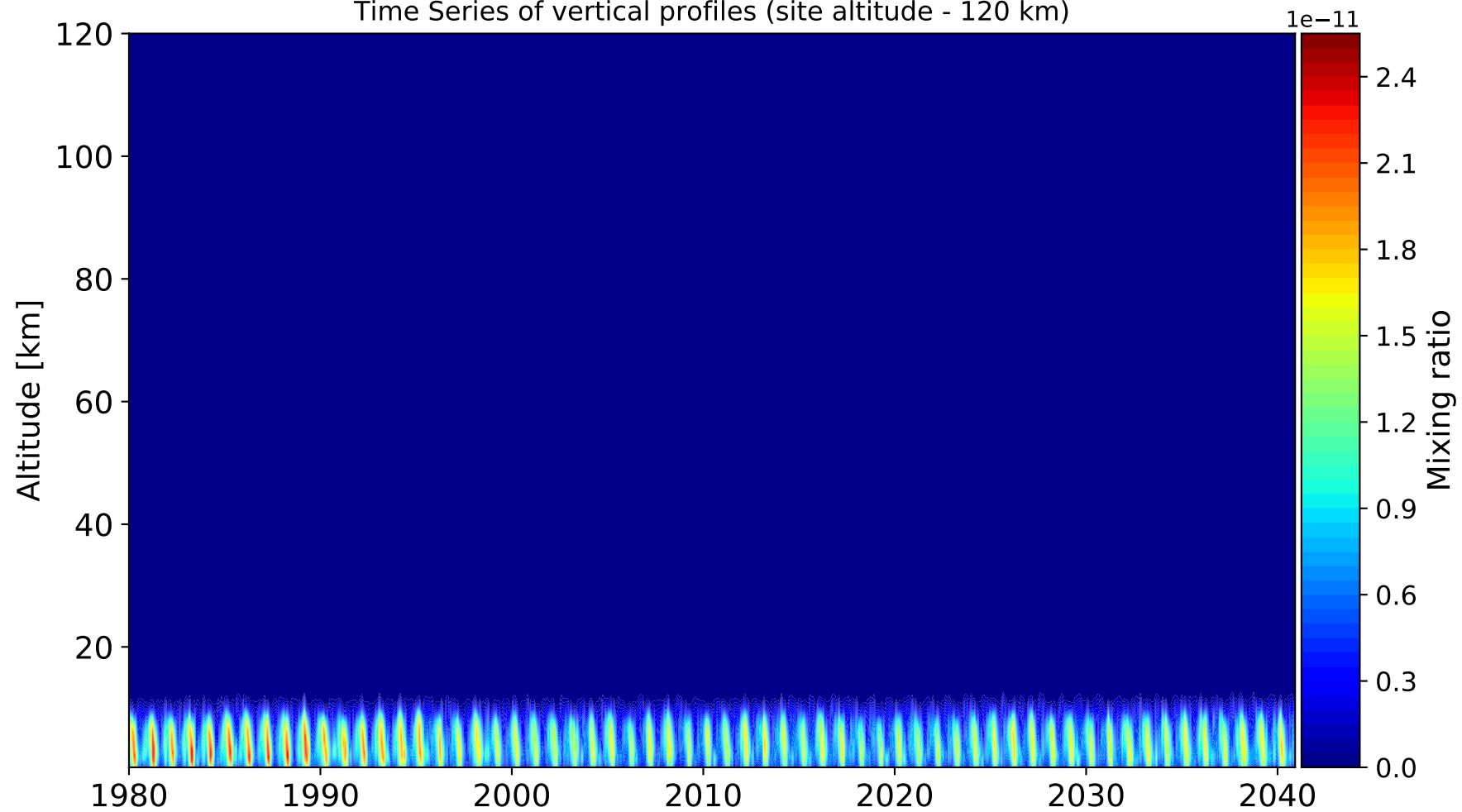
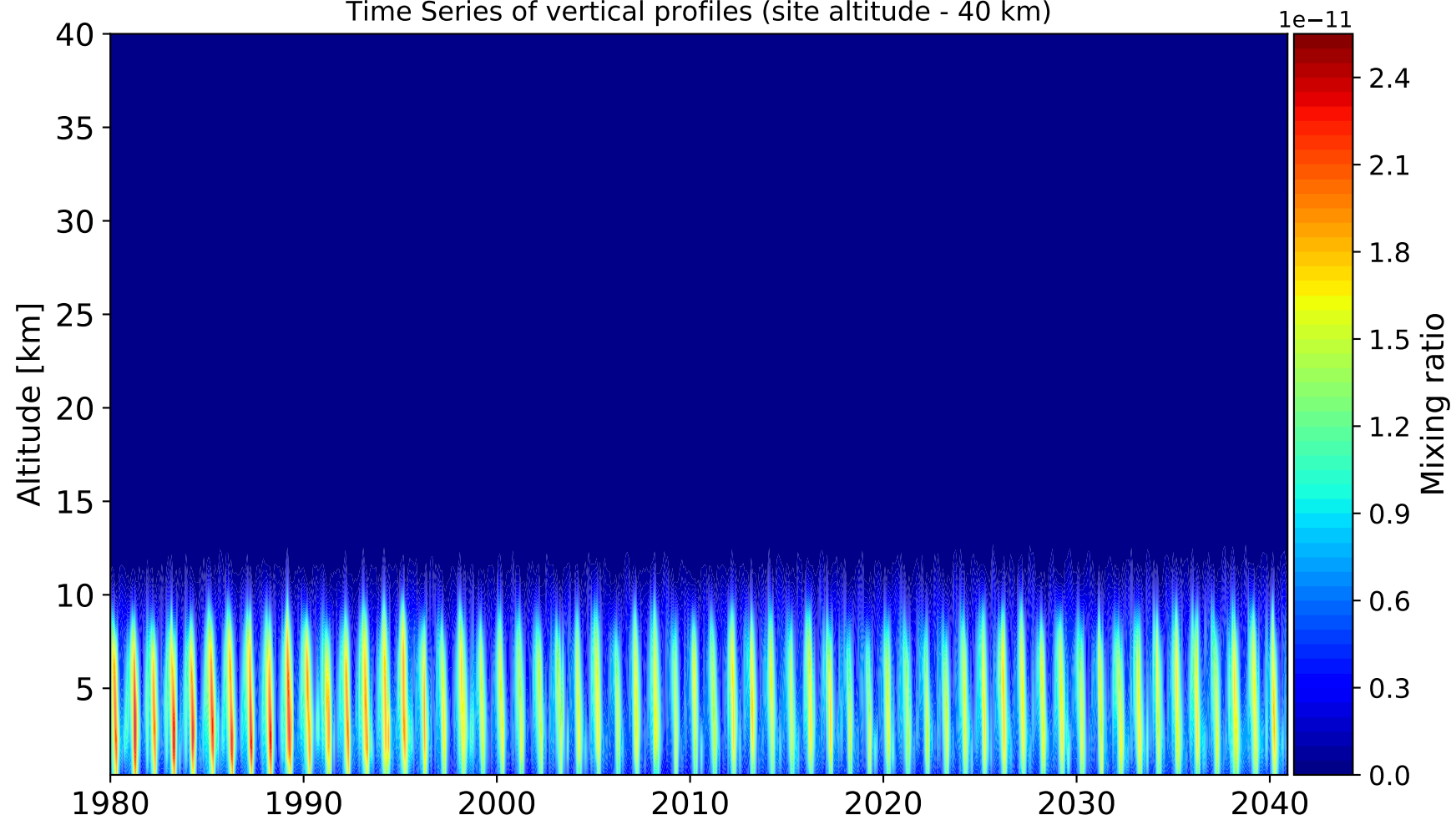


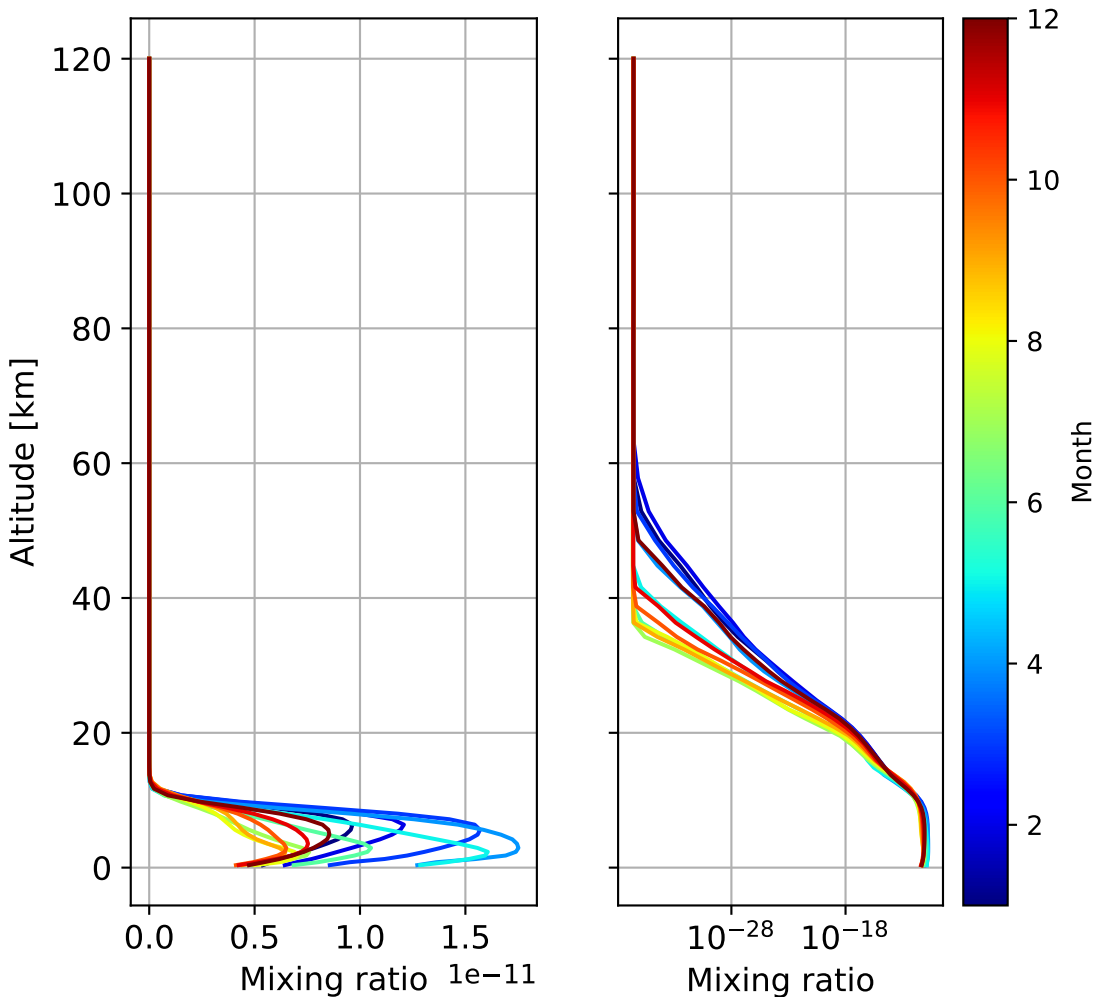
Time Series of vertical profiles (site altitude - 120 km)



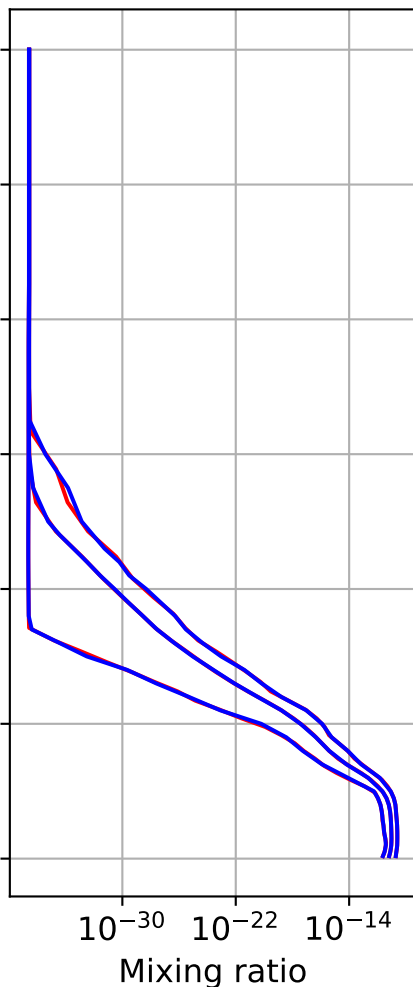
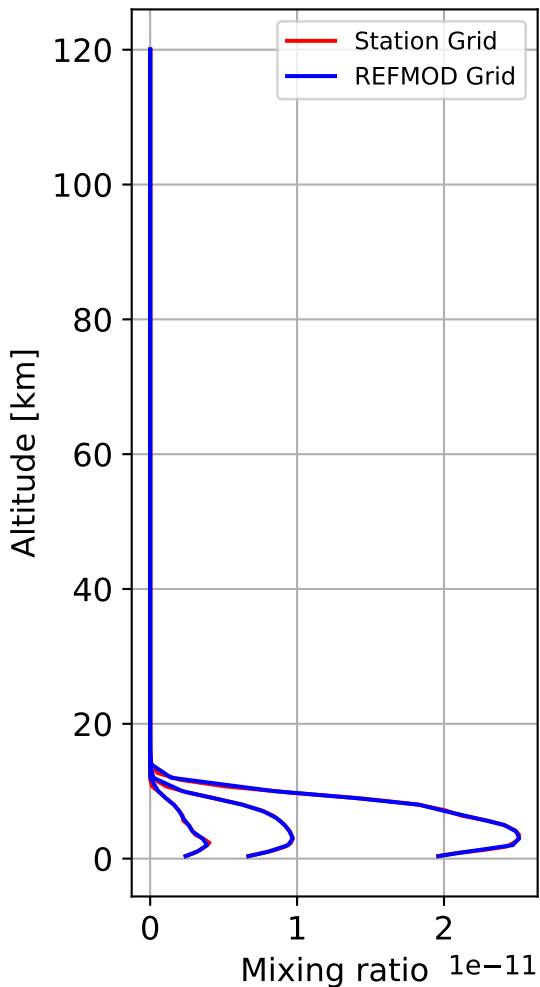
Time Series of vertical profiles (site altitude - 40 km)



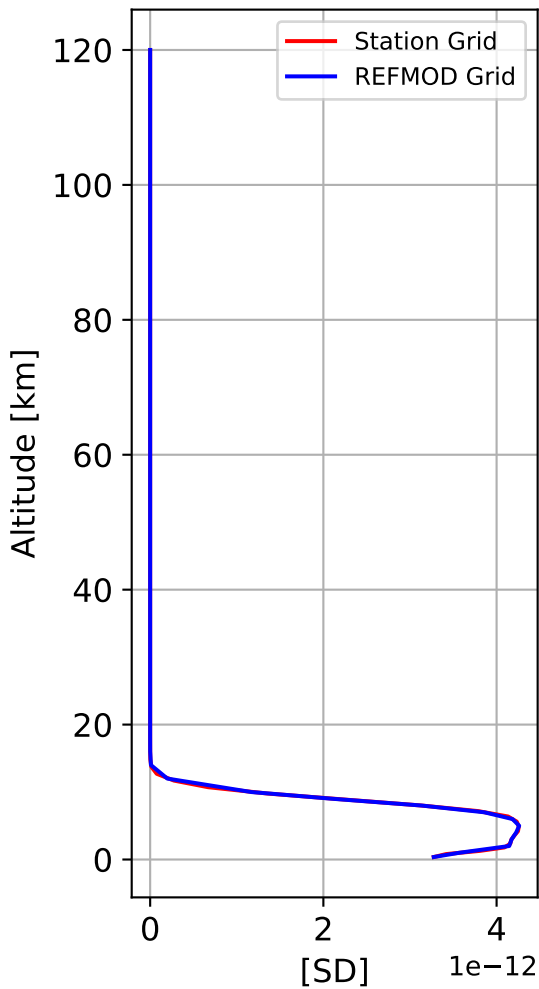
Monthly mean WACCM profile (interpolated to station grid)  
Fort\_McMurray, 56.65N, 248.78E, 0.369kmasl



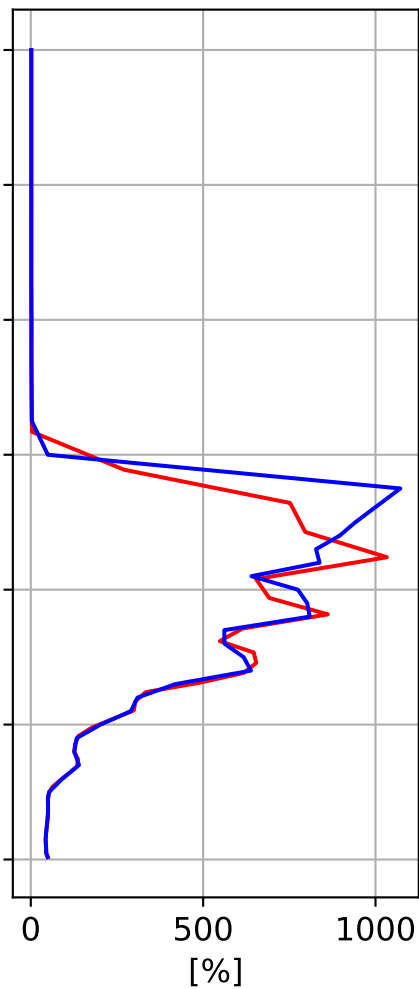
Min, Max, Mean of 732 profiles  
Fort\_McMurray, 56.65N, 248.78E, 0.369kmasl



### Std. Deviation



### Percent Deviation



# Level covariance matrix

1e-23

Altitude [km]

120

100

80

60

40

20

20

40

60

80

100

120

Altitude [km]

Mixing ratio[<sup>2</sup>]

1.8

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

0.0

