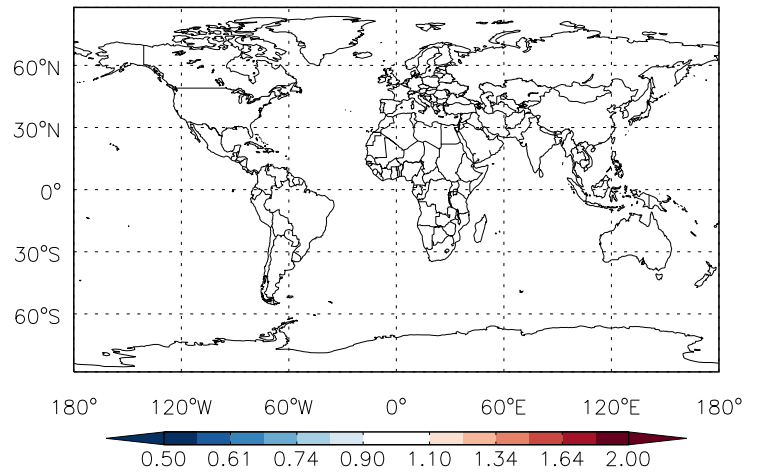
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

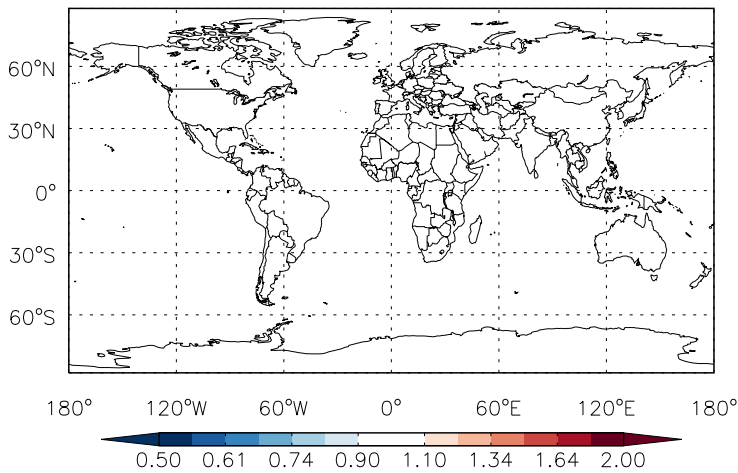
Ratio @ Surface for MEK



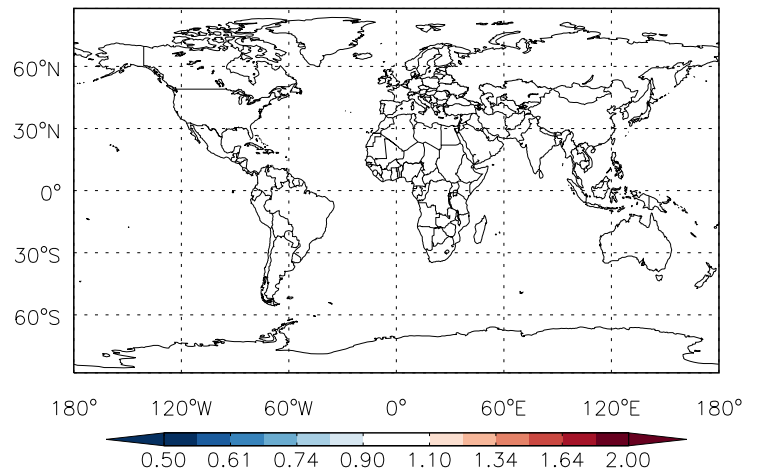
Ratio @ 500 hPa for MEK



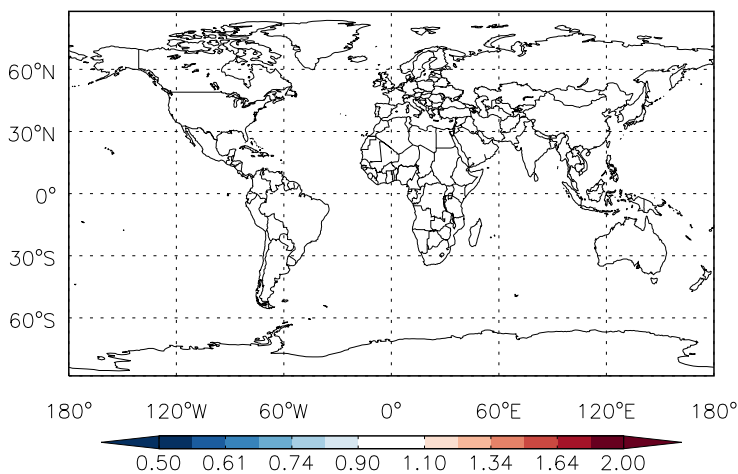
Ratio @ Surface for ALD2



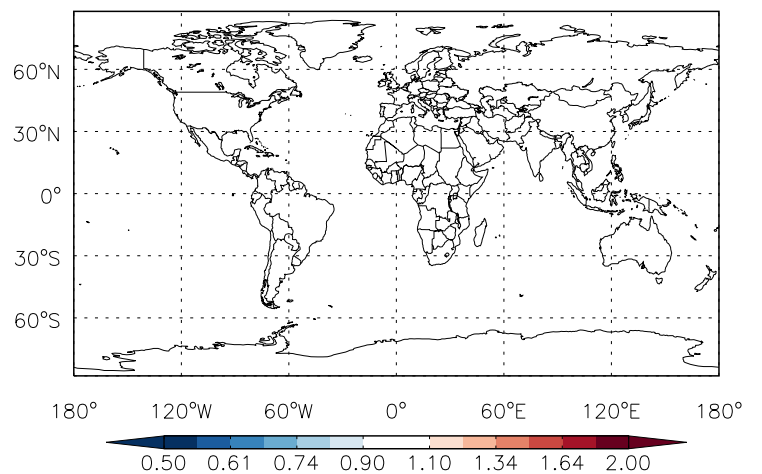
Ratio @ 500 hPa for ALD2



Ratio @ Surface for RCHO



Ratio @ 500 hPa for RCHO

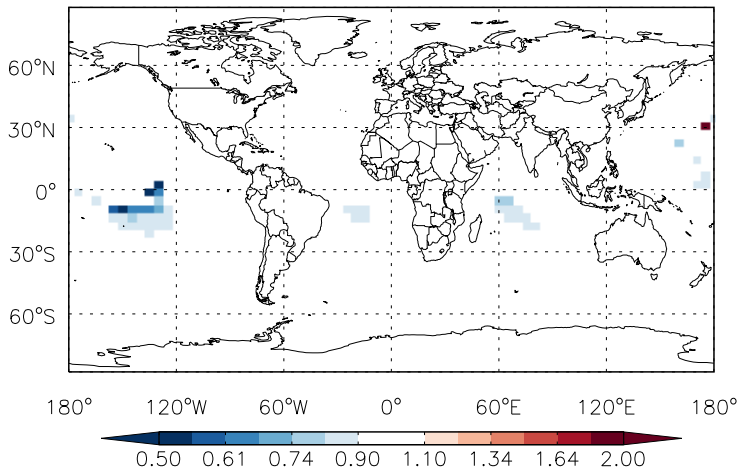




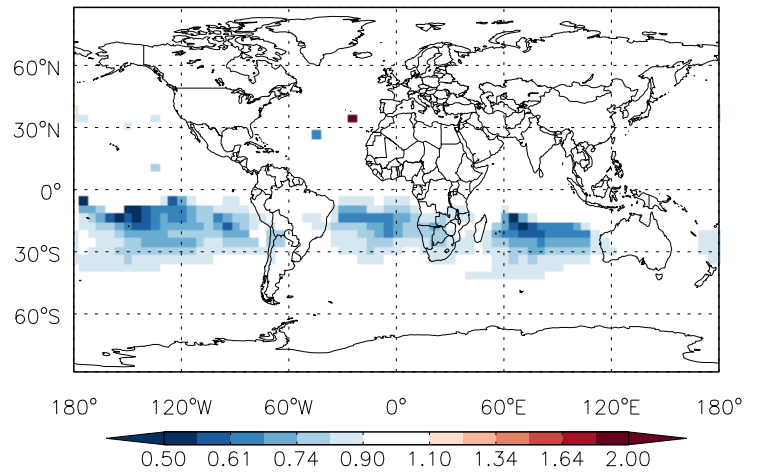
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

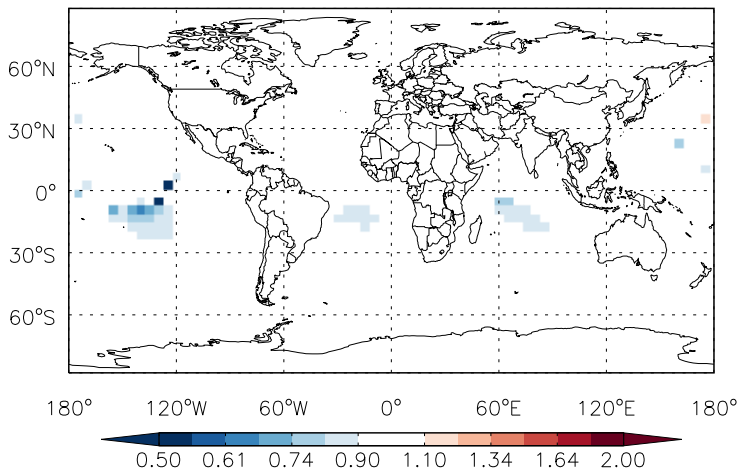
Ratio @ Surface for MVK



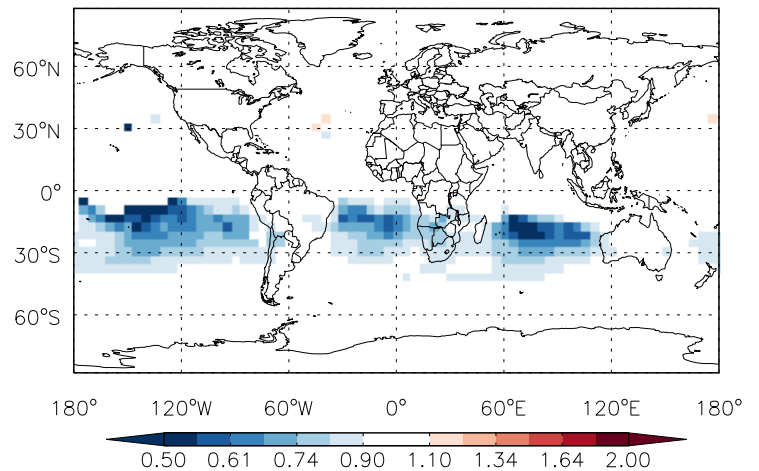
Ratio @ 500 hPa for MVK



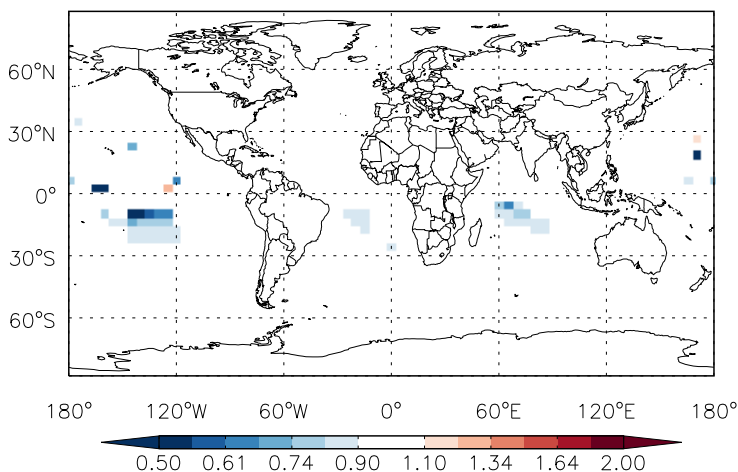
Ratio @ Surface for MACR



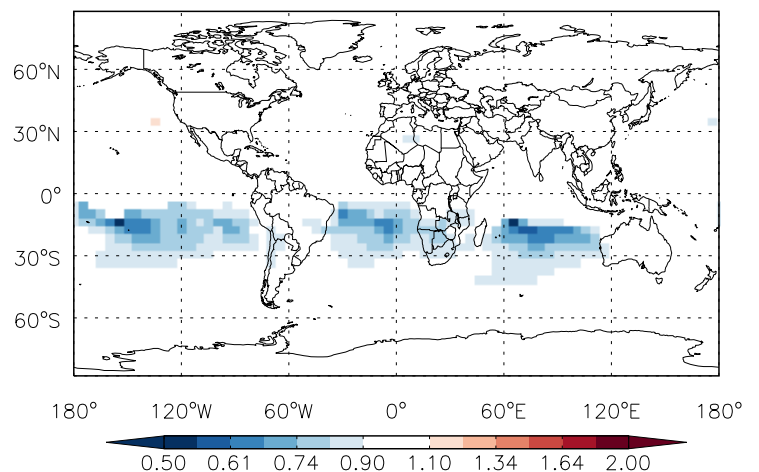
Ratio @ 500 hPa for MACR



Ratio @ Surface for PMN



Ratio @ 500 hPa for PMN



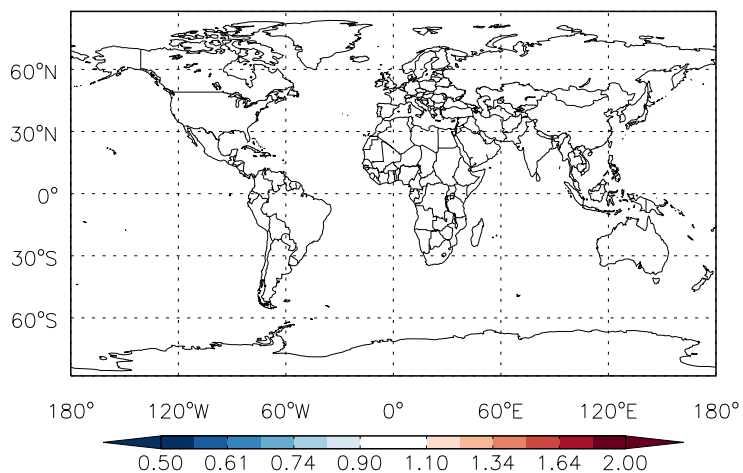
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

Ratio @ Surface for PPN



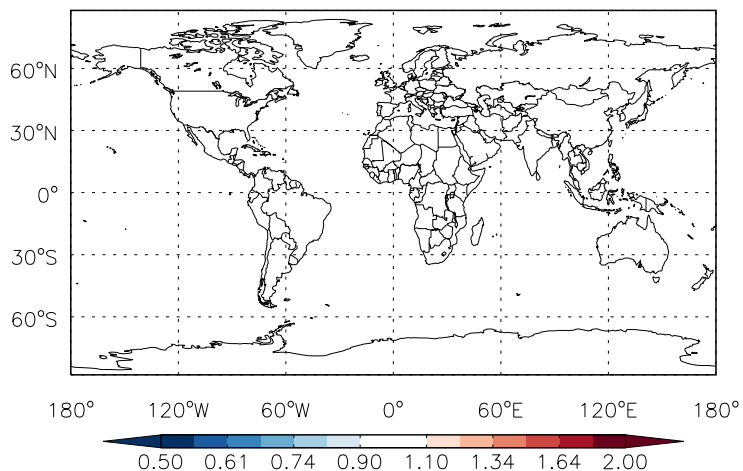
Ratio @ 500 hPa for PPN



Ratio @ Surface for R4N2



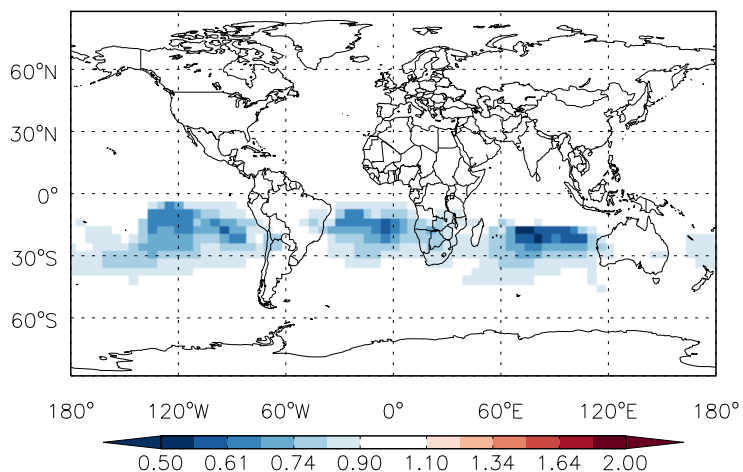
Ratio @ 500 hPa for R4N2



Ratio @ Surface for PRPE



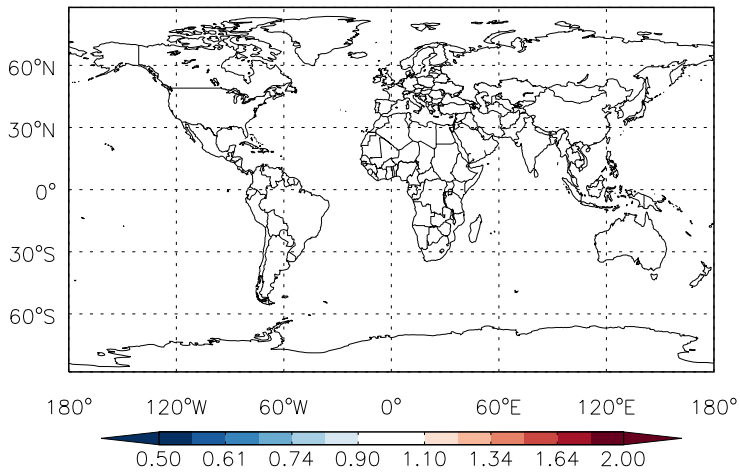
Ratio @ 500 hPa for PRPE



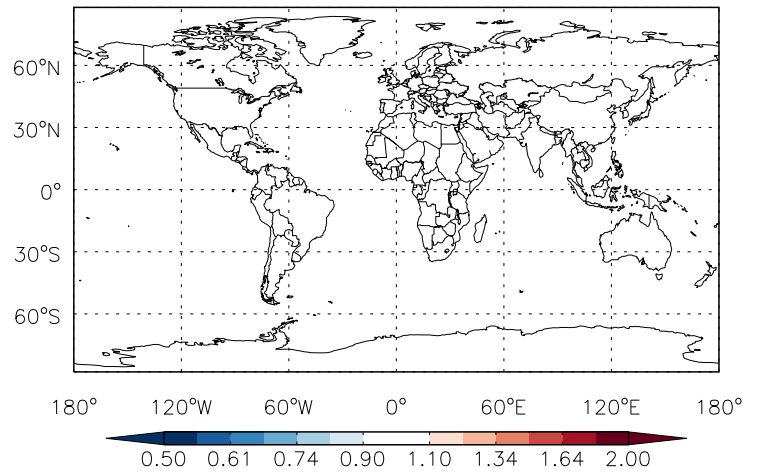
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

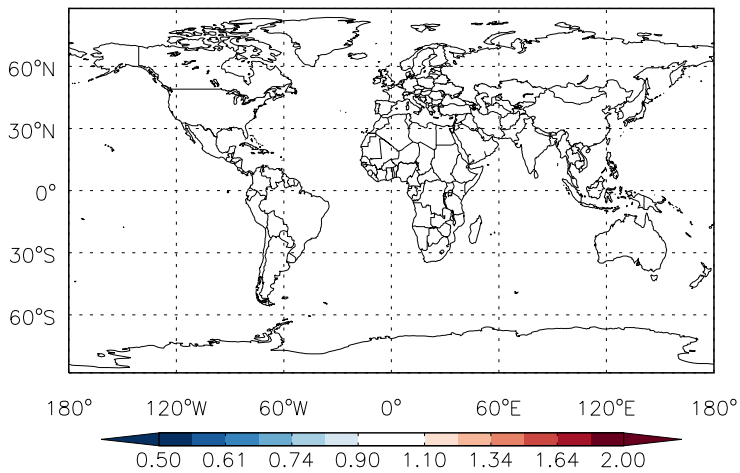
Ratio @ Surface for C3H8



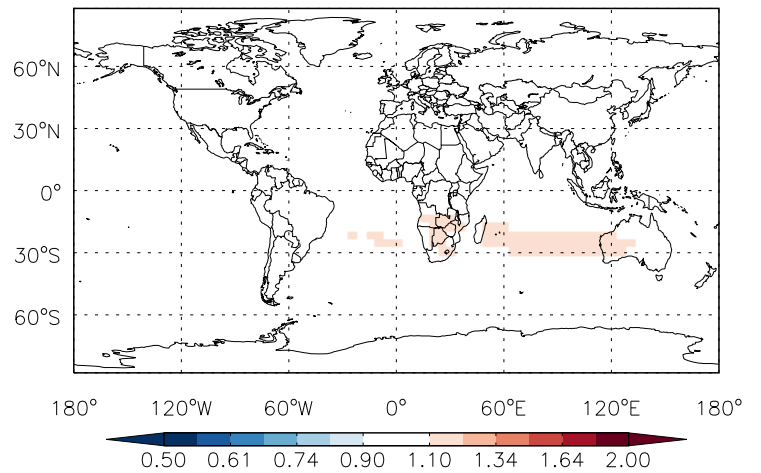
Ratio @ 500 hPa for C3H8



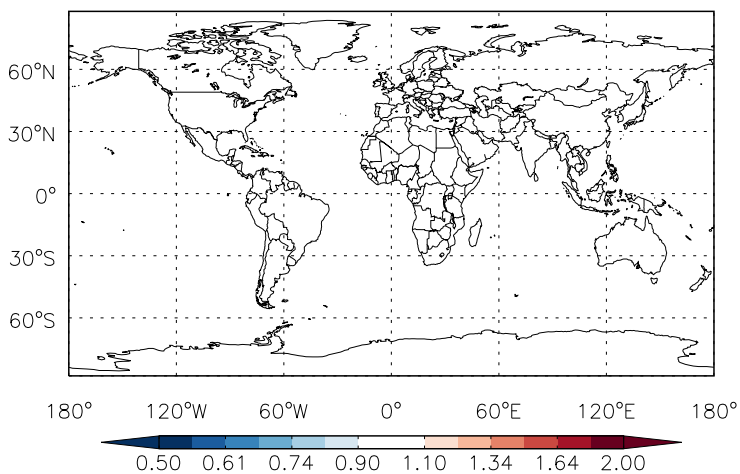
Ratio @ Surface for CH2O



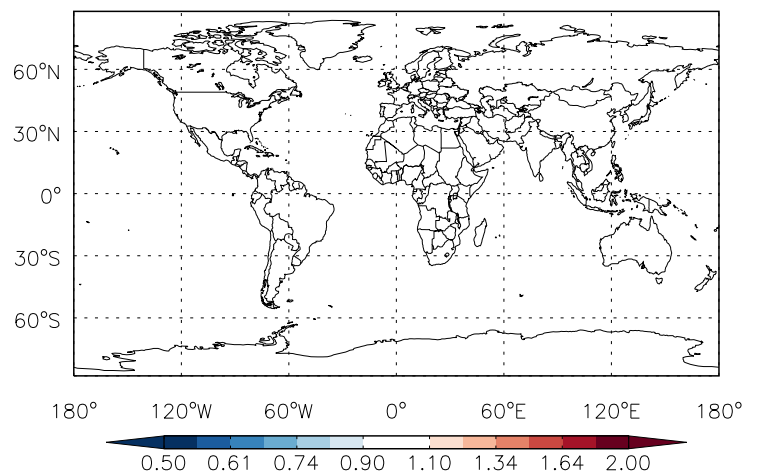
Ratio @ 500 hPa for CH2O



Ratio @ Surface for C2H6



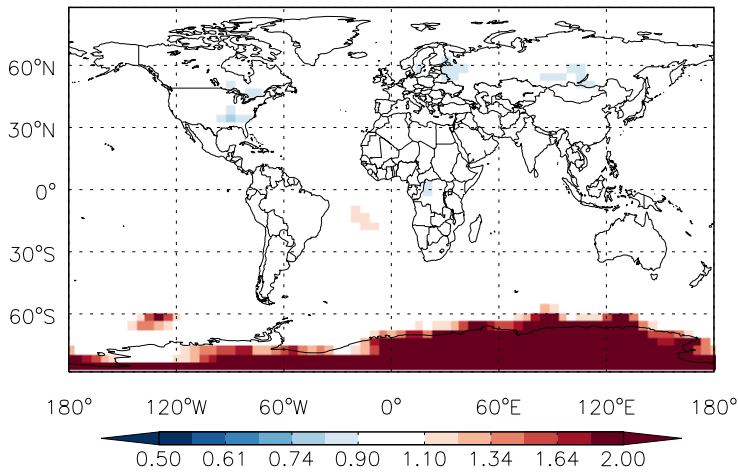
Ratio @ 500 hPa for C2H6



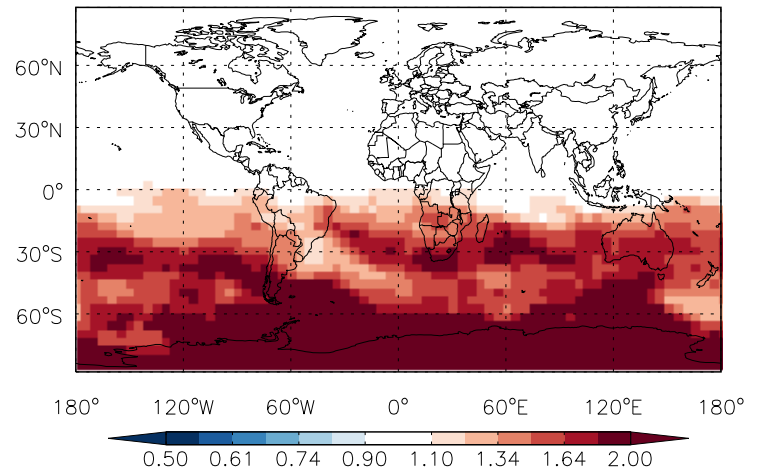
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

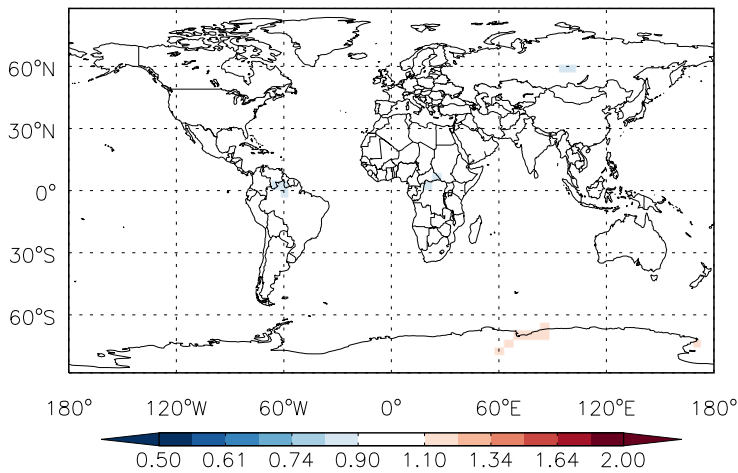
Ratio @ Surface for N2O5



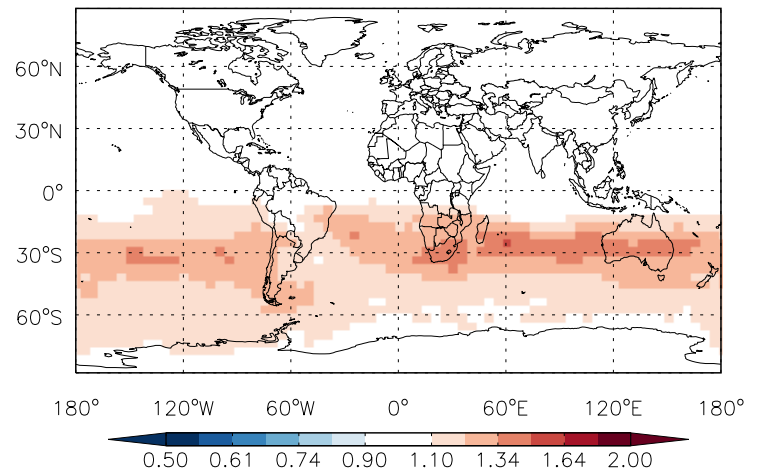
Ratio @ 500 hPa for N2O5



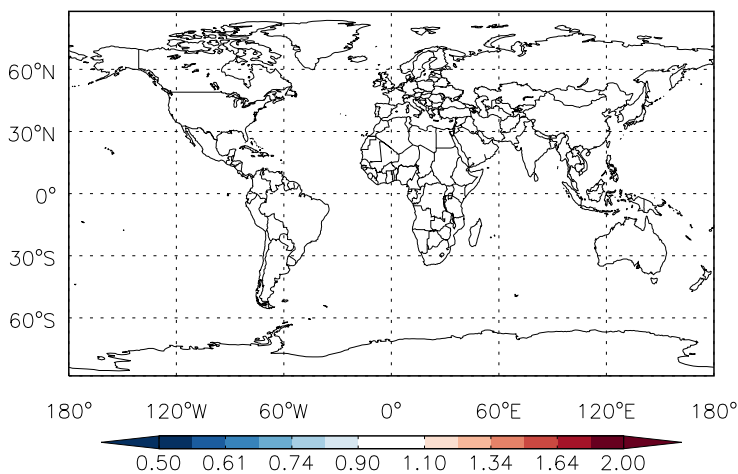
Ratio @ Surface for HN04



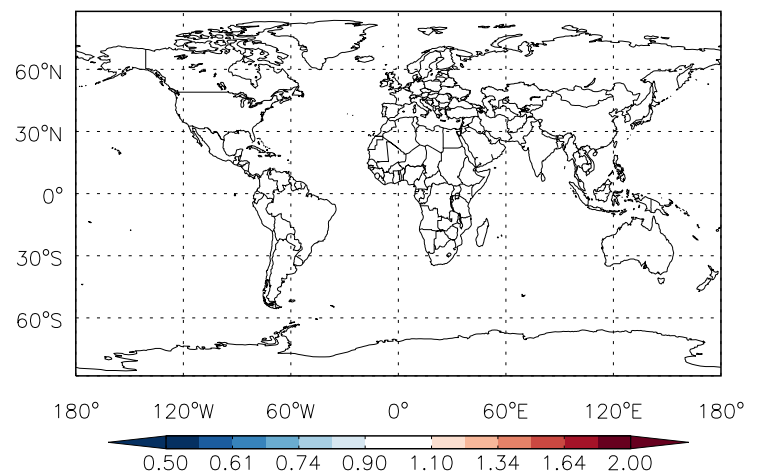
Ratio @ 500 hPa for HN04



Ratio @ Surface for MP



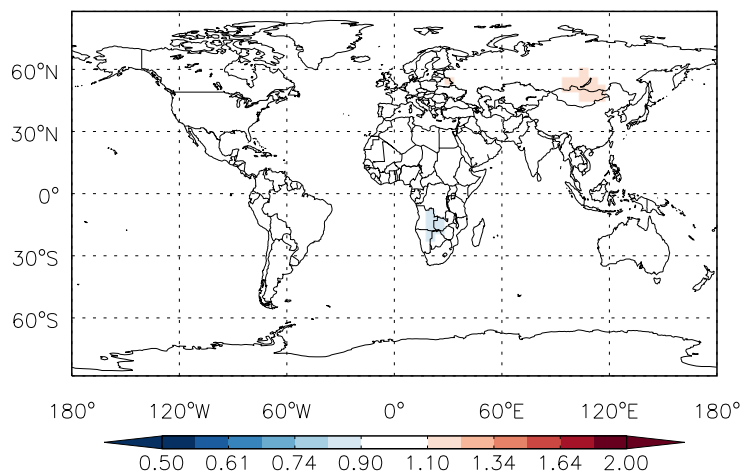
Ratio @ 500 hPa for MP



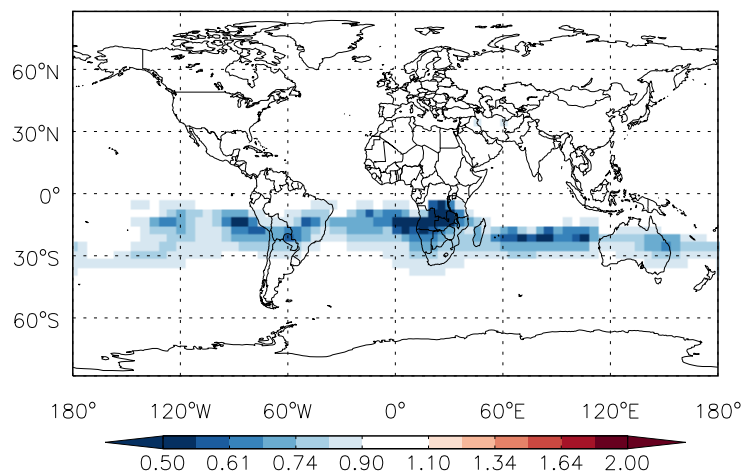
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

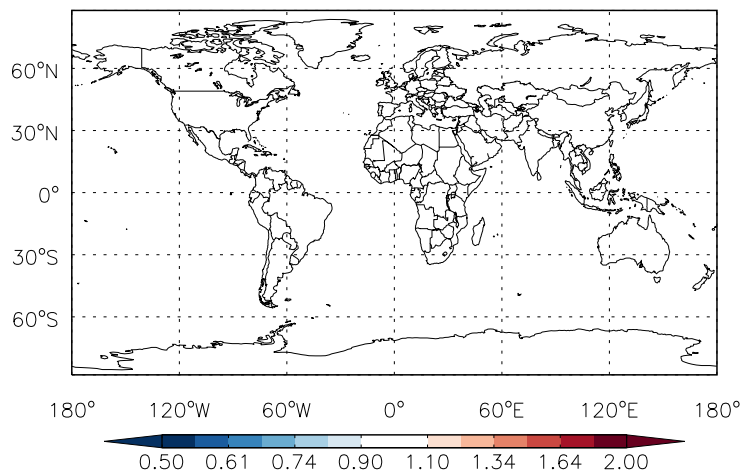
Ratio @ Surface for DMS



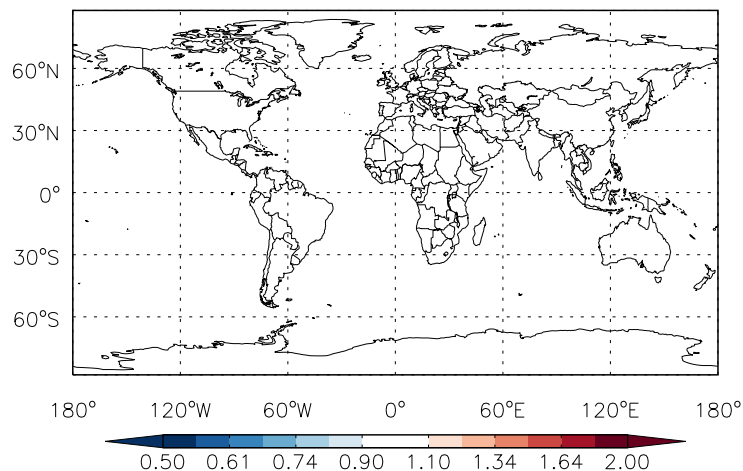
Ratio @ 500 hPa for DMS



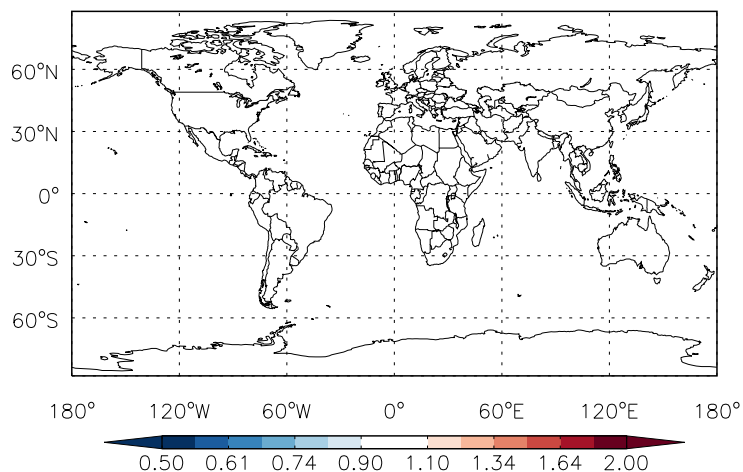
Ratio @ Surface for SO2



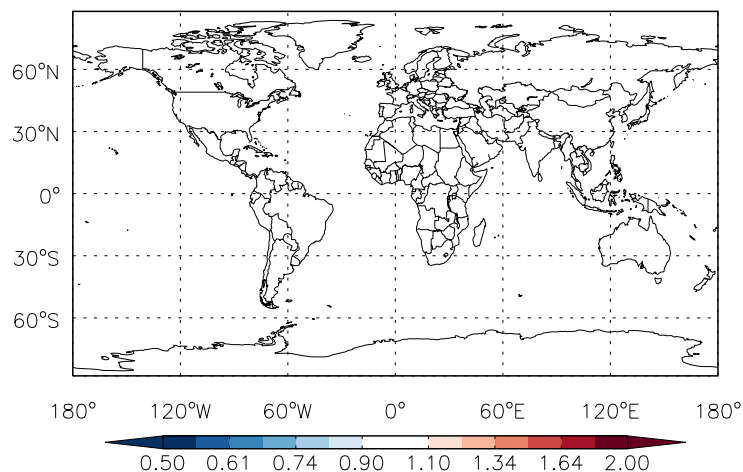
Ratio @ 500 hPa for SO2



Ratio @ Surface for SO4



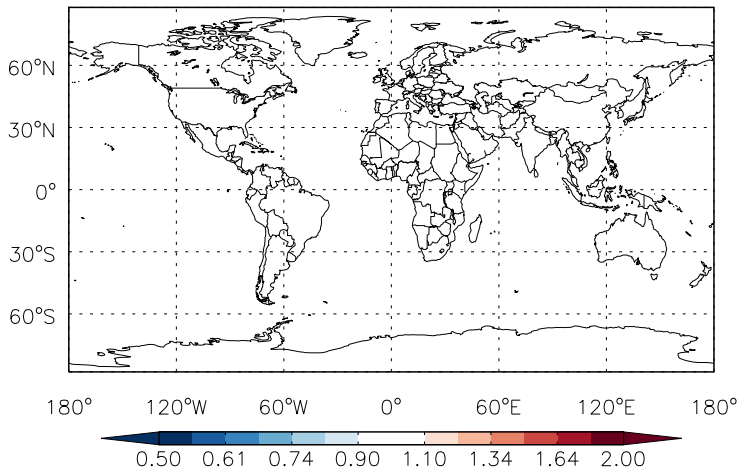
Ratio @ 500 hPa for SO4



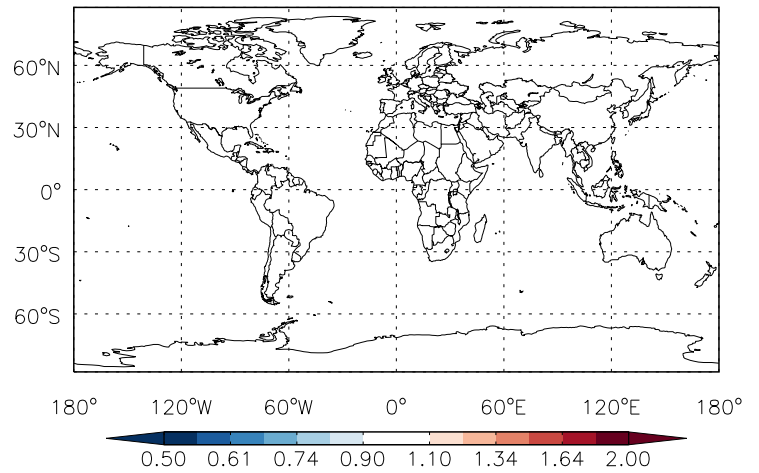
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

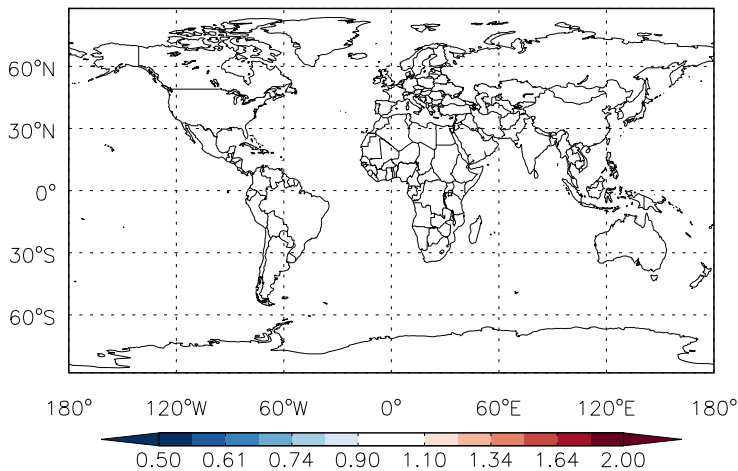
Ratio @ Surface for SO4s



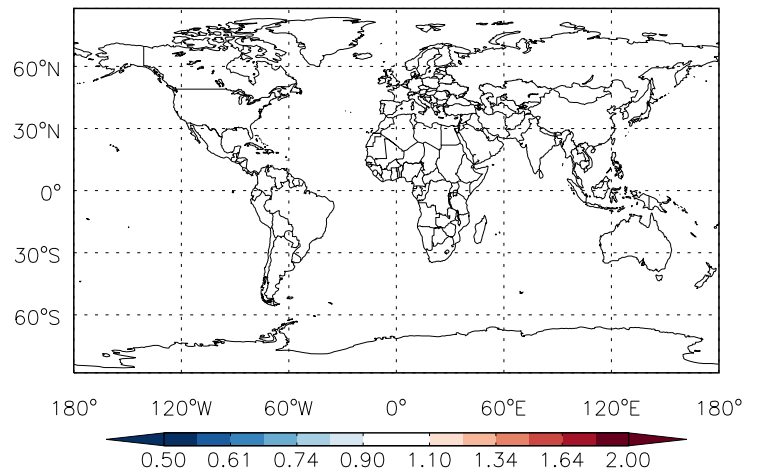
Ratio @ 500 hPa for SO4s



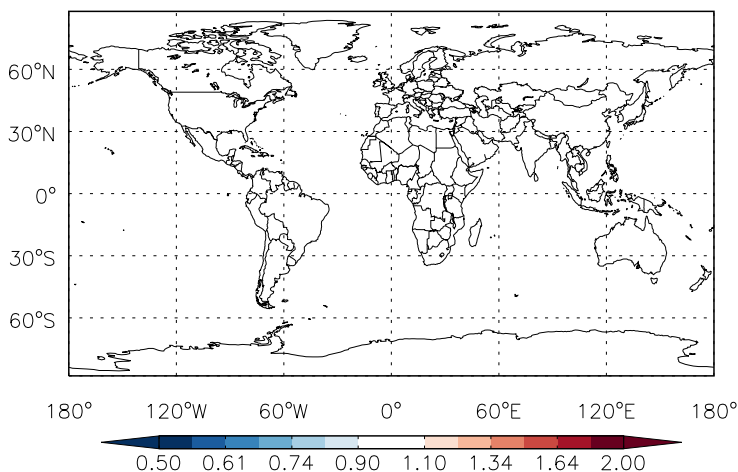
Ratio @ Surface for MSA



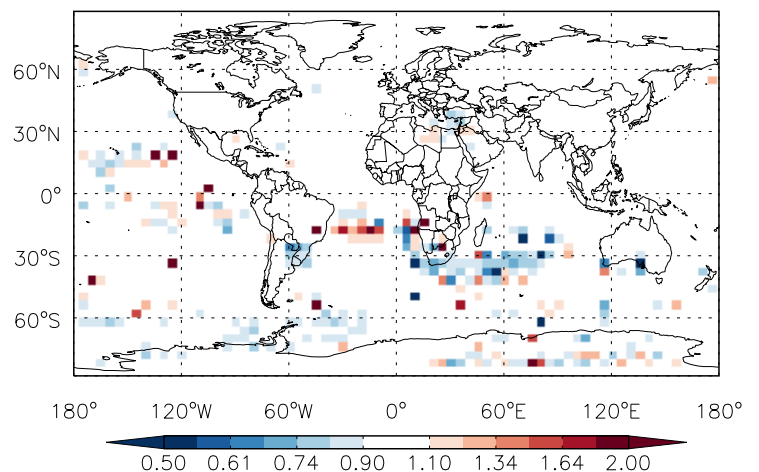
Ratio @ 500 hPa for MSA



Ratio @ Surface for NH3



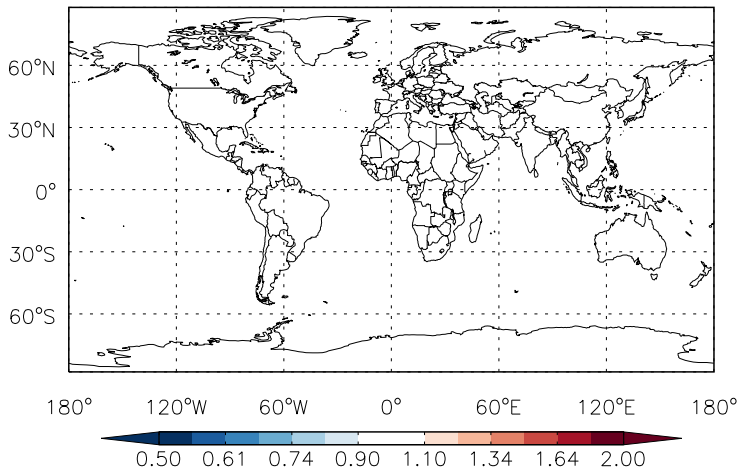
Ratio @ 500 hPa for NH3



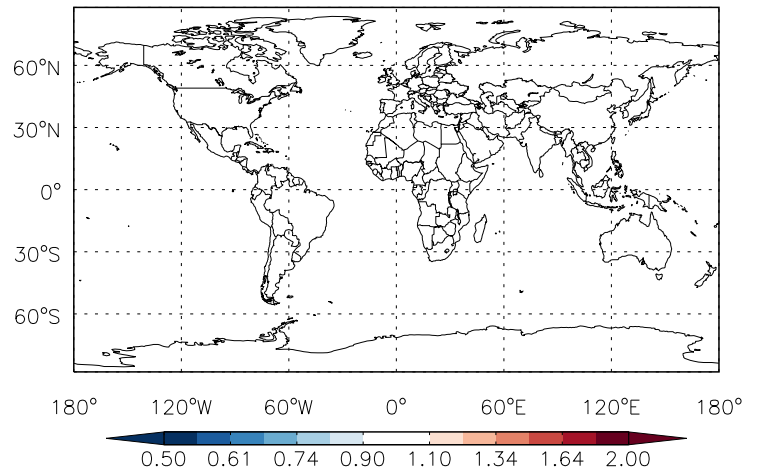
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

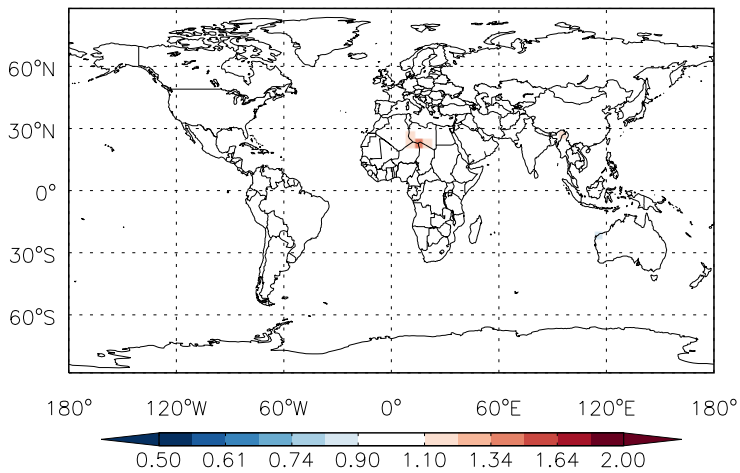
Ratio @ Surface for NH4



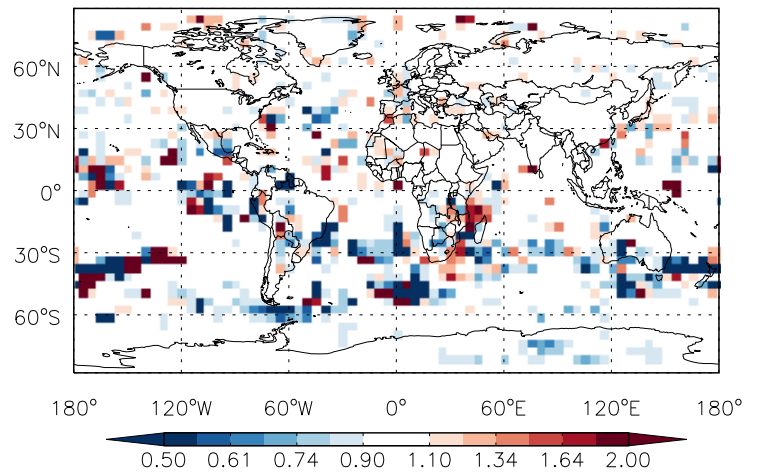
Ratio @ 500 hPa for NH4



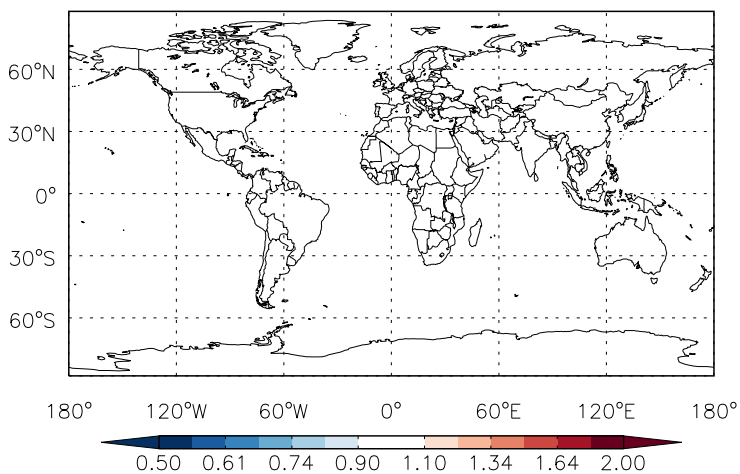
Ratio @ Surface for NIT



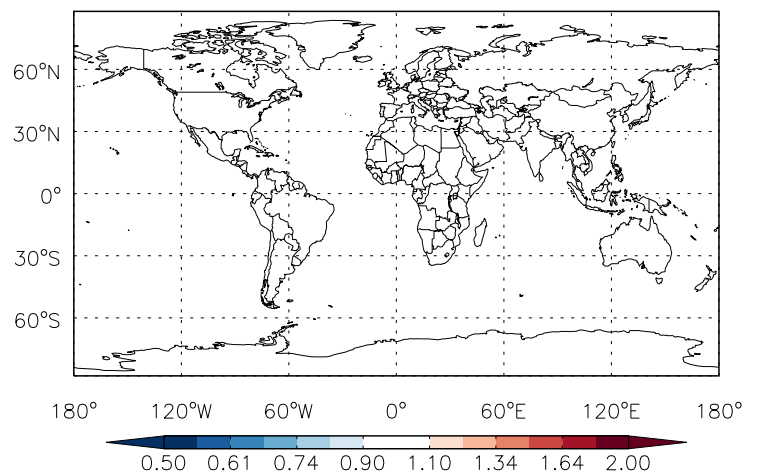
Ratio @ 500 hPa for NIT



Ratio @ Surface for NITs



Ratio @ 500 hPa for NITs

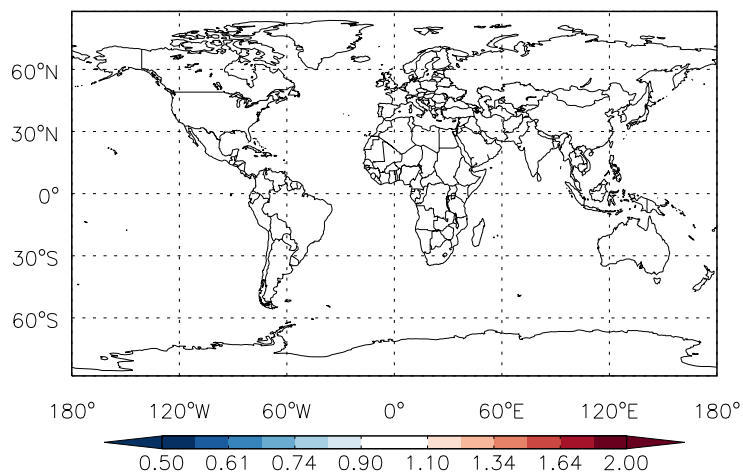




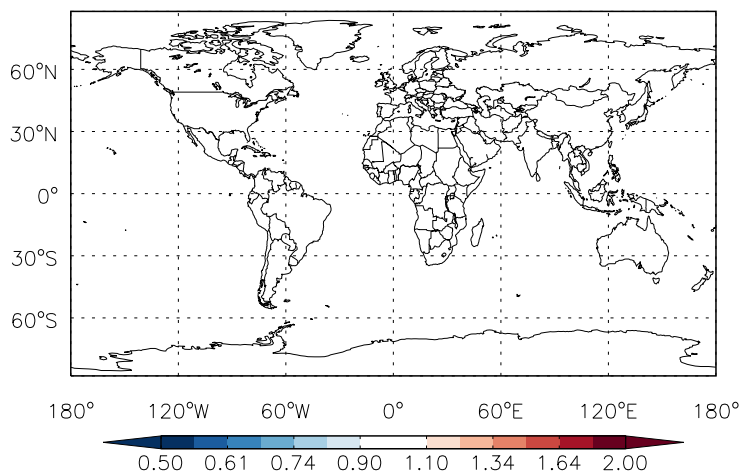
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

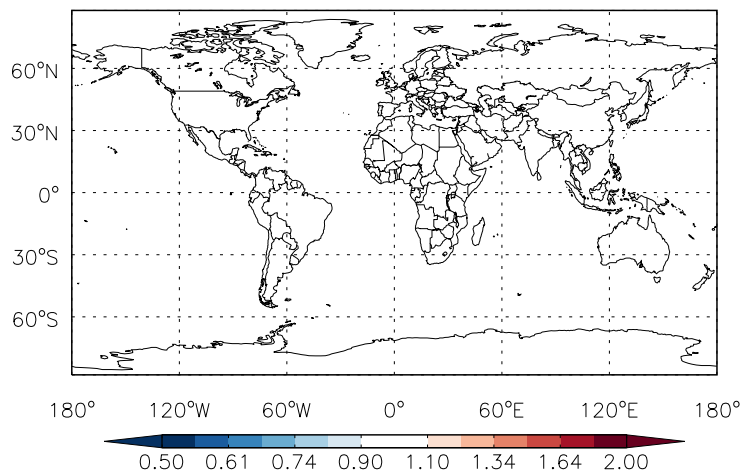
Ratio @ Surface for BCPI



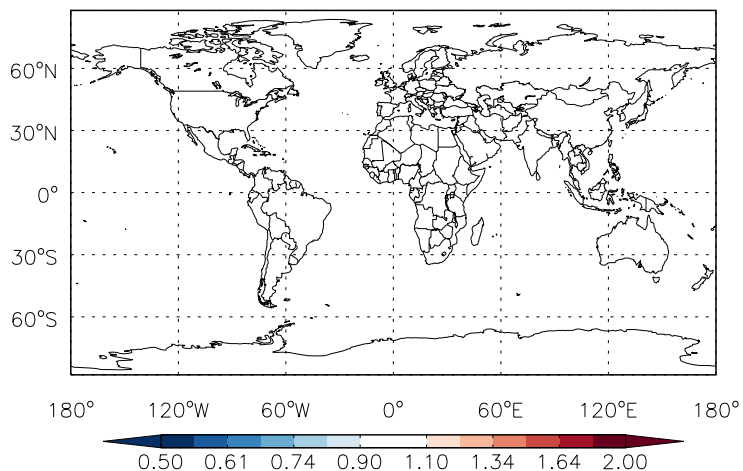
Ratio @ 500 hPa for BCPI



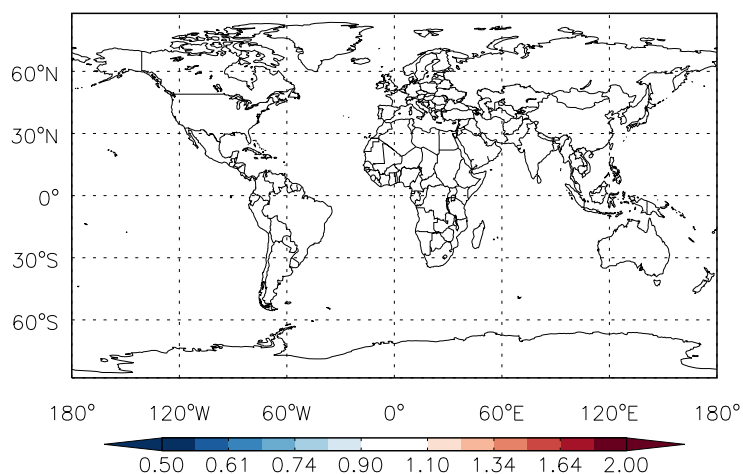
Ratio @ Surface for OCPI



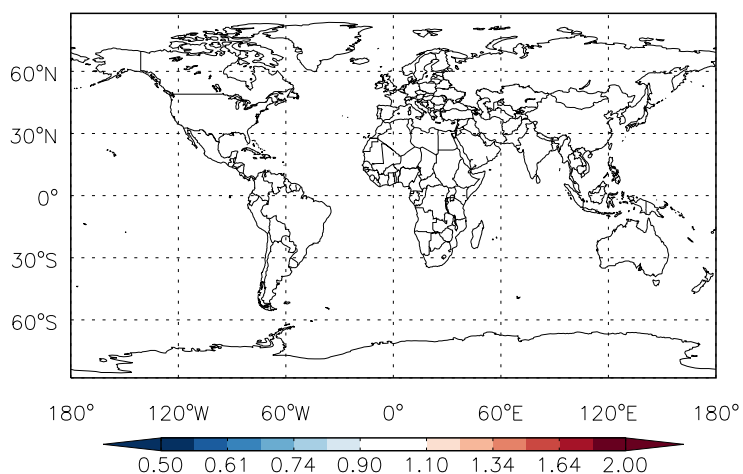
Ratio @ 500 hPa for OCPI



Ratio @ Surface for BCPO



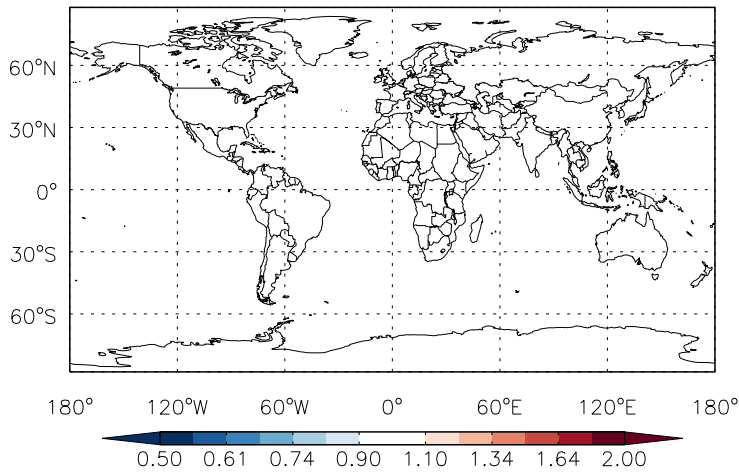
Ratio @ 500 hPa for BCPO



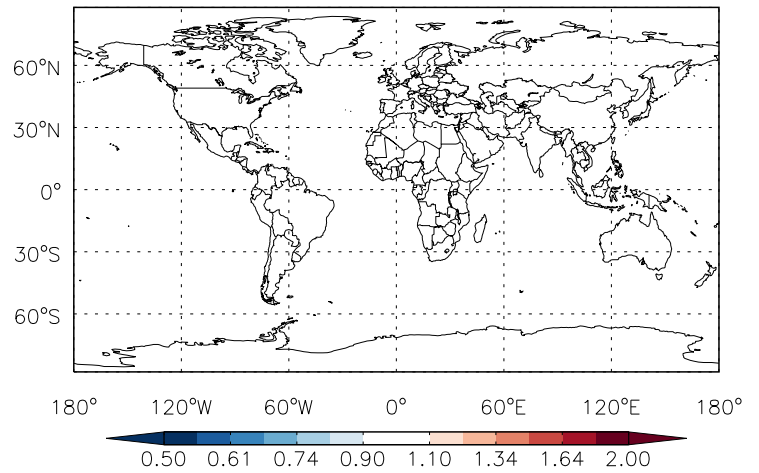
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

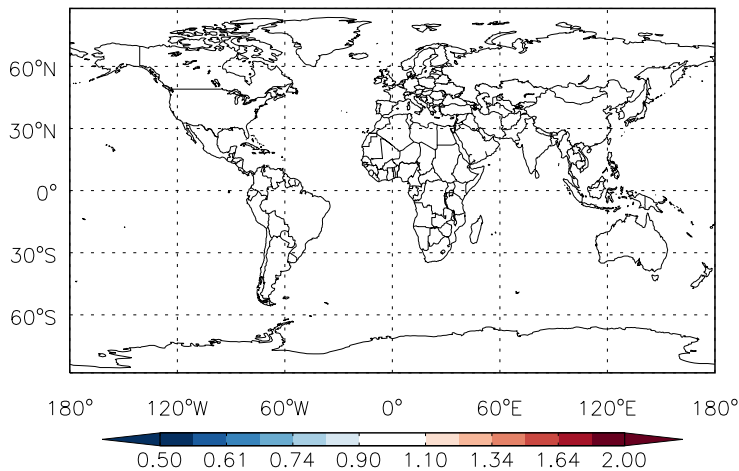
Ratio @ Surface for OCPO



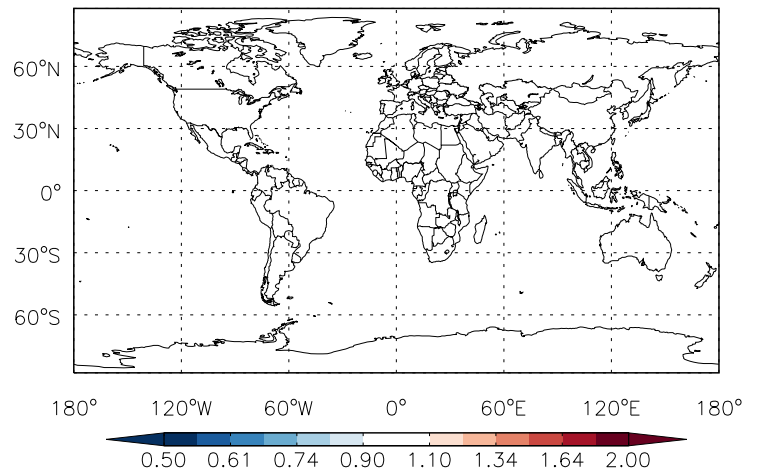
Ratio @ 500 hPa for OCPO



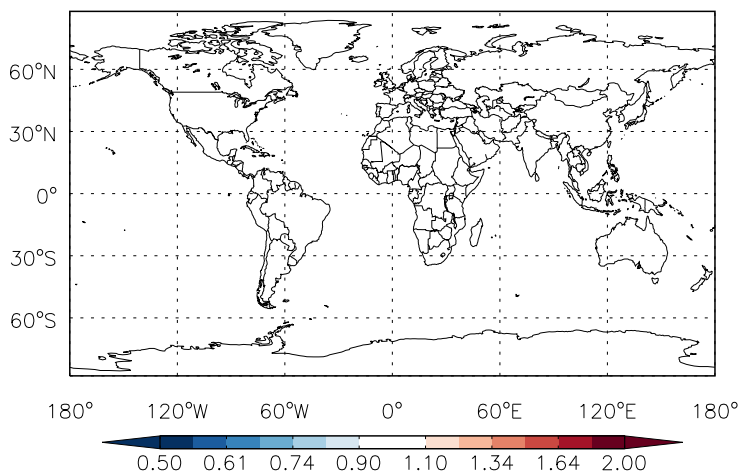
Ratio @ Surface for DST1



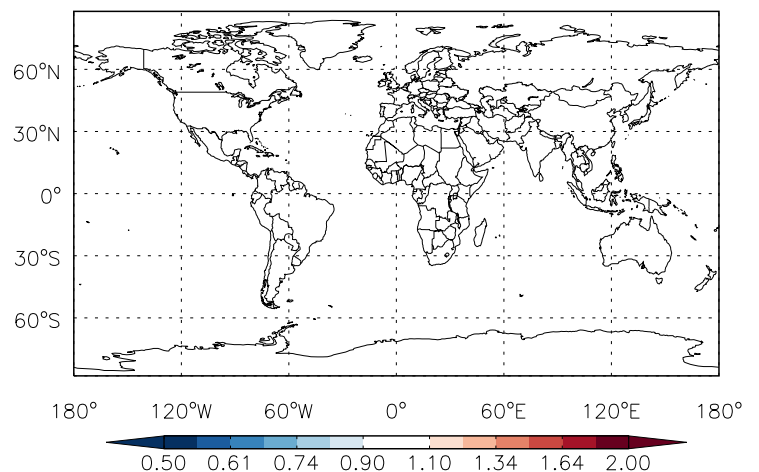
Ratio @ 500 hPa for DST1



Ratio @ Surface for DST2



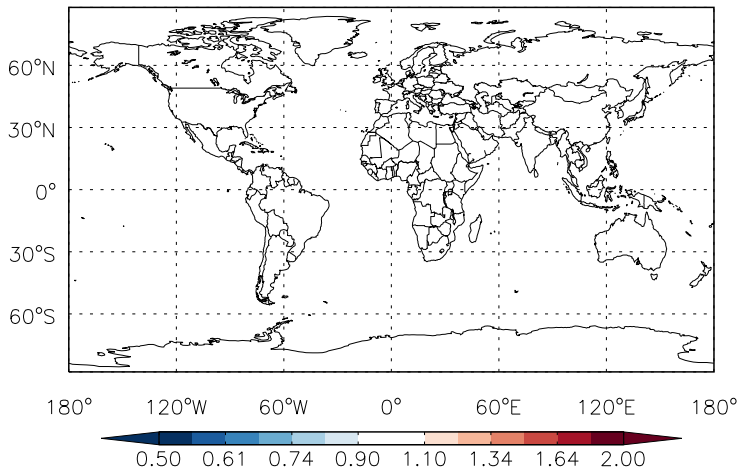
Ratio @ 500 hPa for DST2



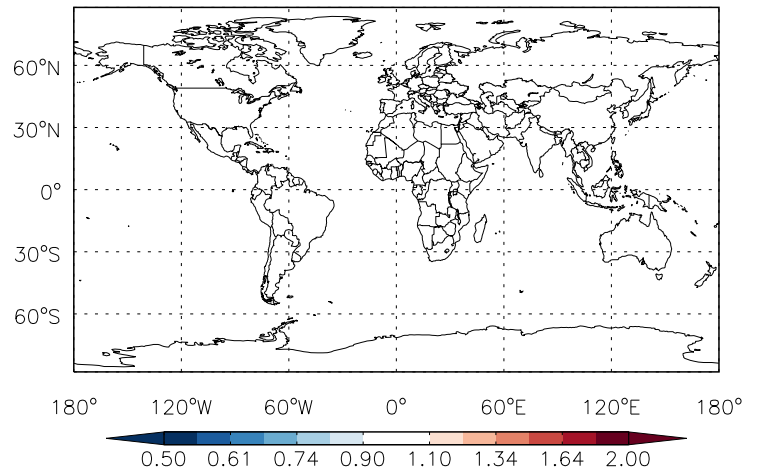
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

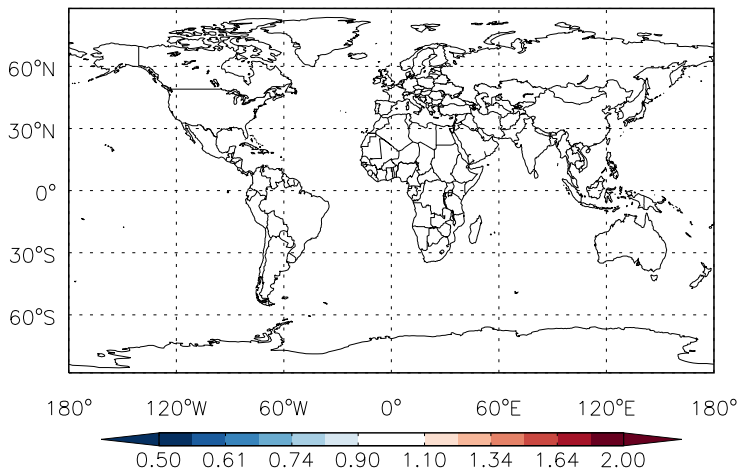
Ratio @ Surface for DST3



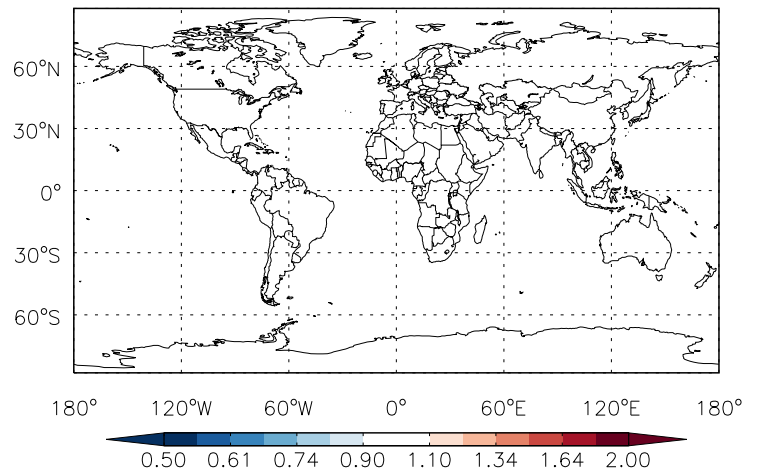
Ratio @ 500 hPa for DST3



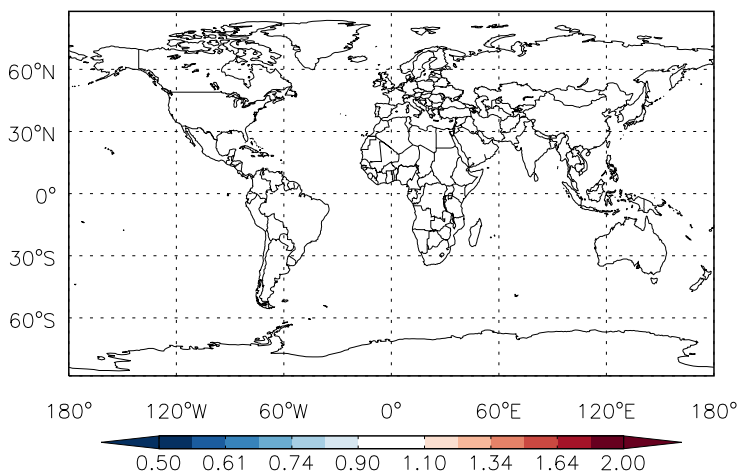
Ratio @ Surface for DST4



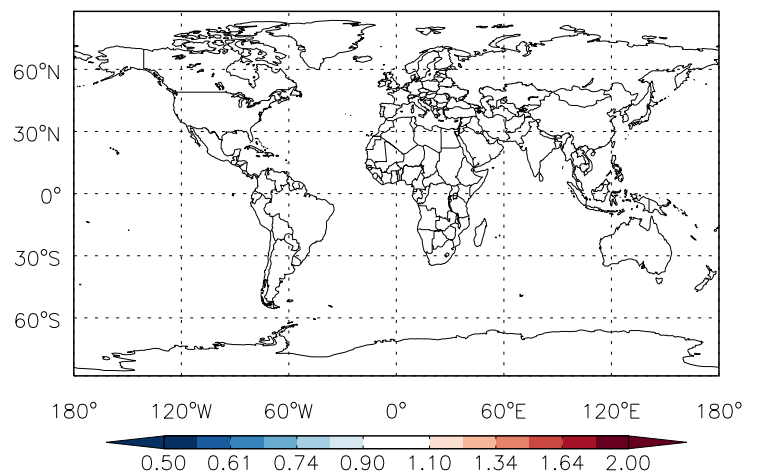
Ratio @ 500 hPa for DST4



Ratio @ Surface for SALA



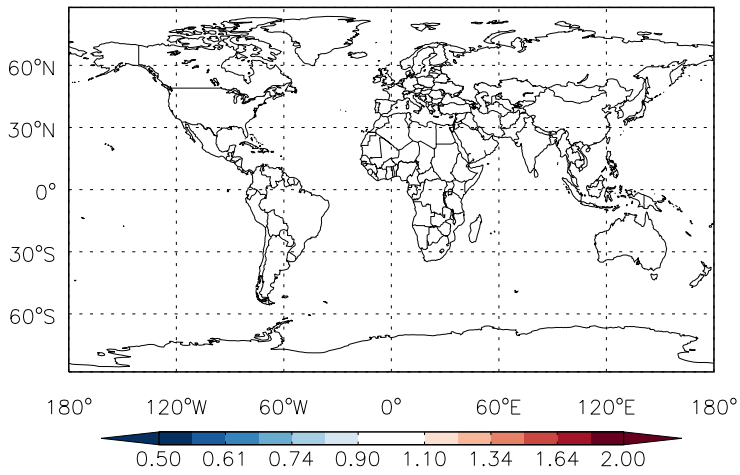
Ratio @ 500 hPa for SALA



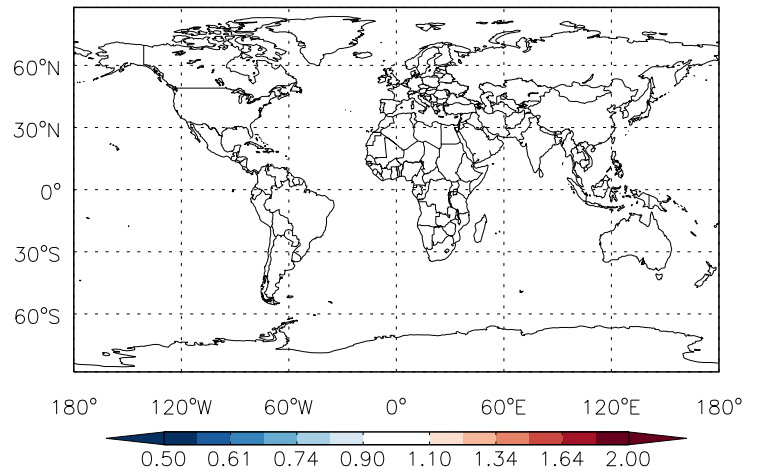
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

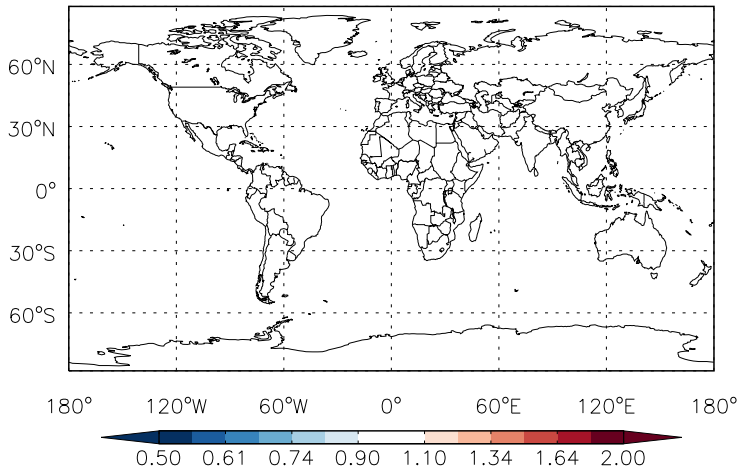
Ratio @ Surface for SALC



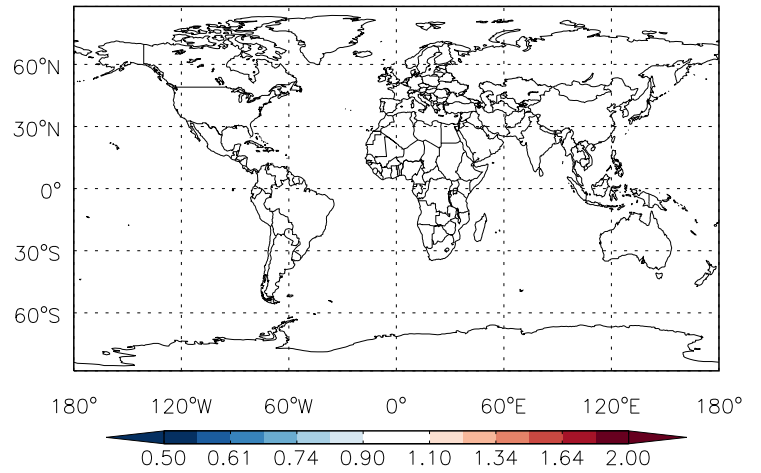
Ratio @ 500 hPa for SALC



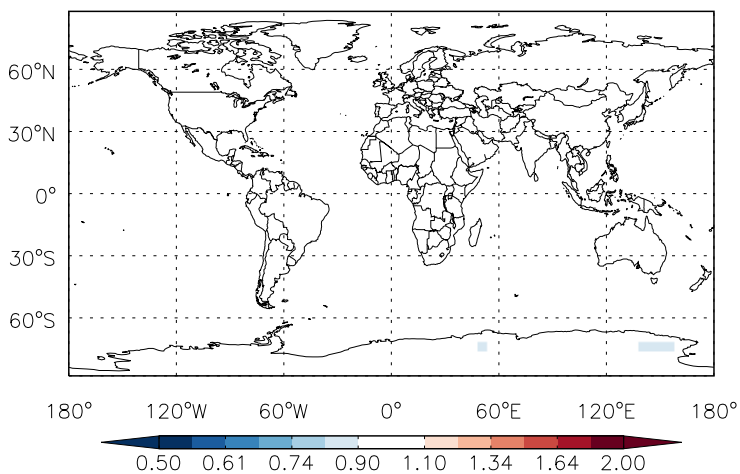
Ratio @ Surface for Br2



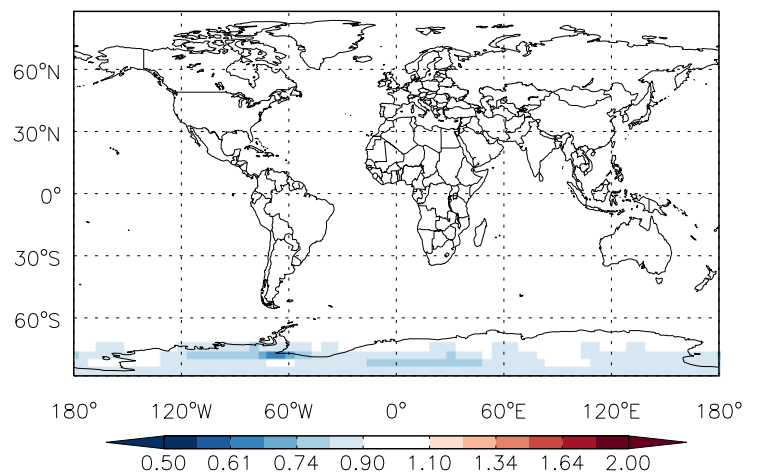
Ratio @ 500 hPa for Br2



Ratio @ Surface for Br



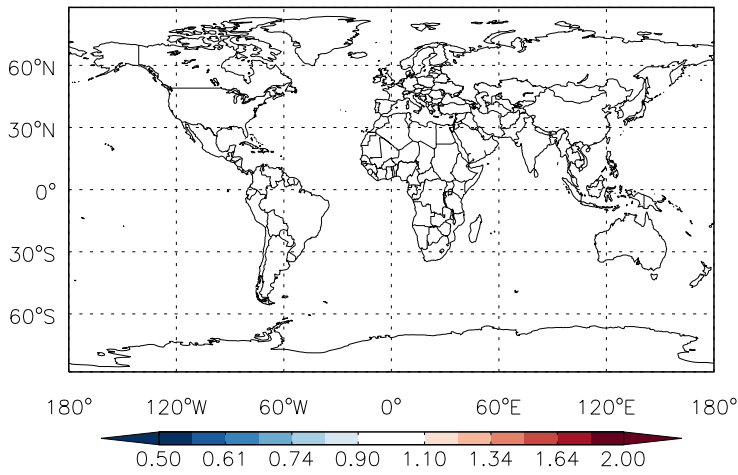
Ratio @ 500 hPa for Br



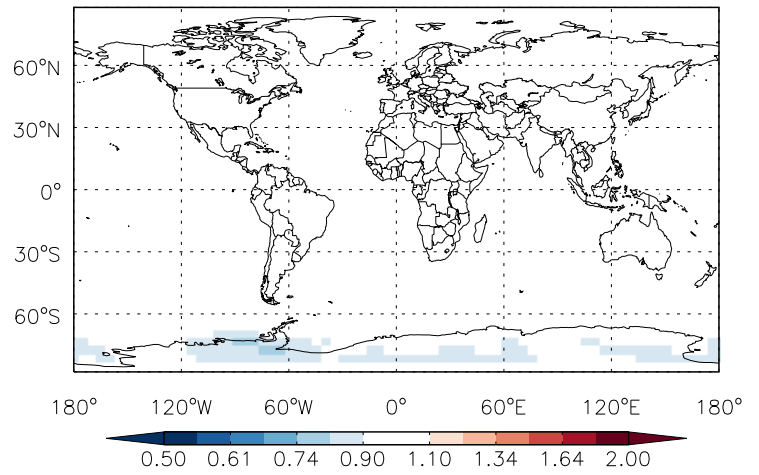
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

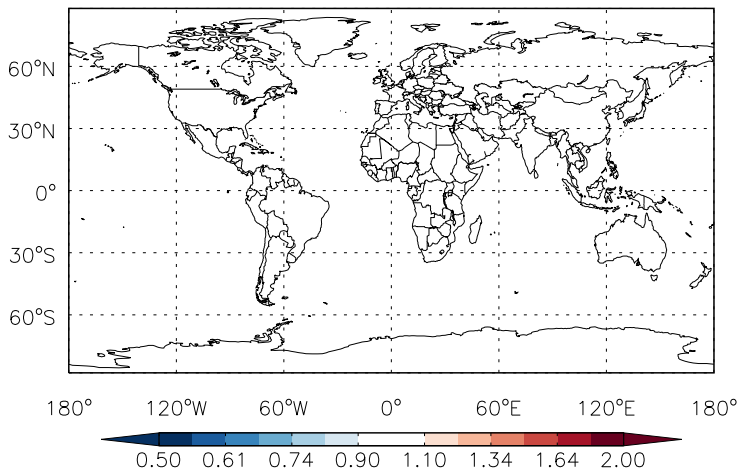
Ratio @ Surface for BrO



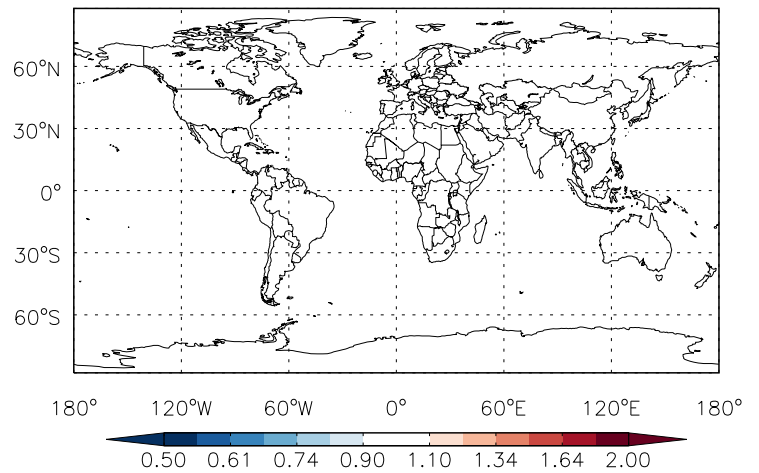
Ratio @ 500 hPa for BrO



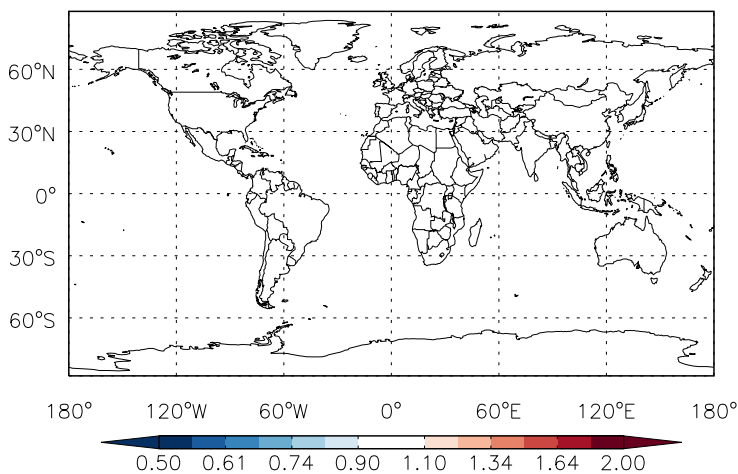
Ratio @ Surface for HOBr



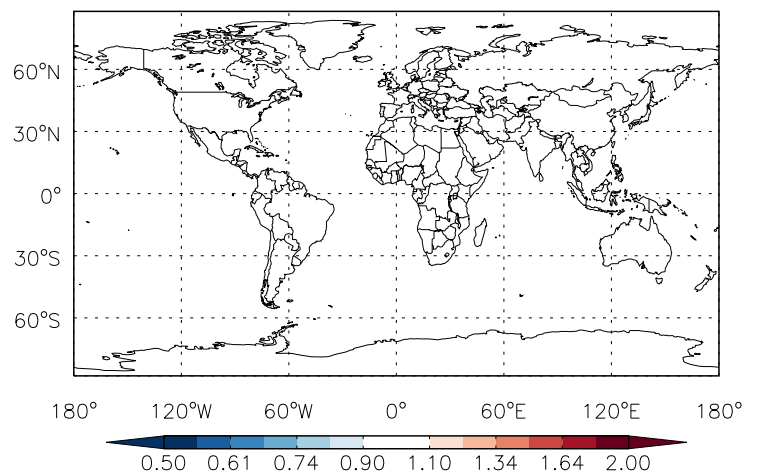
Ratio @ 500 hPa for HOBr



Ratio @ Surface for HBr



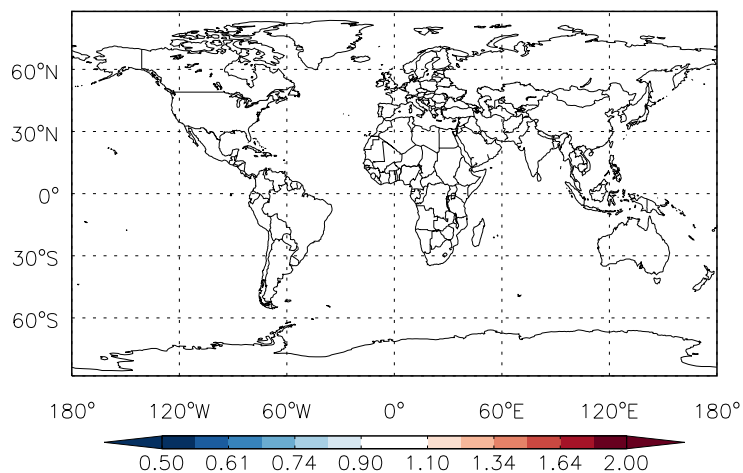
Ratio @ 500 hPa for HBr



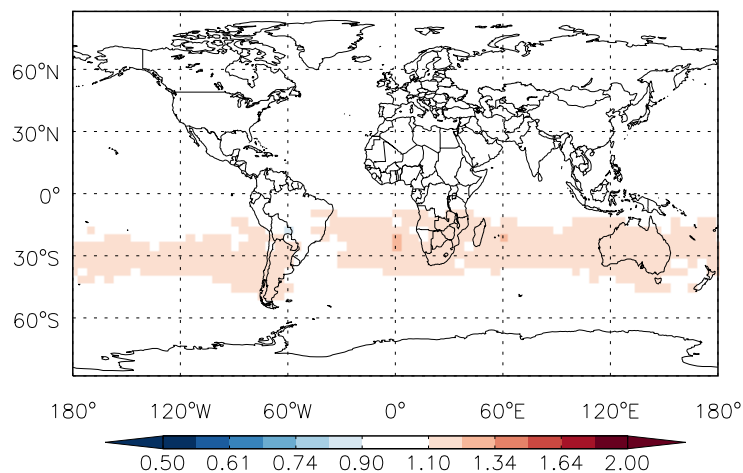
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

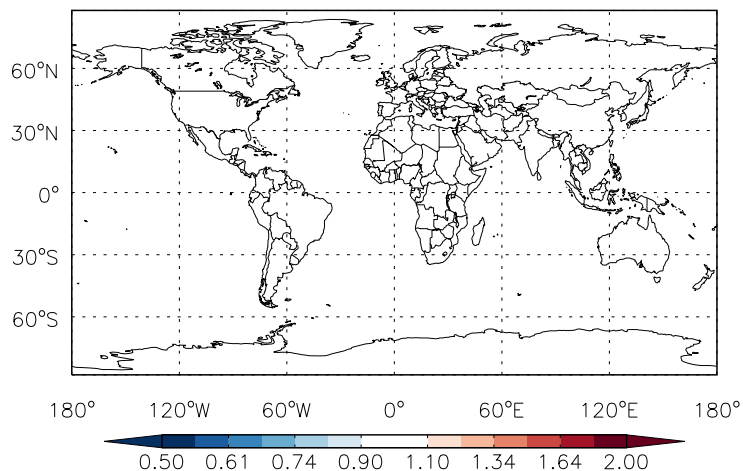
Ratio @ Surface for BrNO<sub>2</sub>



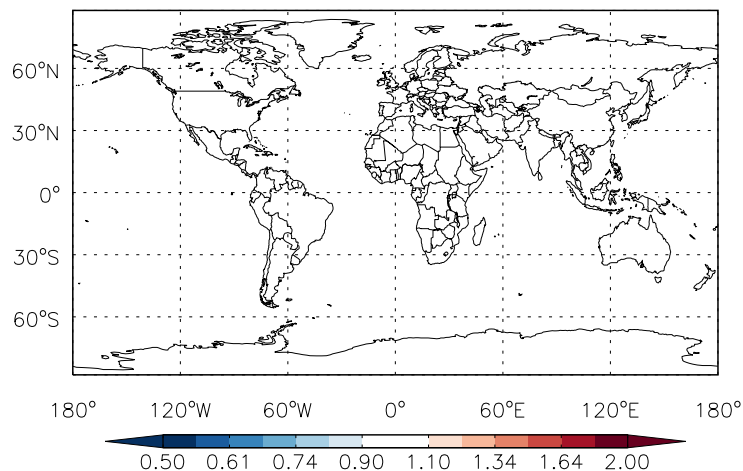
Ratio @ 500 hPa for BrNO<sub>2</sub>



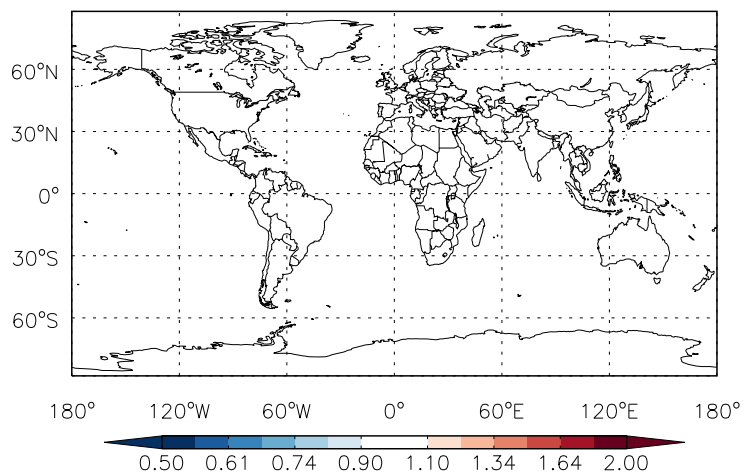
Ratio @ Surface for BrNO<sub>3</sub>



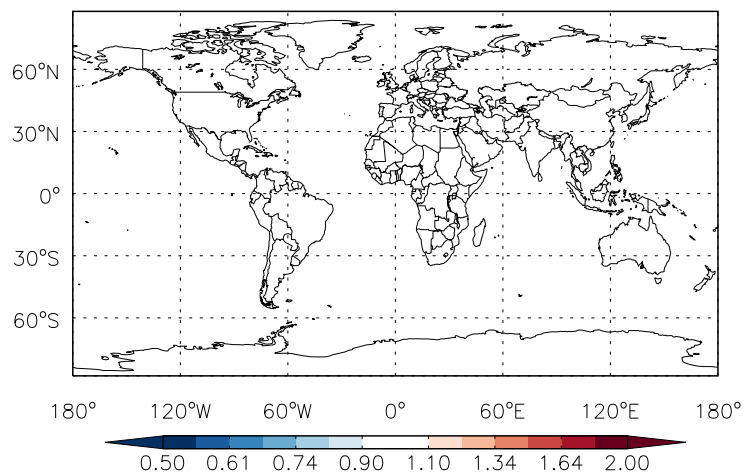
Ratio @ 500 hPa for BrNO<sub>3</sub>



Ratio @ Surface for CHBr<sub>3</sub>



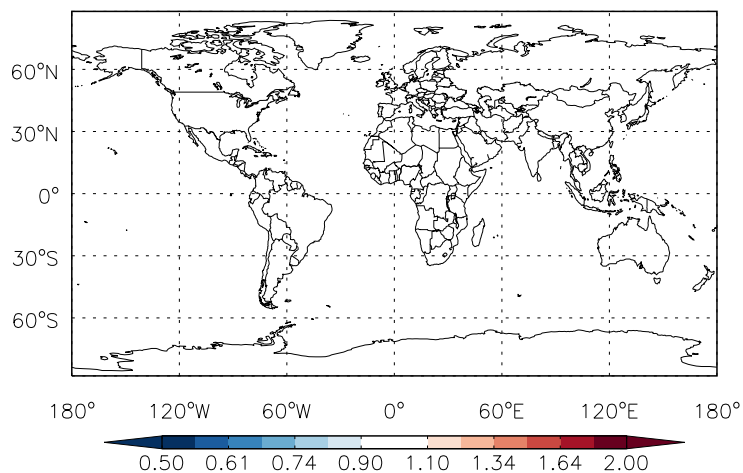
Ratio @ 500 hPa for CHBr<sub>3</sub>



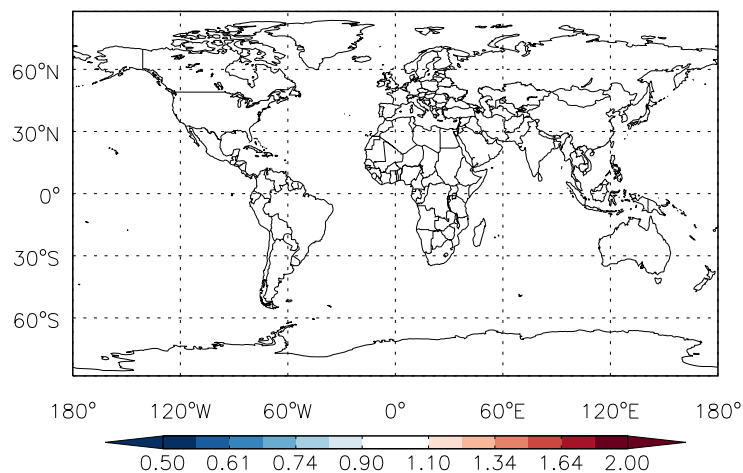
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

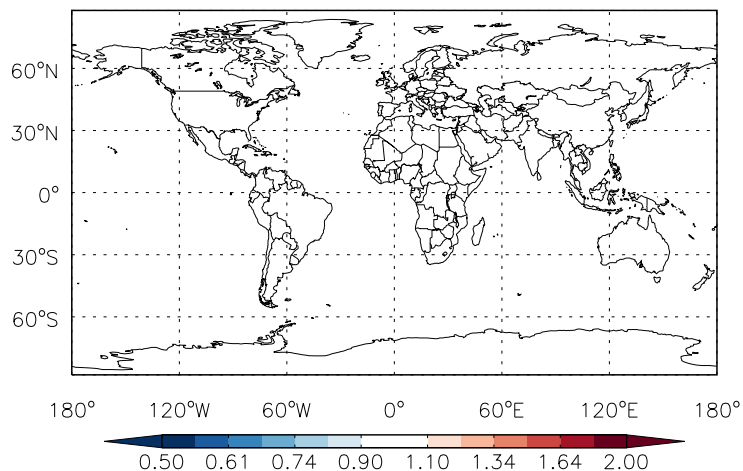
Ratio @ Surface for CH<sub>2</sub>Br<sub>2</sub>



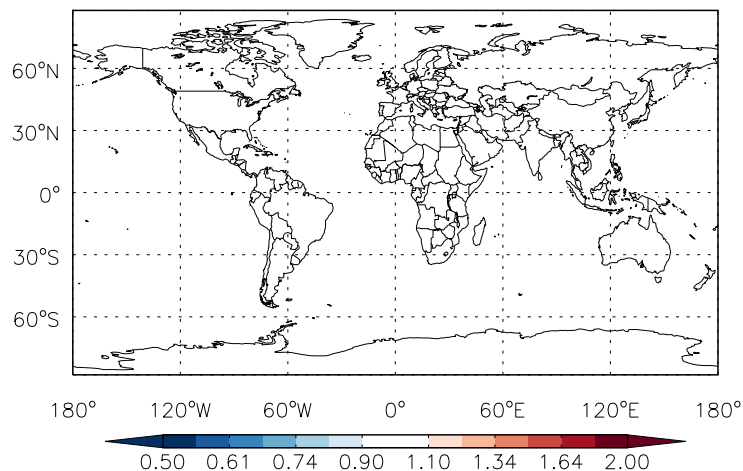
Ratio @ 500 hPa for CH<sub>2</sub>Br<sub>2</sub>



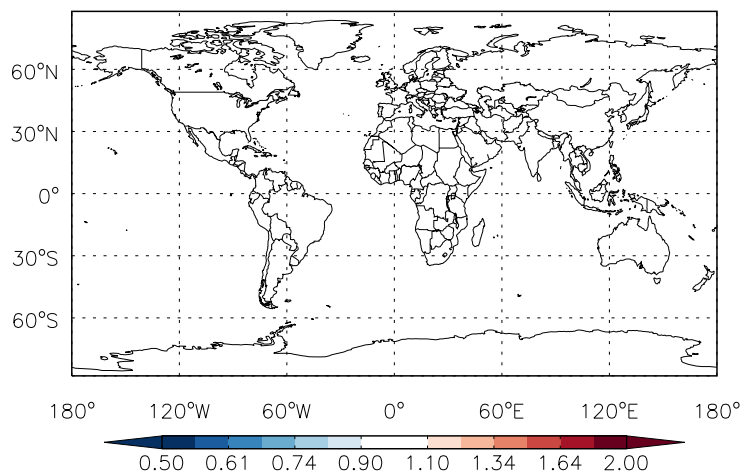
Ratio @ Surface for CH<sub>3</sub>Br



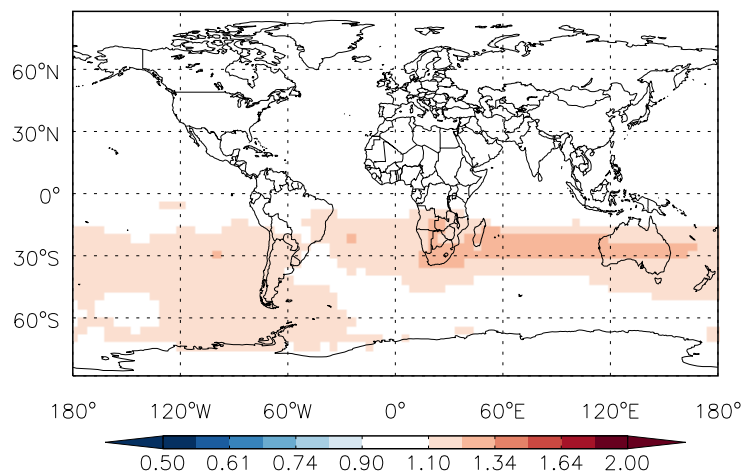
Ratio @ 500 hPa for CH<sub>3</sub>Br



Ratio @ Surface for MPN



Ratio @ 500 hPa for MPN

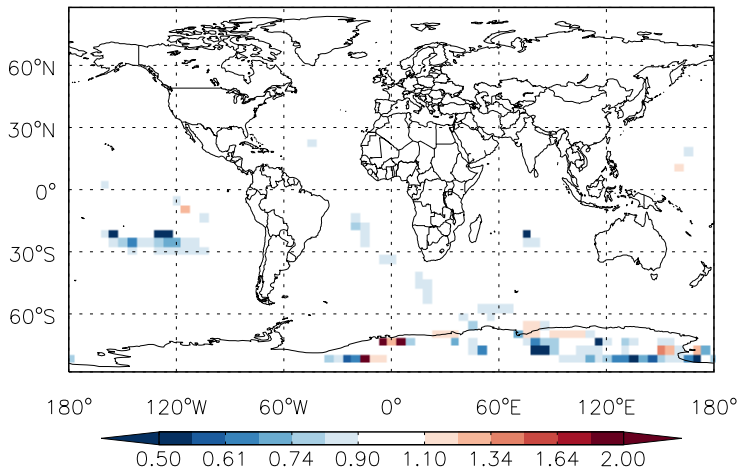




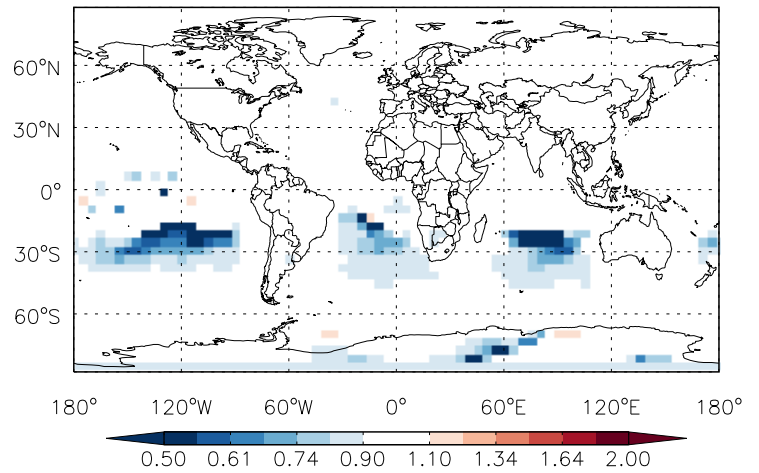
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

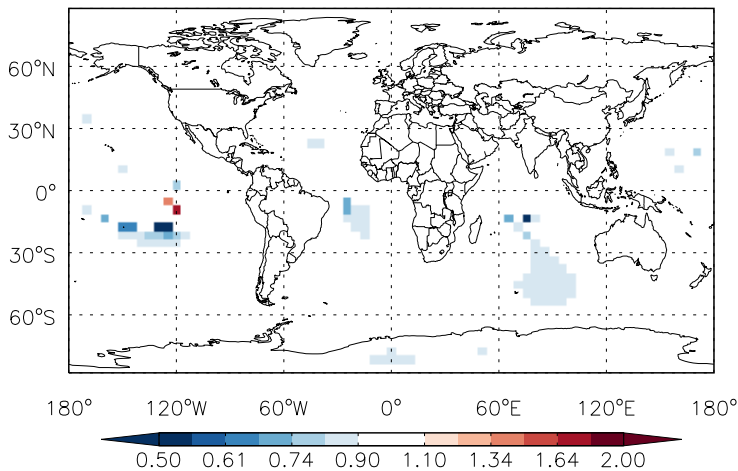
Ratio @ Surface for ISOPN



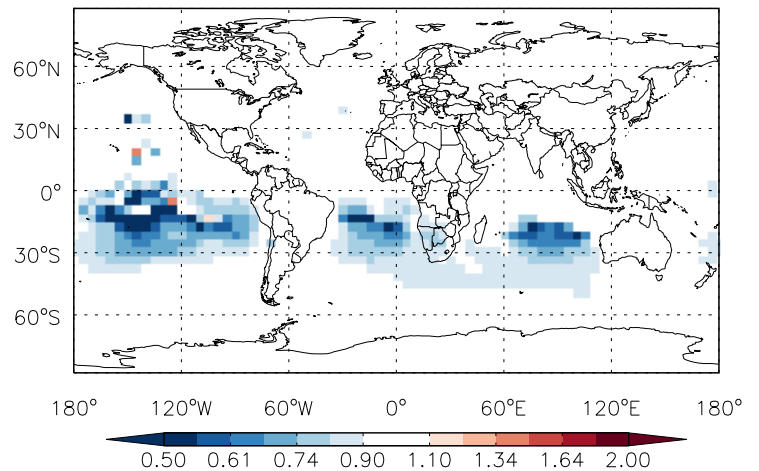
Ratio @ 500 hPa for ISOPN



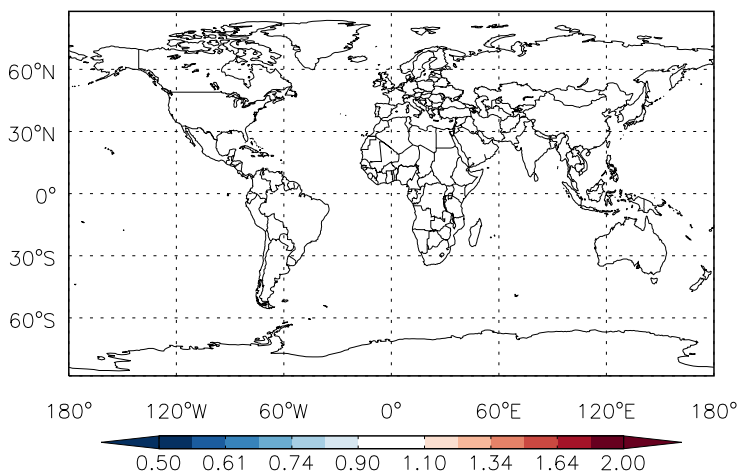
Ratio @ Surface for MOBA



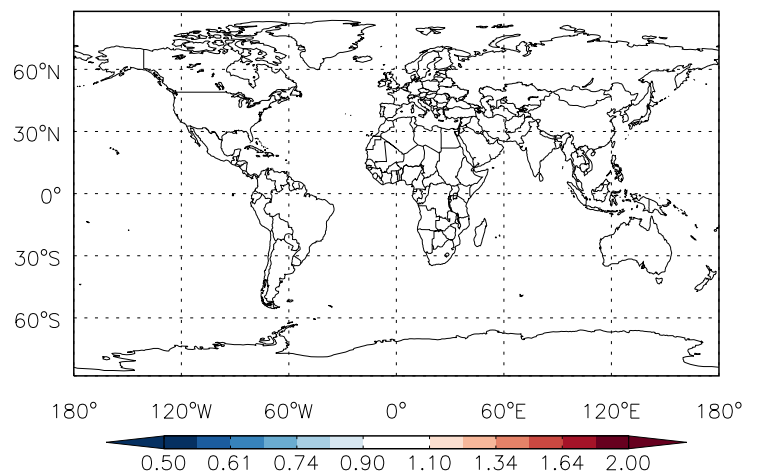
Ratio @ 500 hPa for MOBA



Ratio @ Surface for PROPNN



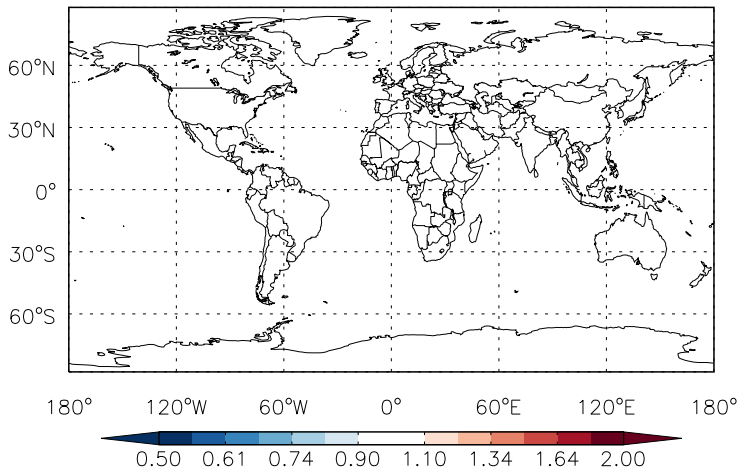
Ratio @ 500 hPa for PROPNN



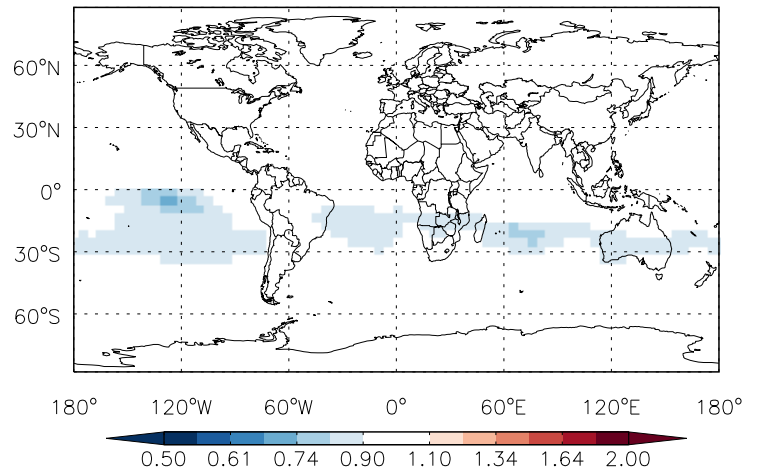
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

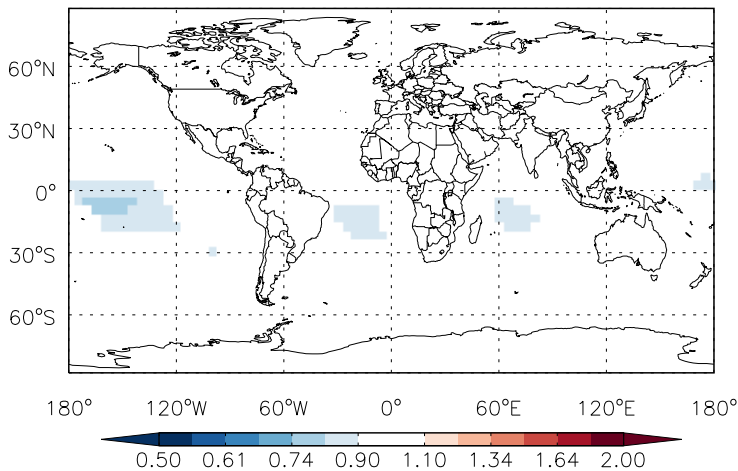
Ratio @ Surface for HAC



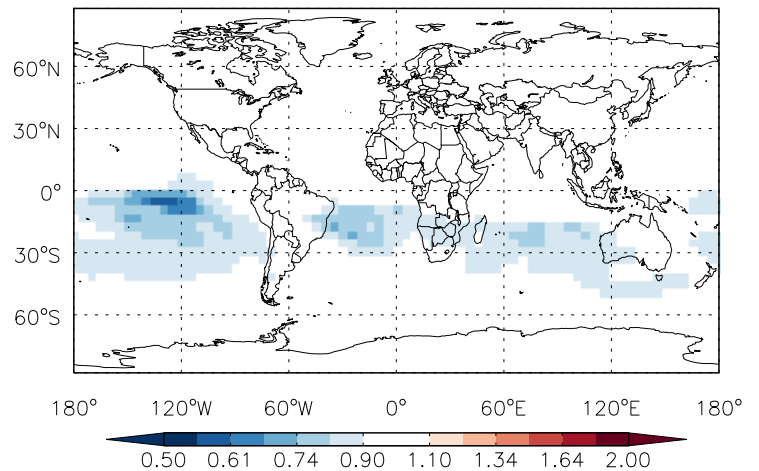
Ratio @ 500 hPa for HAC



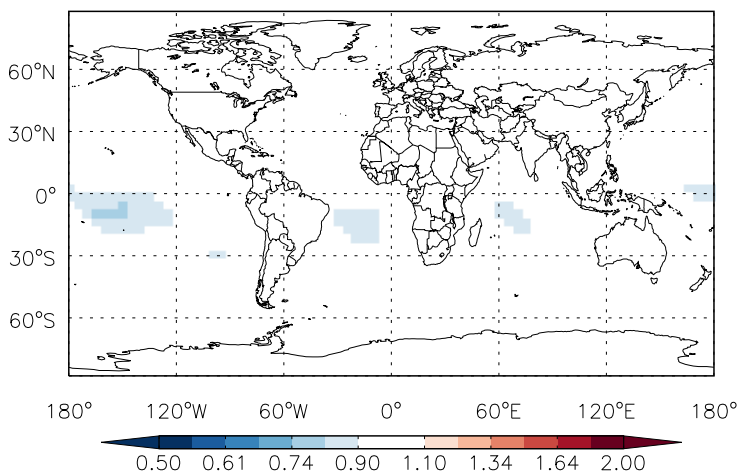
Ratio @ Surface for GLYC



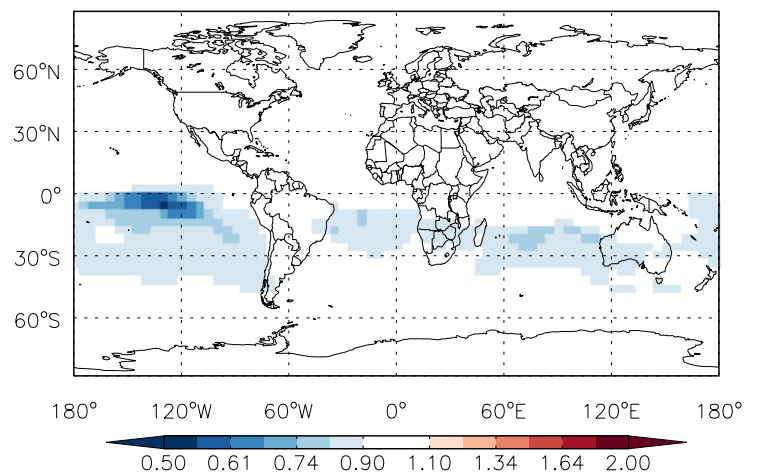
Ratio @ 500 hPa for GLYC



Ratio @ Surface for MMN



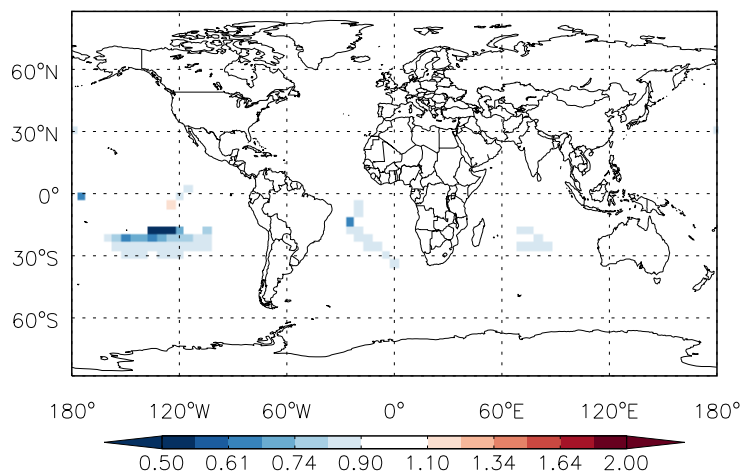
Ratio @ 500 hPa for MMN



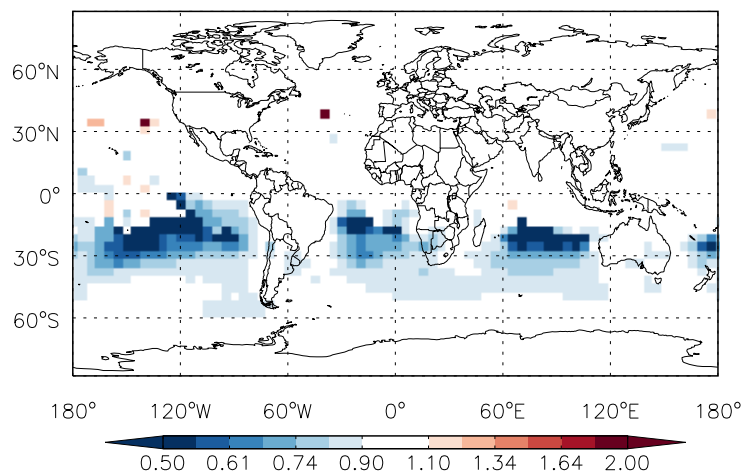
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

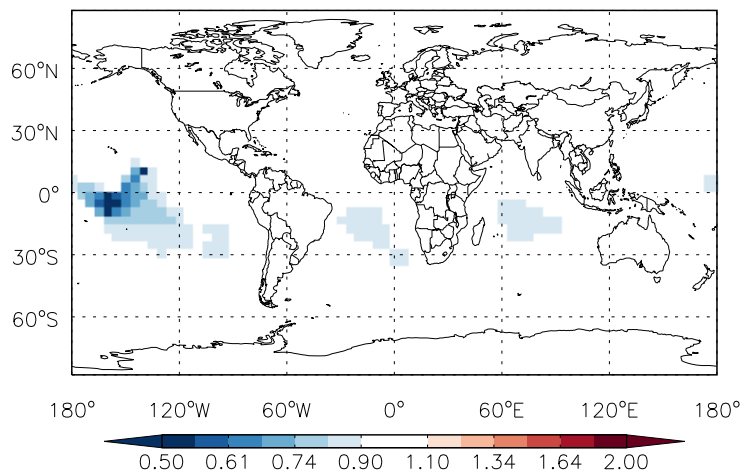
Ratio @ Surface for RIP



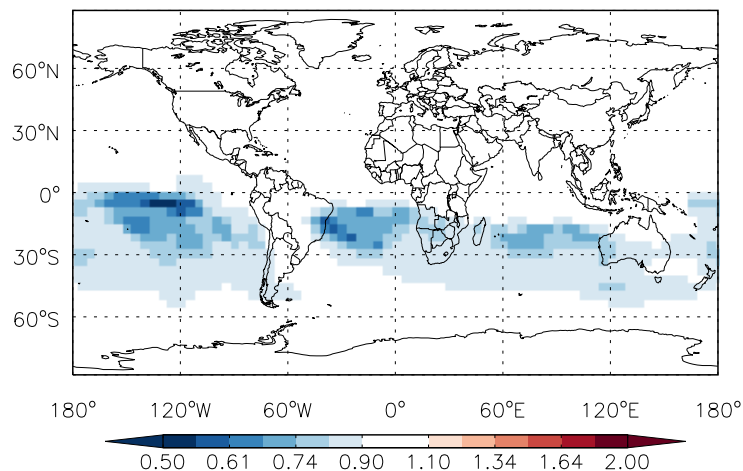
Ratio @ 500 hPa for RIP



Ratio @ Surface for IEPOX



Ratio @ 500 hPa for IEPOX



Ratio @ Surface for MAP



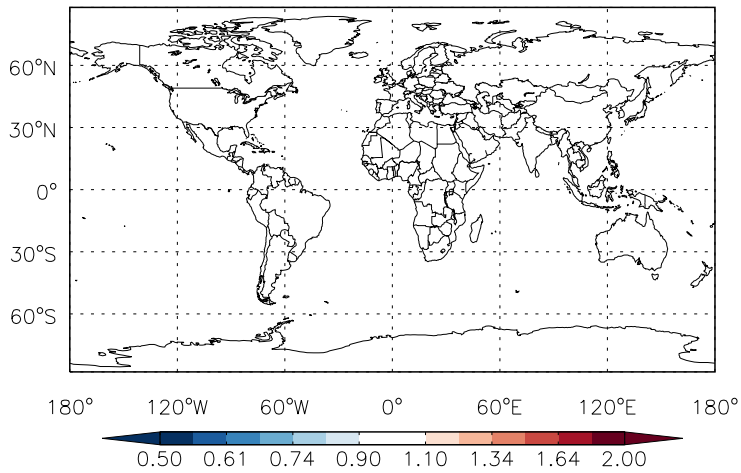
Ratio @ 500 hPa for MAP



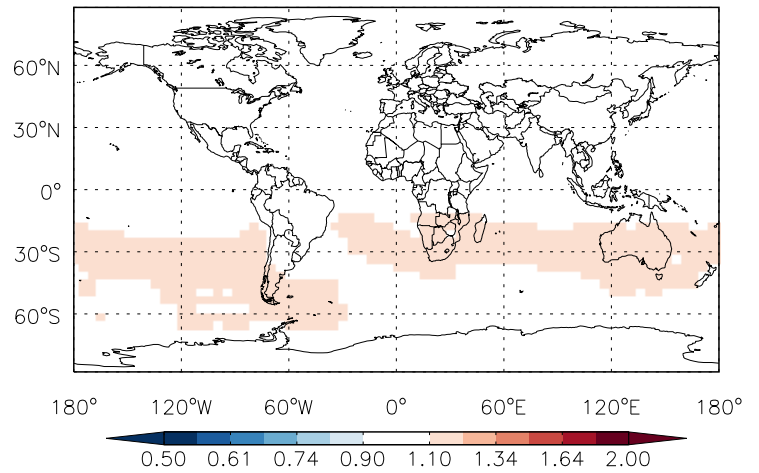
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

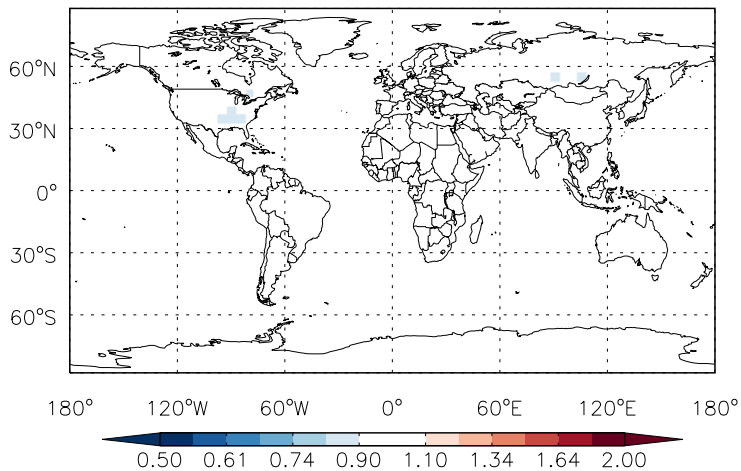
Ratio @ Surface for N02



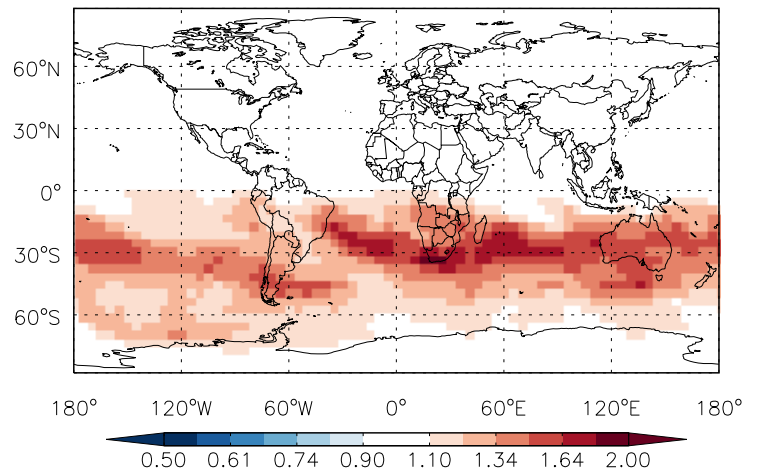
Ratio @ 500 hPa for N02



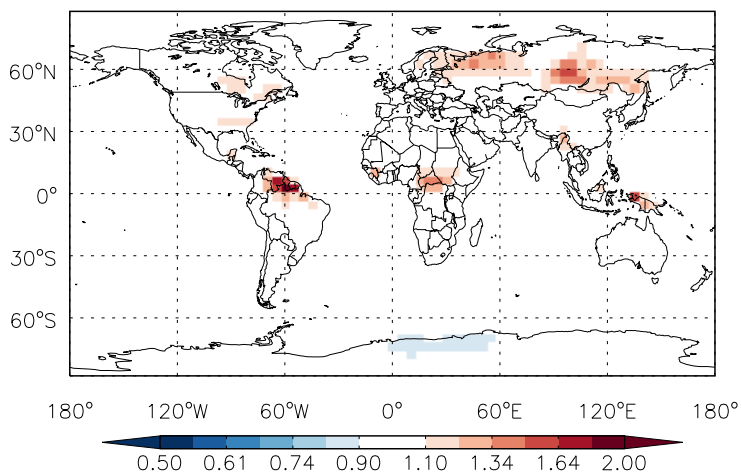
Ratio @ Surface for N03



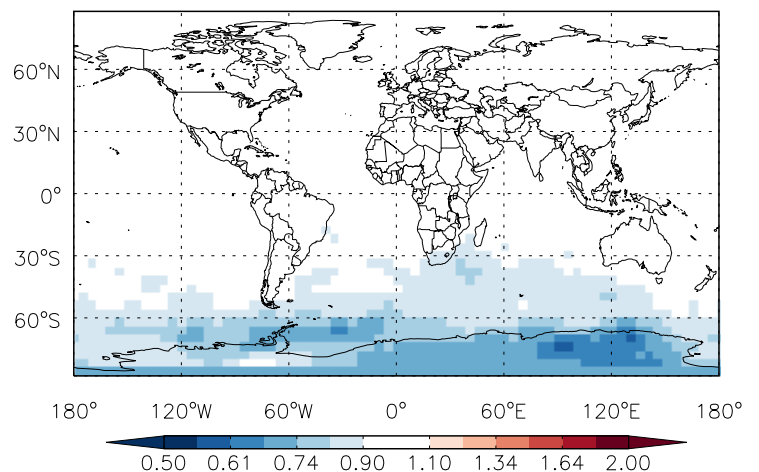
Ratio @ 500 hPa for N03



Ratio @ Surface for HNO2



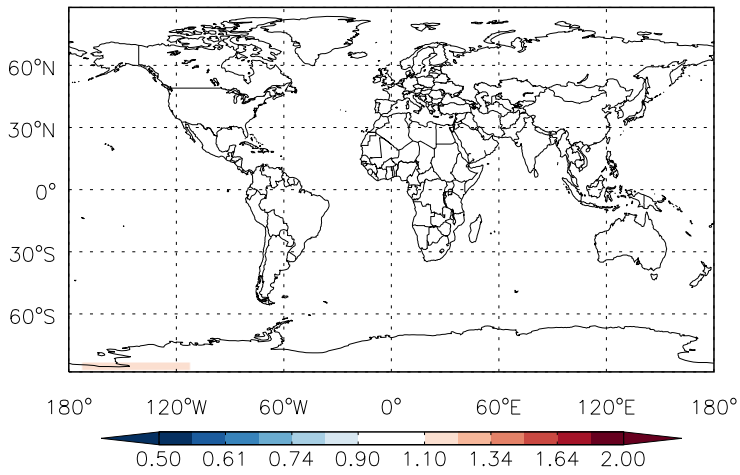
Ratio @ 500 hPa for HNO2



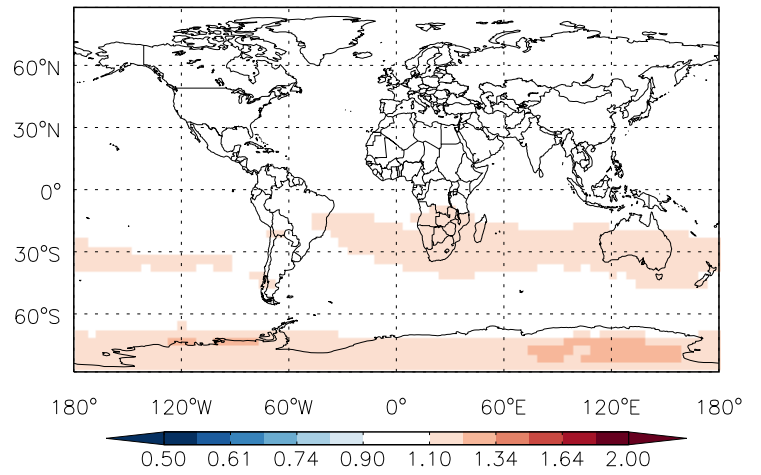
GEOS-Chem v9-02o\_SOA Tracer Ratios at Surface and 500 hPa

ctm.bpch.v9-02o\_SOA / ctm.bpch.v9-02n\_SOA

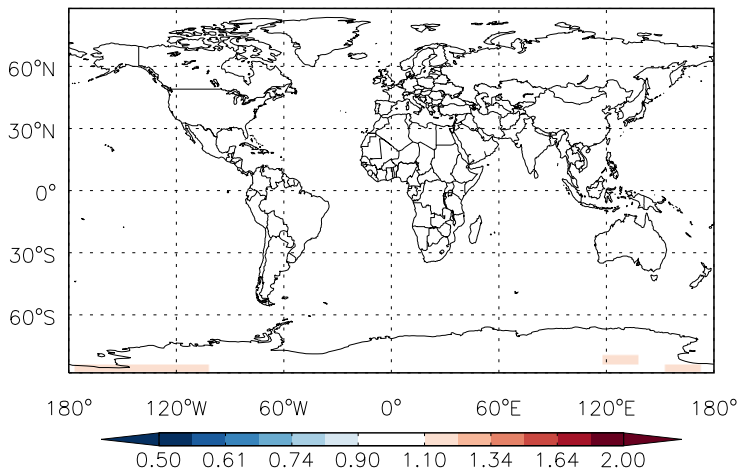
Ratio @ Surface for OH



Ratio @ 500 hPa for OH



Ratio @ Surface for H2O



Ratio @ 500 hPa for H2O

