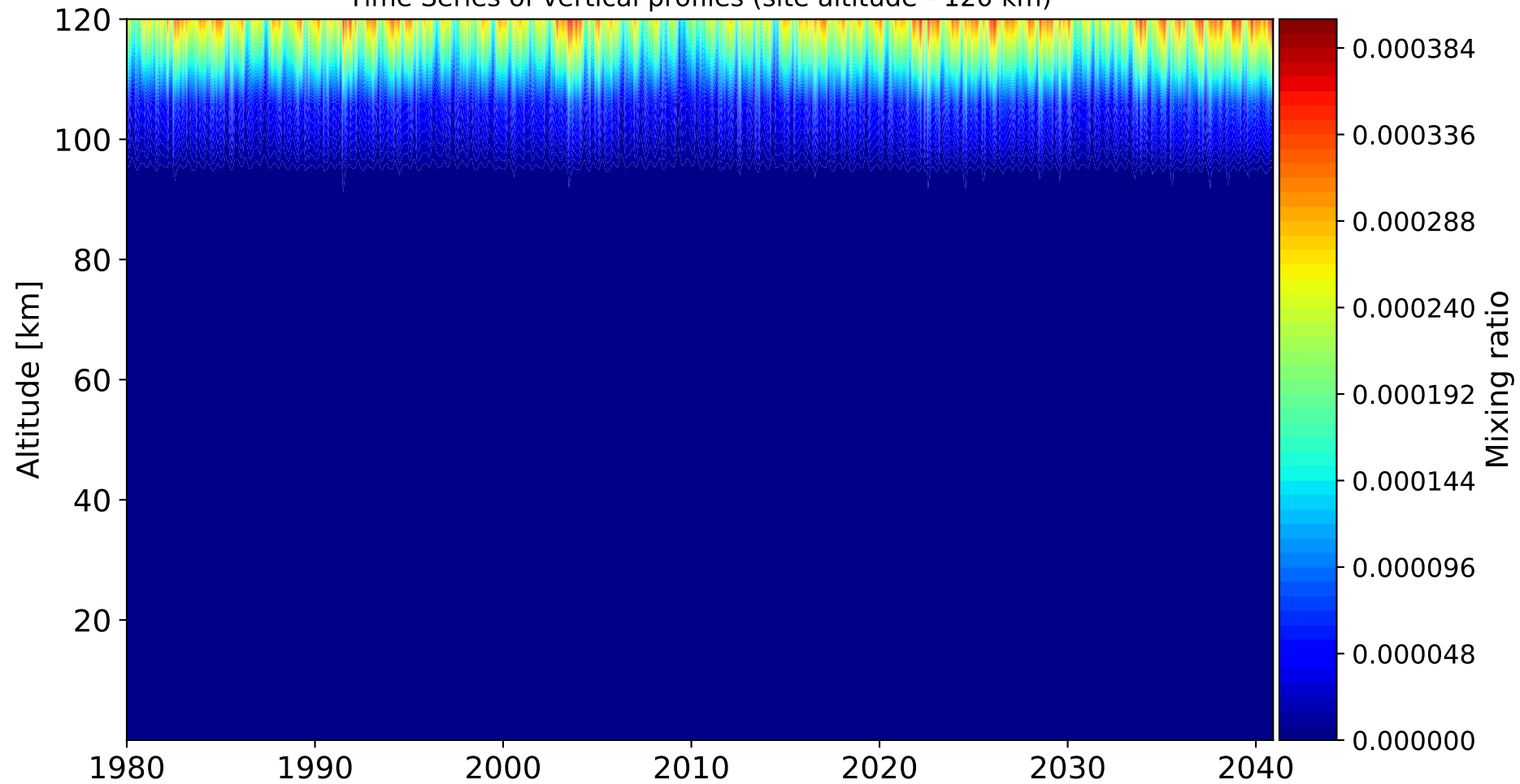
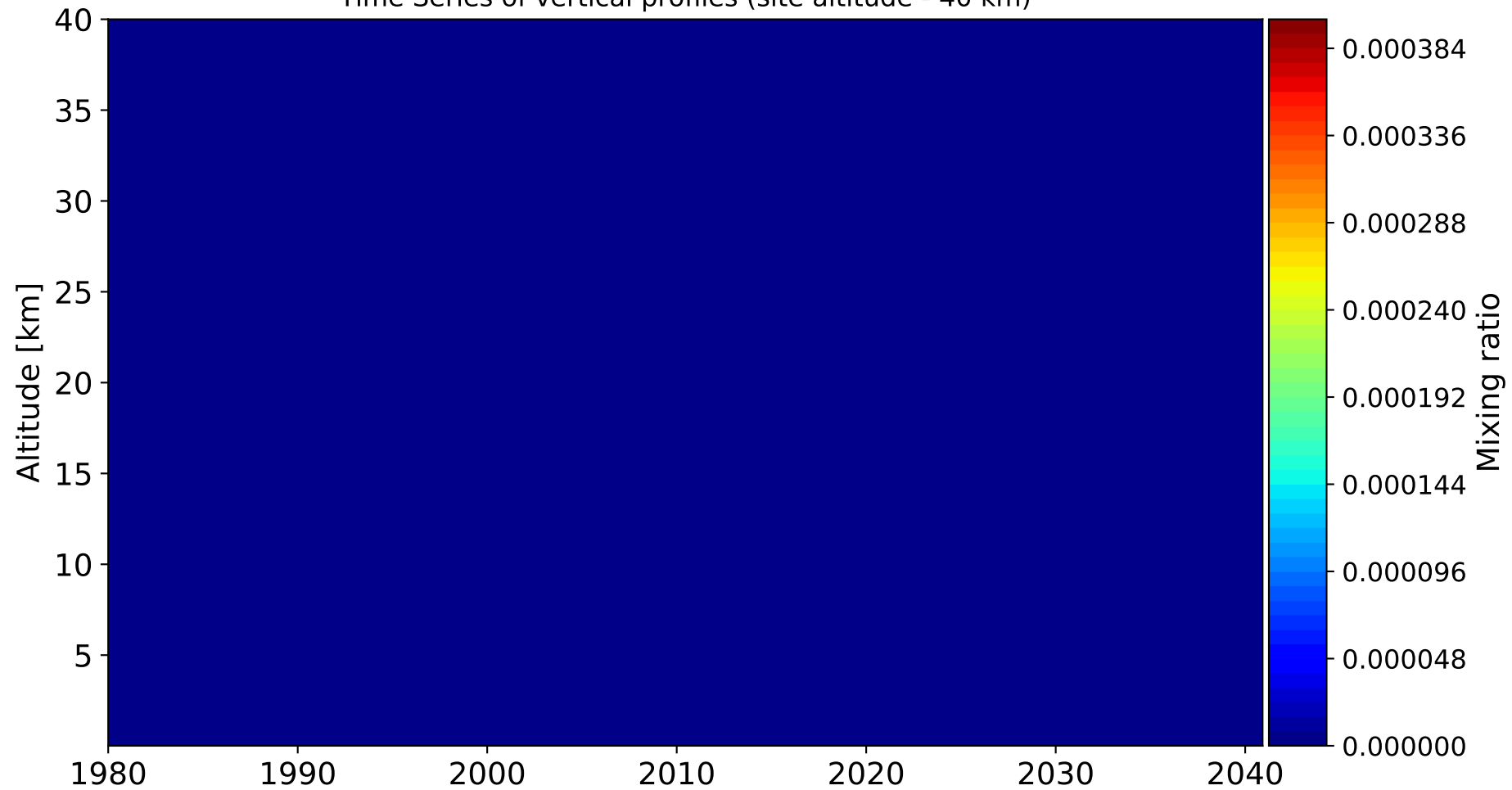


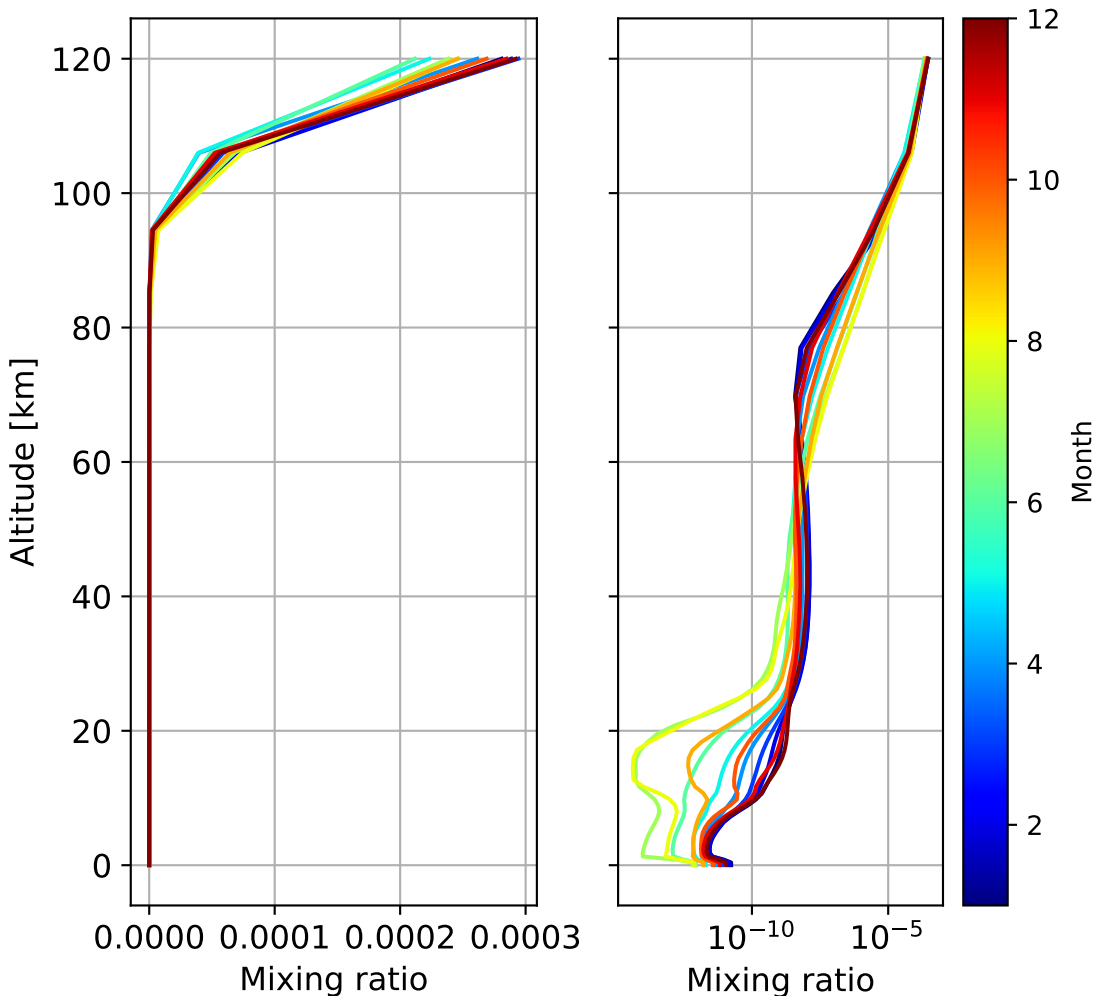
Time Series of vertical profiles (site altitude - 120 km)



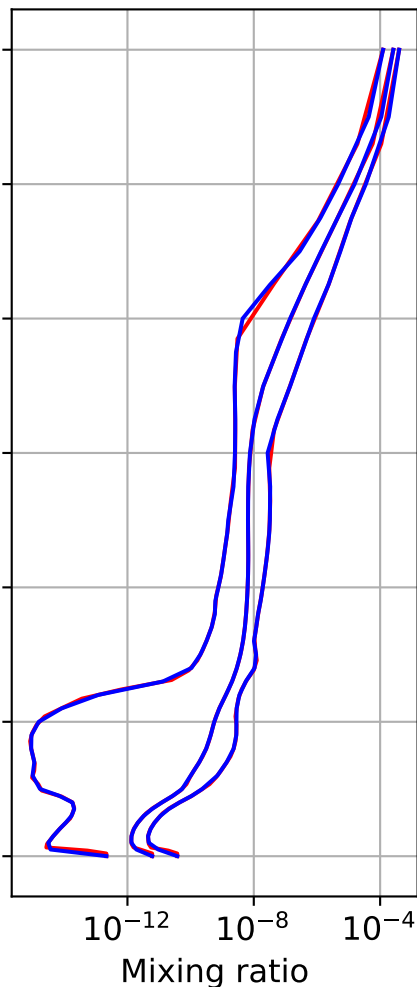
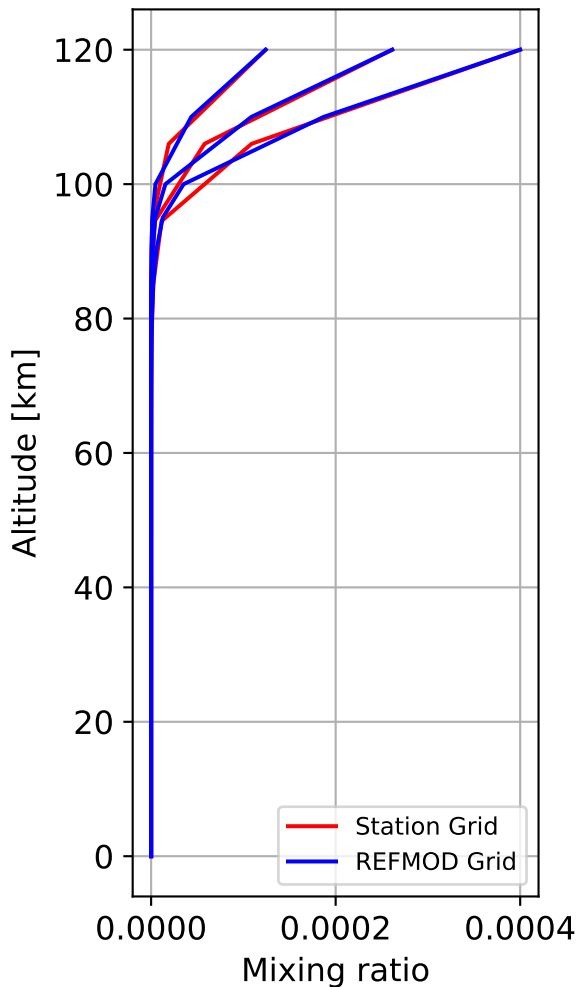
Time Series of vertical profiles (site altitude - 40 km)



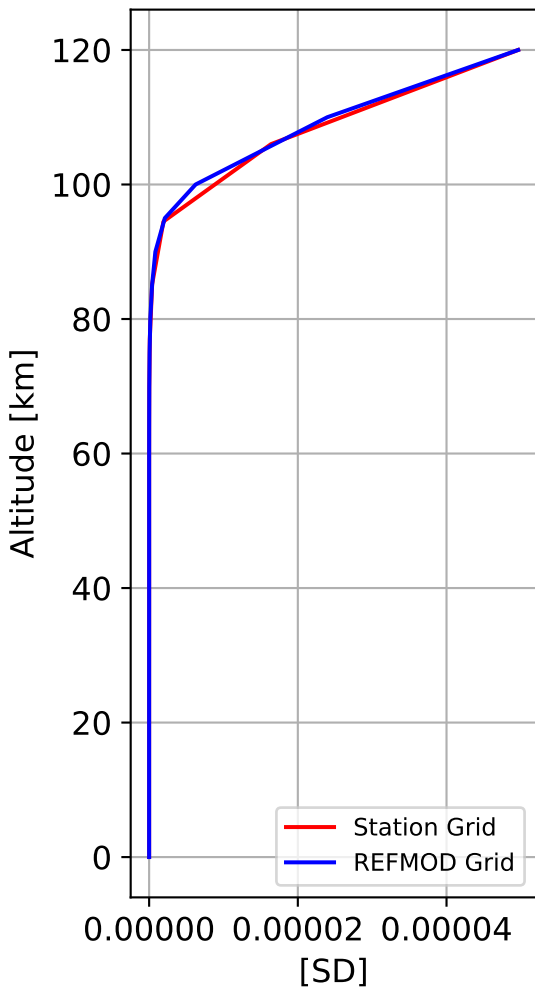
Monthly mean WACCM profile (interpolated to station grid)  
Syowa\_Station, -69.0N, 39.59E, 0.01kmasl



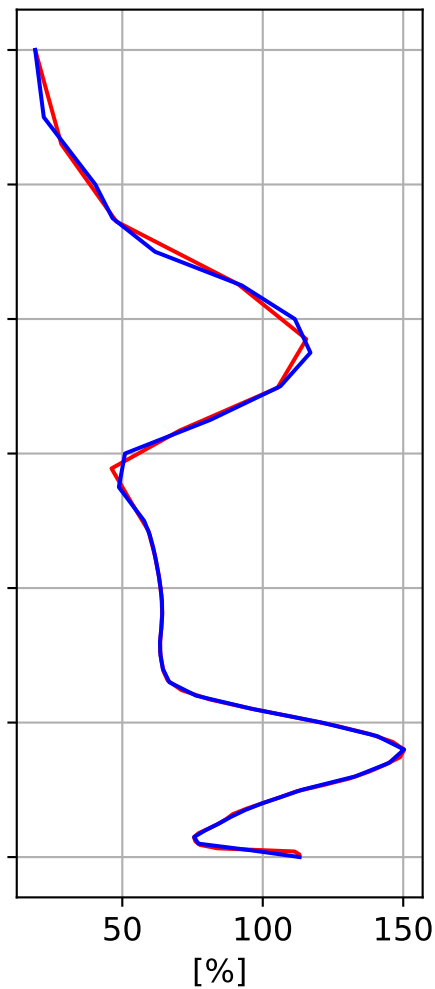
Min, Max, Mean of 732 profiles  
Syowa\_Station, -69.0N, 39.59E, 0.01kmasl



### Std. Deviation



### Percent Deviation



Level covariance matrix

1e-9

Altitude [km]

120  
100  
80  
60  
40  
20

20 40 60 80 100 120

Altitude [km]

Mixing ratio[ $\sim 2$ ]

2.4  
2.1  
1.8  
1.5  
1.2  
0.9  
0.6  
0.3  
0.0

