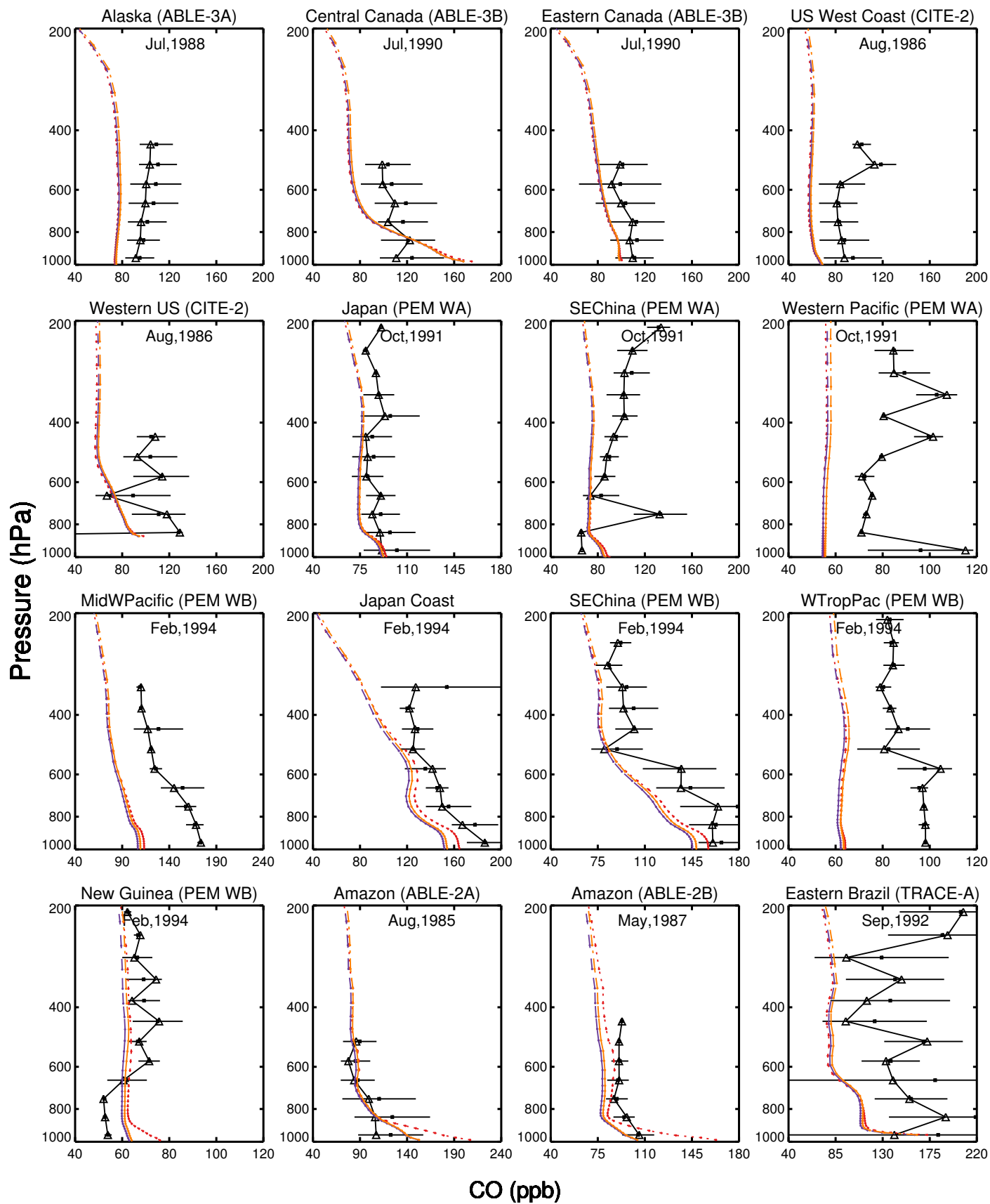
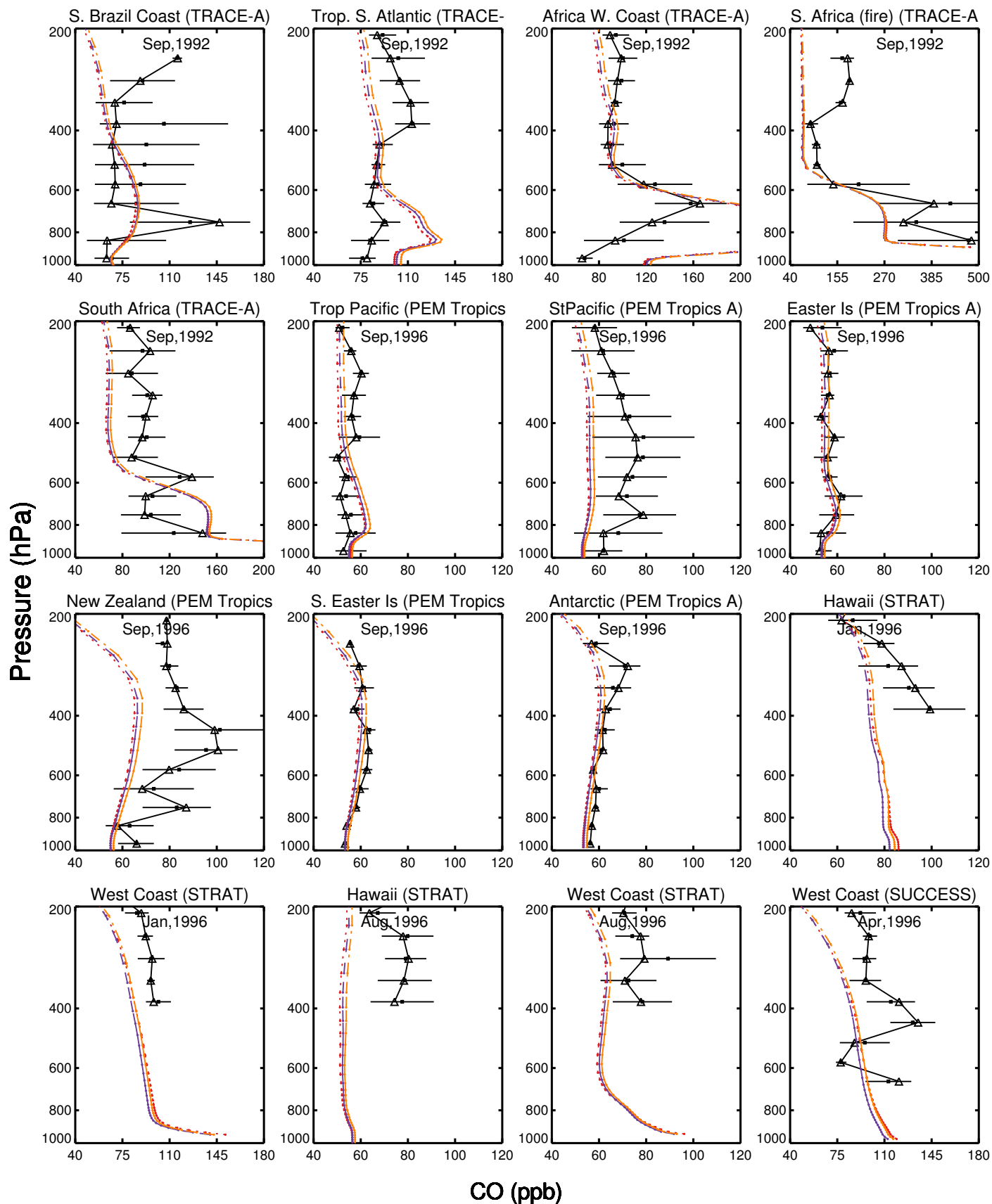


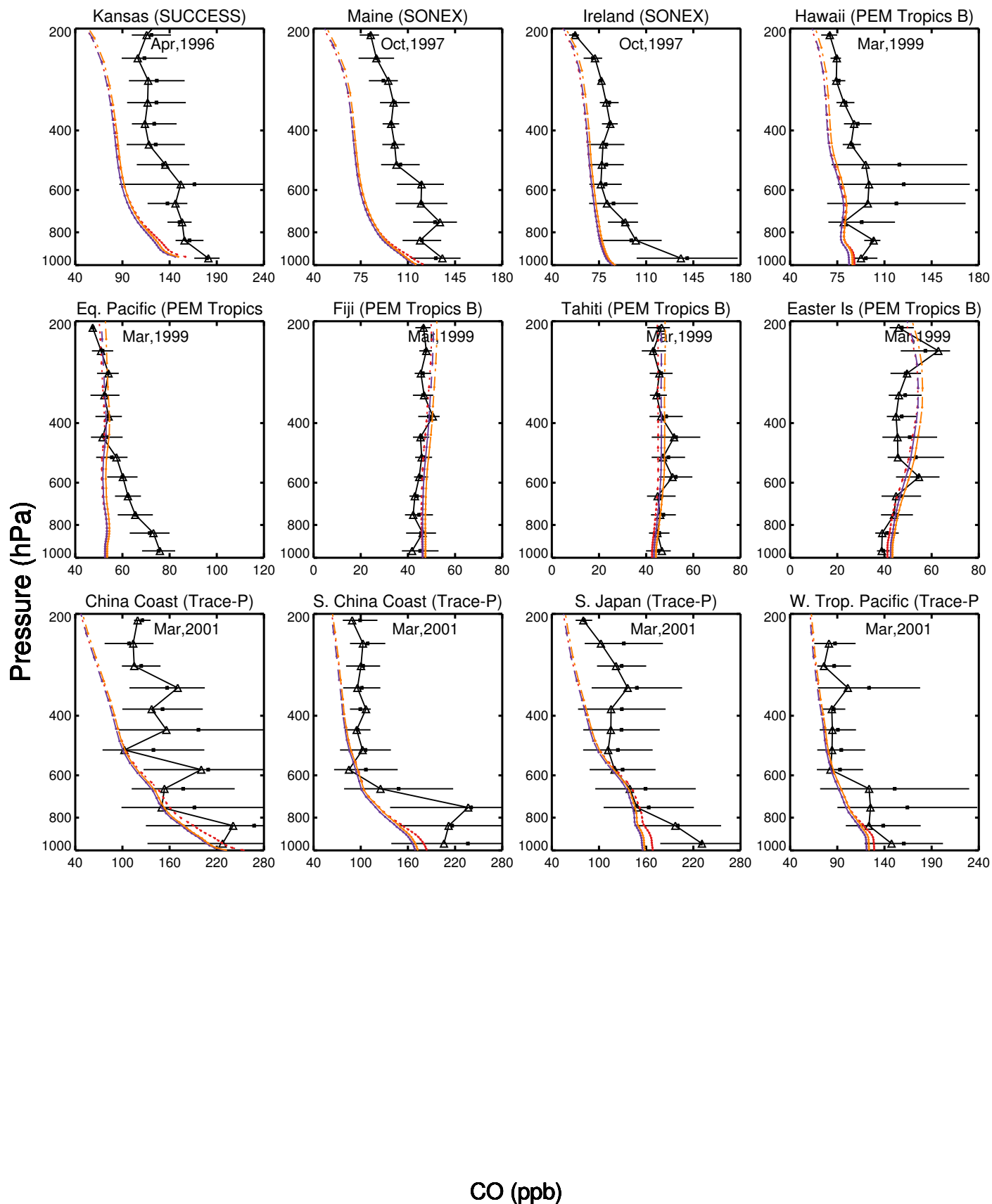
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



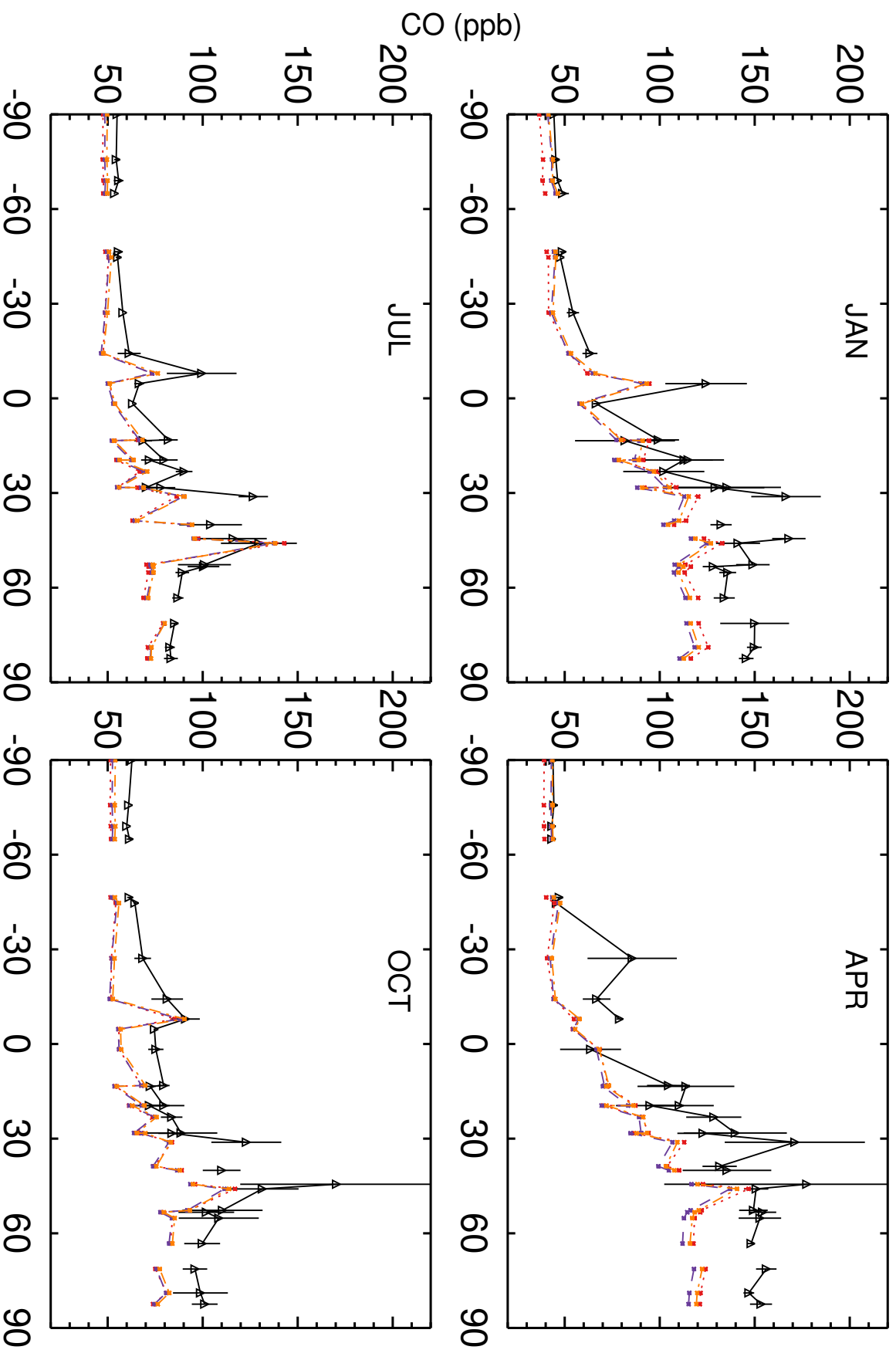
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



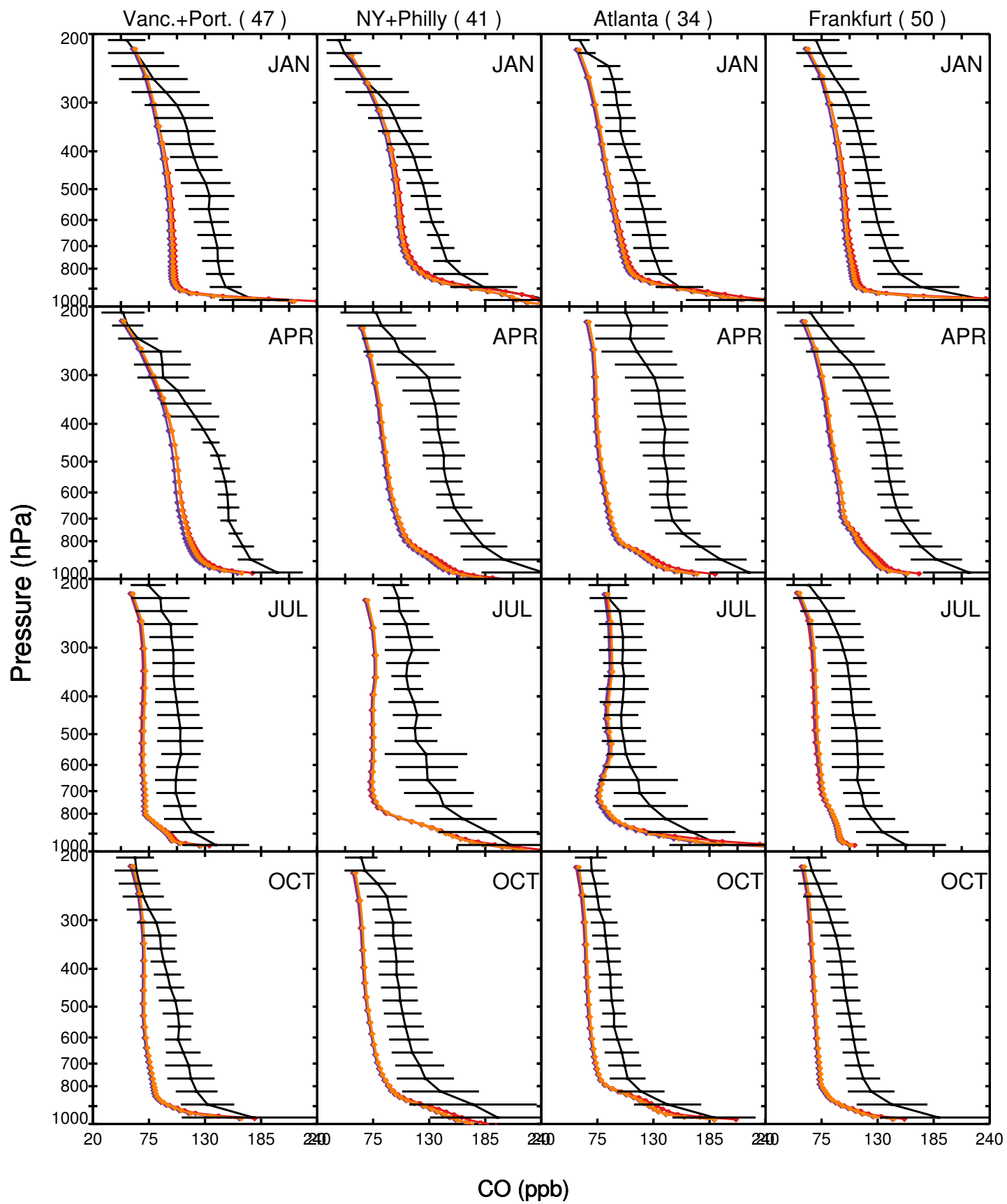
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



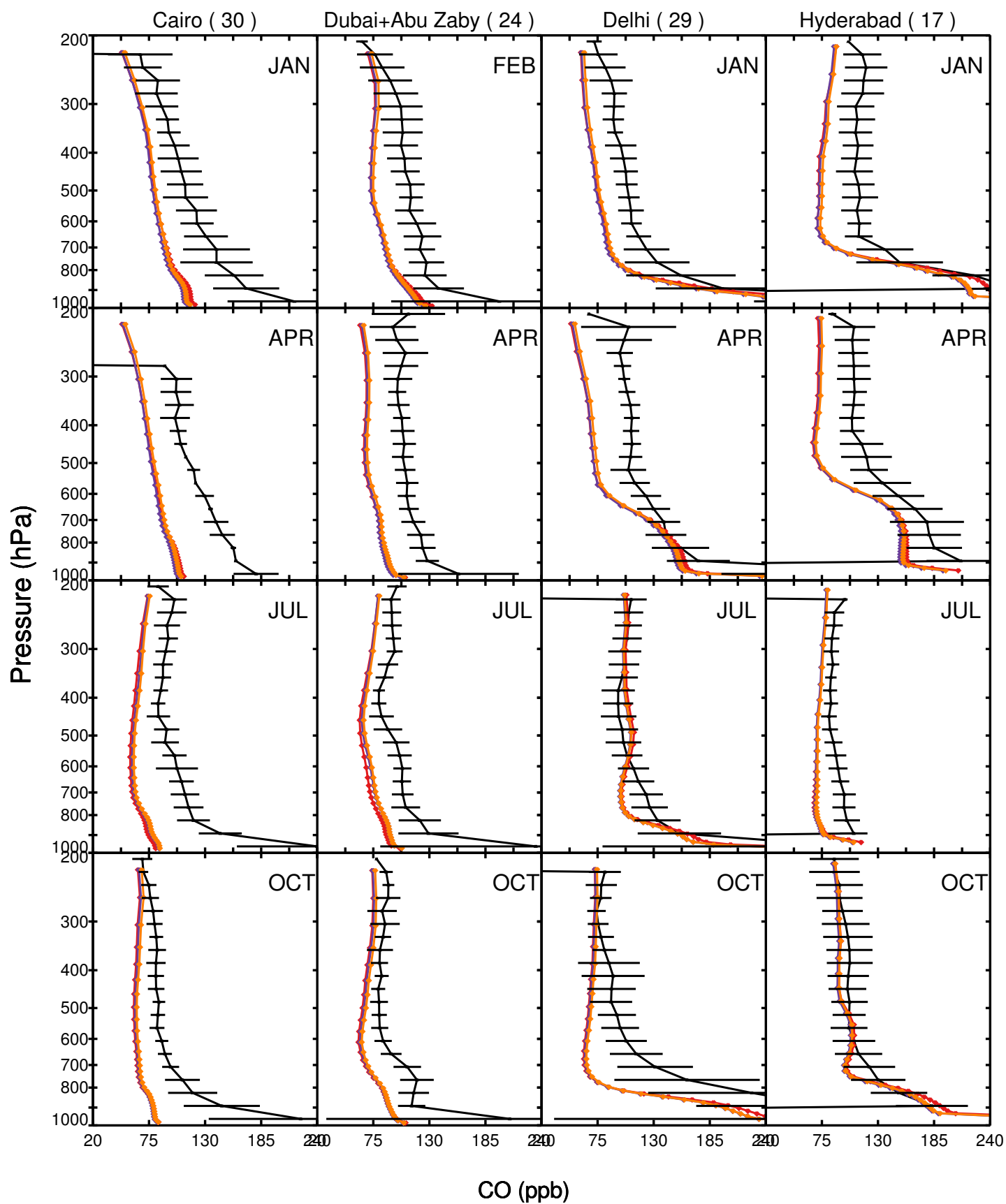
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



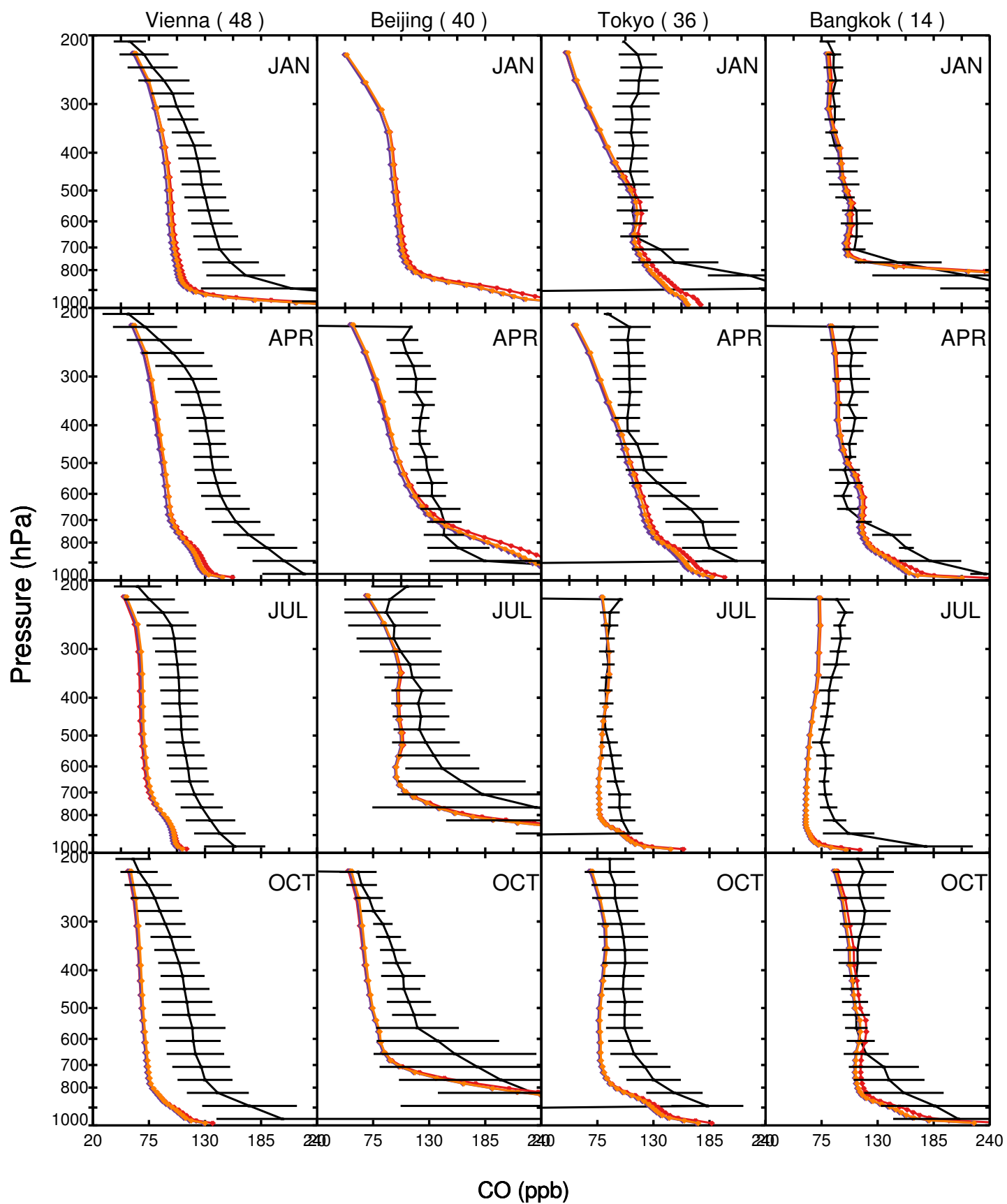
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



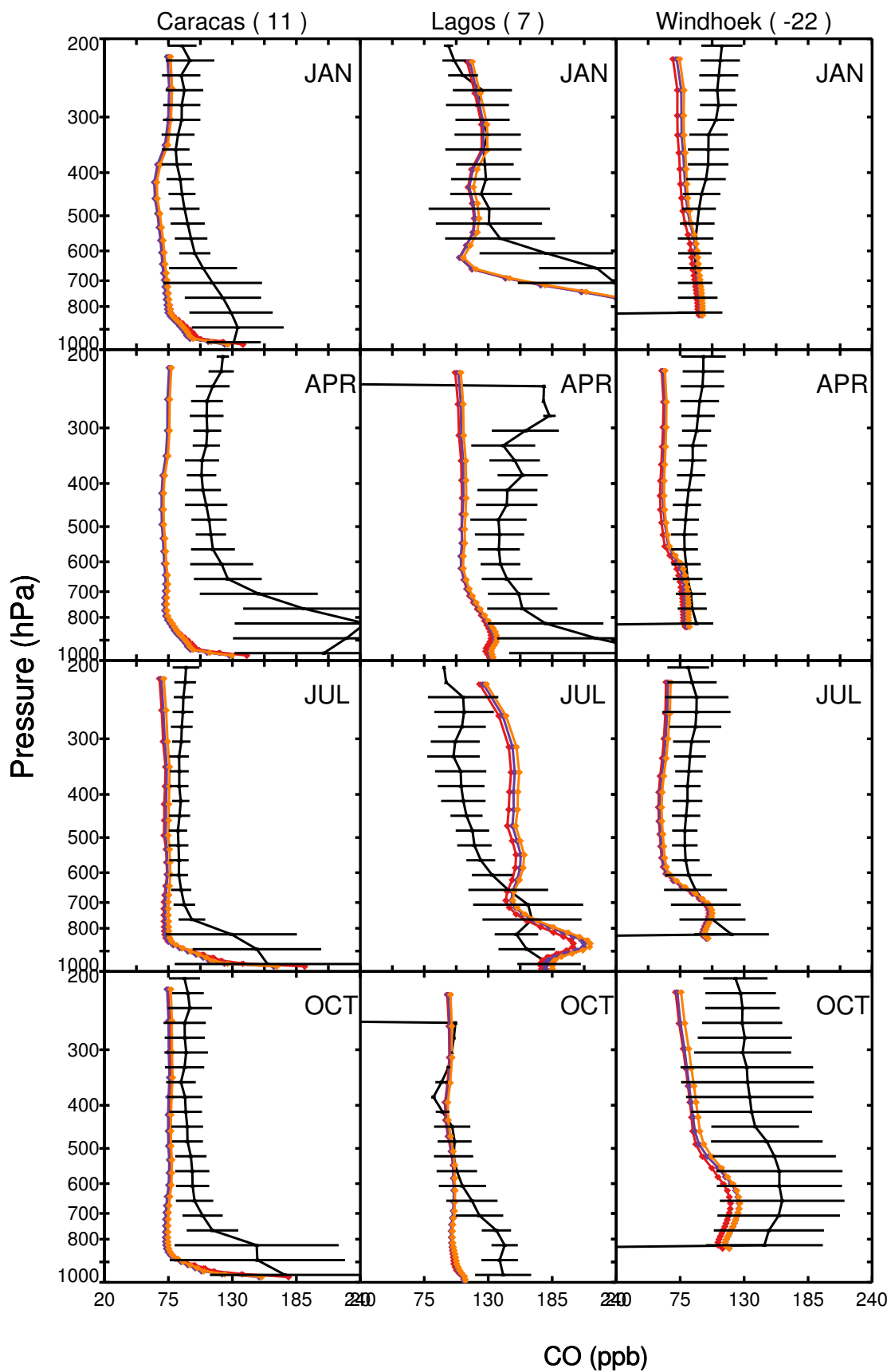
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)

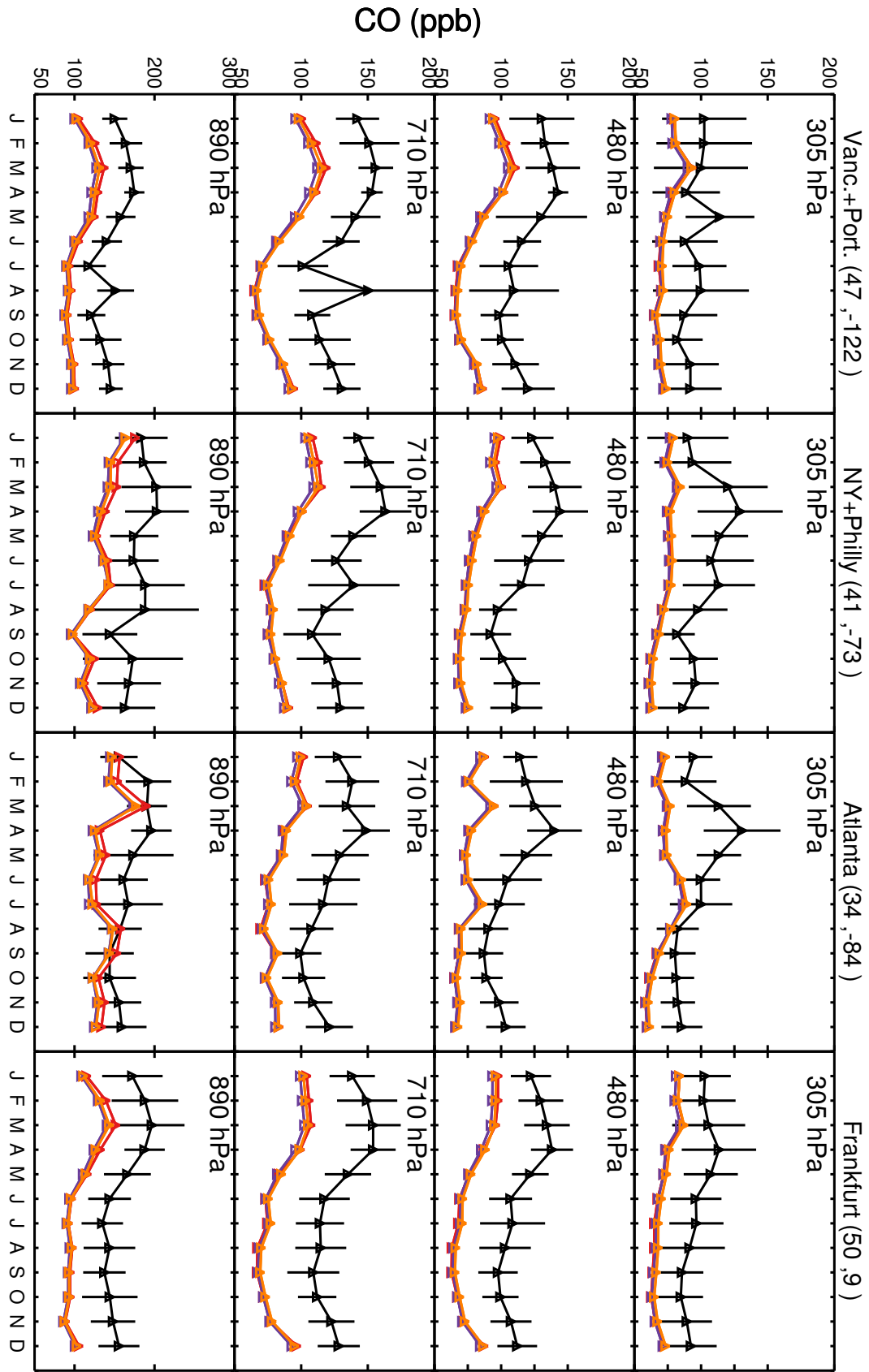


Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)

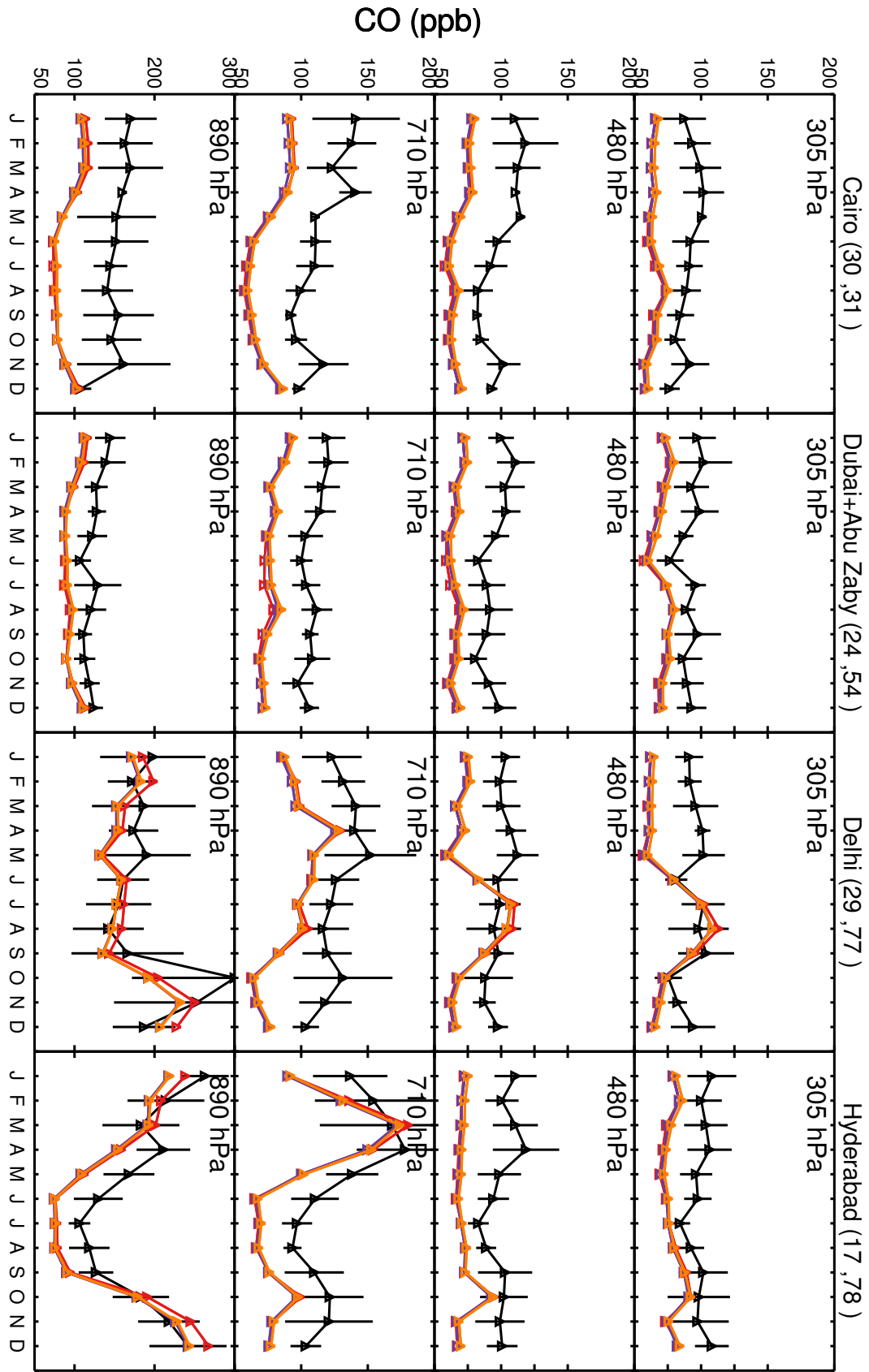




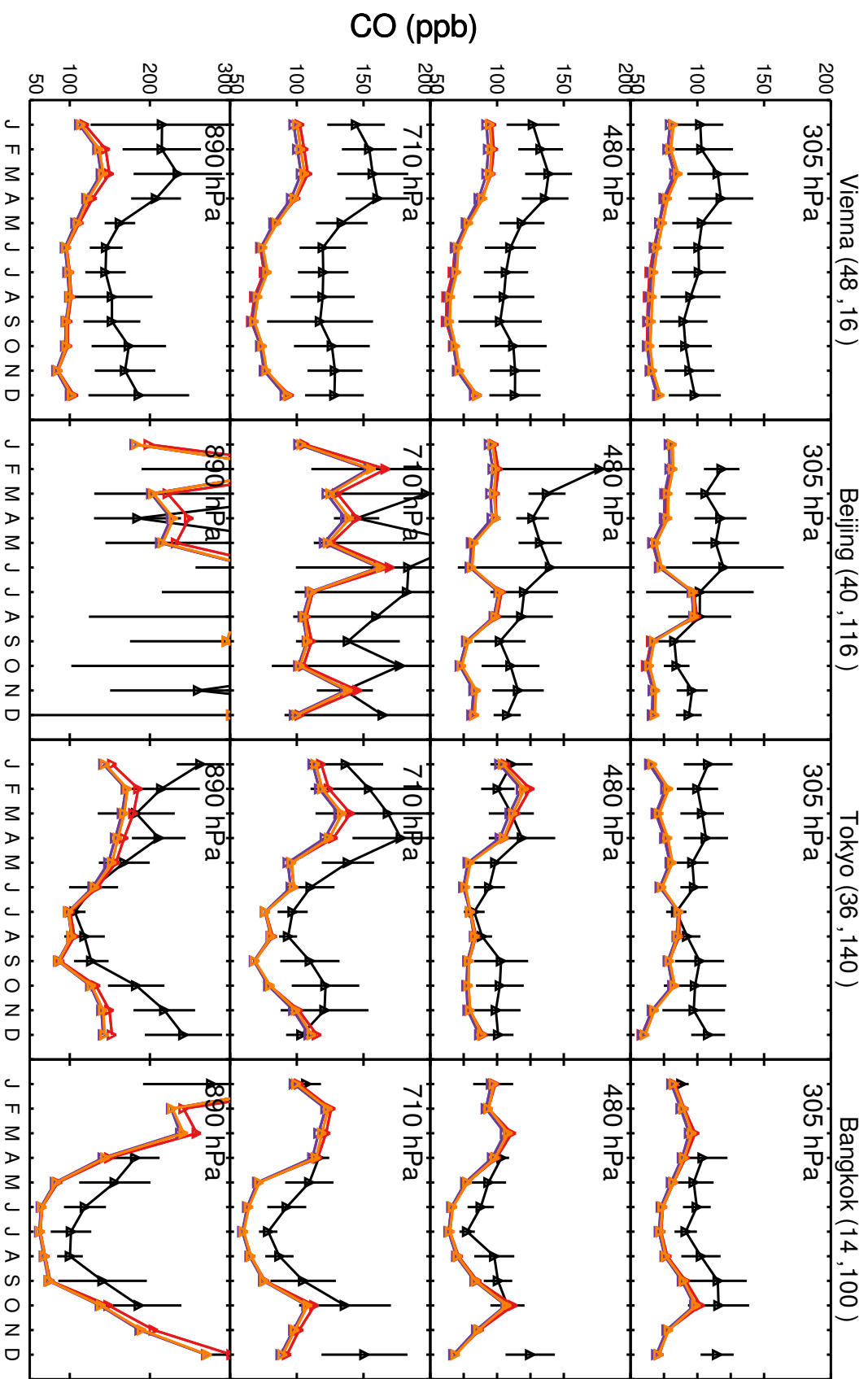
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



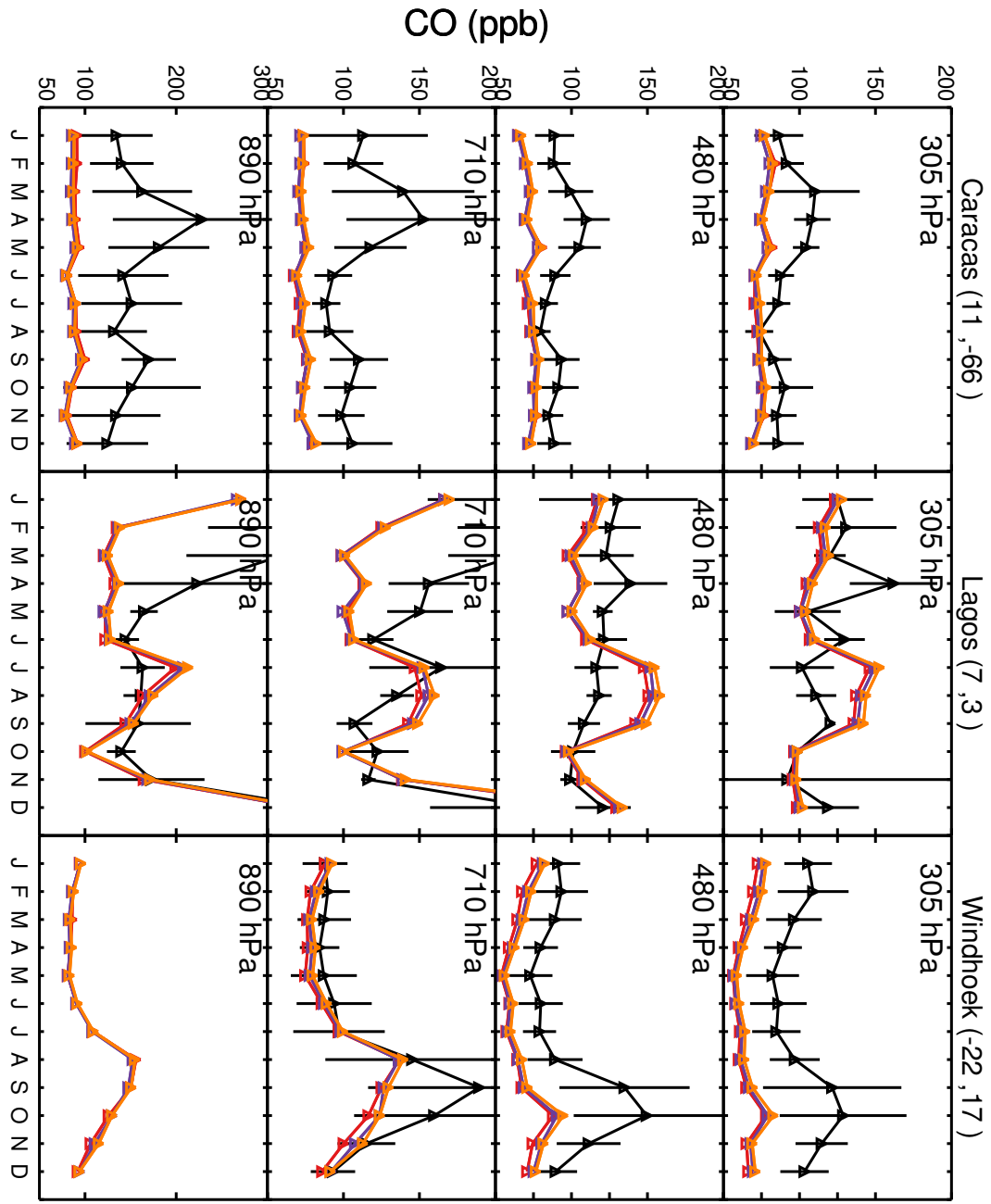
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



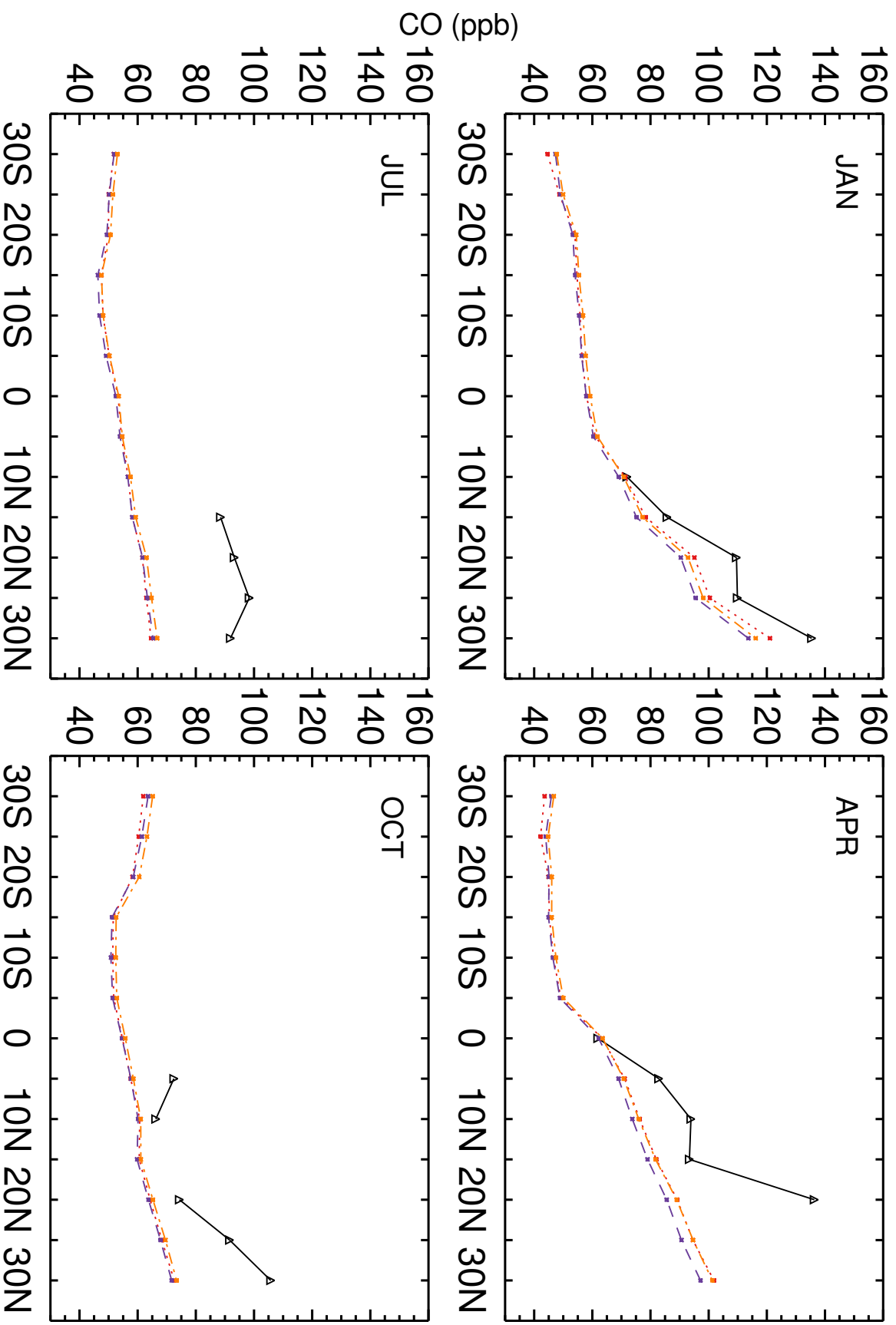
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



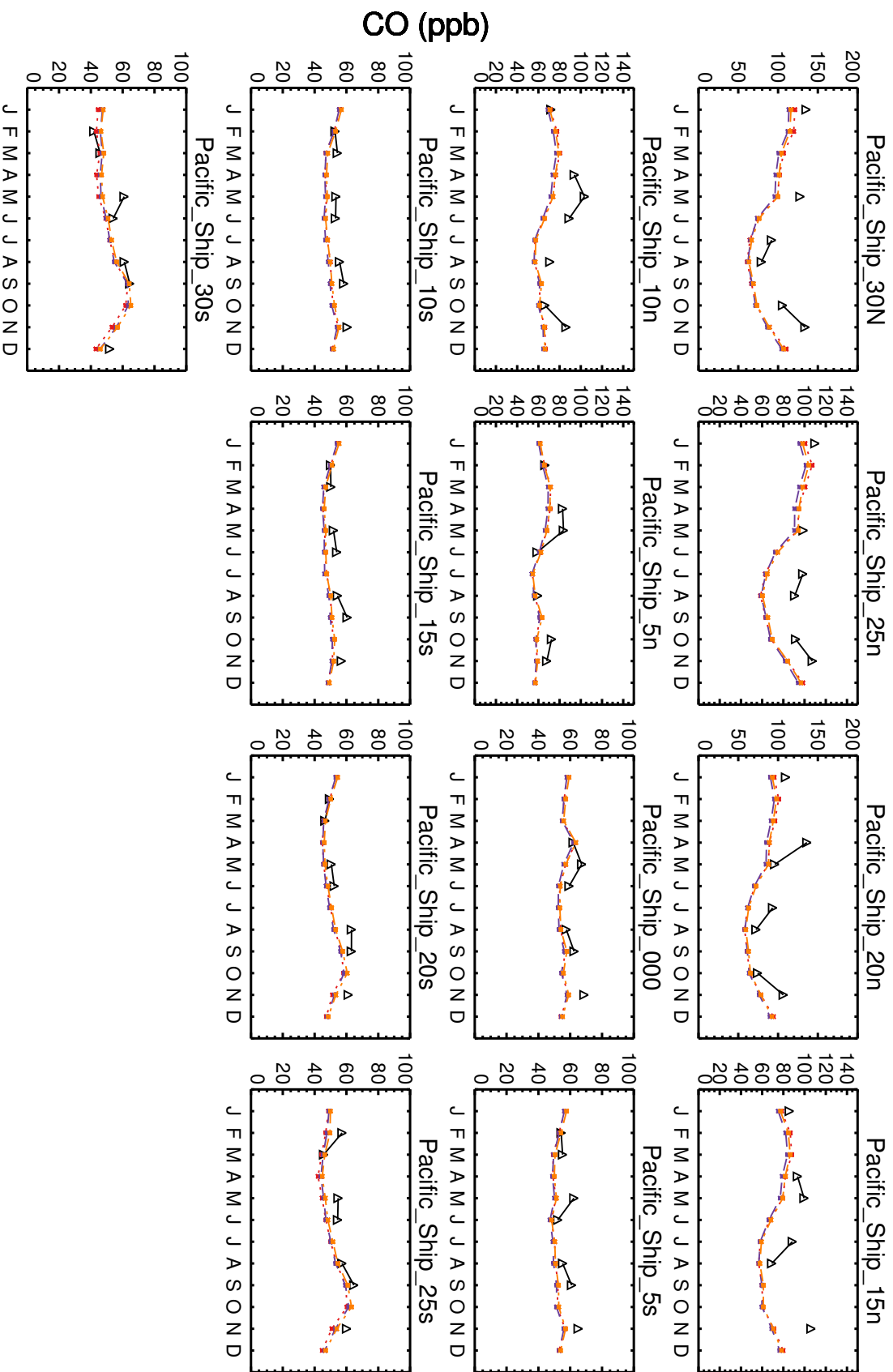
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



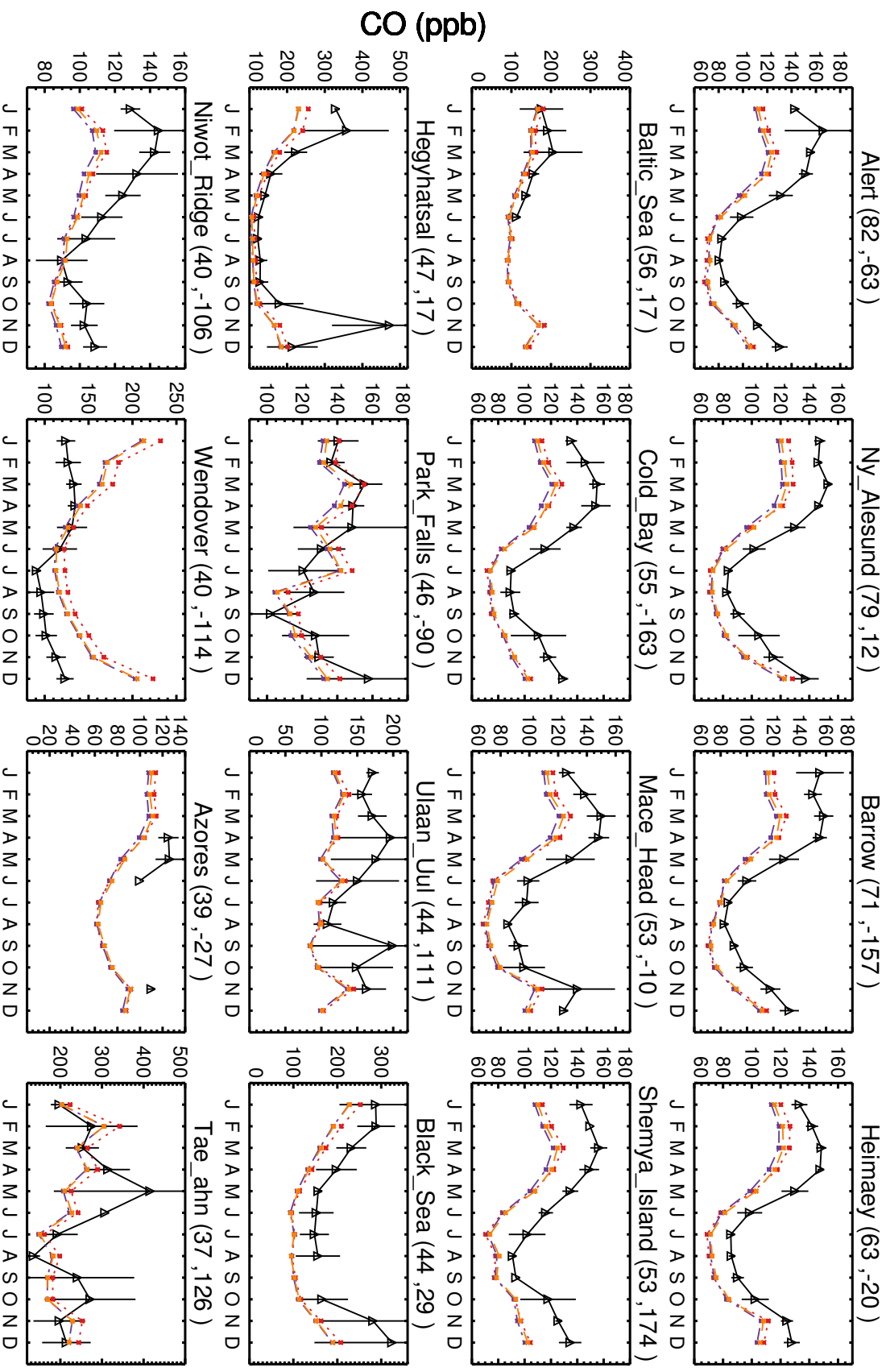
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



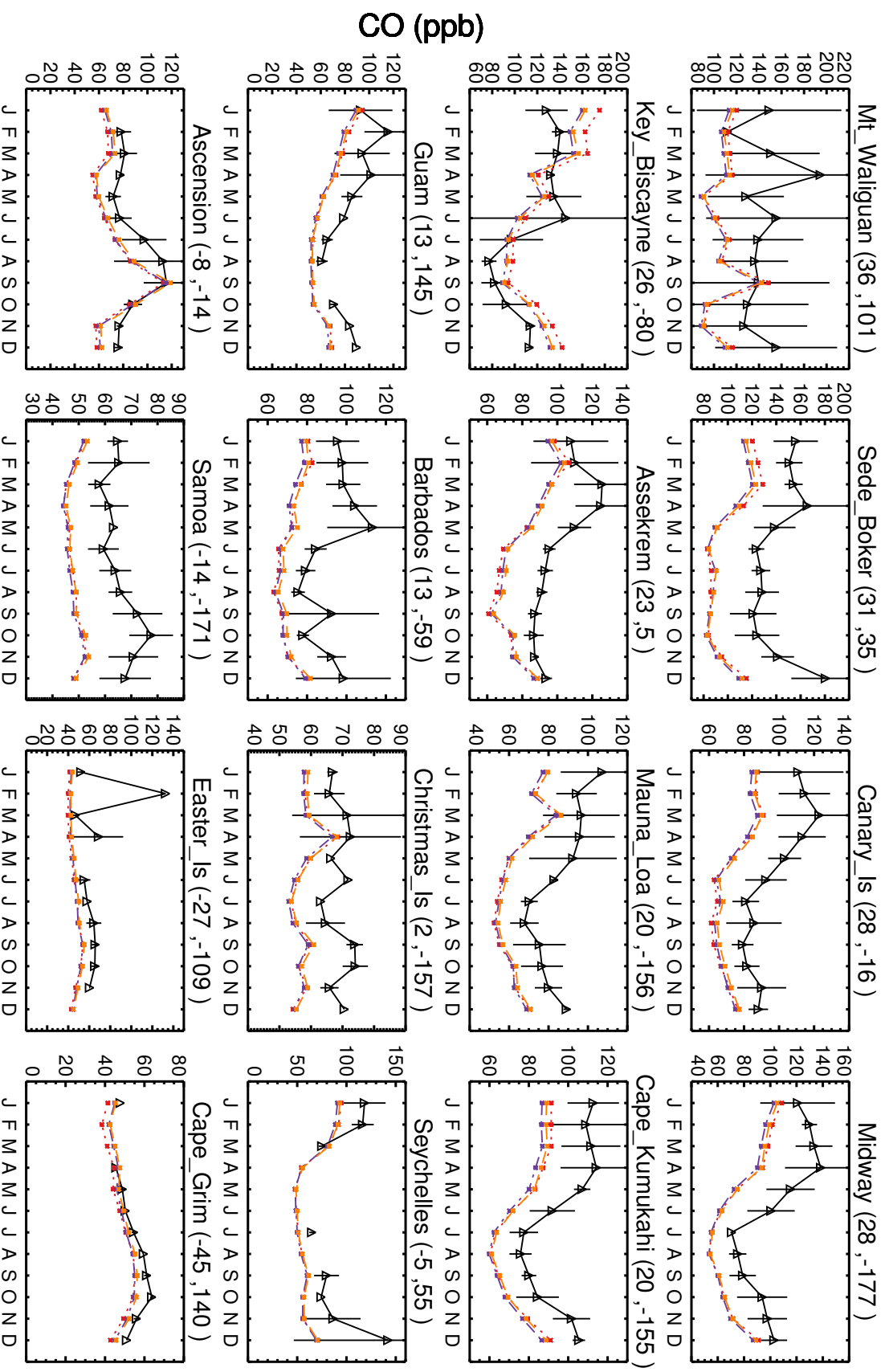
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)

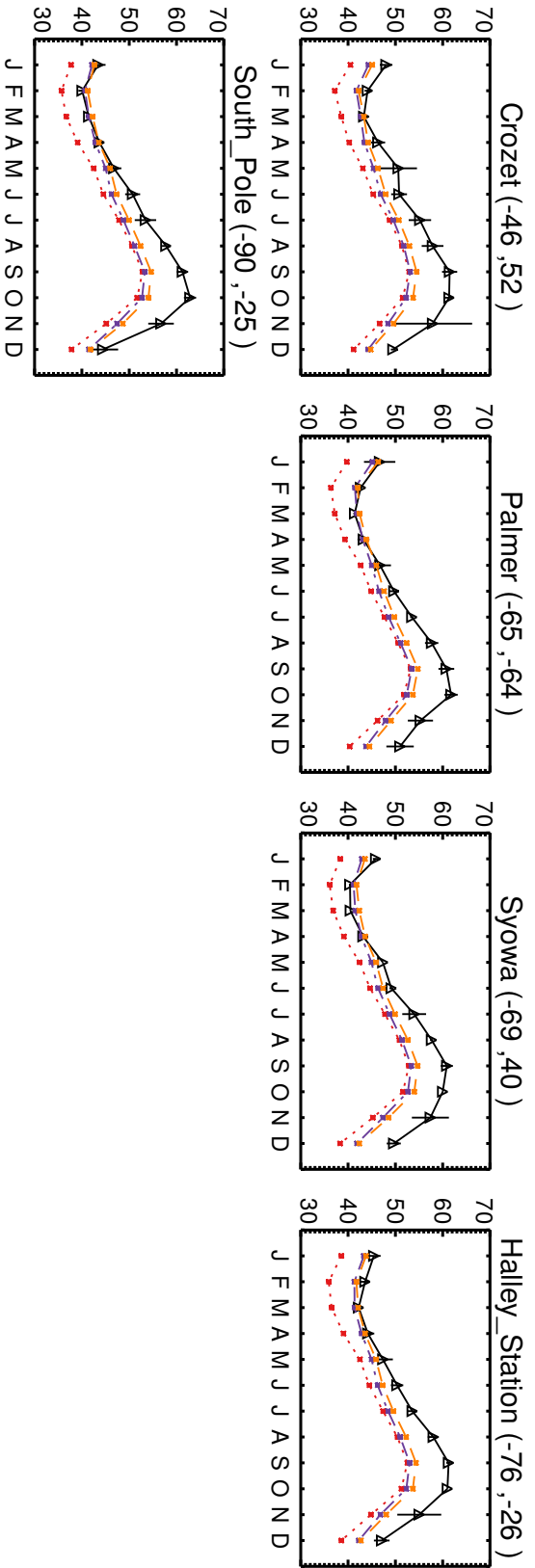


Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)





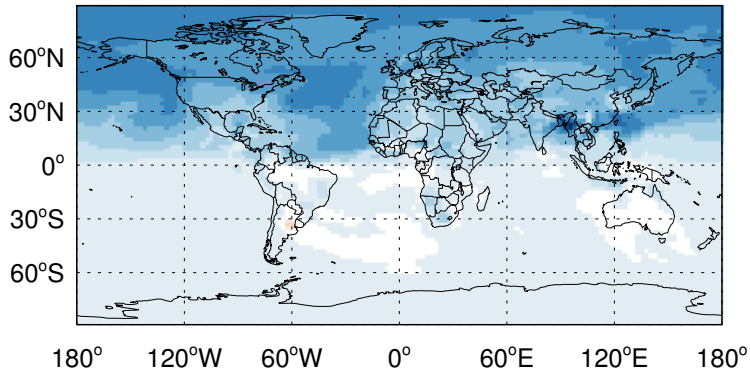
Red: old\_tagCO (2011); Purple: new\_tagCO (2011); Blue: full\_chemistry (2011)



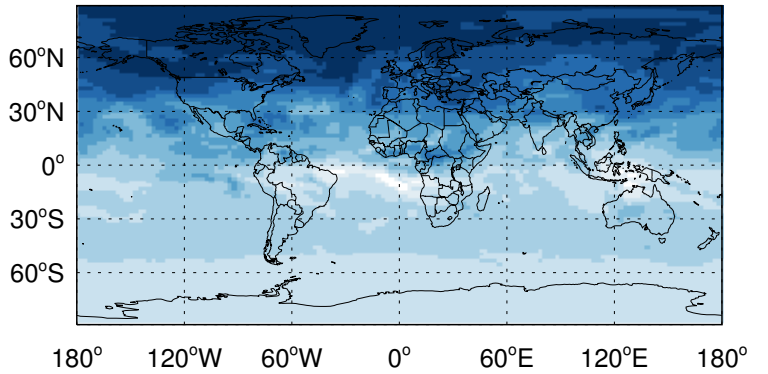
CO (ppb)

# GEOS-Chem Difference Maps at surface and 500 hPa

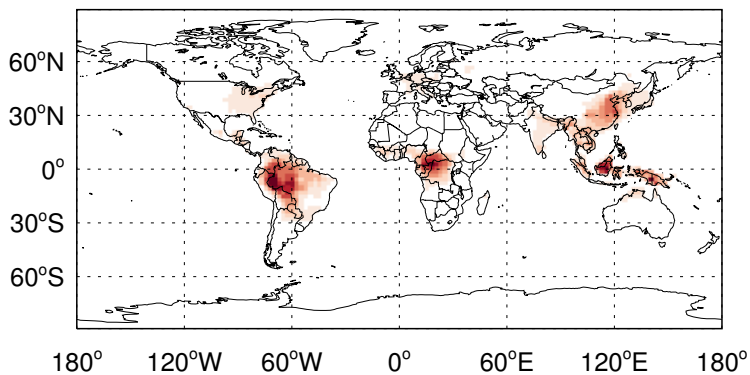
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Apr



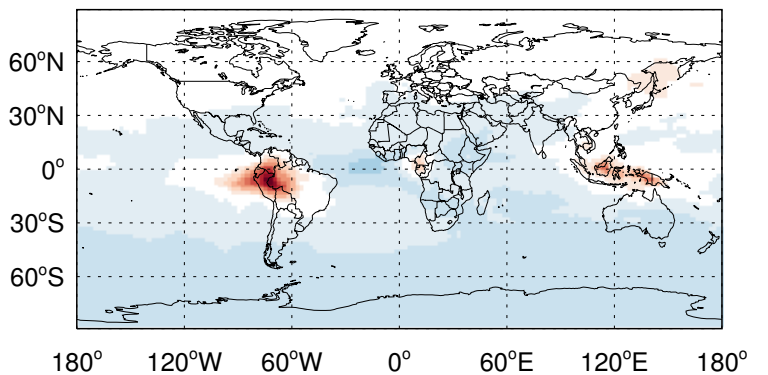
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Apr



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Apr

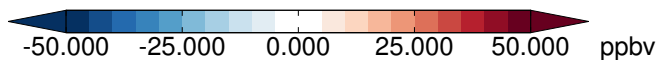
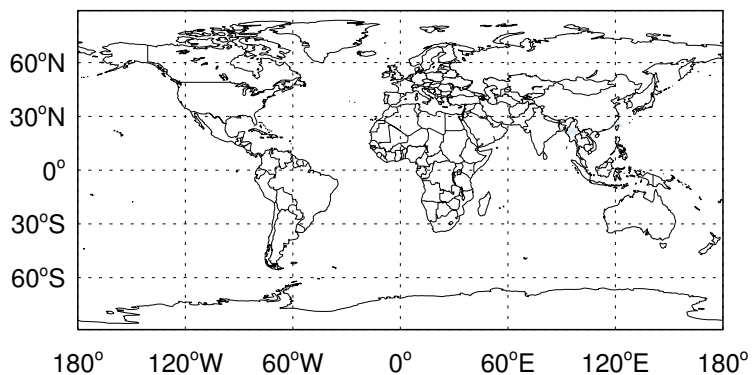


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Apr

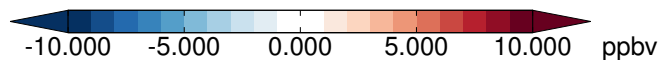
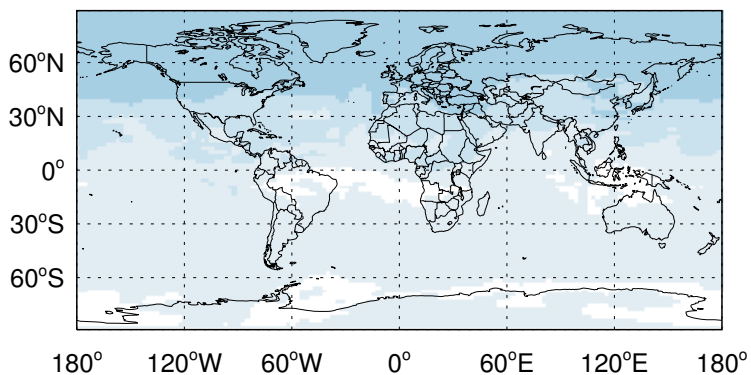


# GEOS-Chem Difference Maps at surface and 500 hPa

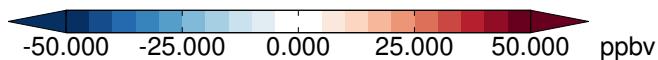
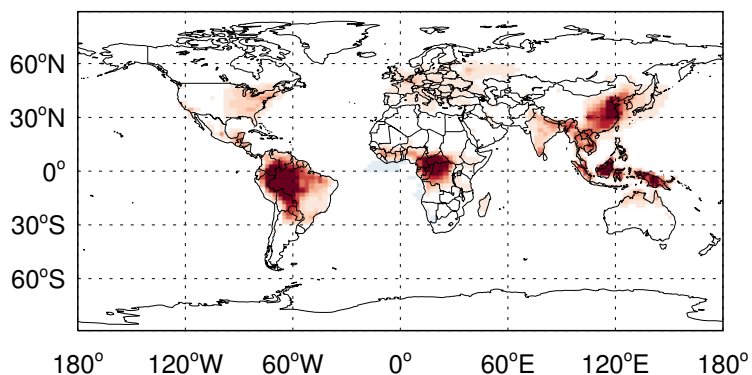
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Apr



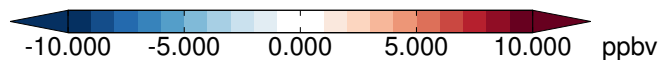
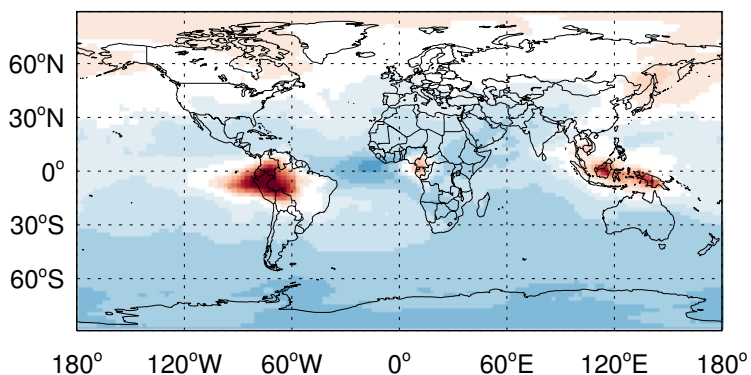
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Apr



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Apr

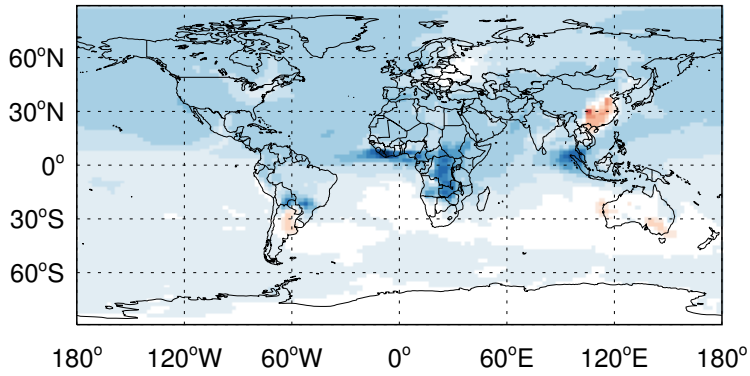


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Apr

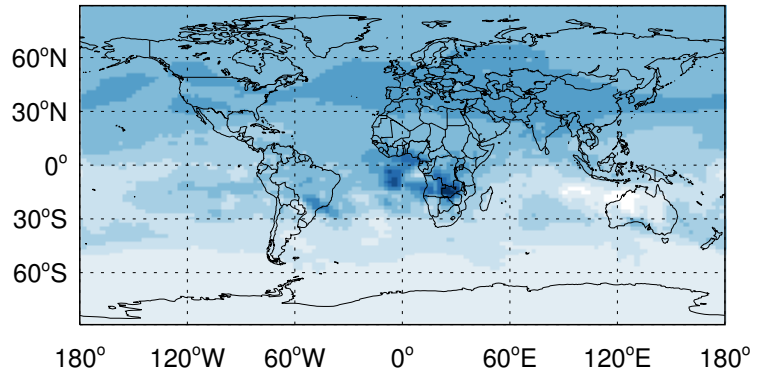


# GEOS-Chem Difference Maps at surface and 500 hPa

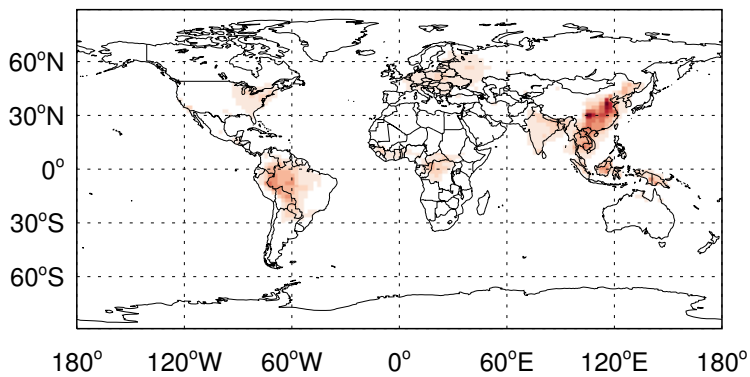
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jan



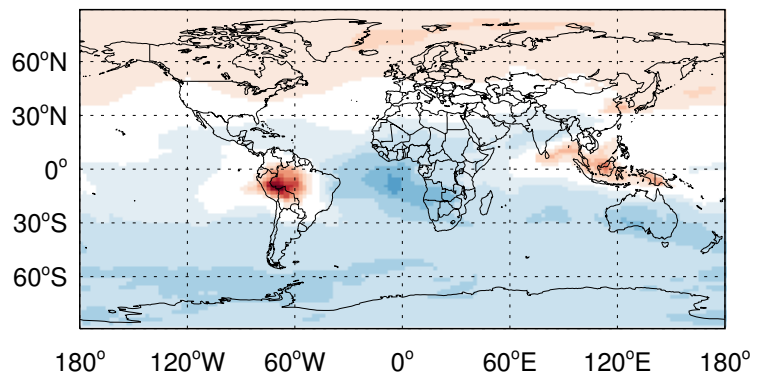
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jan



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jan

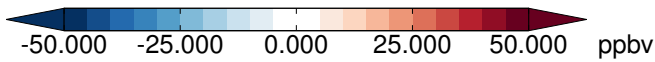
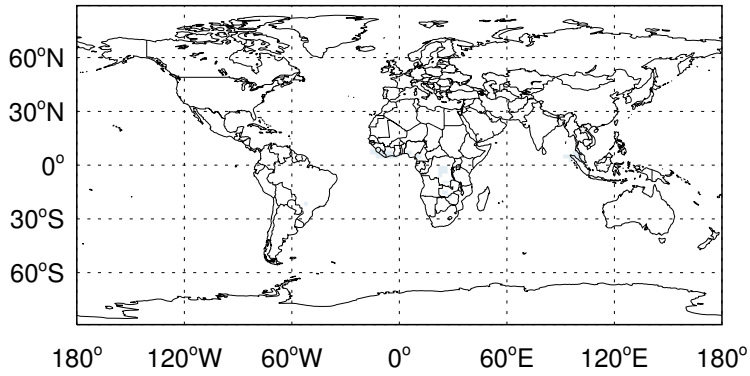


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jan

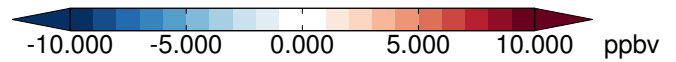
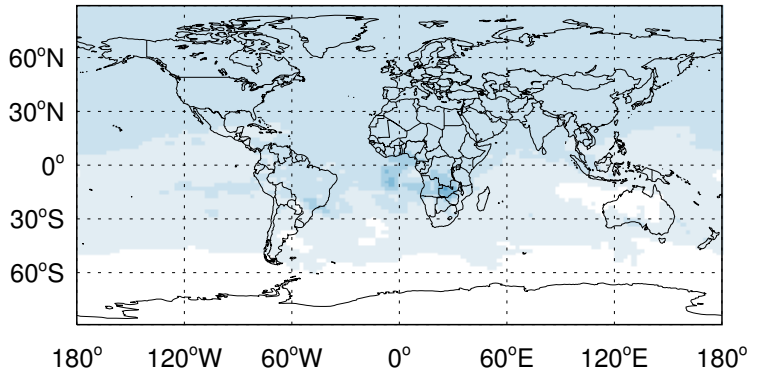


# GEOS-Chem Difference Maps at surface and 500 hPa

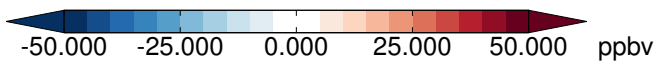
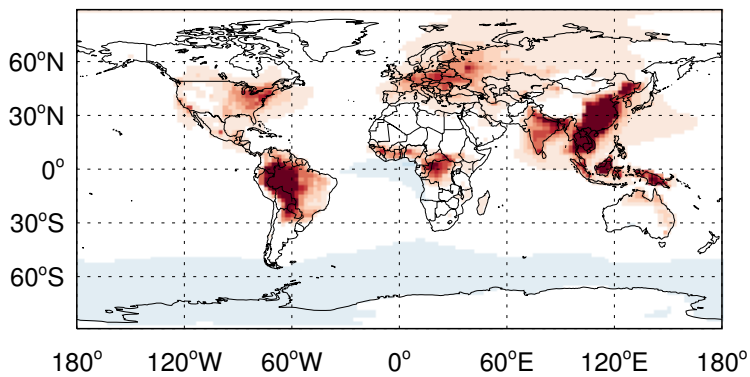
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jan



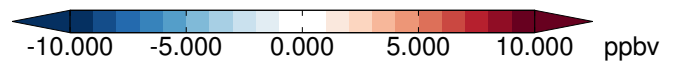
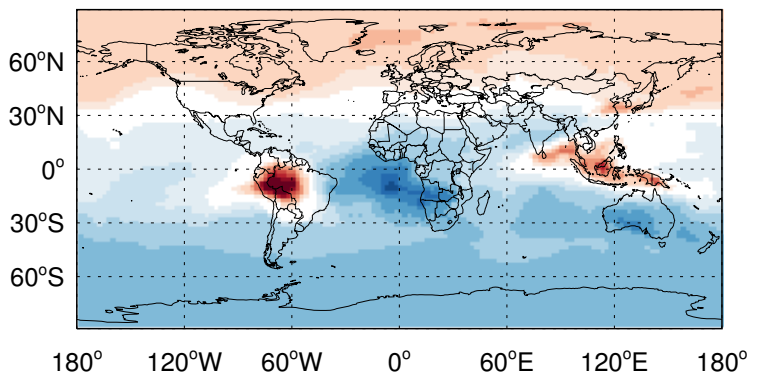
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jan



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jan

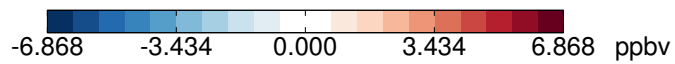
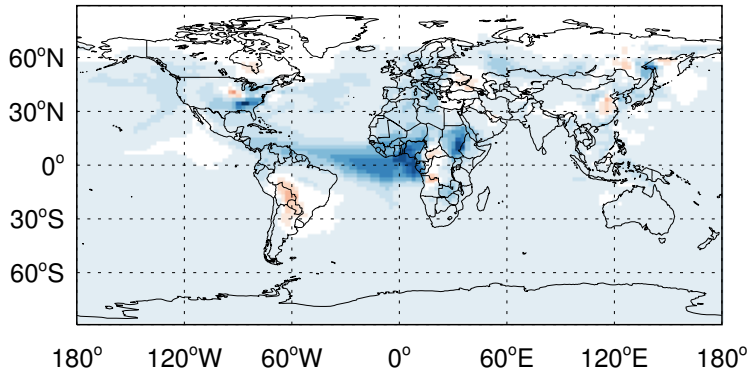


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jan

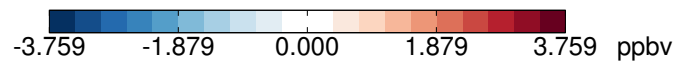
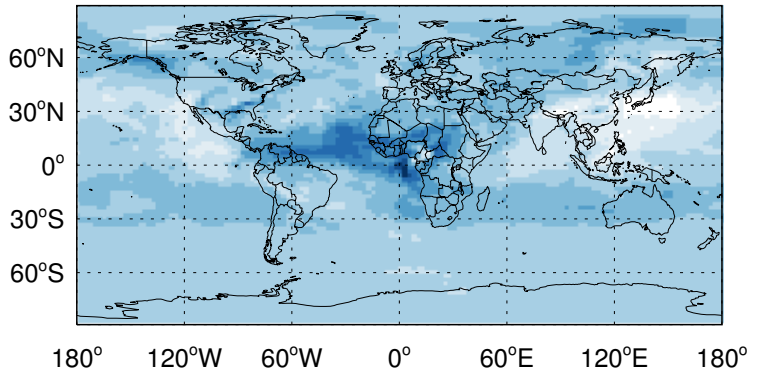


# GEOS-Chem Difference Maps at surface and 500 hPa

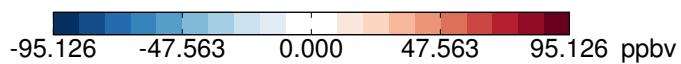
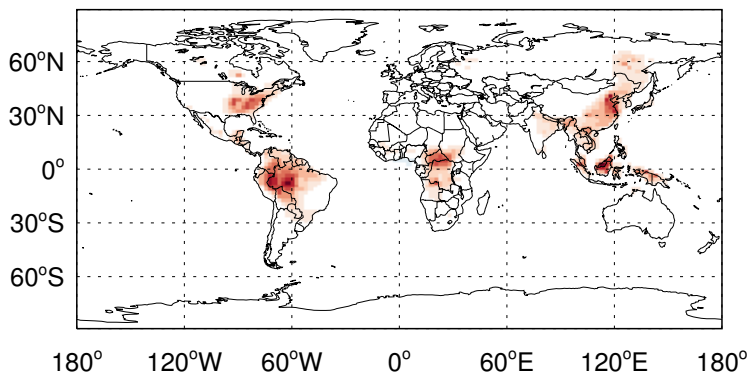
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jul



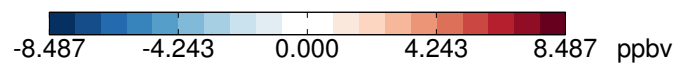
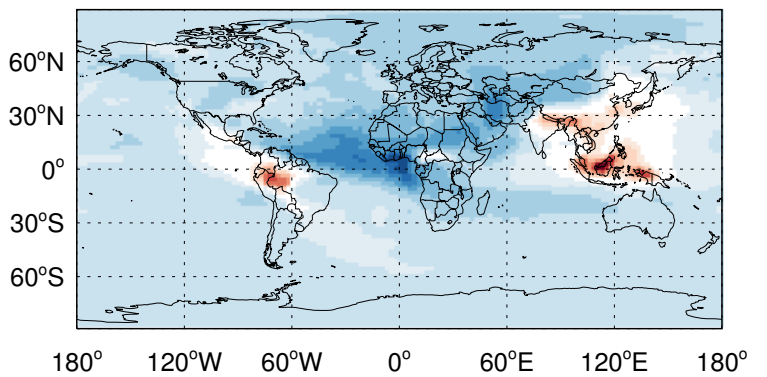
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jul



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jul

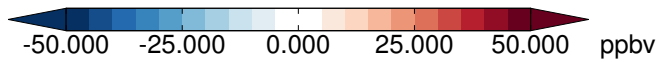
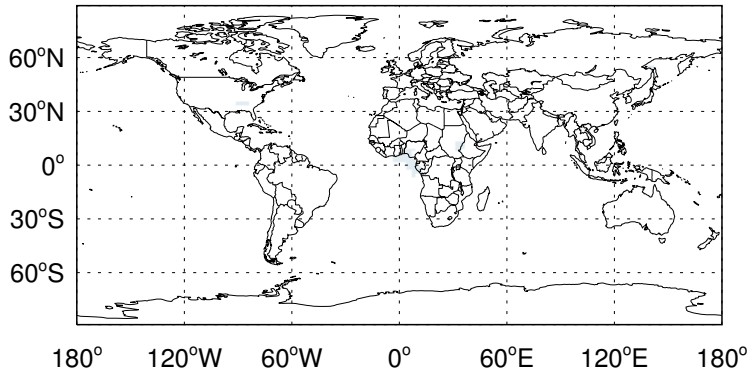


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jul

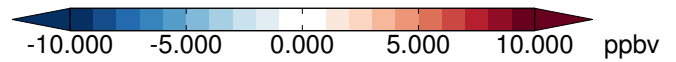
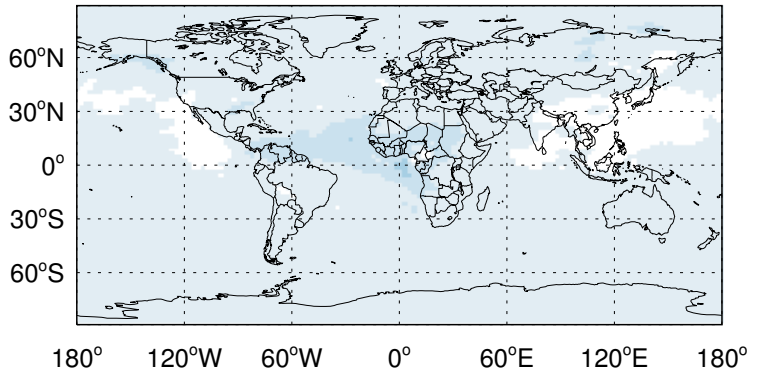


# GEOS-Chem Difference Maps at surface and 500 hPa

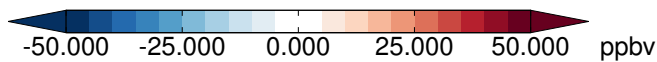
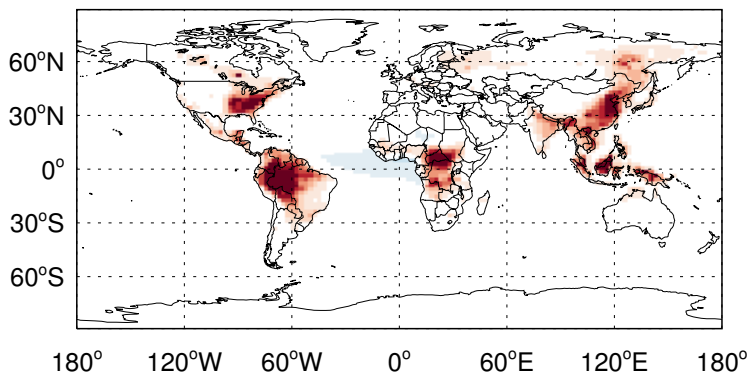
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jul



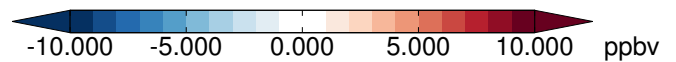
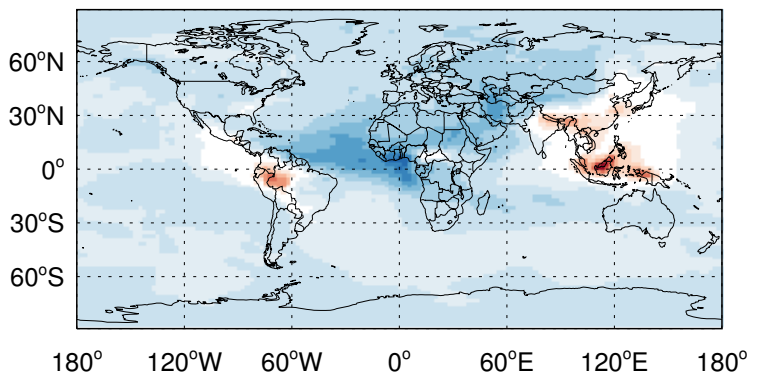
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jul



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Jul



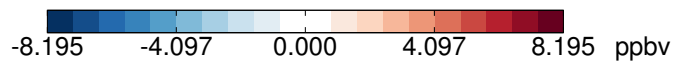
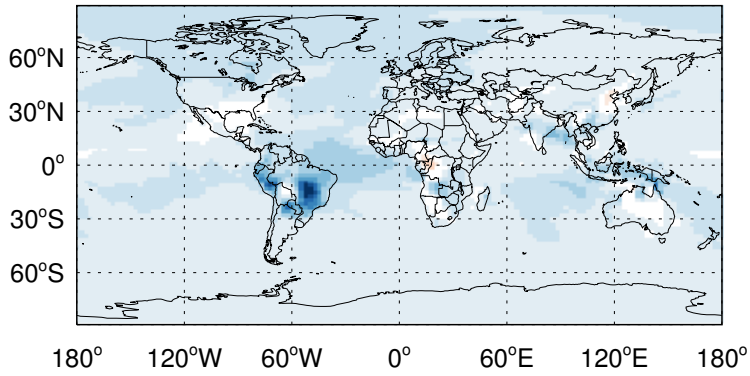
old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Jul



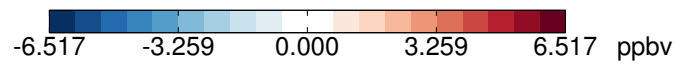
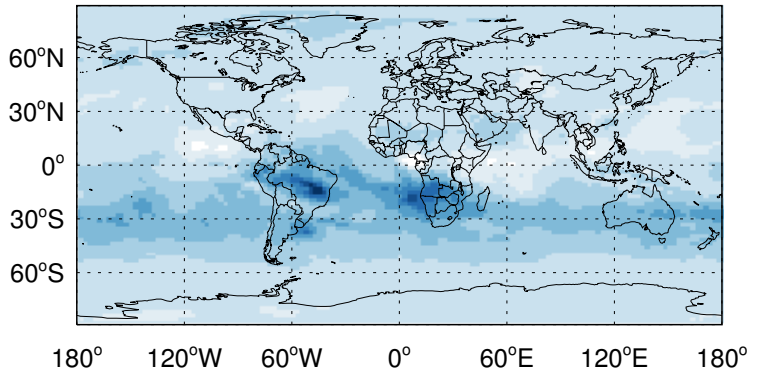


# GEOS-Chem Difference Maps at surface and 500 hPa

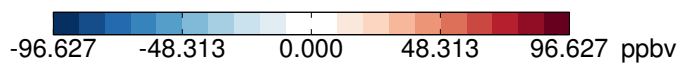
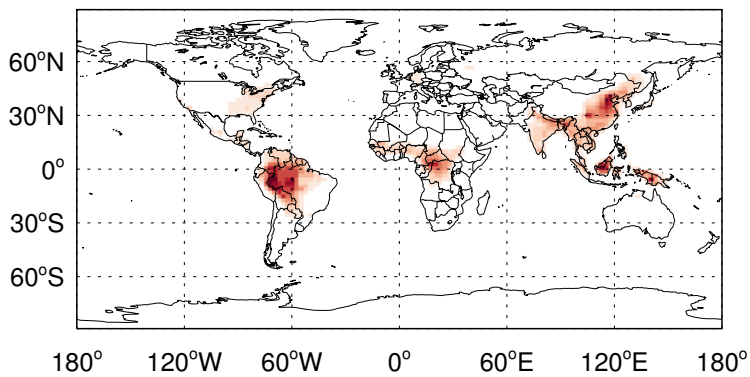
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Oct



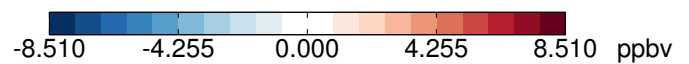
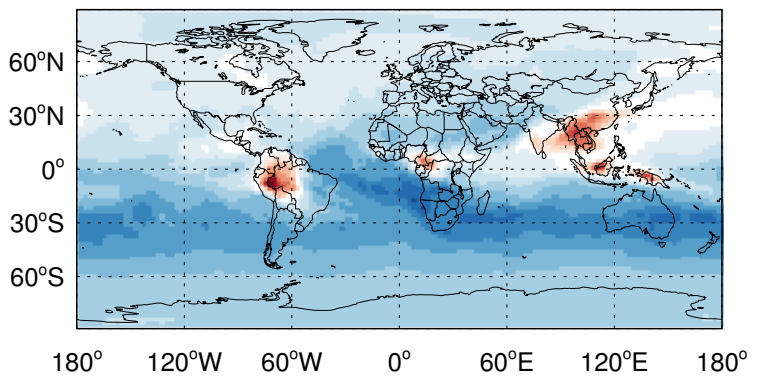
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Oct



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Oct



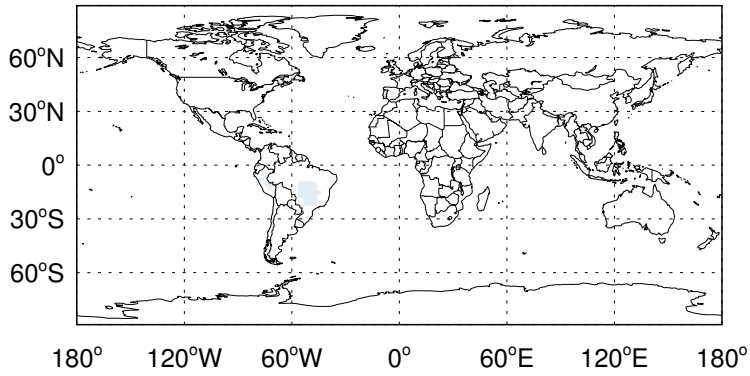
old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Oct



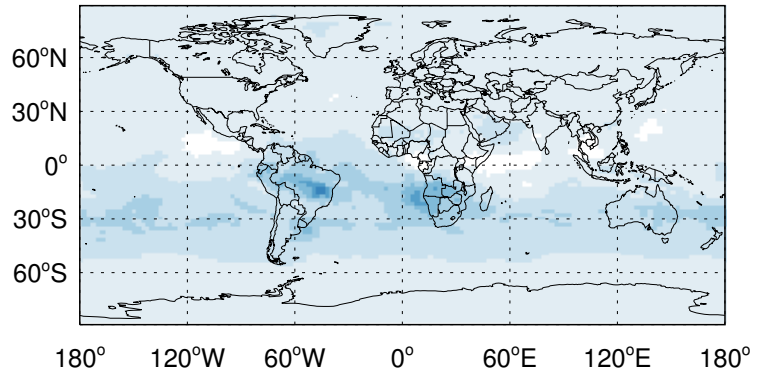


# GEOS-Chem Difference Maps at surface and 500 hPa

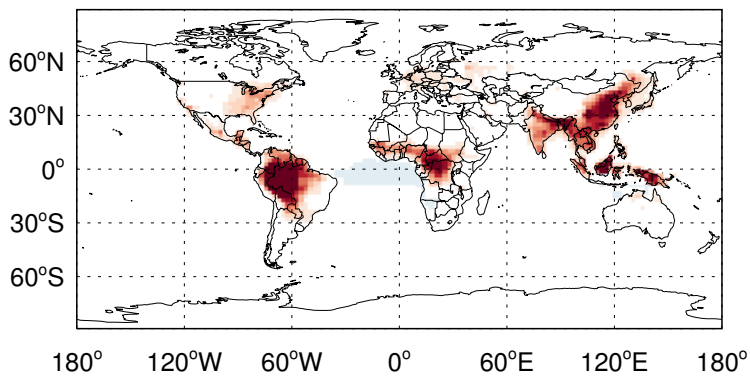
new\_tagCO - full\_chemistry  
CO - Diff @ Surface for Oct



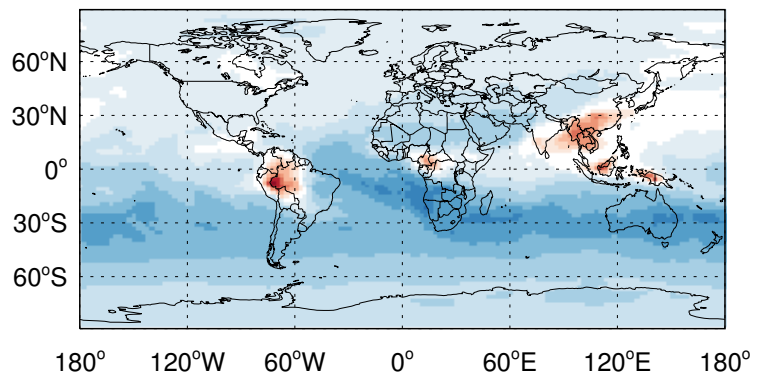
new\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Oct



old\_tagCO - full\_chemistry  
CO - Diff @ Surface for Oct

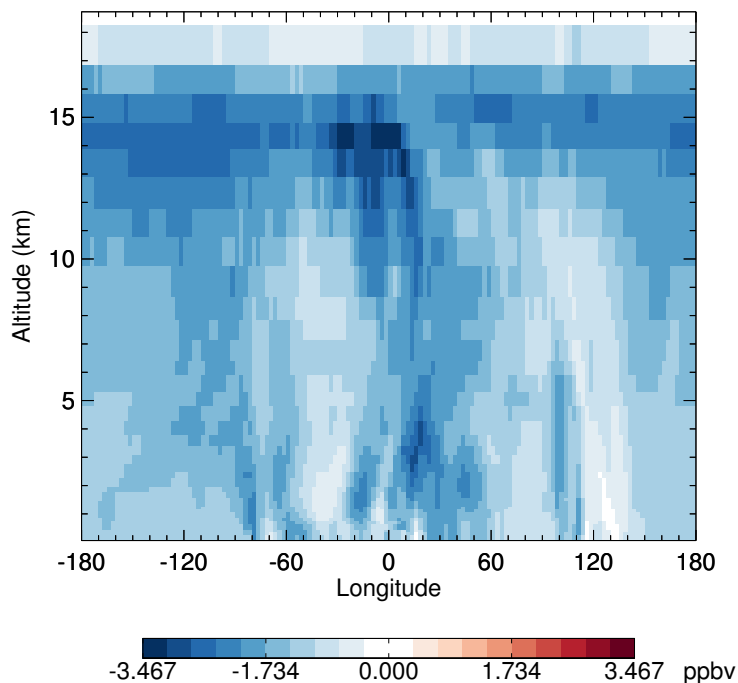


old\_tagCO - full\_chemistry  
CO- Diff @ 500 hPa for Oct

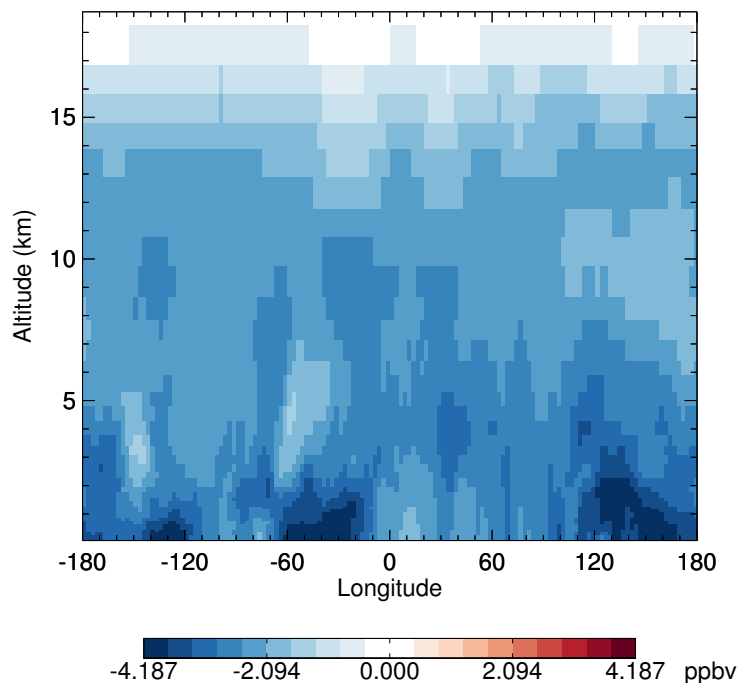


# GEOS-Chem Longitudinal Difference Profiles

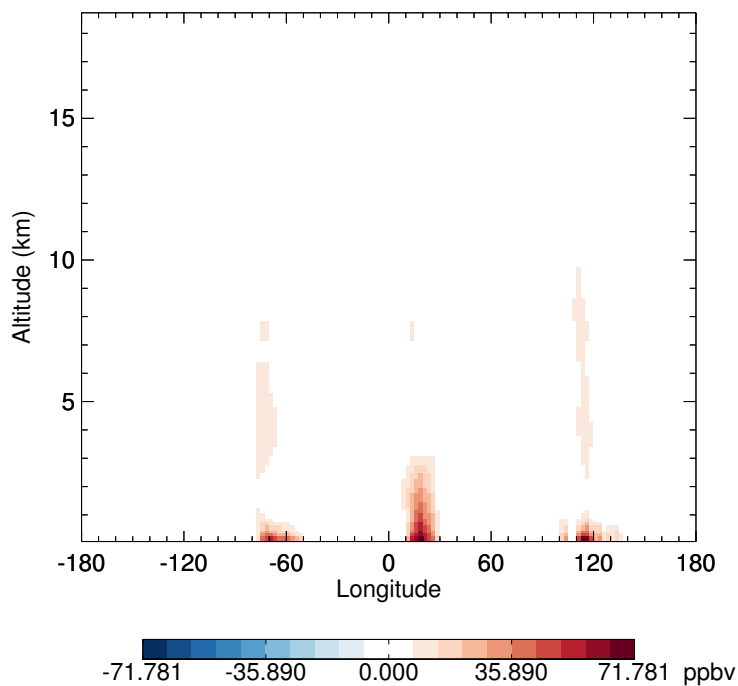
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Apr



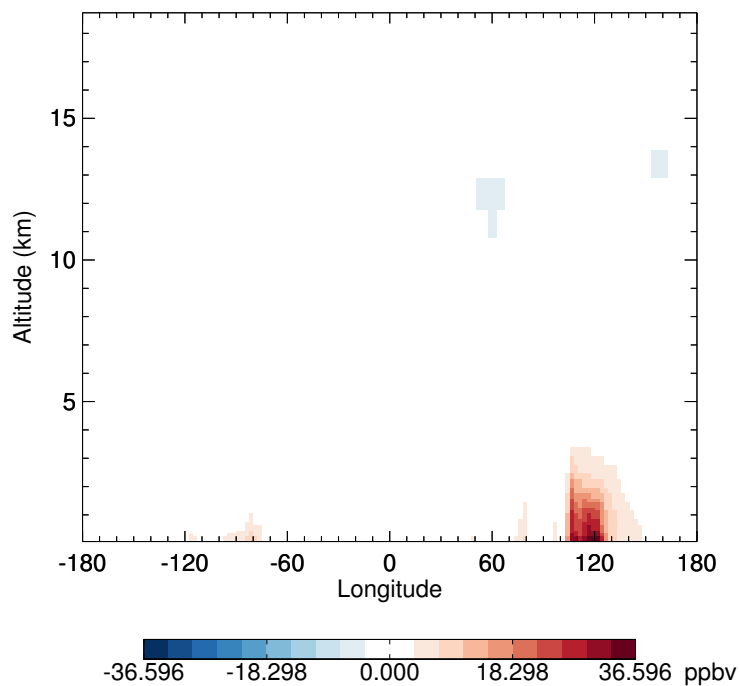
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Apr



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Apr

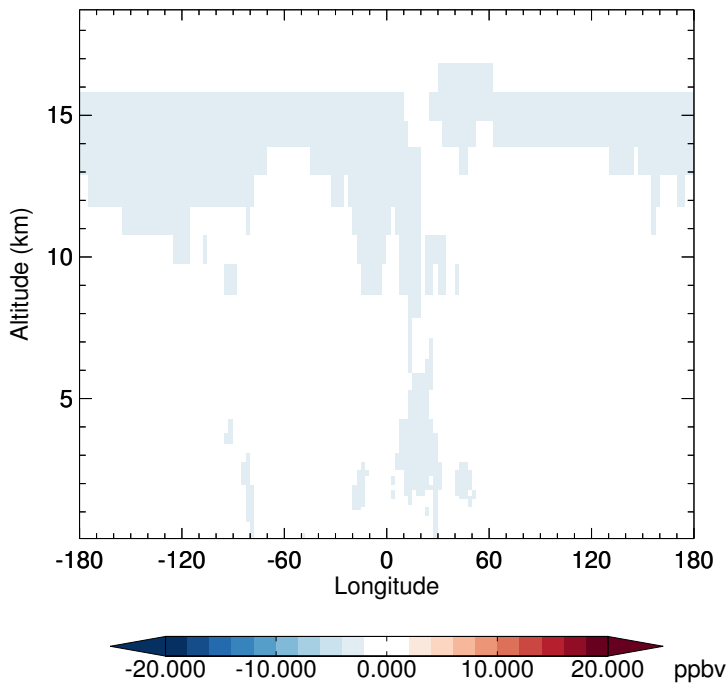


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Apr

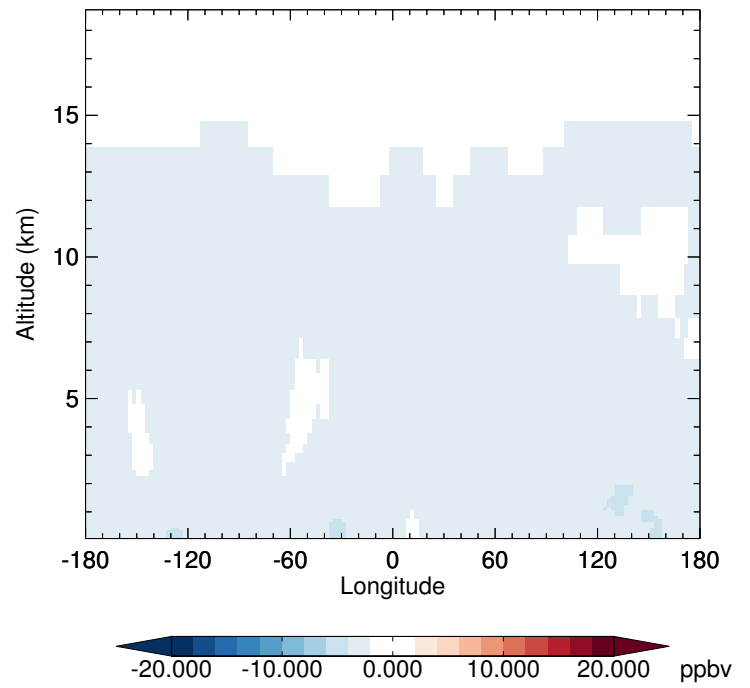


# GEOS-Chem Longitudinal Difference Profiles

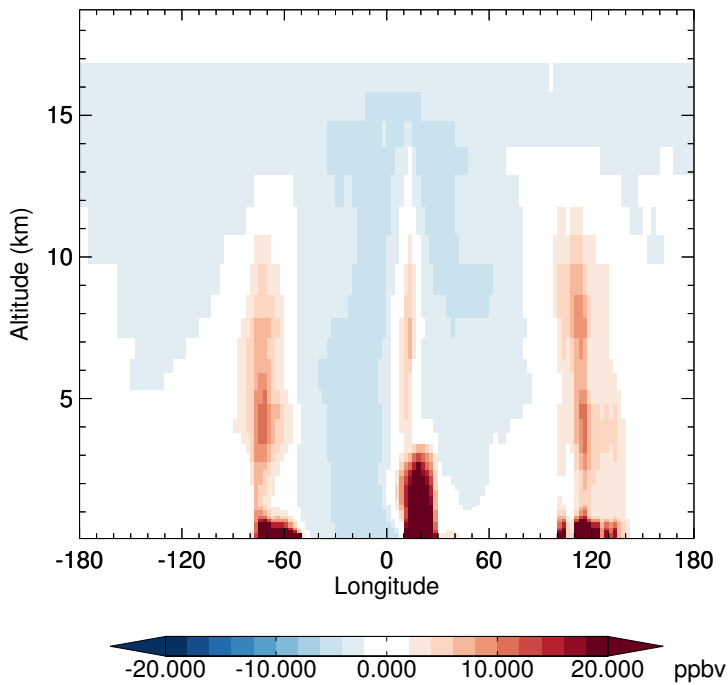
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Apr



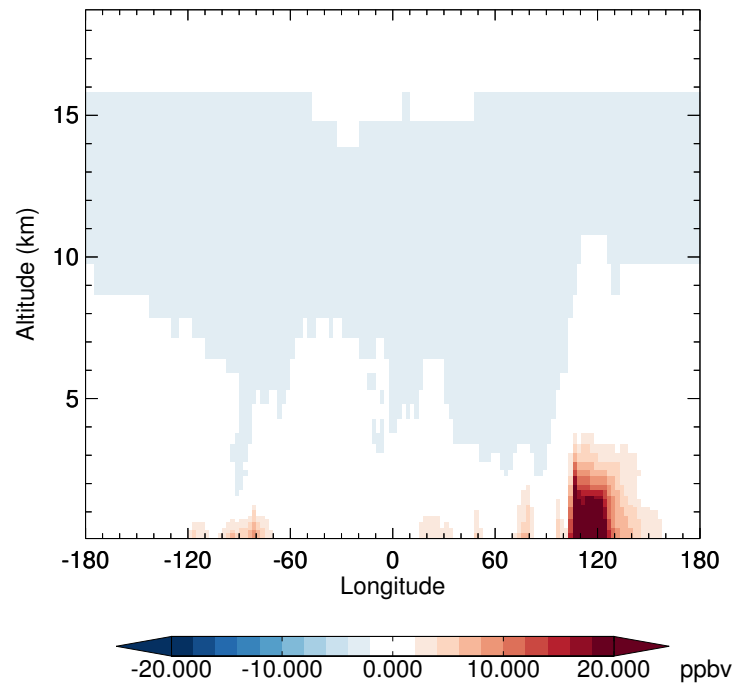
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Apr



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Apr

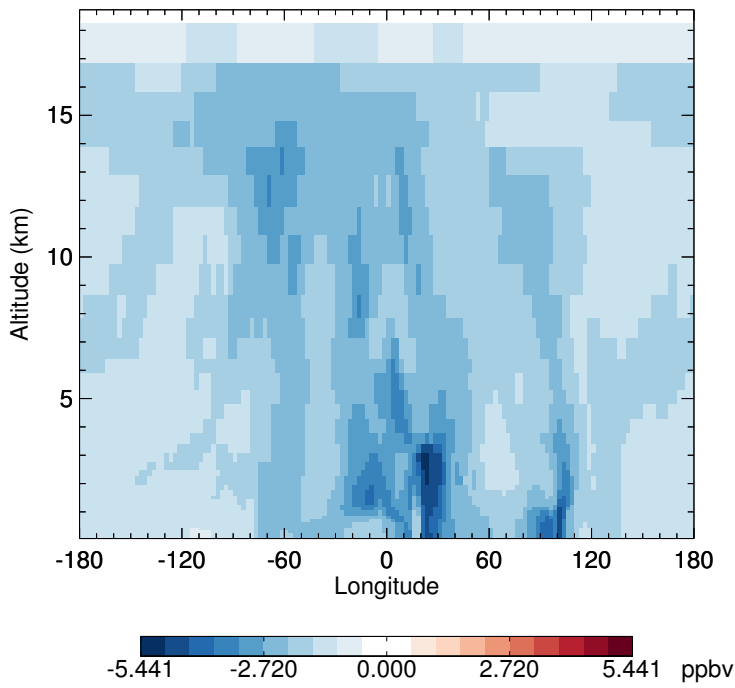


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Apr

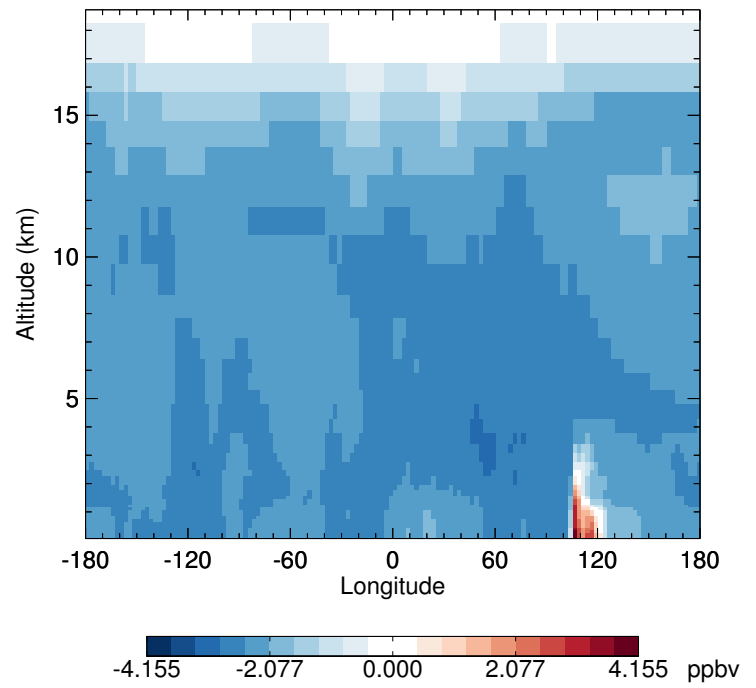


# GEOS-Chem Longitudinal Difference Profiles

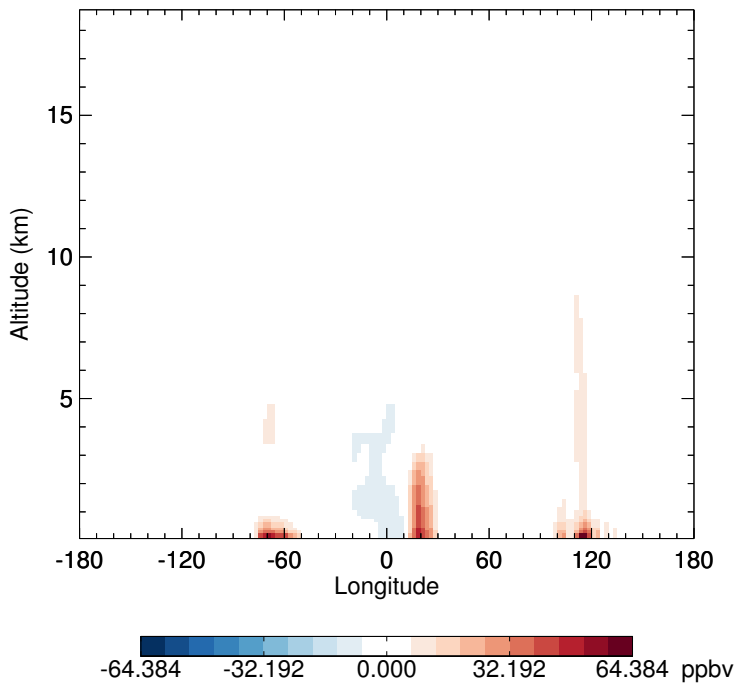
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Jan



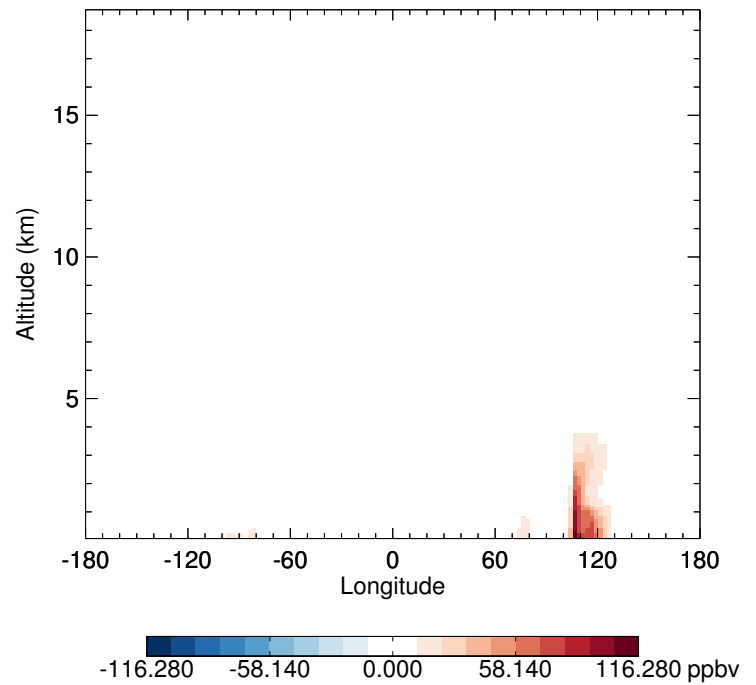
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Jan



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Jan

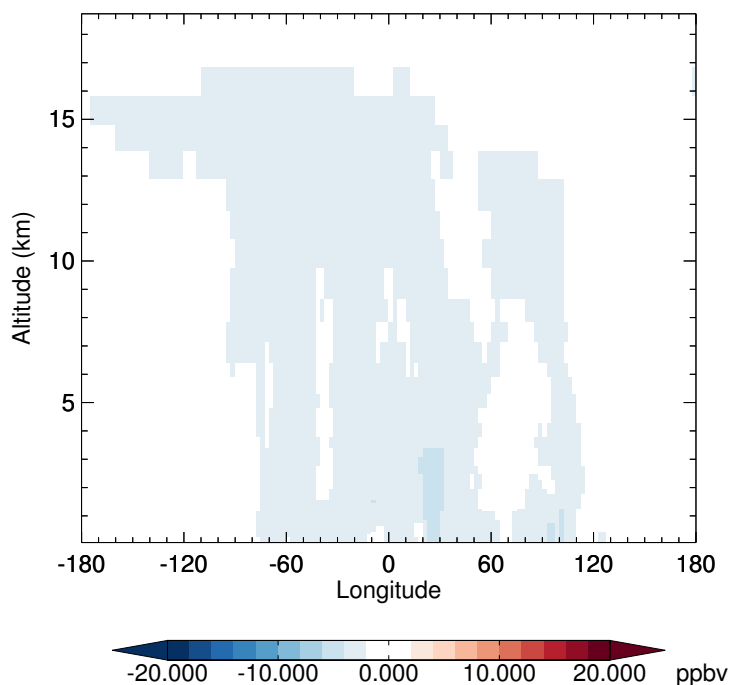


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Jan

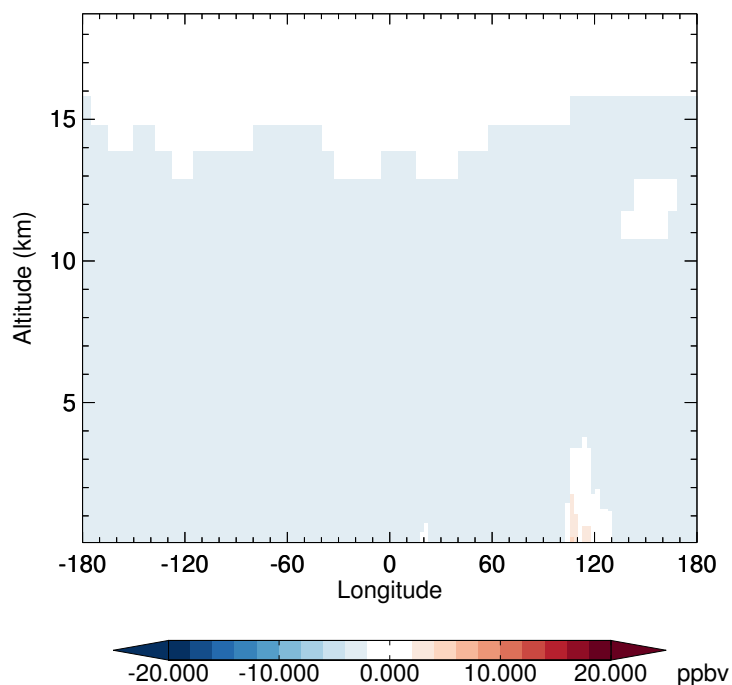


# GEOS-Chem Longitudinal Difference Profiles

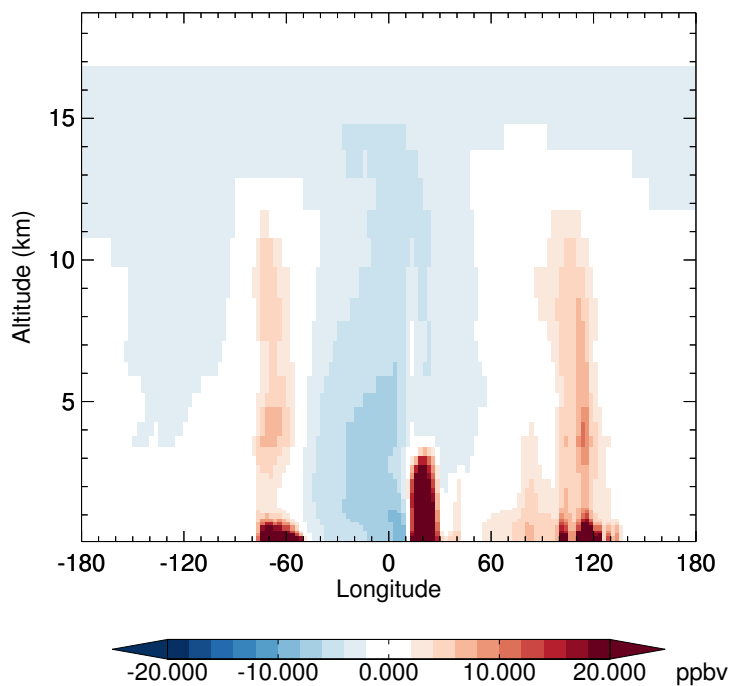
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Jan



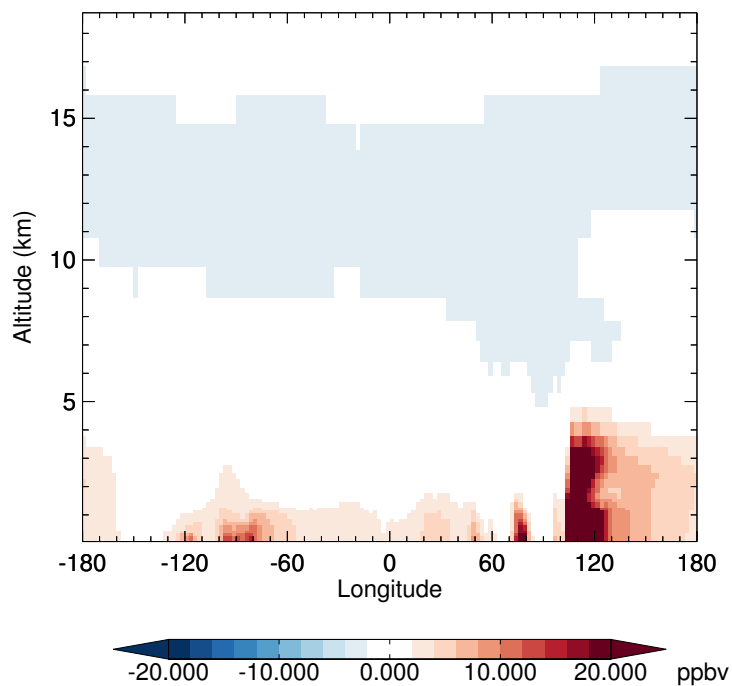
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Jan



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Jan

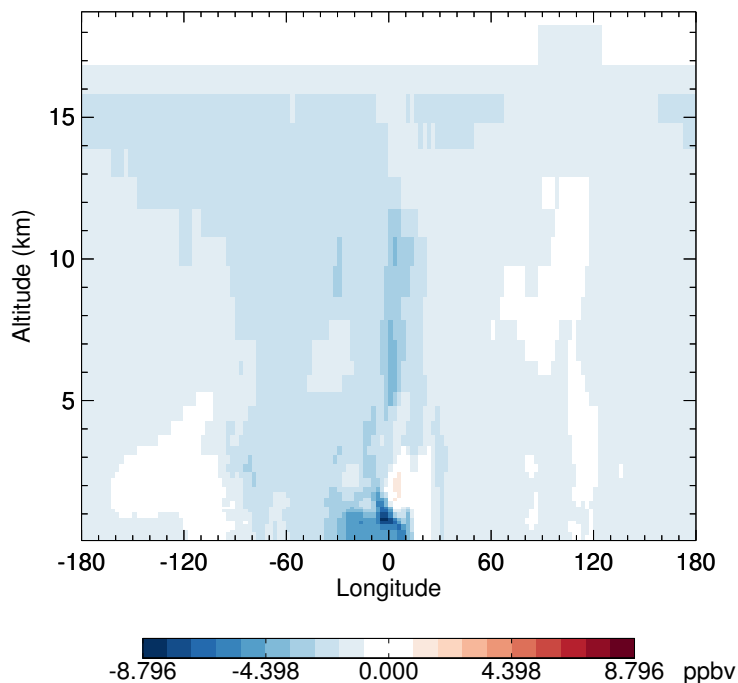


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Jan

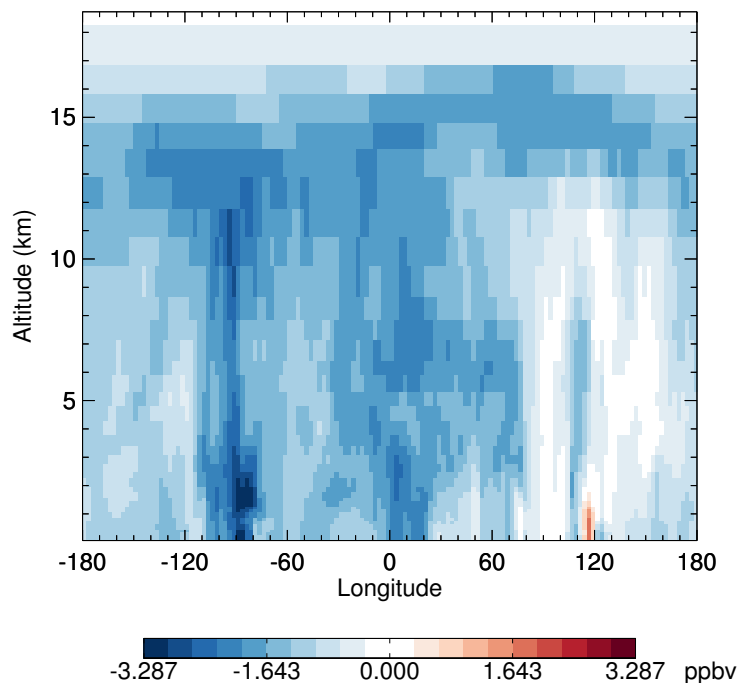


# GEOS-Chem Longitudinal Difference Profiles

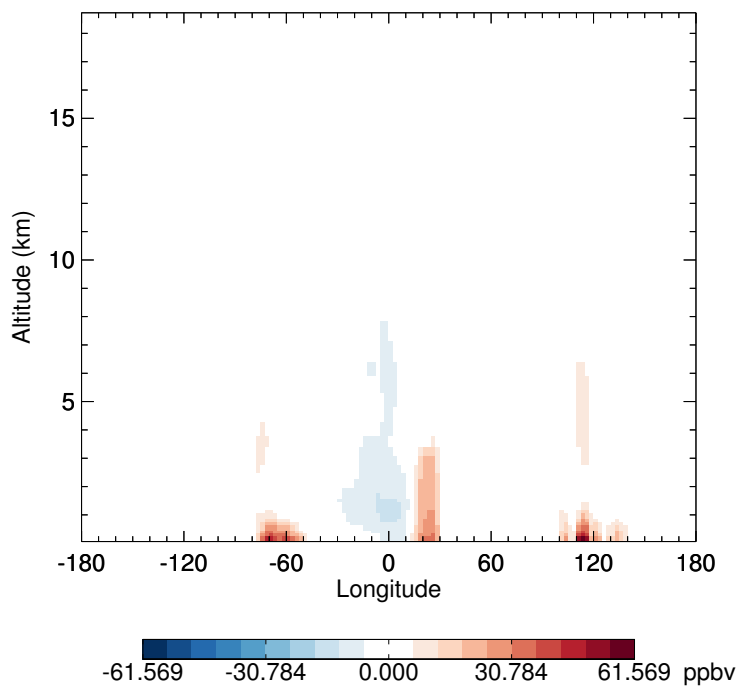
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Jul



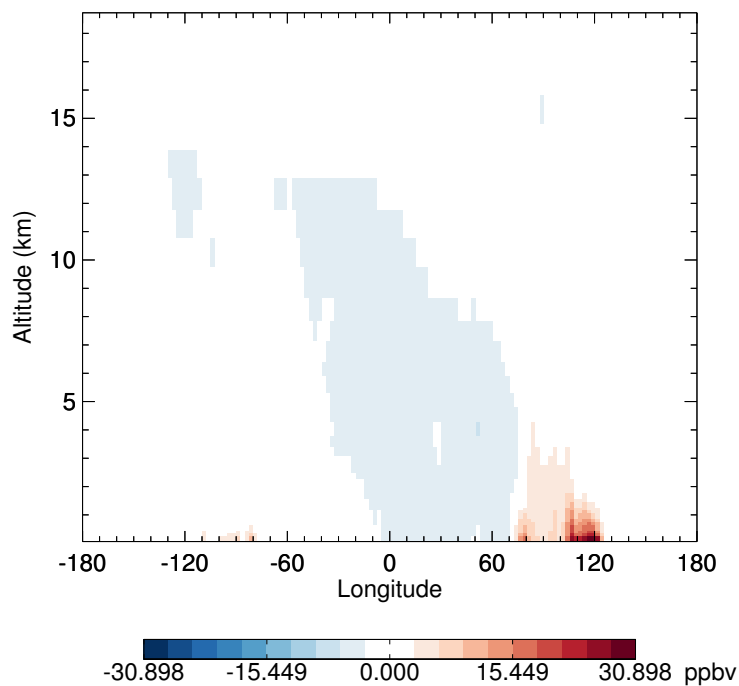
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Jul



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Jul

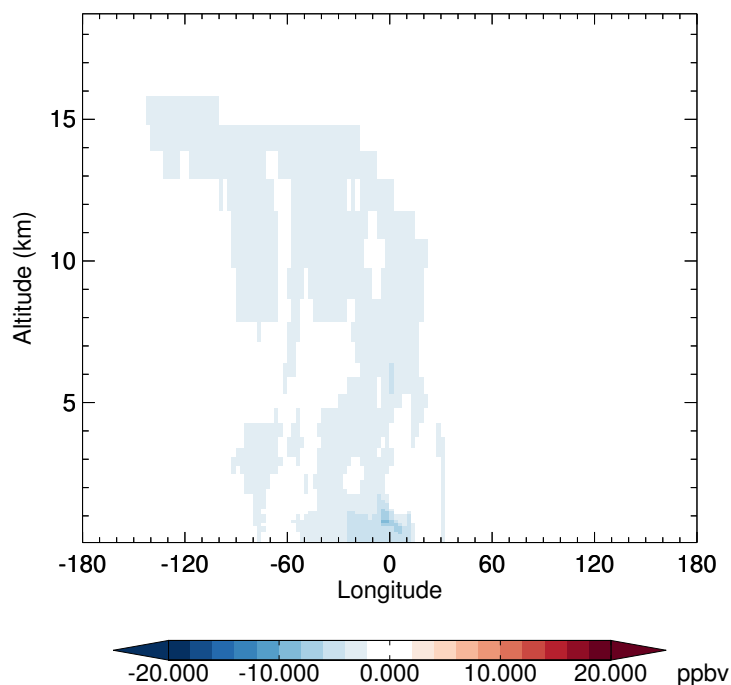


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Jul

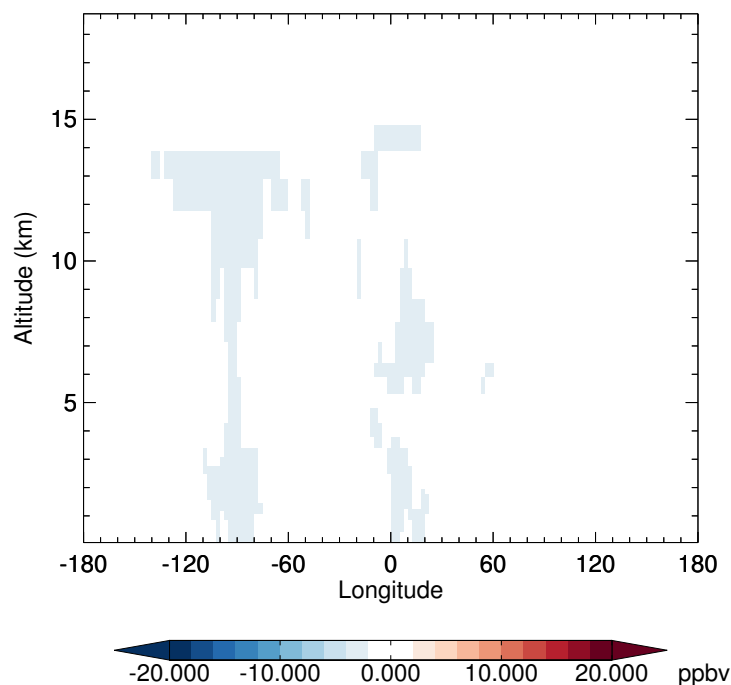


# GEOS-Chem Longitudinal Difference Profiles

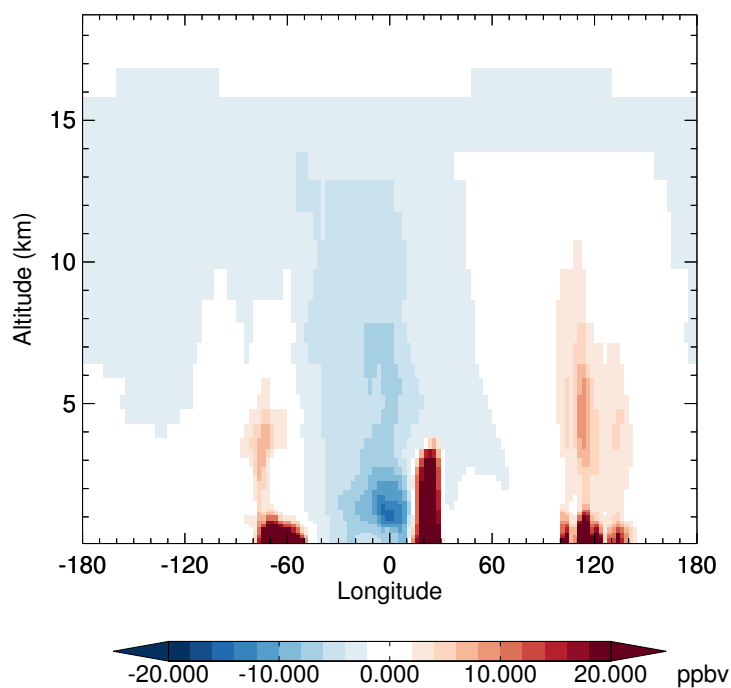
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Jul



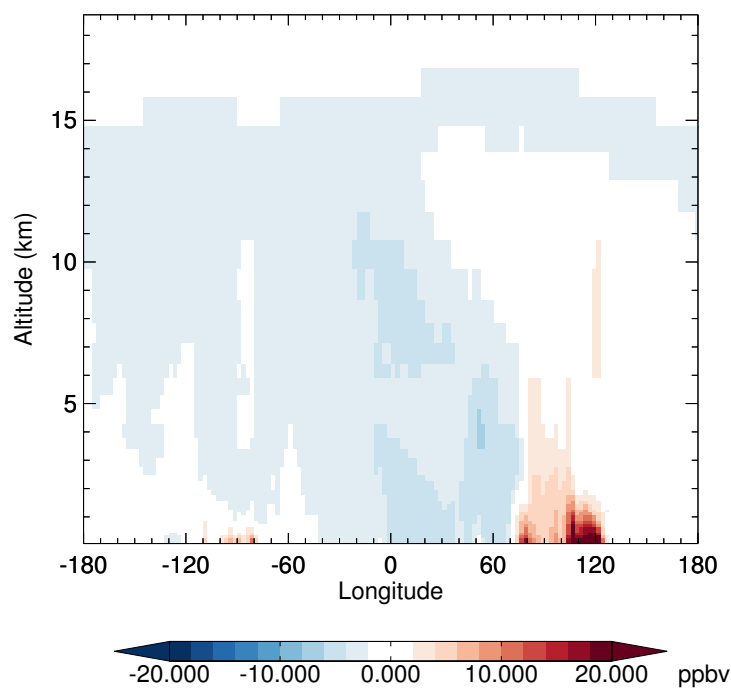
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Jul



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Jul

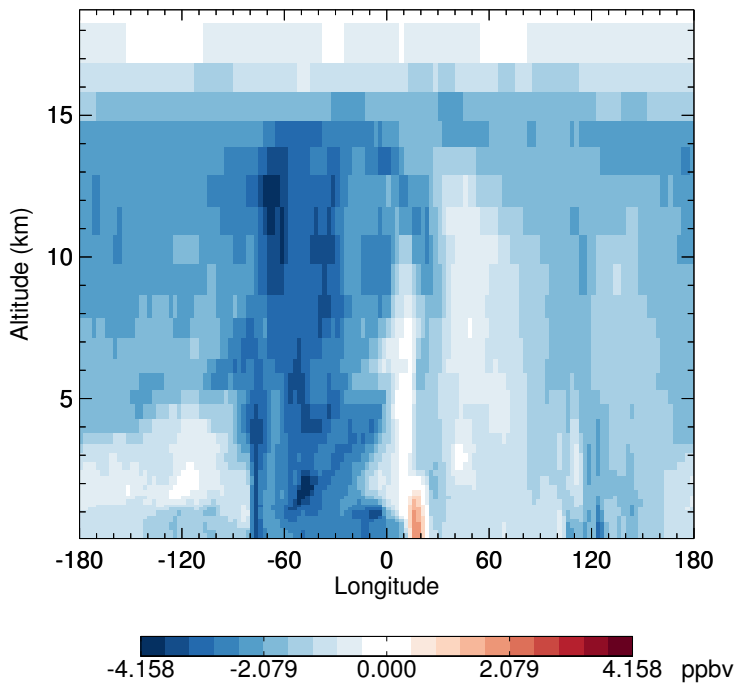


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Jul

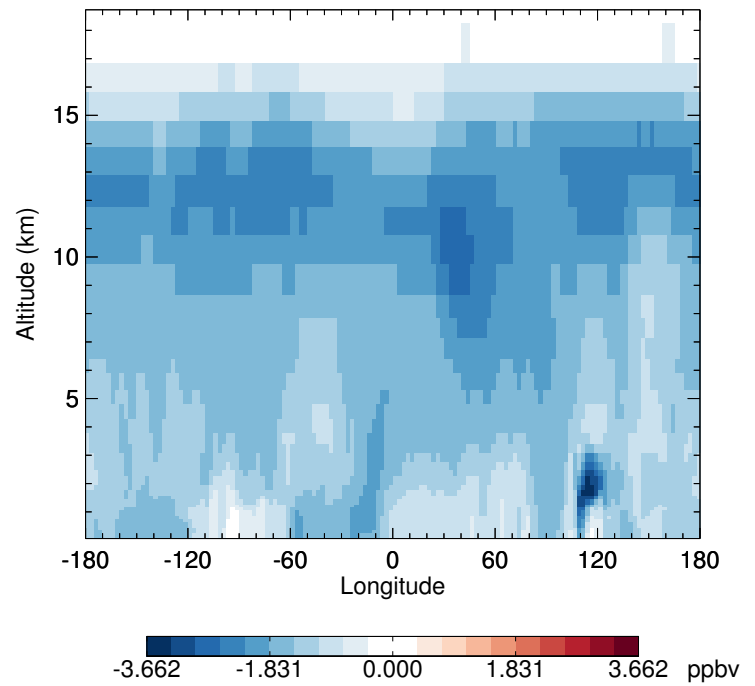


# GEOS-Chem Longitudinal Difference Profiles

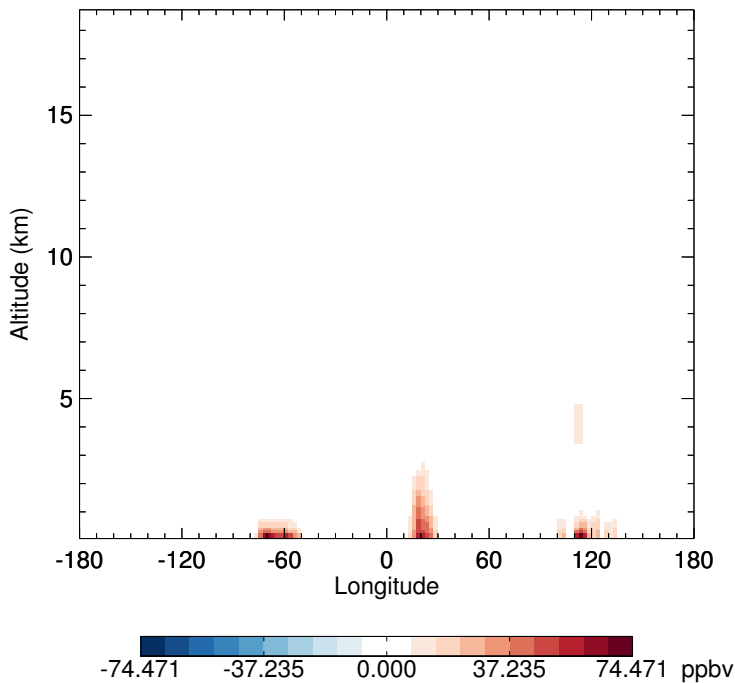
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Oct



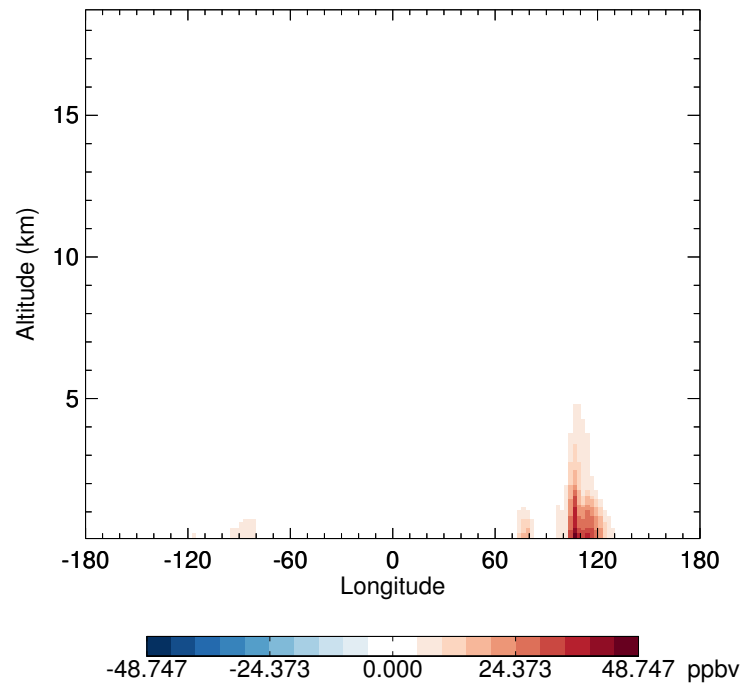
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Oct



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Oct



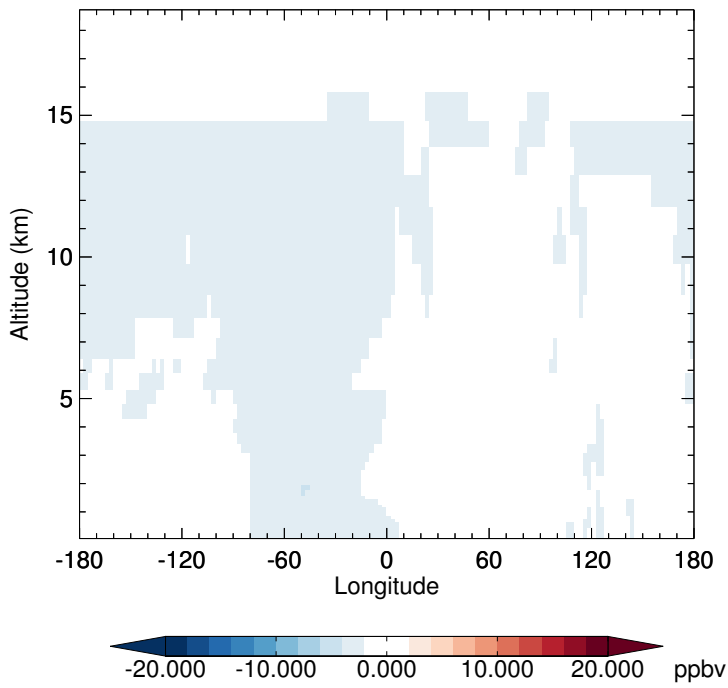
old\_tagCO - full\_chemistry  
CO - Diff along 30N for Oct



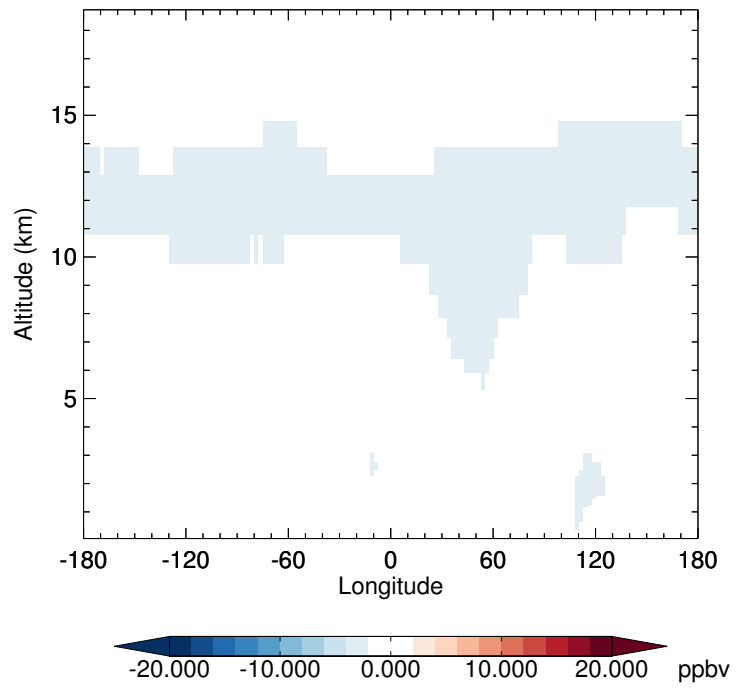


# GEOS-Chem Longitudinal Difference Profiles

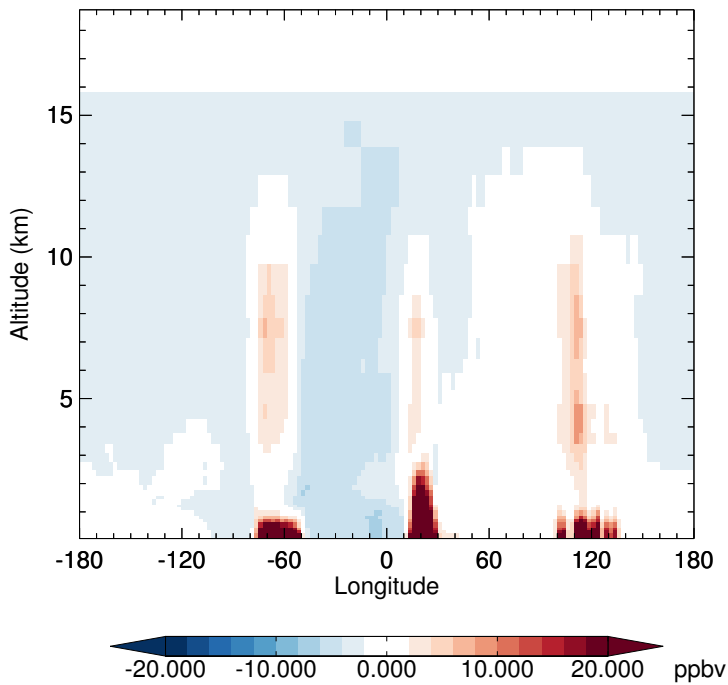
new\_tagCO - full\_chemistry  
CO - Diff along 0S for Oct



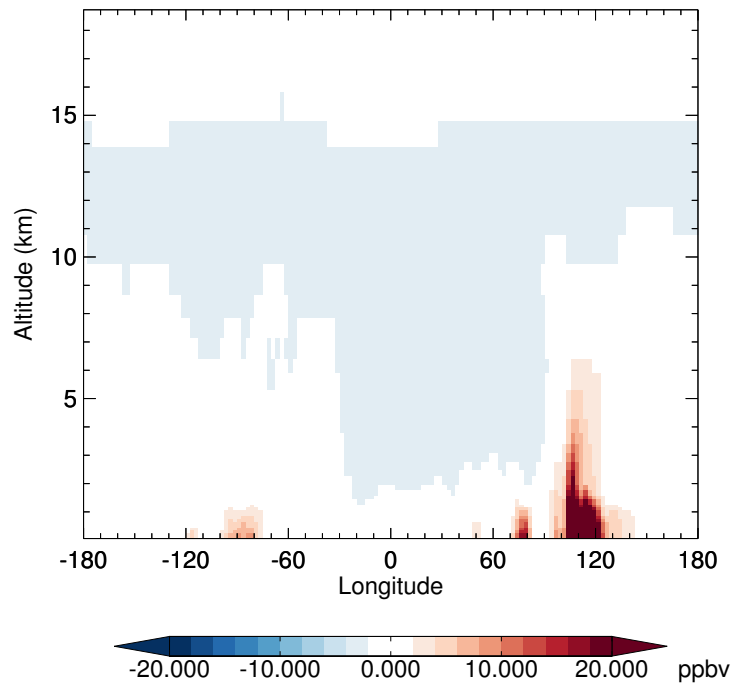
new\_tagCO - full\_chemistry  
CO - Diff along 30N for Oct



old\_tagCO - full\_chemistry  
CO - Diff along 0S for Oct

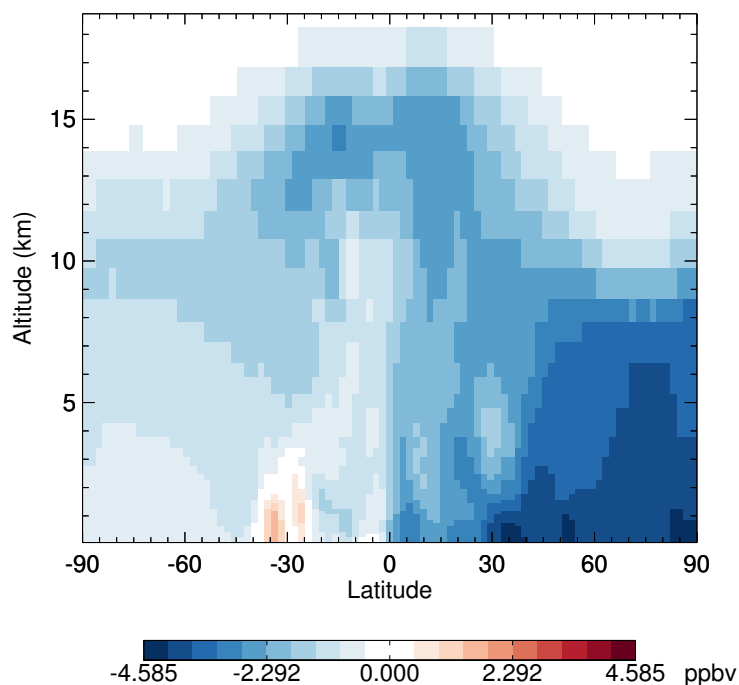


old\_tagCO - full\_chemistry  
CO - Diff along 30N for Oct

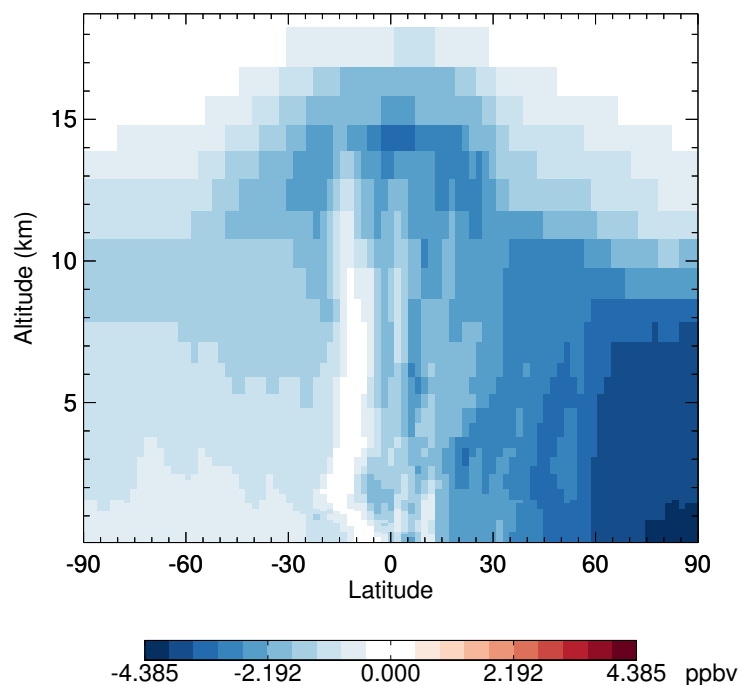


## GEOS-Chem Latitudinal Difference Profiles

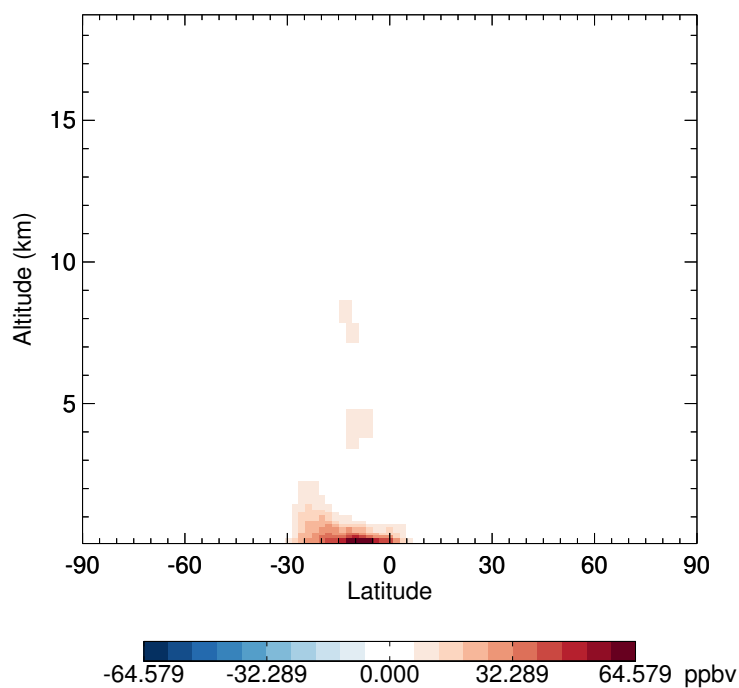
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Apr



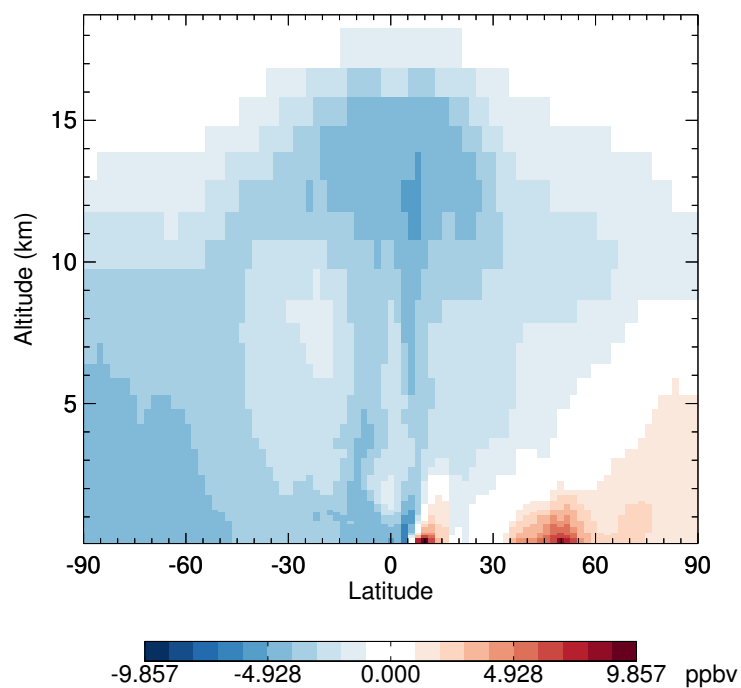
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Apr



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Apr

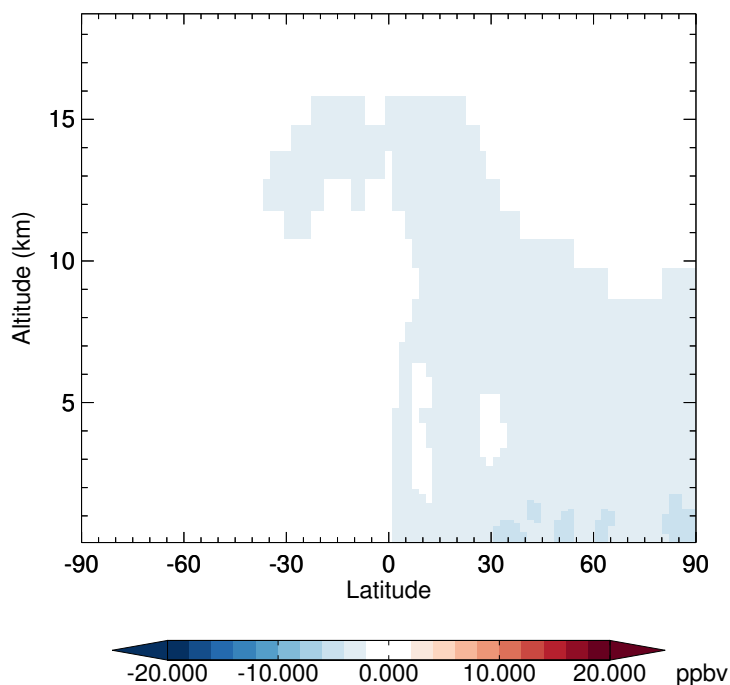


old\_tagCO - full\_chemistry  
CO - Diff along 0E for Apr

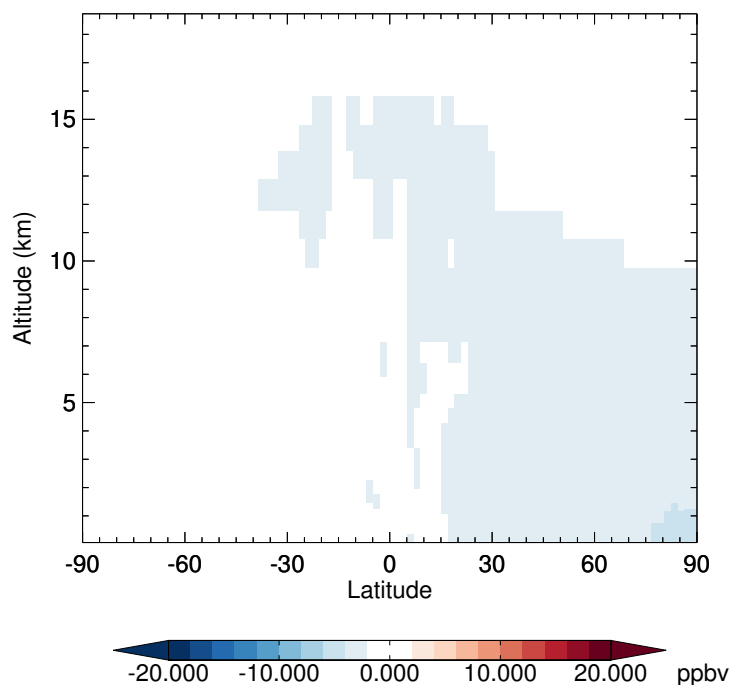


## GEOS-Chem Latitudinal Difference Profiles

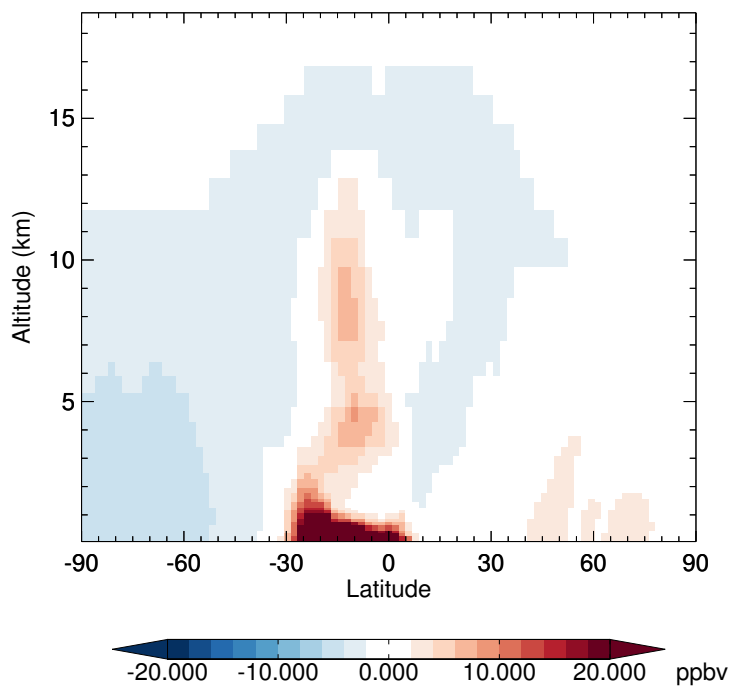
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Apr



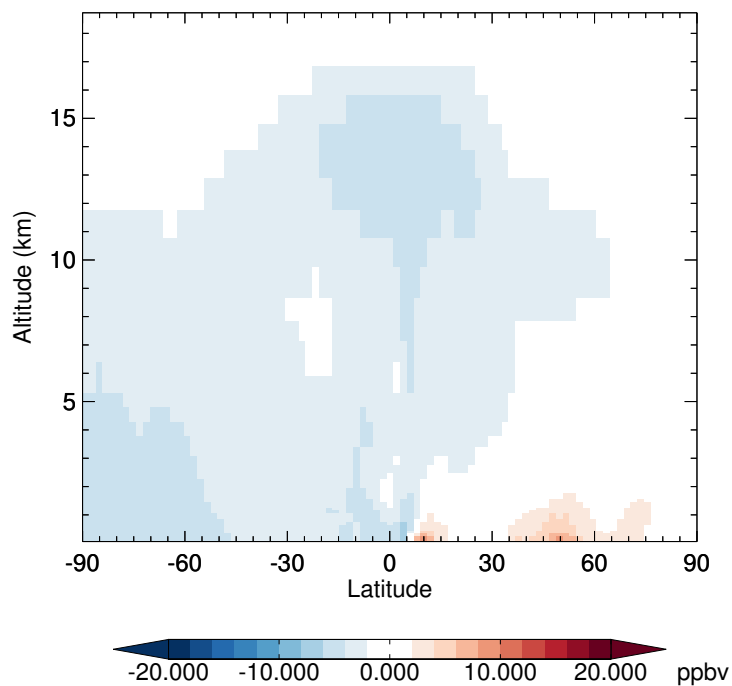
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Apr



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Apr

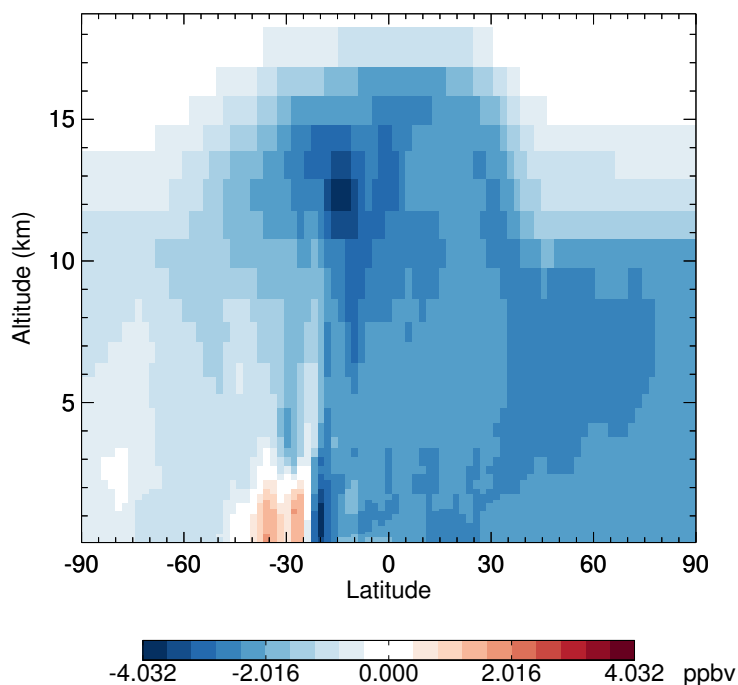


old\_tagCO - full\_chemistry  
CO - Diff along 0E for Apr

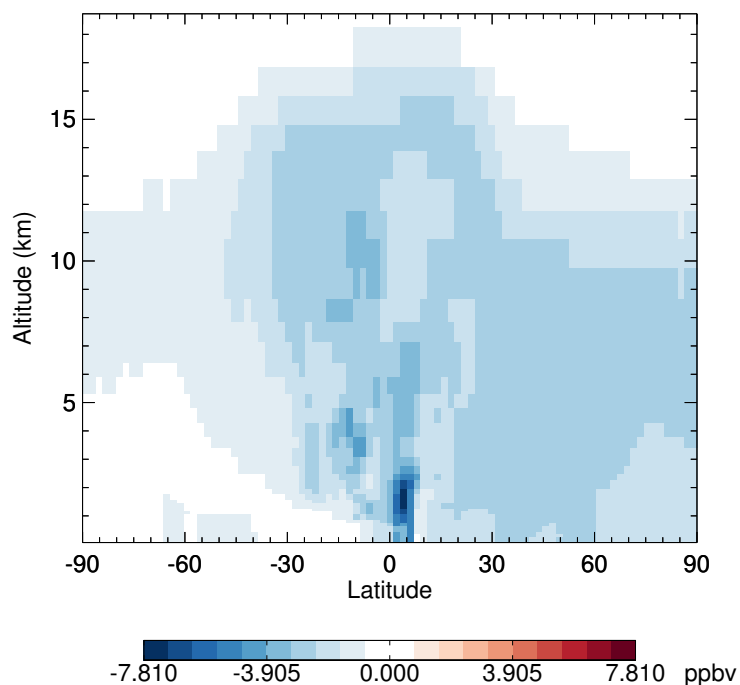


# GEOS-Chem Latitudinal Difference Profiles

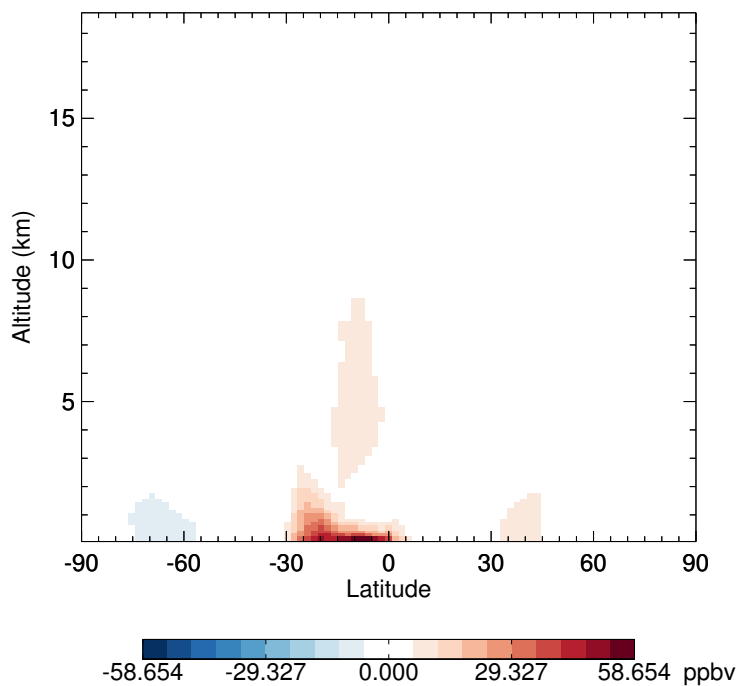
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Jan



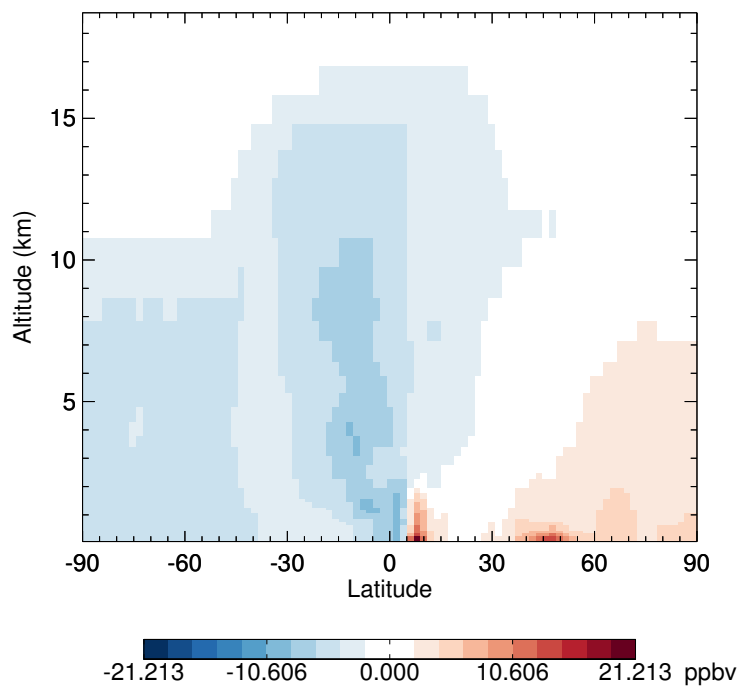
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Jan



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Jan

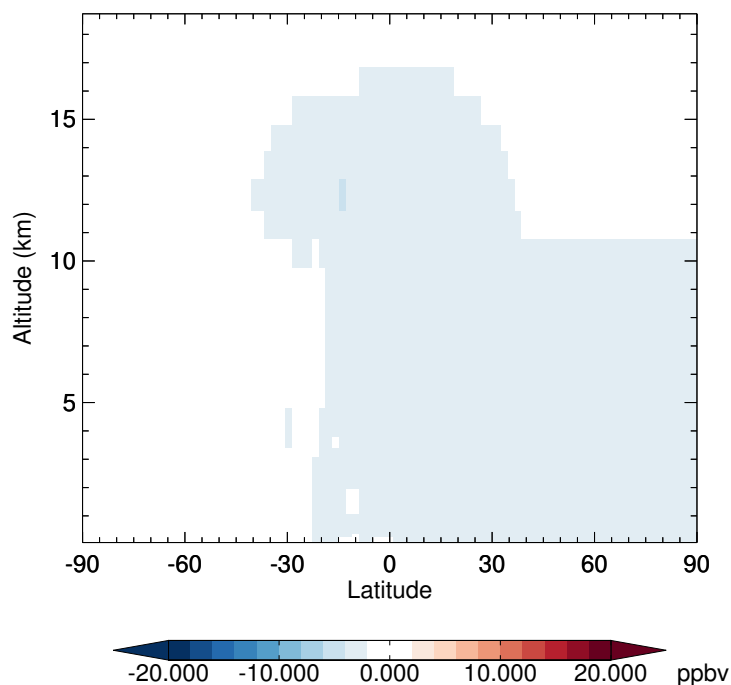


old\_tagCO - full\_chemistry  
CO - Diff along 0E for Jan

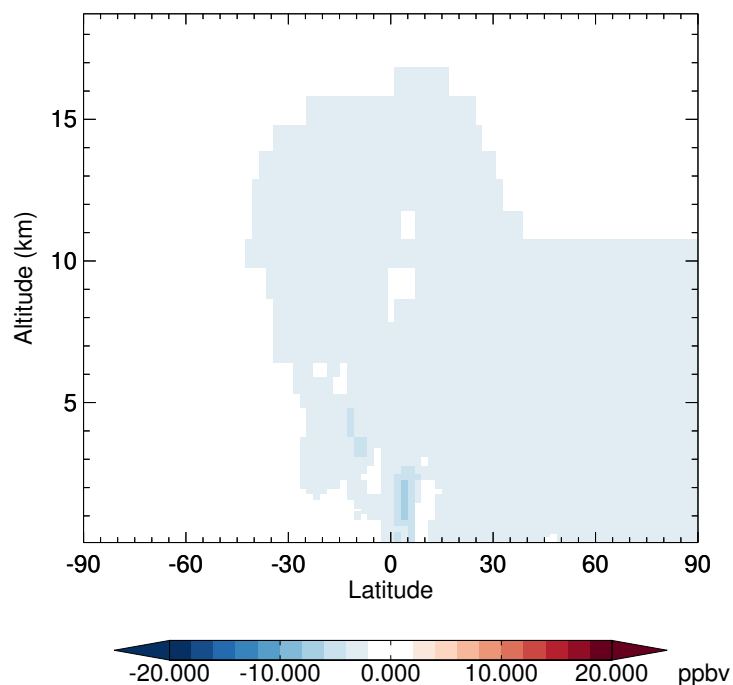


## GEOS-Chem Latitudinal Difference Profiles

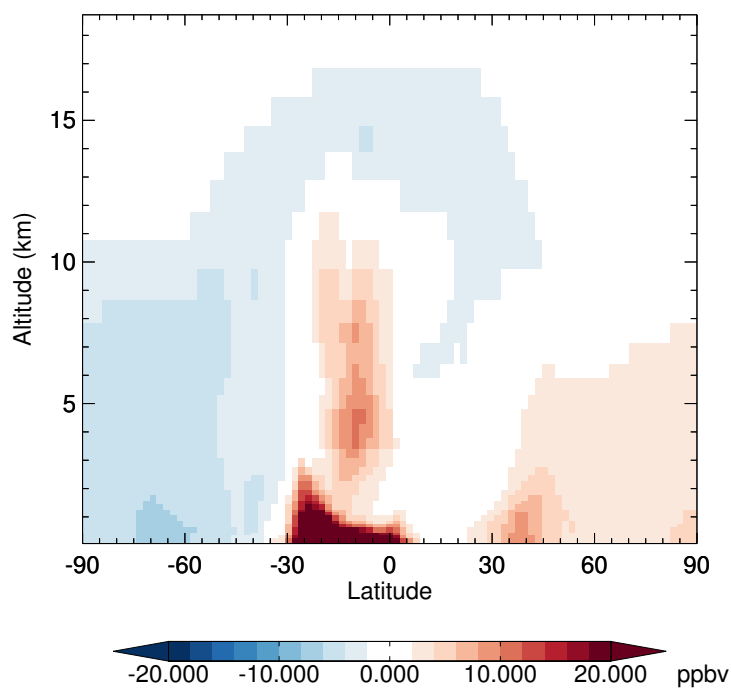
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Jan



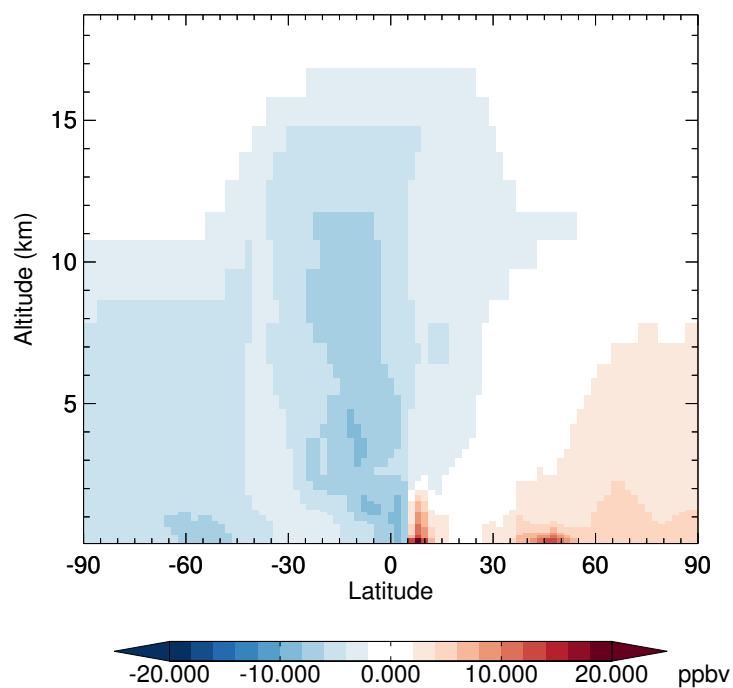
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Jan



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Jan



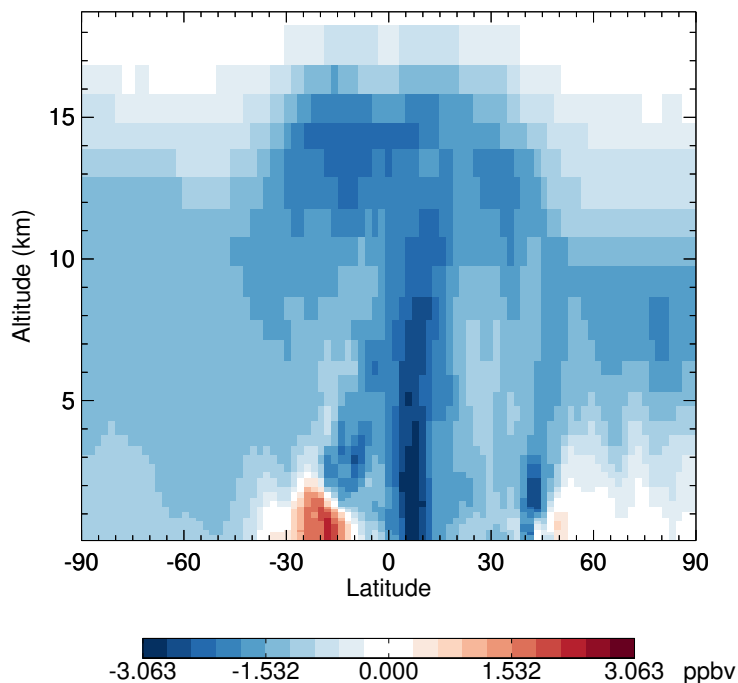
old\_tagCO - full\_chemistry  
CO - Diff along 0E for Jan



# GEOS-Chem Latitudinal Difference Profiles

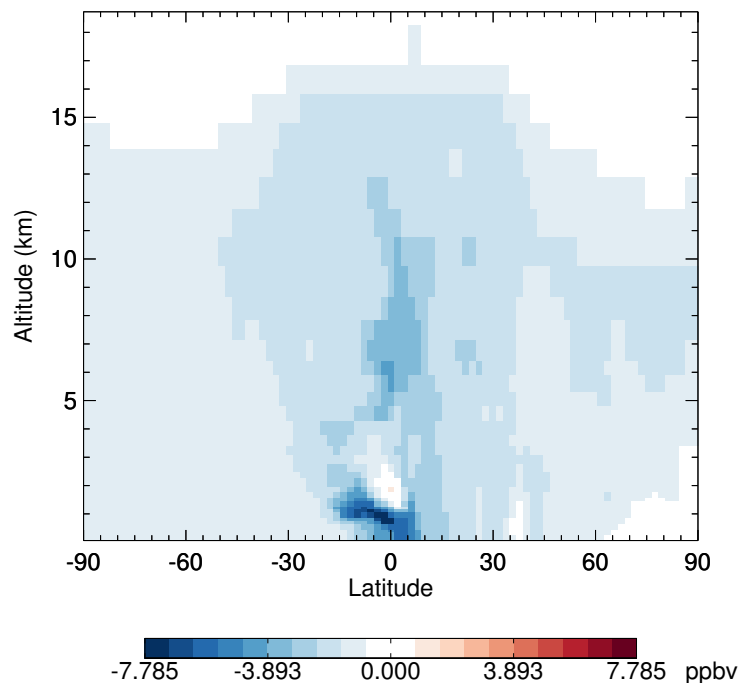
new\_tagCO - full\_chemistry

CO - Diff along -60W for Jul



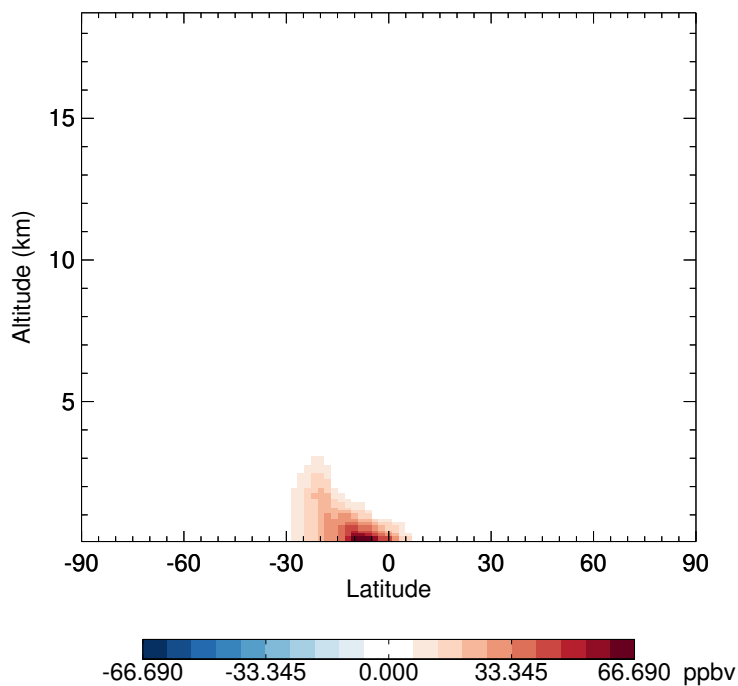
new\_tagCO - full\_chemistry

CO - Diff along 0E for Jul



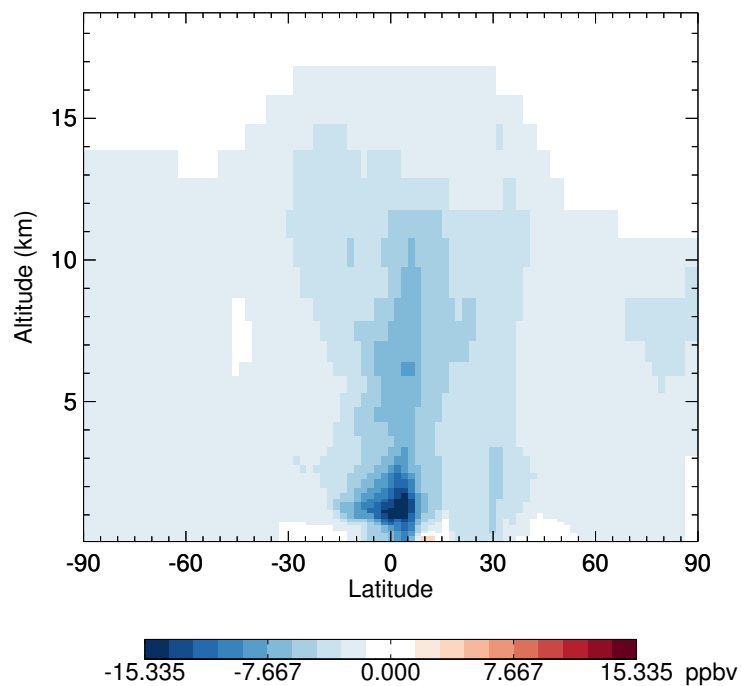
old\_tagCO - full\_chemistry

CO - Diff along -60W for Jul



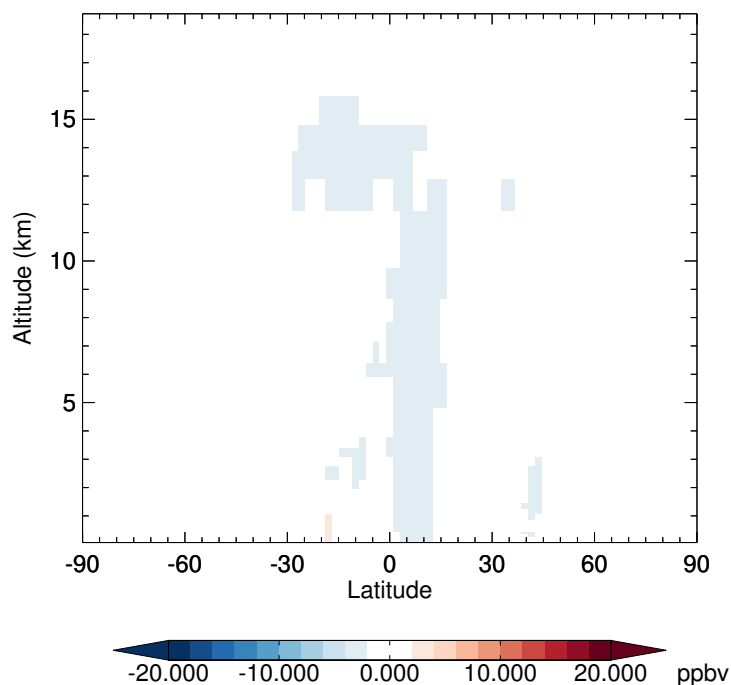
old\_tagCO - full\_chemistry

CO - Diff along 0E for Jul

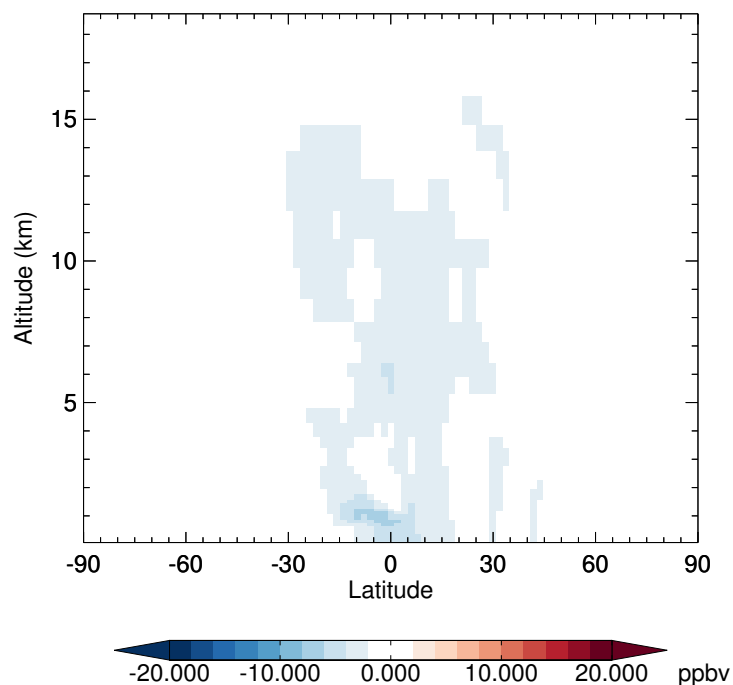


## GEOS-Chem Latitudinal Difference Profiles

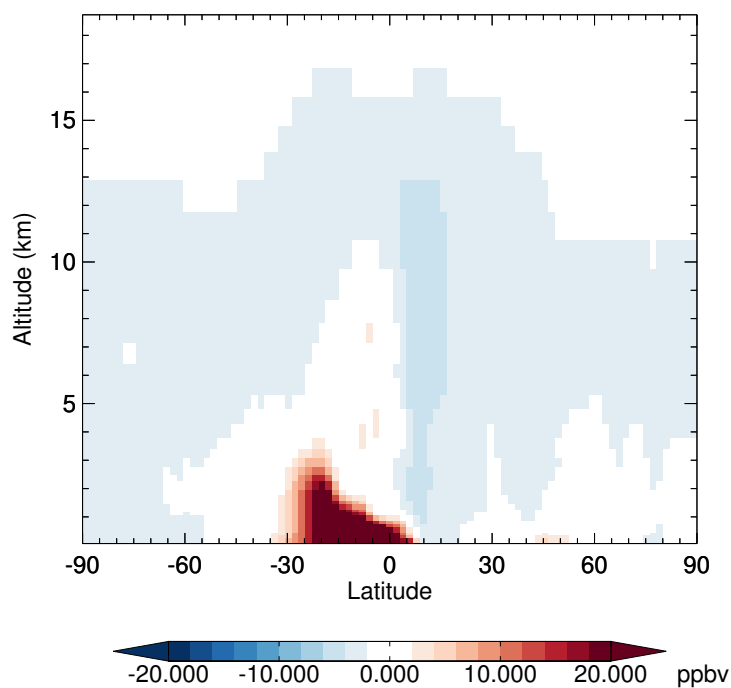
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Jul



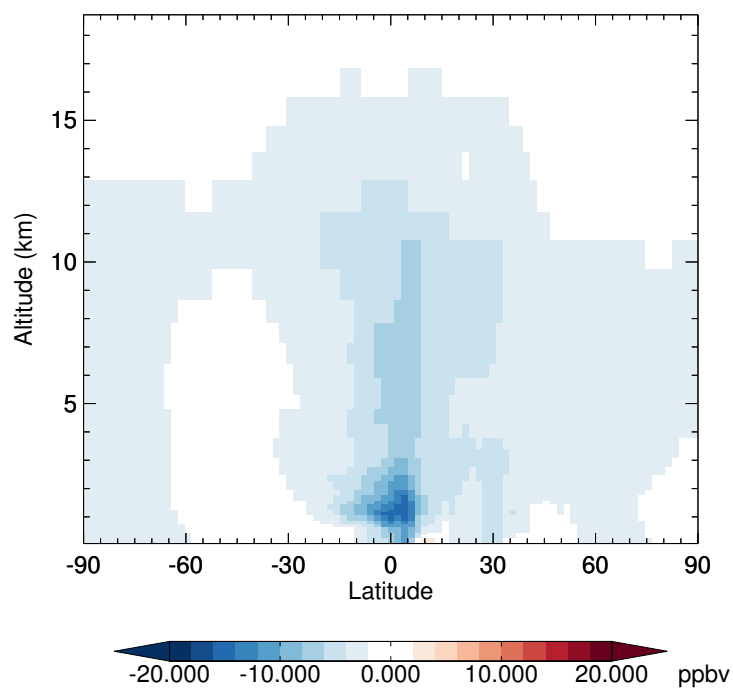
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Jul



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Jul

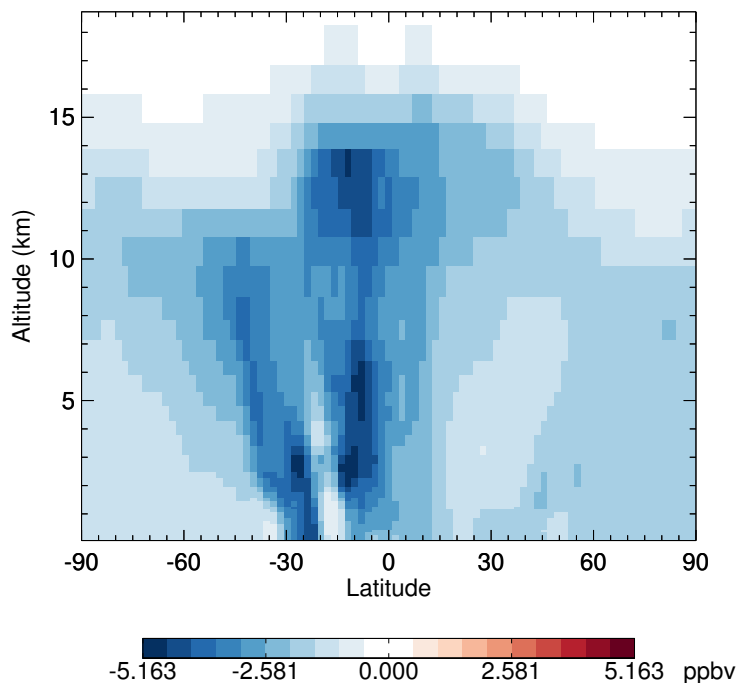


old\_tagCO - full\_chemistry  
CO - Diff along 0E for Jul

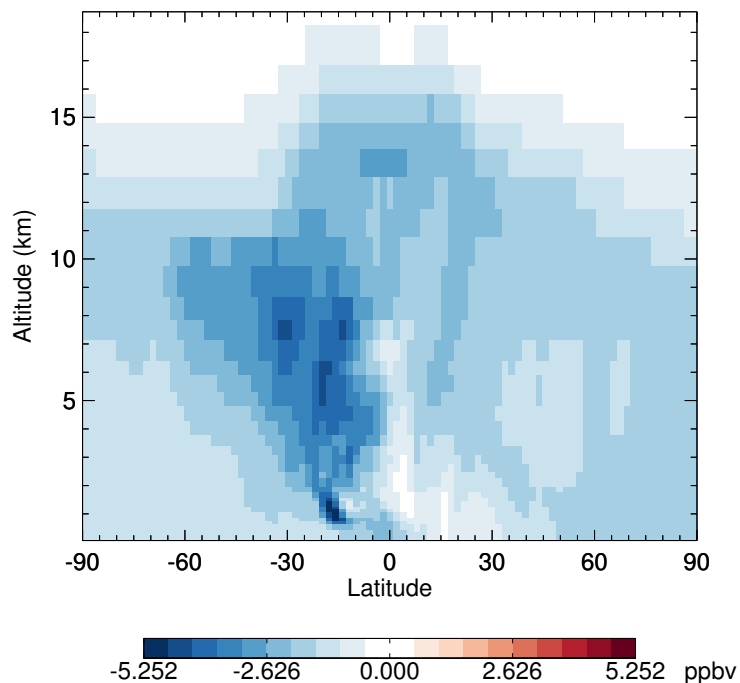


# GEOS-Chem Latitudinal Difference Profiles

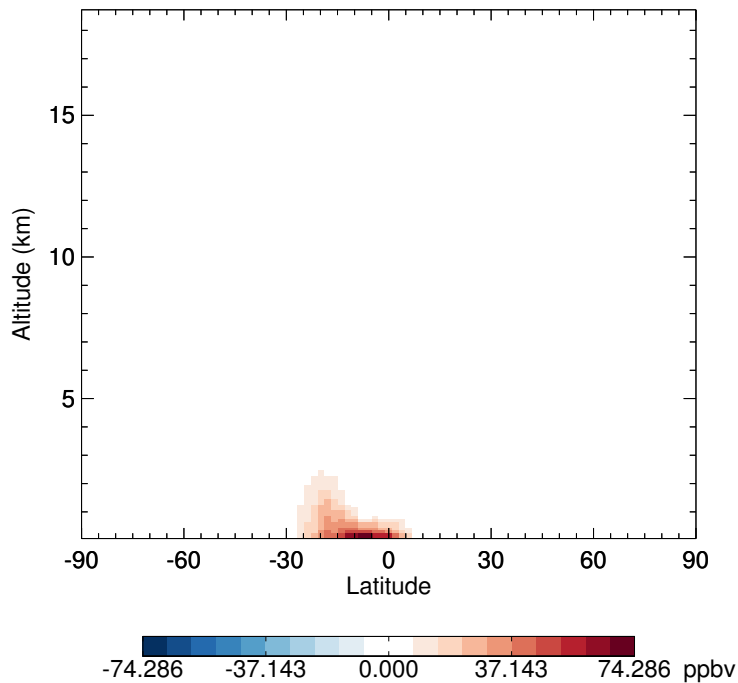
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Oct



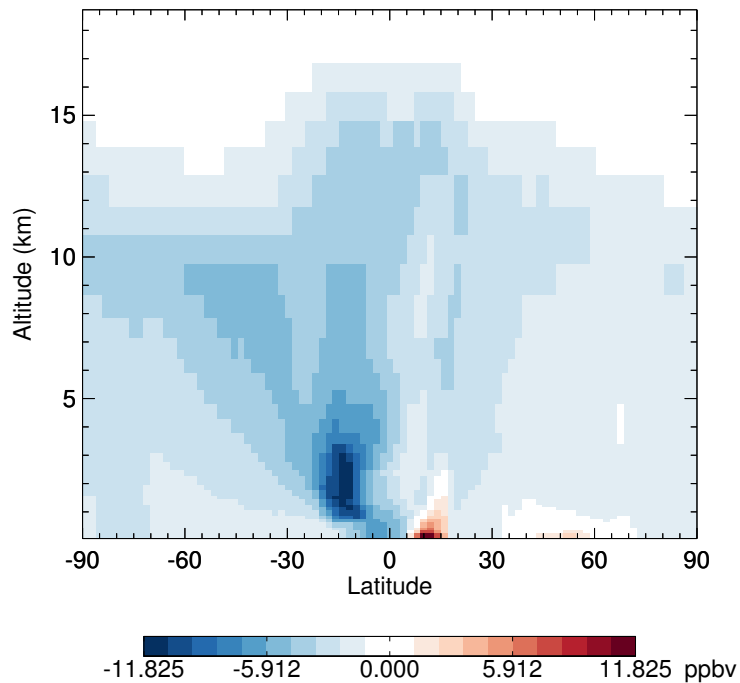
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Oct



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Oct



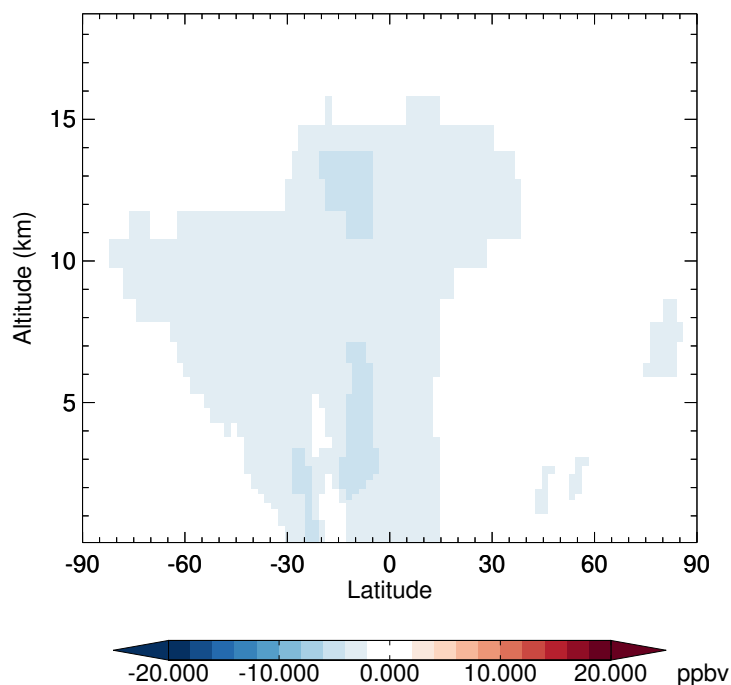
old\_tagCO - full\_chemistry  
CO - Diff along 0E for Oct



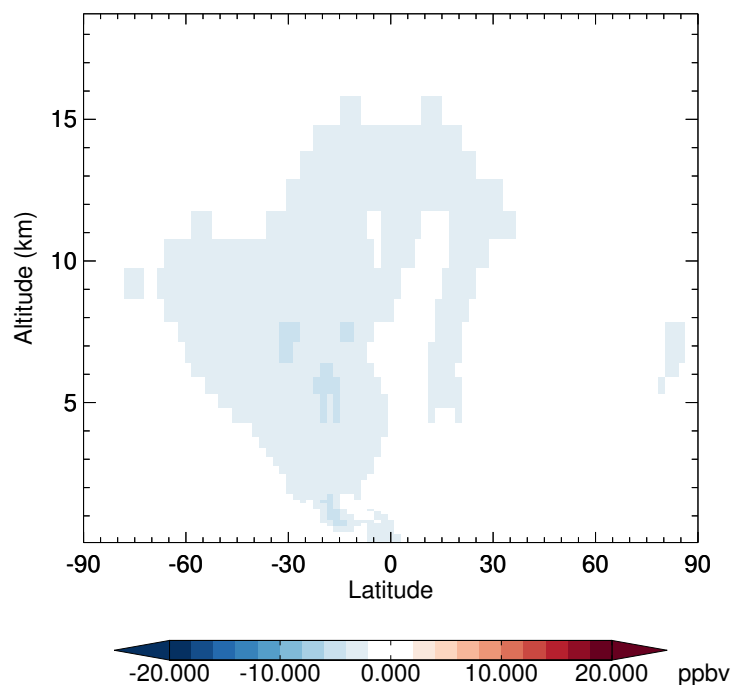


## GEOS-Chem Latitudinal Difference Profiles

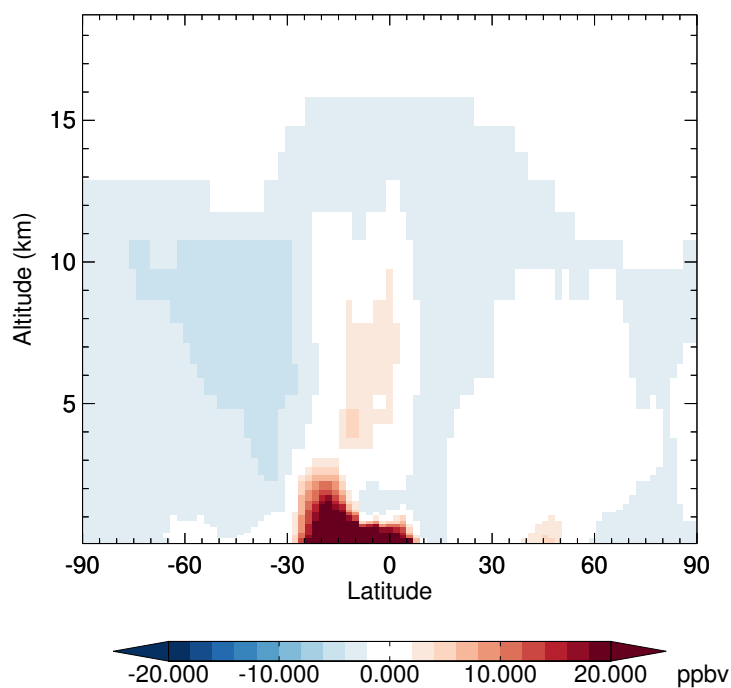
new\_tagCO - full\_chemistry  
CO - Diff along -60W for Oct



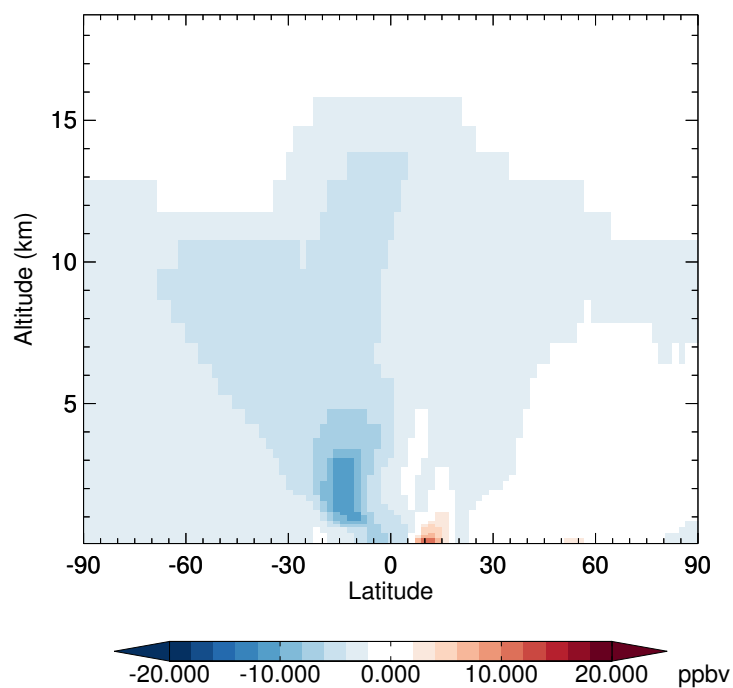
new\_tagCO - full\_chemistry  
CO - Diff along 0E for Oct



old\_tagCO - full\_chemistry  
CO - Diff along -60W for Oct

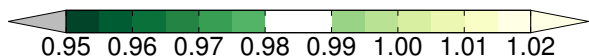
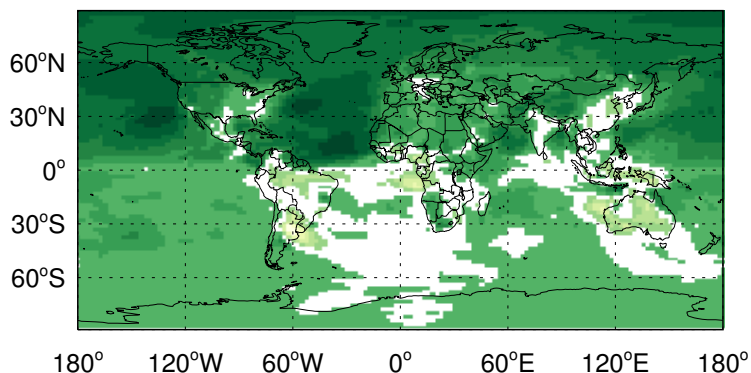


old\_tagCO - full\_chemistry  
CO - Diff along 0E for Oct

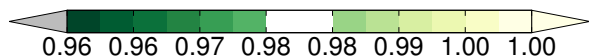
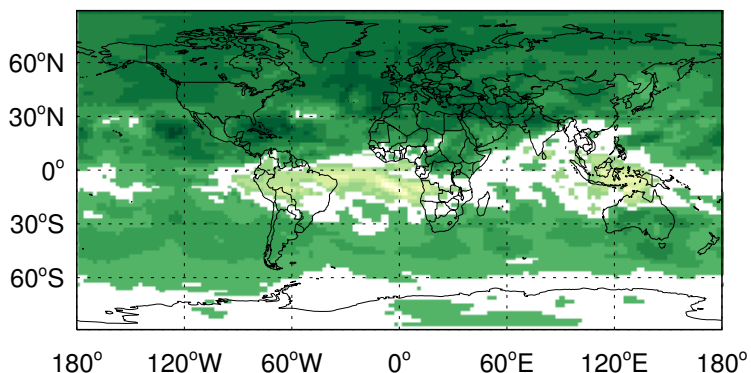


# GEOS-Chem Ratio Maps at surface and 500 hPa

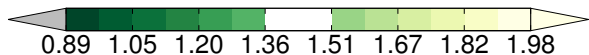
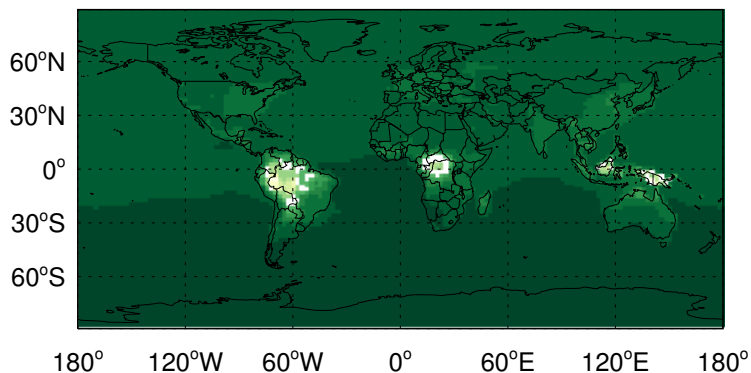
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr



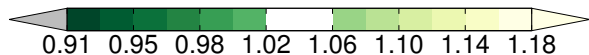
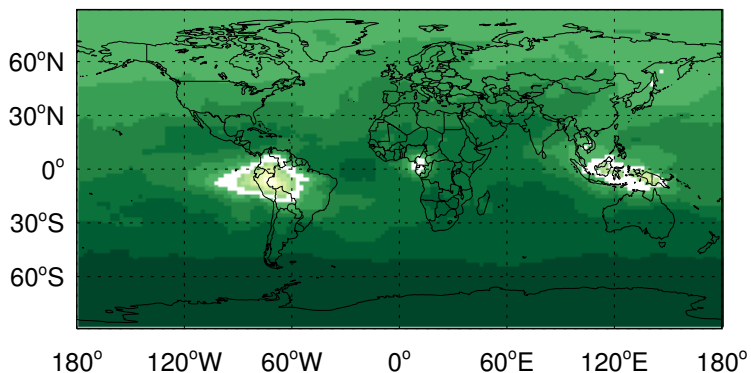
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr

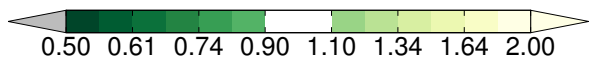
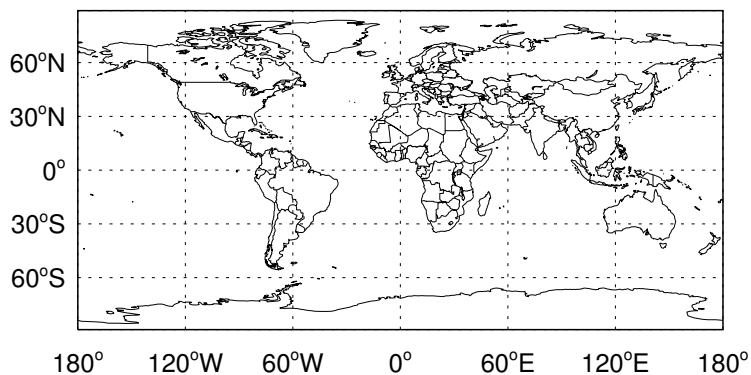


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr

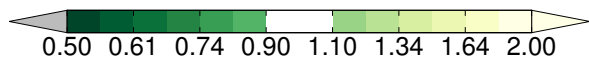
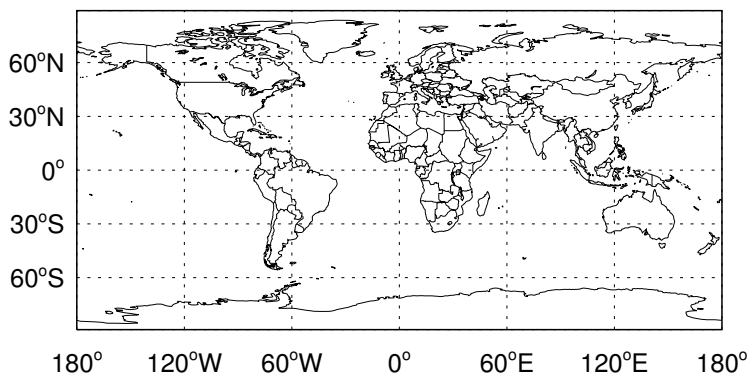


# GEOS-Chem Ratio Maps at surface and 500 hPa

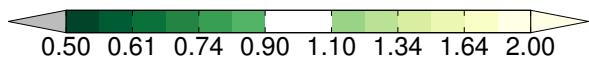
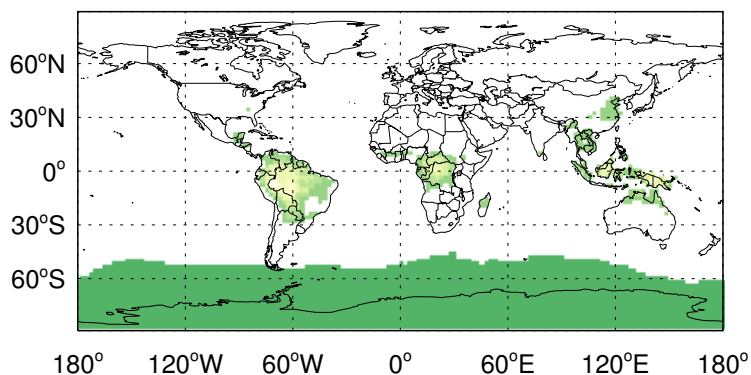
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr



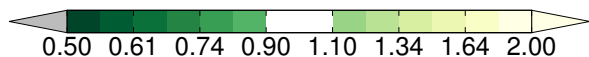
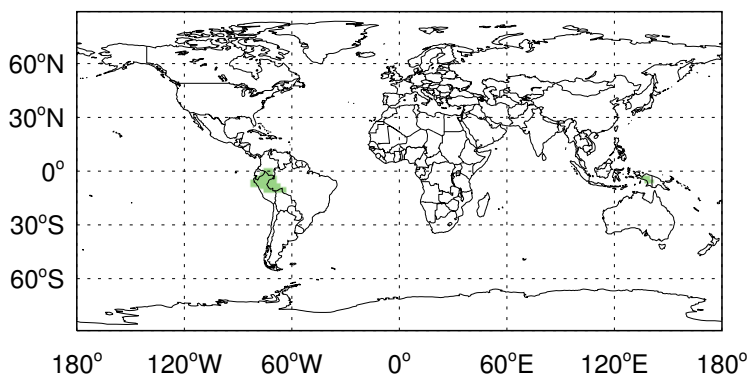
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr

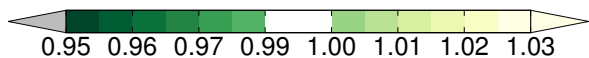
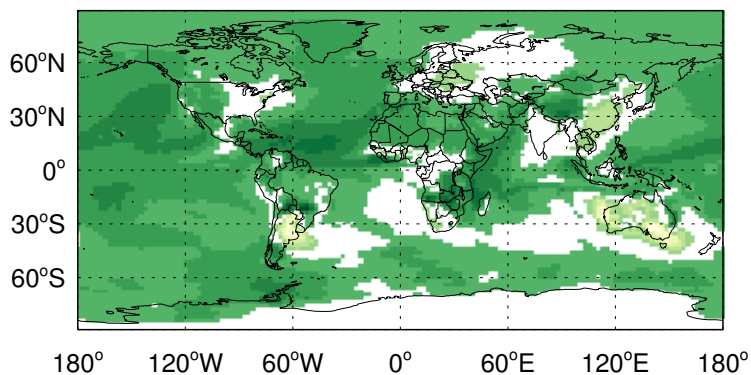


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Apr

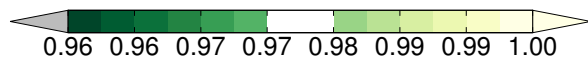
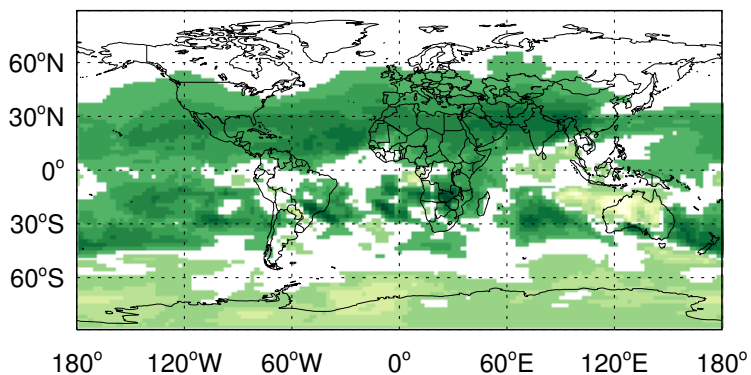


# GEOS-Chem Ratio Maps at surface and 500 hPa

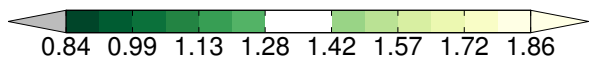
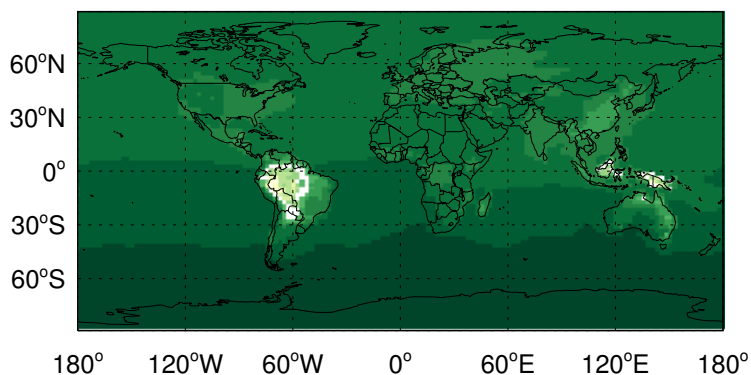
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan



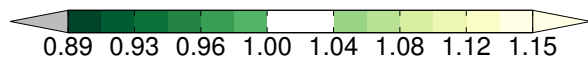
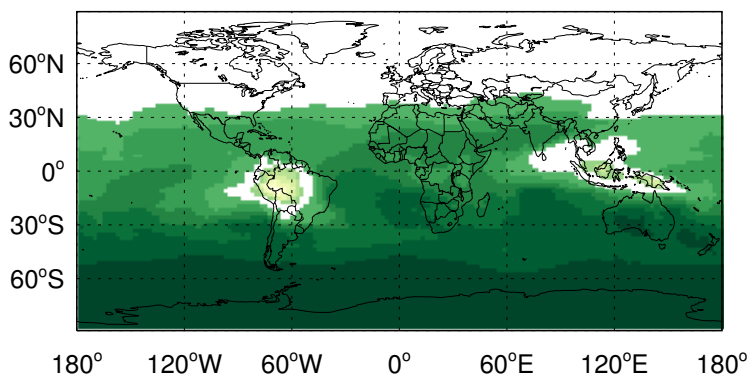
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan

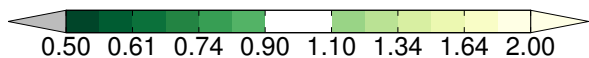
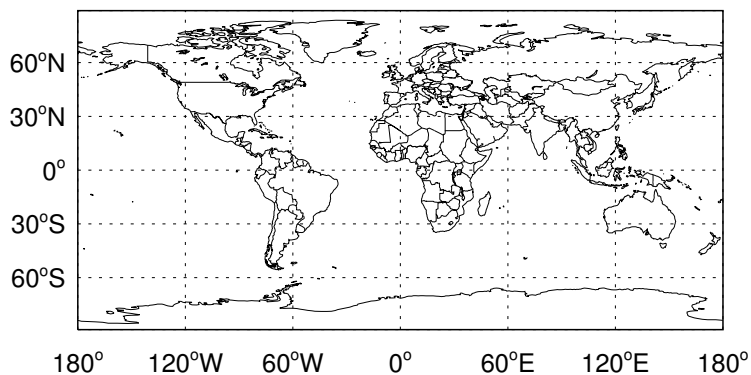


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan

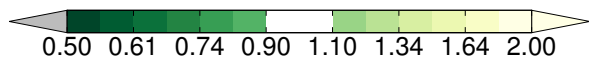
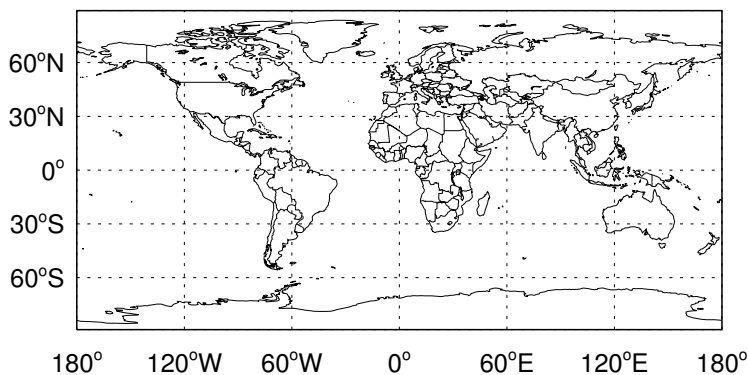


# GEOS-Chem Ratio Maps at surface and 500 hPa

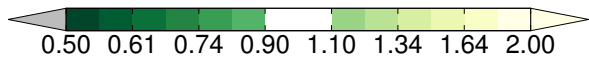
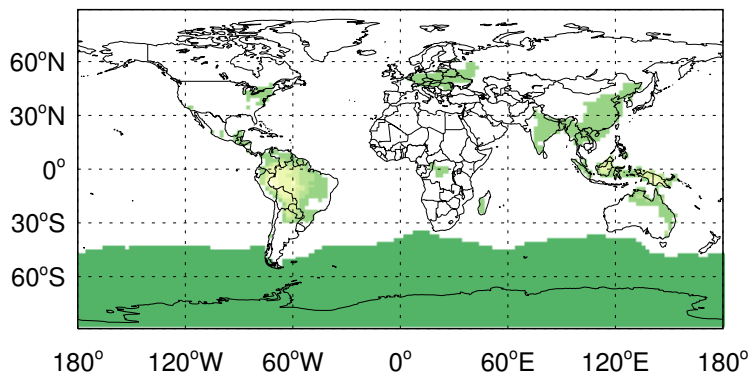
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan



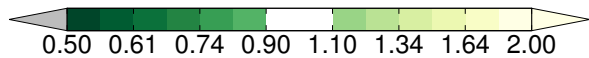
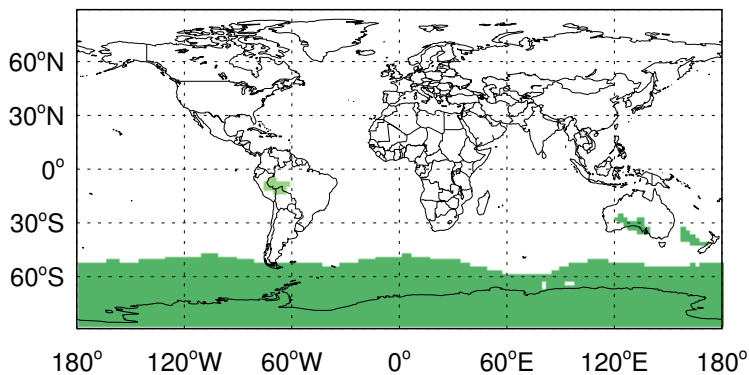
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan

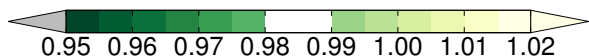
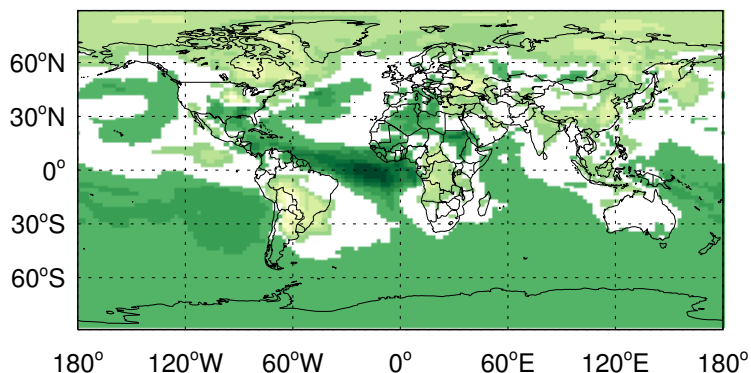


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jan

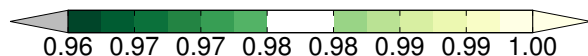
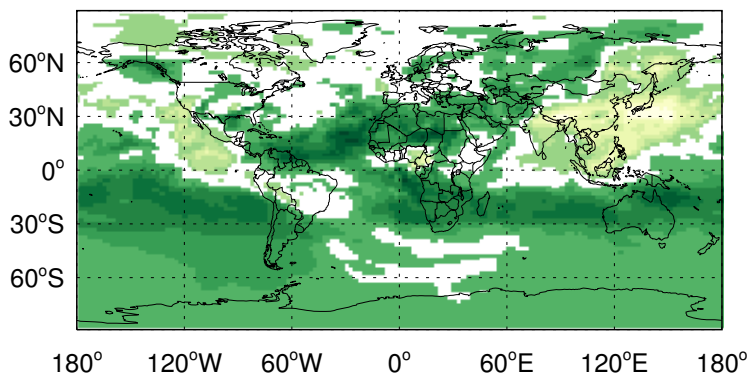


# GEOS-Chem Ratio Maps at surface and 500 hPa

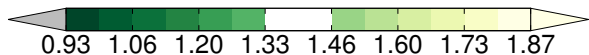
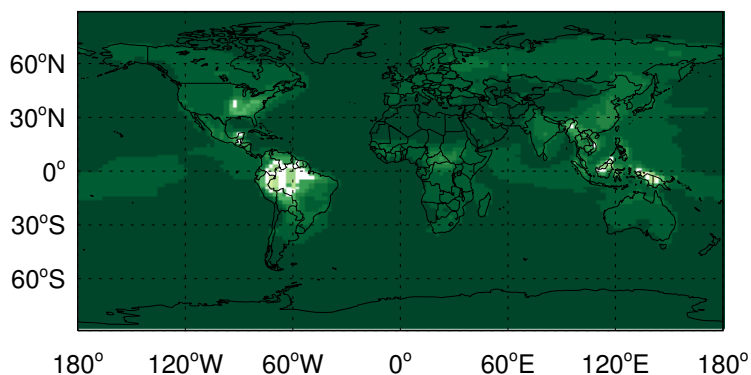
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul



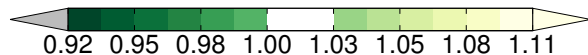
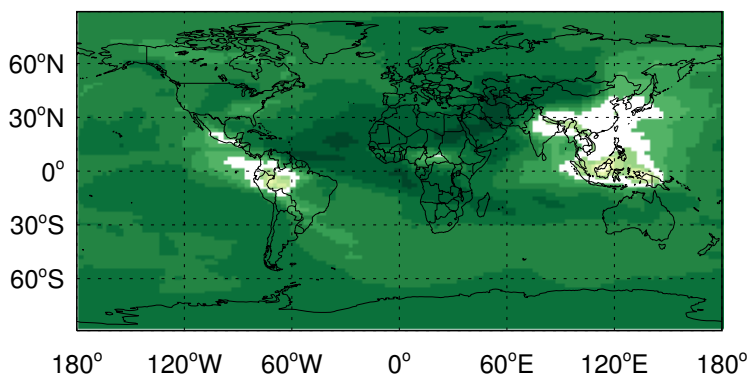
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul

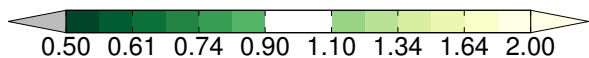
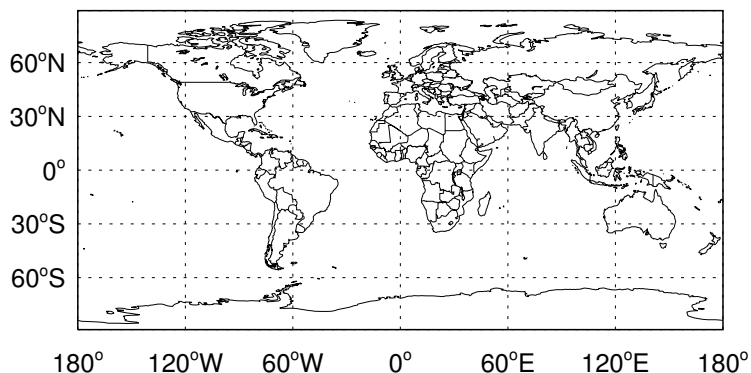


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul

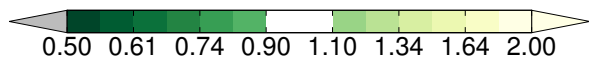
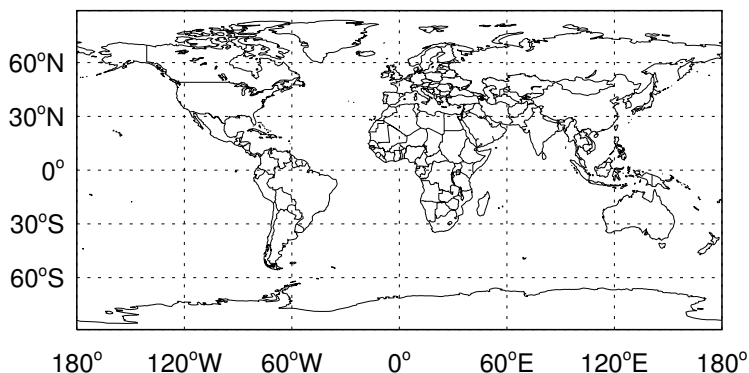


# GEOS-Chem Ratio Maps at surface and 500 hPa

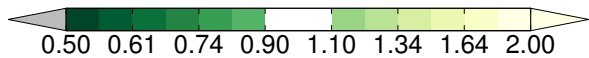
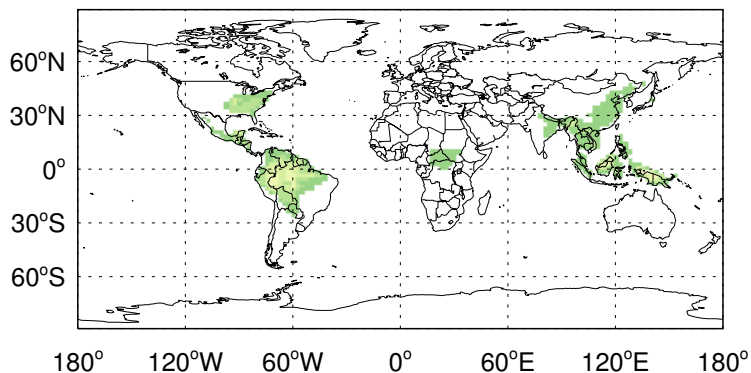
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul



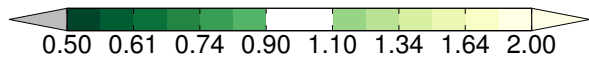
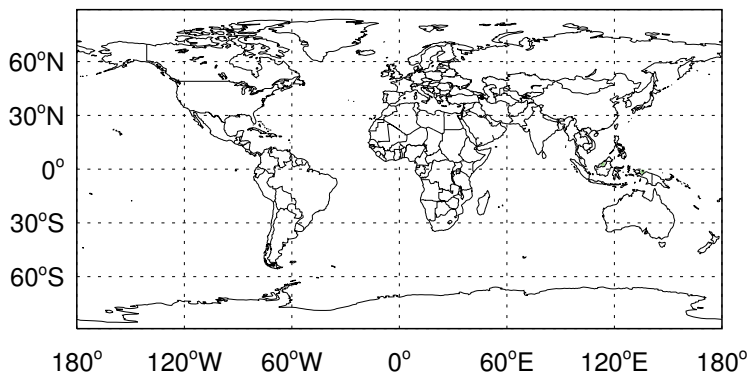
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul

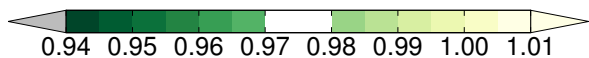
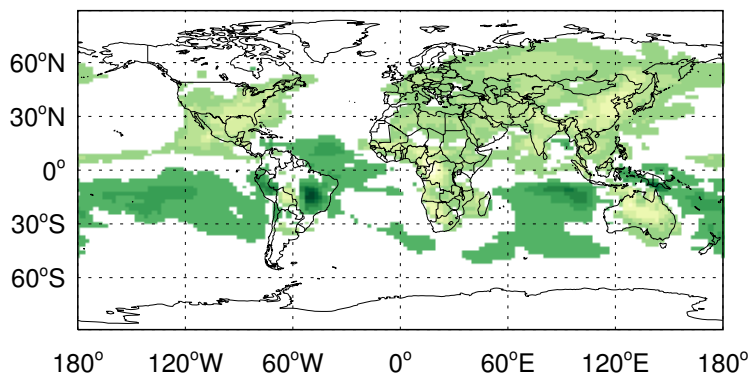


old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Jul

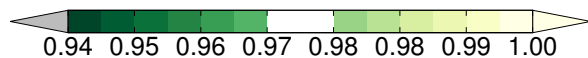
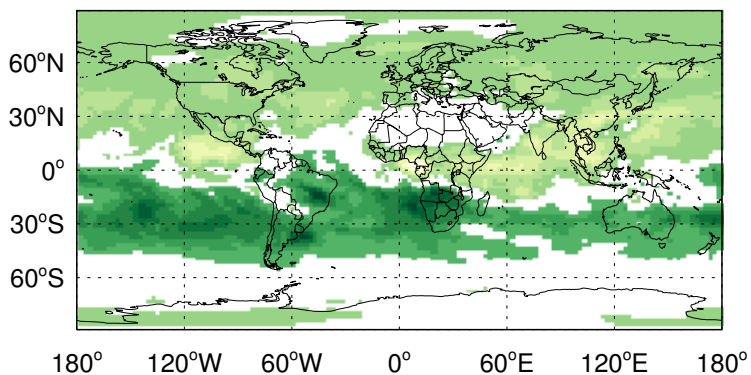


# GEOS-Chem Ratio Maps at surface and 500 hPa

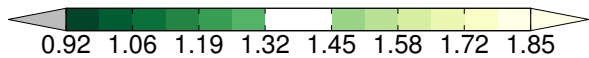
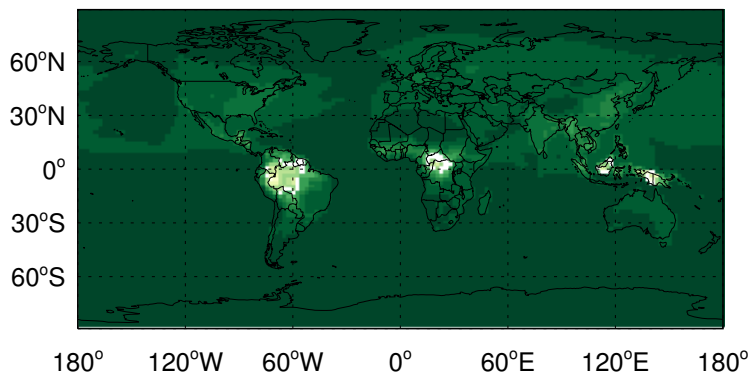
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



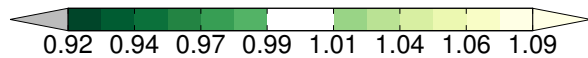
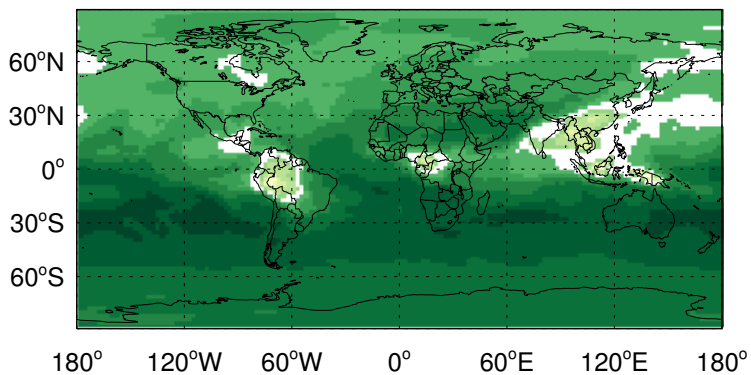
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



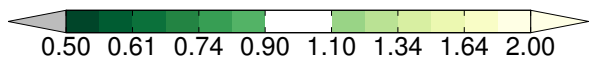
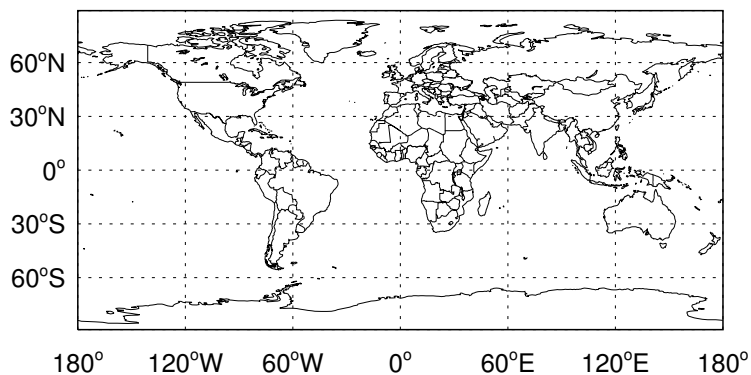
old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



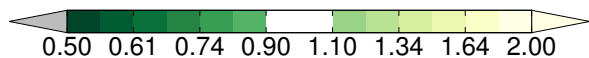
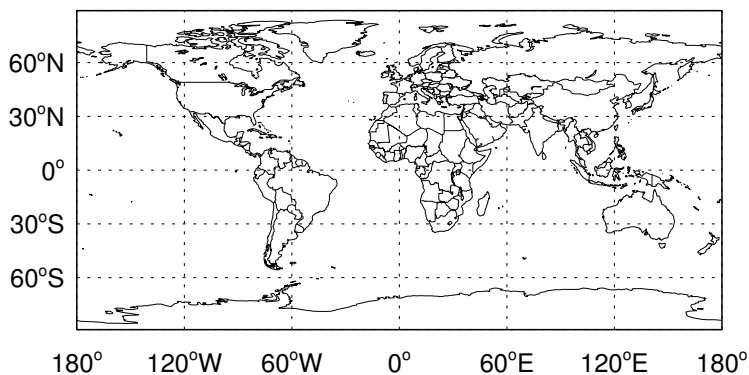


# GEOS-Chem Ratio Maps at surface and 500 hPa

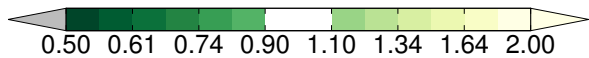
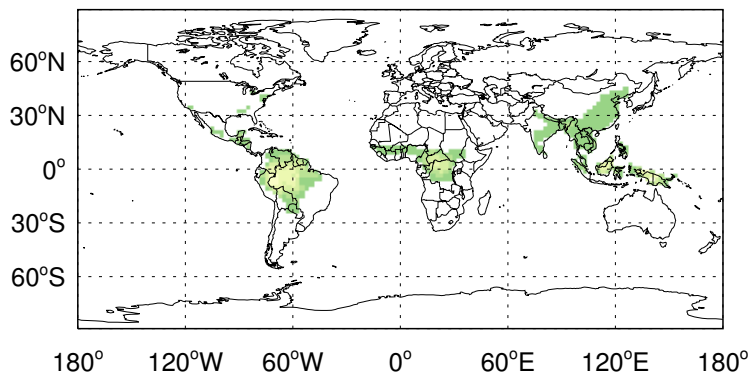
new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



new\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct



old\_tagCO - full\_chemistry  
CO - Ratio @ Surface for Oct

