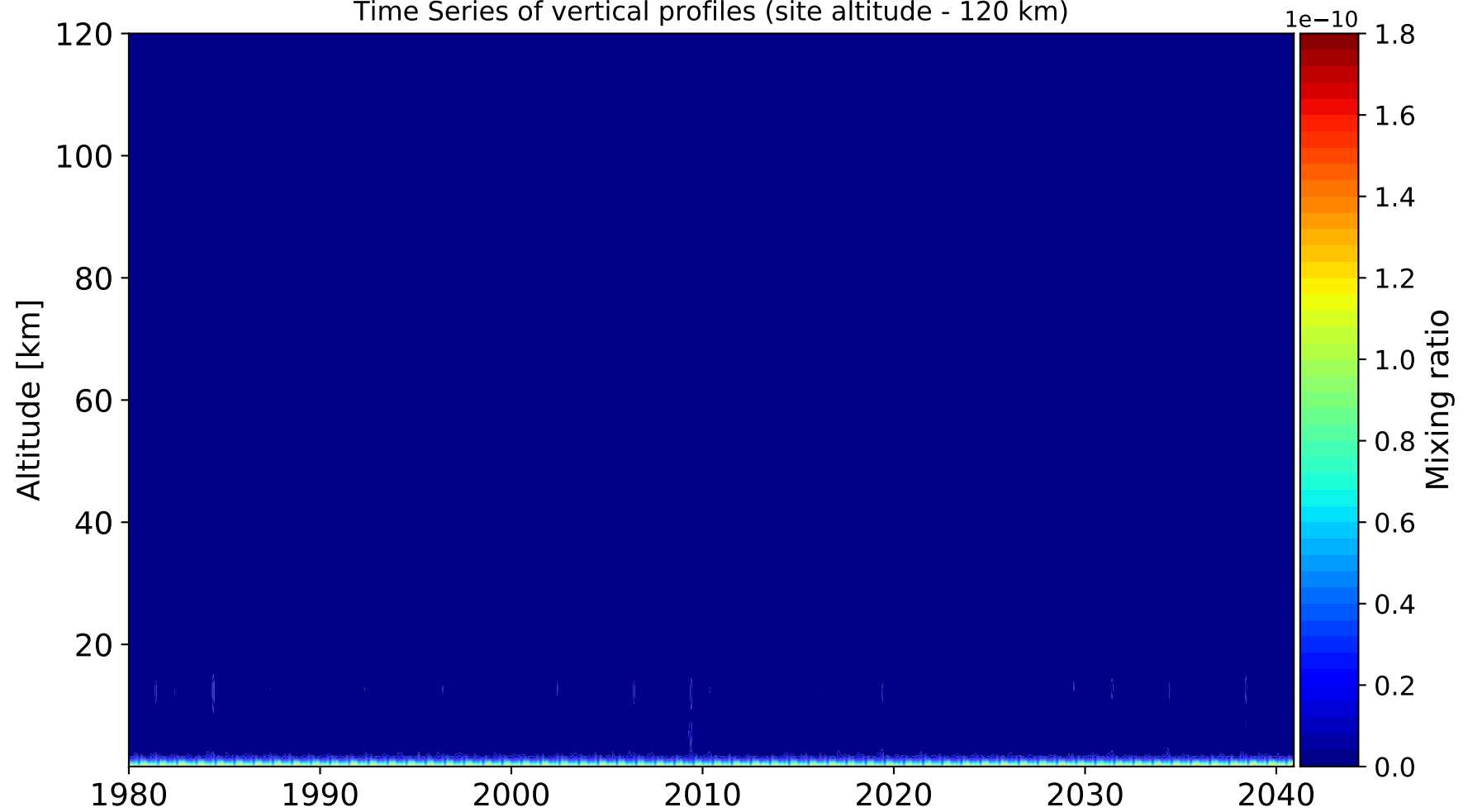
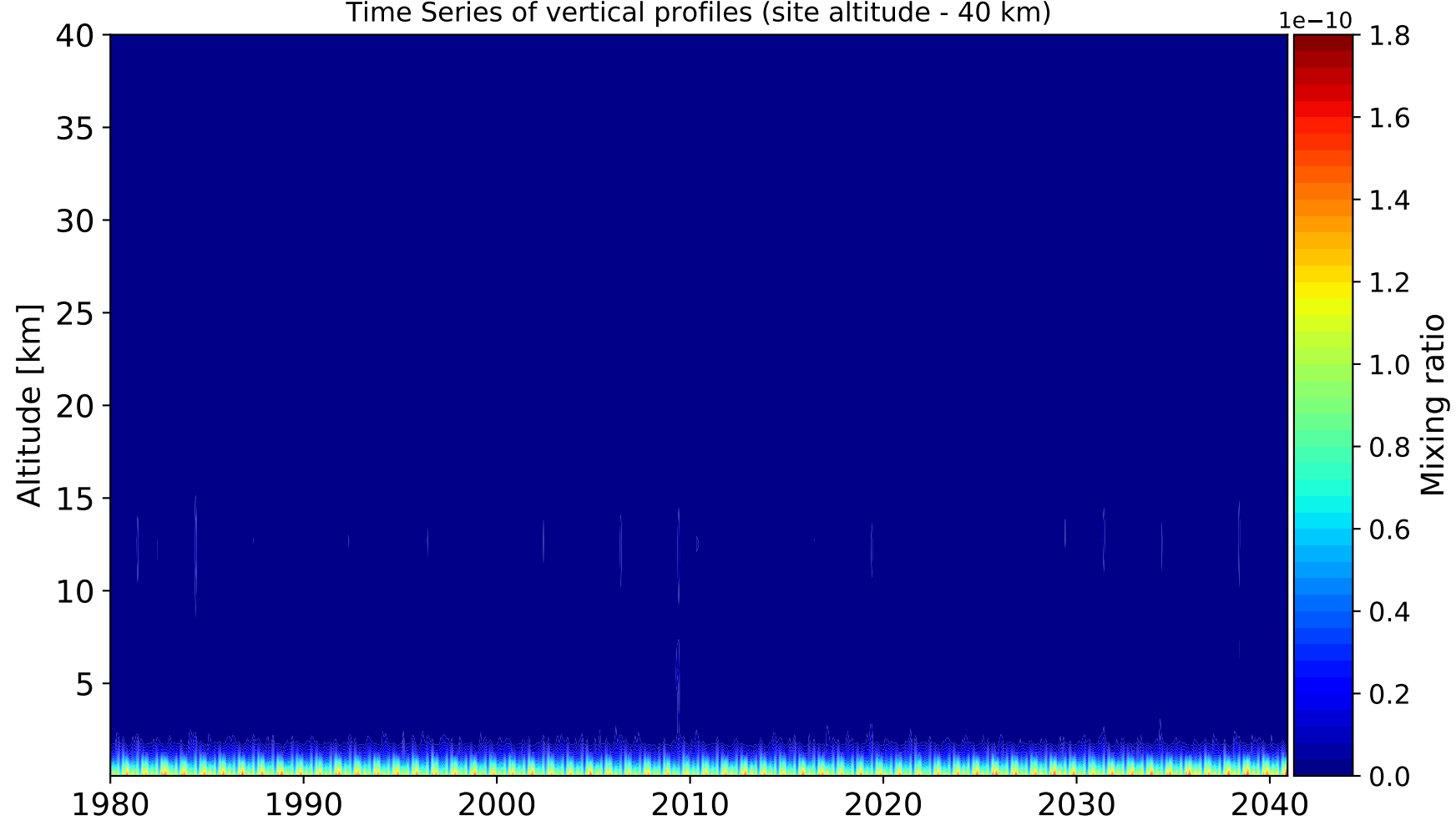


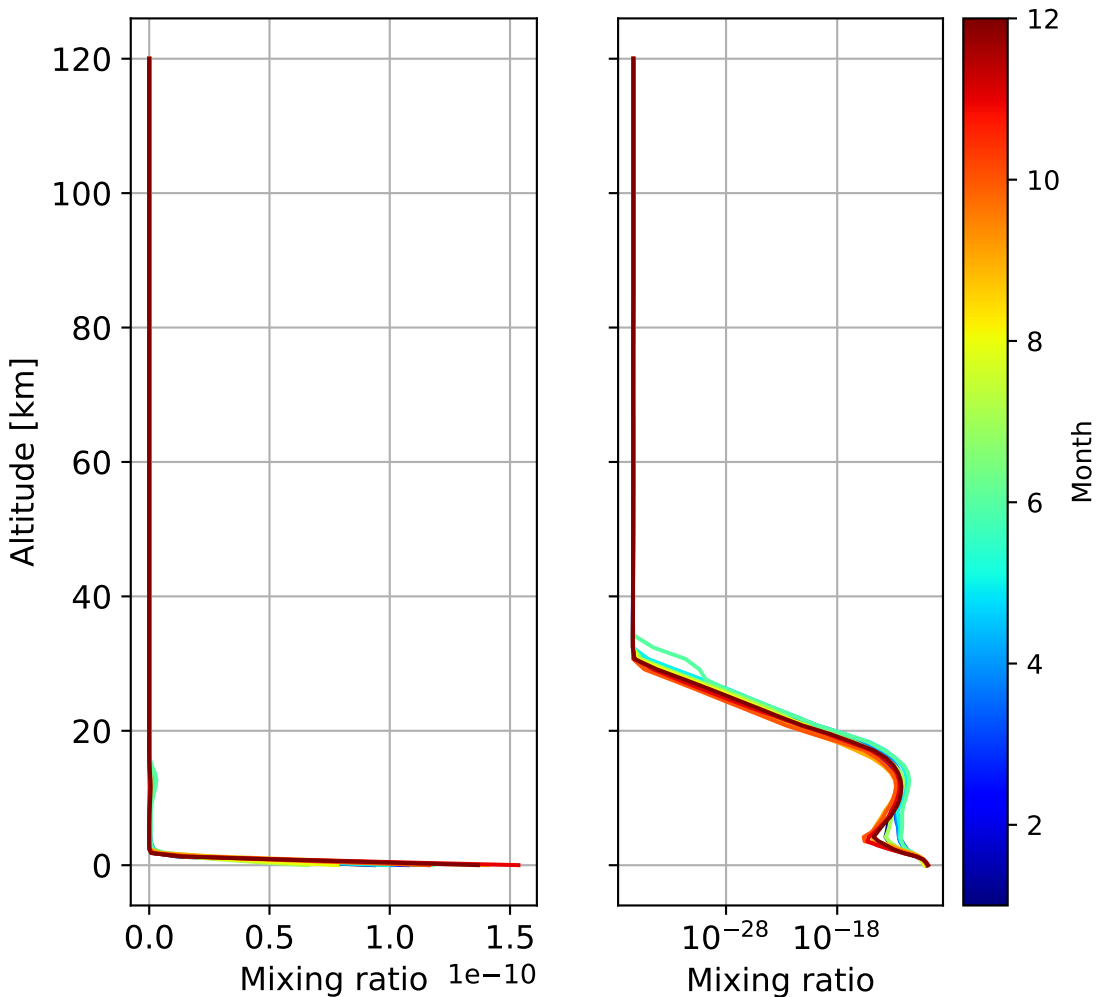
Time Series of vertical profiles (site altitude - 120 km)



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

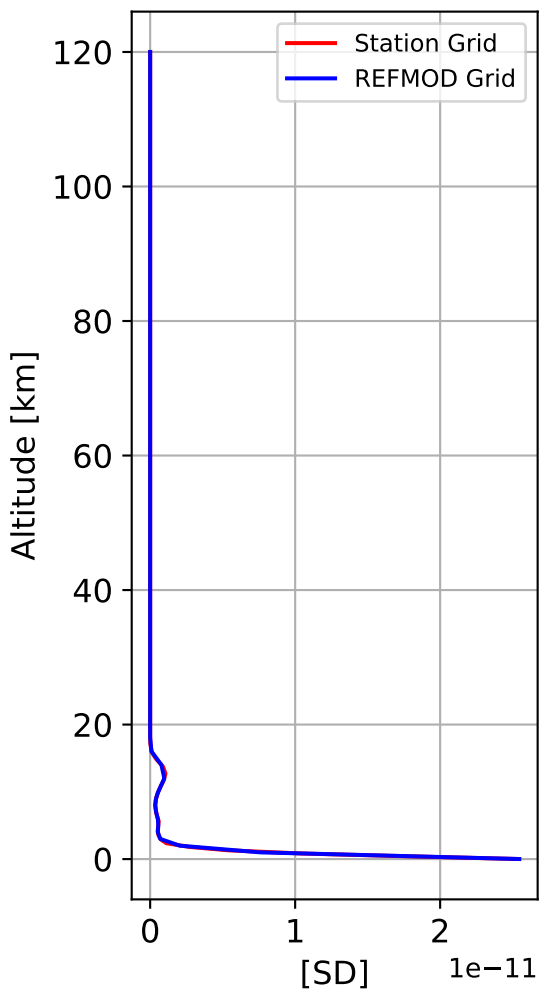


Monthly mean WACCM profile (interpolated to station grid)  
Ascension, -7.9165N, 345.6675E, 0.01kmasl

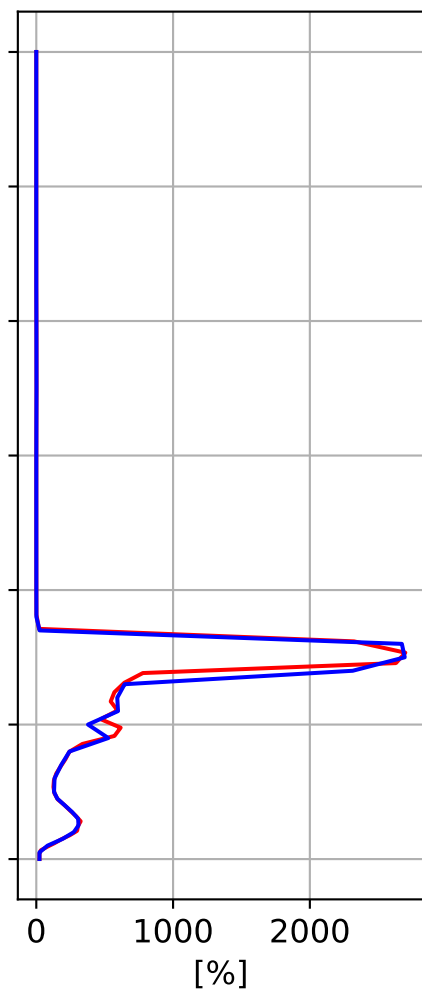




### Std. Deviation



### Percent Deviation



Level covariance matrix

 $1e-22$ 

Altitude [km]

120  
100  
80  
60  
40  
20

20

Altitude [km]

40

60

80

100

120

6.00

5.25

4.50

3.75

3.00

2.25

1.50

0.75

0.00

Mixing ratio[ $\sim 2$ ]