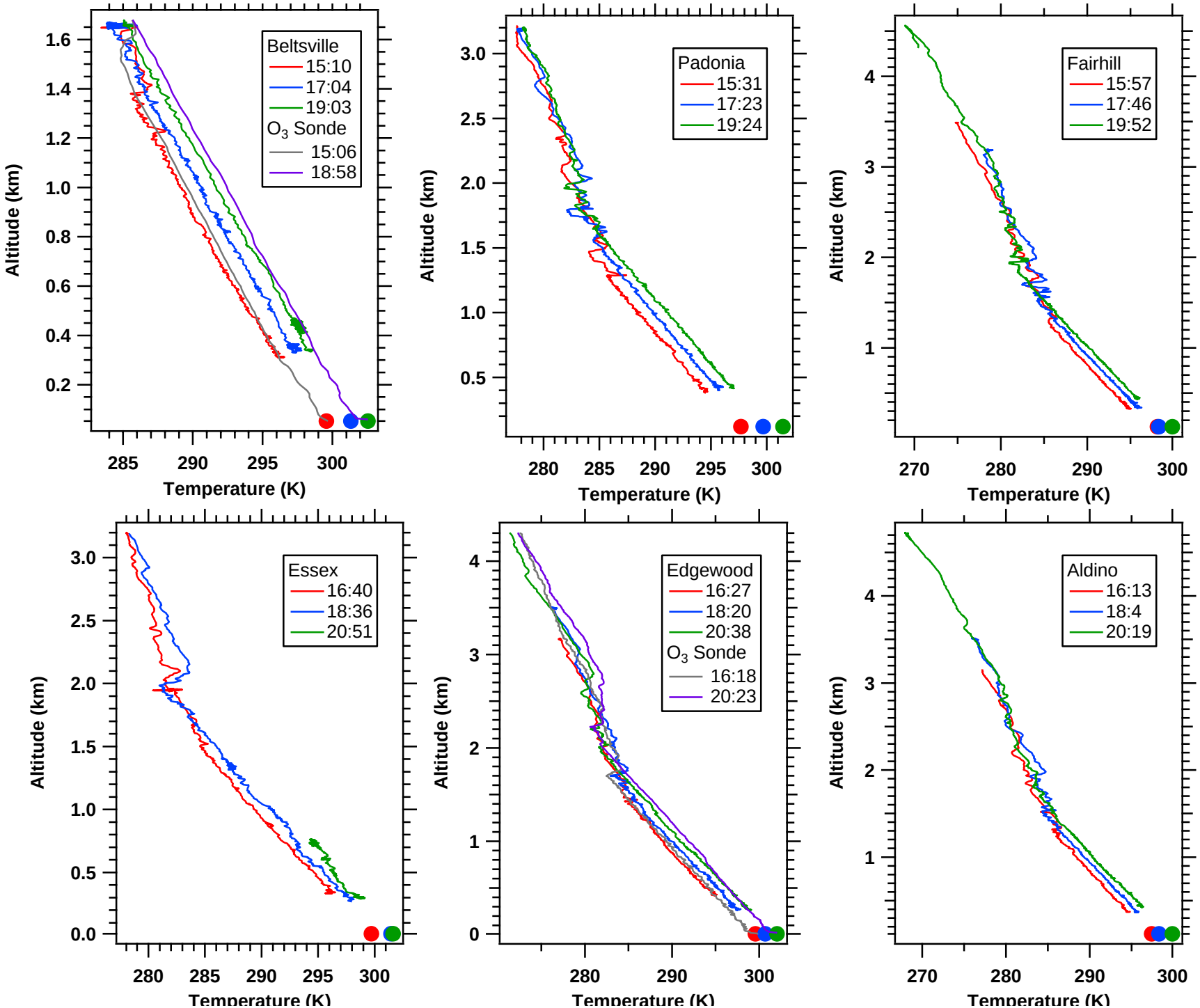
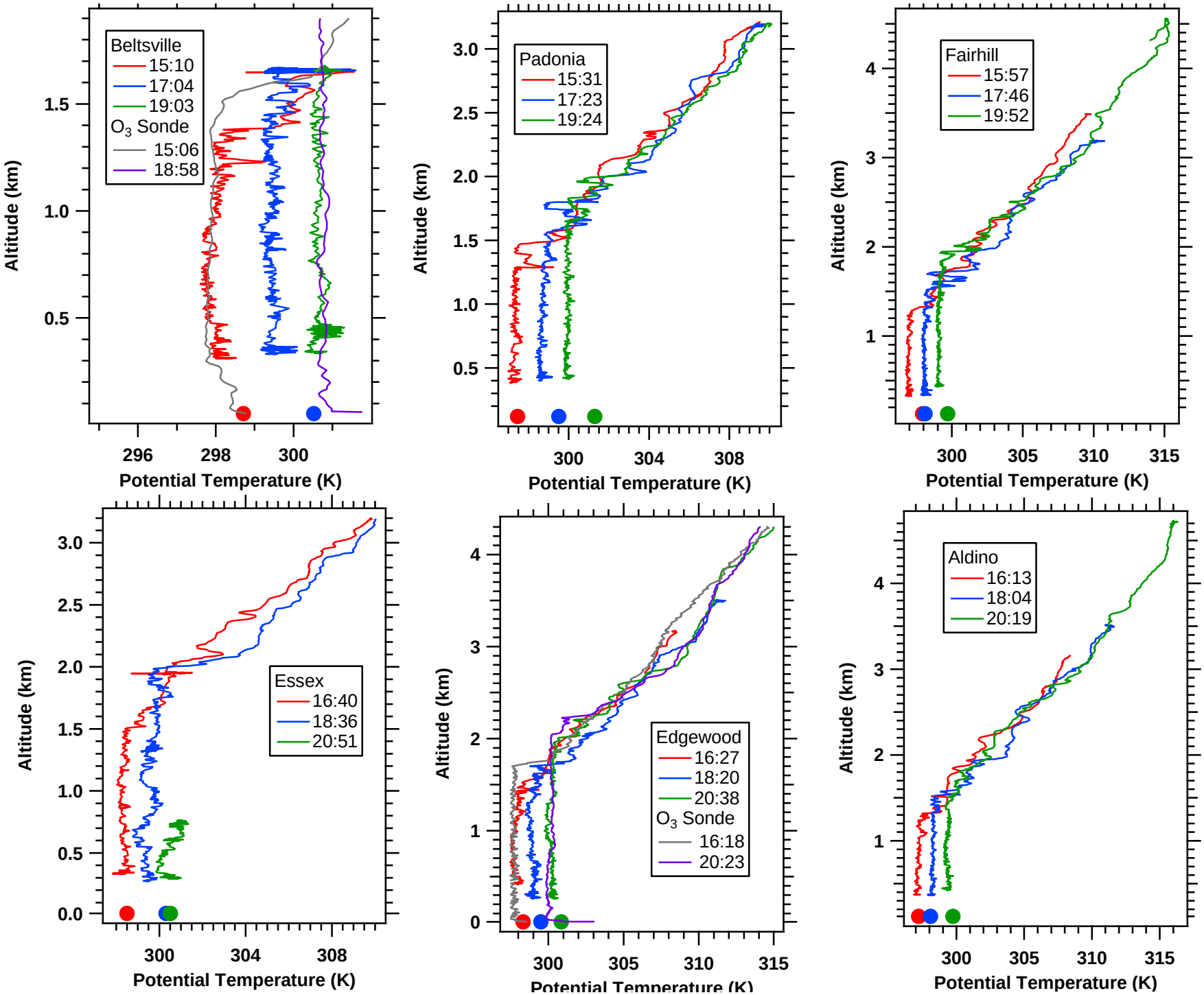
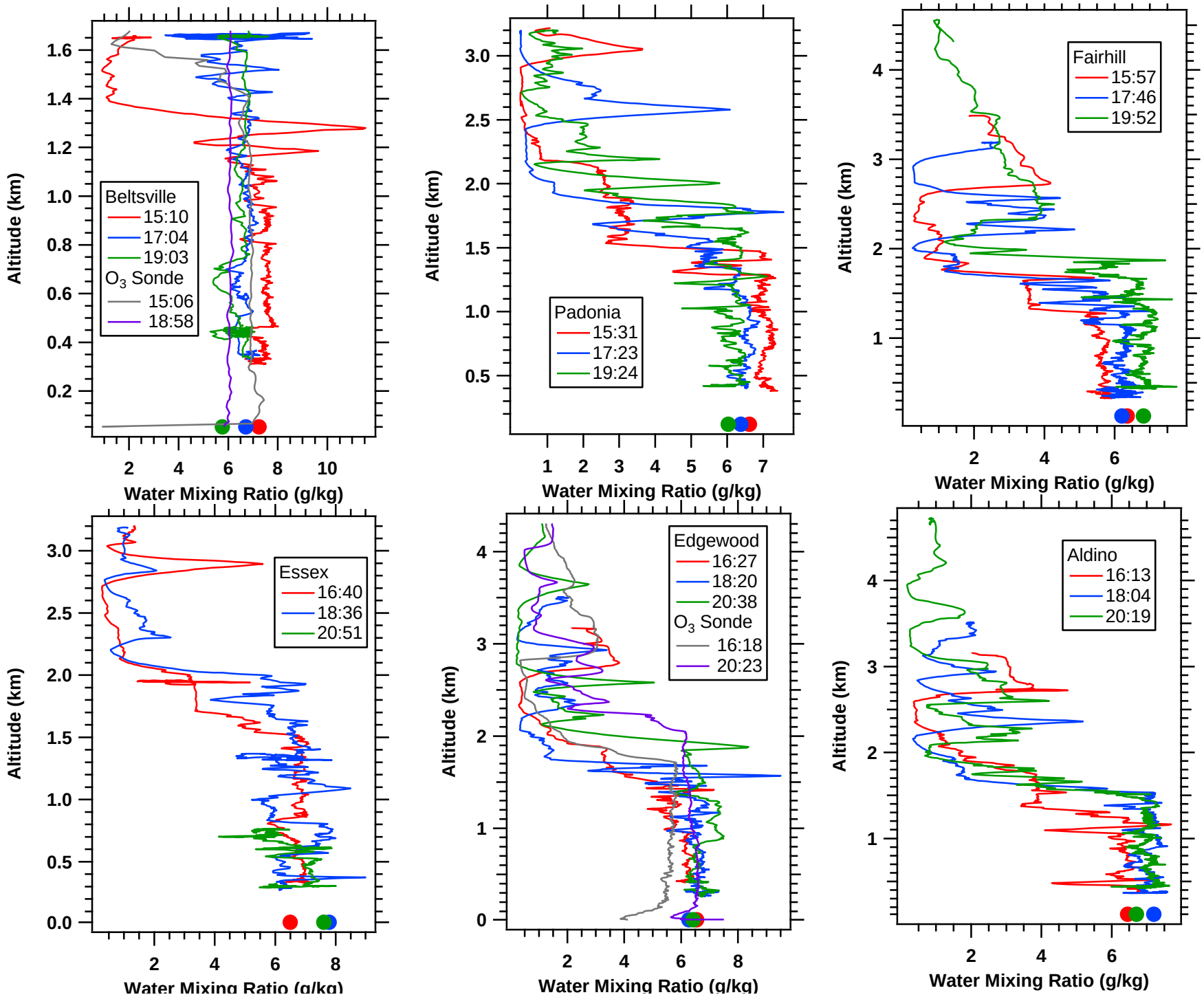
Preliminary Profile data for 1 July


Beltsville
15:10
17:04
19:03
O3 Sonde
15:06
18:58
Altitude (km)
Temperature (K)
Padonia
15:31
17:23
19:24
Altitude (km)
Temperature (K)
Fairhill
15:57
17:46
19:52
Altitude (km)
Temperature (K)
Essex
16:40
18:36
20:51
Altitude (km)
Temperature (K)
Edgewood
16:27
18:20
20:38
O3 Sonde
16:18
20:23
Altitude (km)
Temperature (K)
Aldino
16:13
18:4
20:19
Altitude (km)
Temperature (K)


Beltsville
15:10
17:04
19:03
O3 Sonde
15:06
18:58
Altitude (km)
Potential Temperature (K)
Padonia
15:31
17:23
19:24
Altitude (km)
Potential Temperature (K)
Fairhill
15:57
17:46
19:52
Altitude (km)
Potential Temperature (K)
Essex
16:40
18:36
20:51
Altitude (km)
Potential Temperature (K)
Edgewood
16:27
18:20
20:38
O3 Sonde
16:18
20:23
Altitude (km)
Potential Temperature (K)
Aldino
16:13
18:04
20:19
Altitude (km)
Potential Temperature (K)


Beltsville
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O3 Sonde
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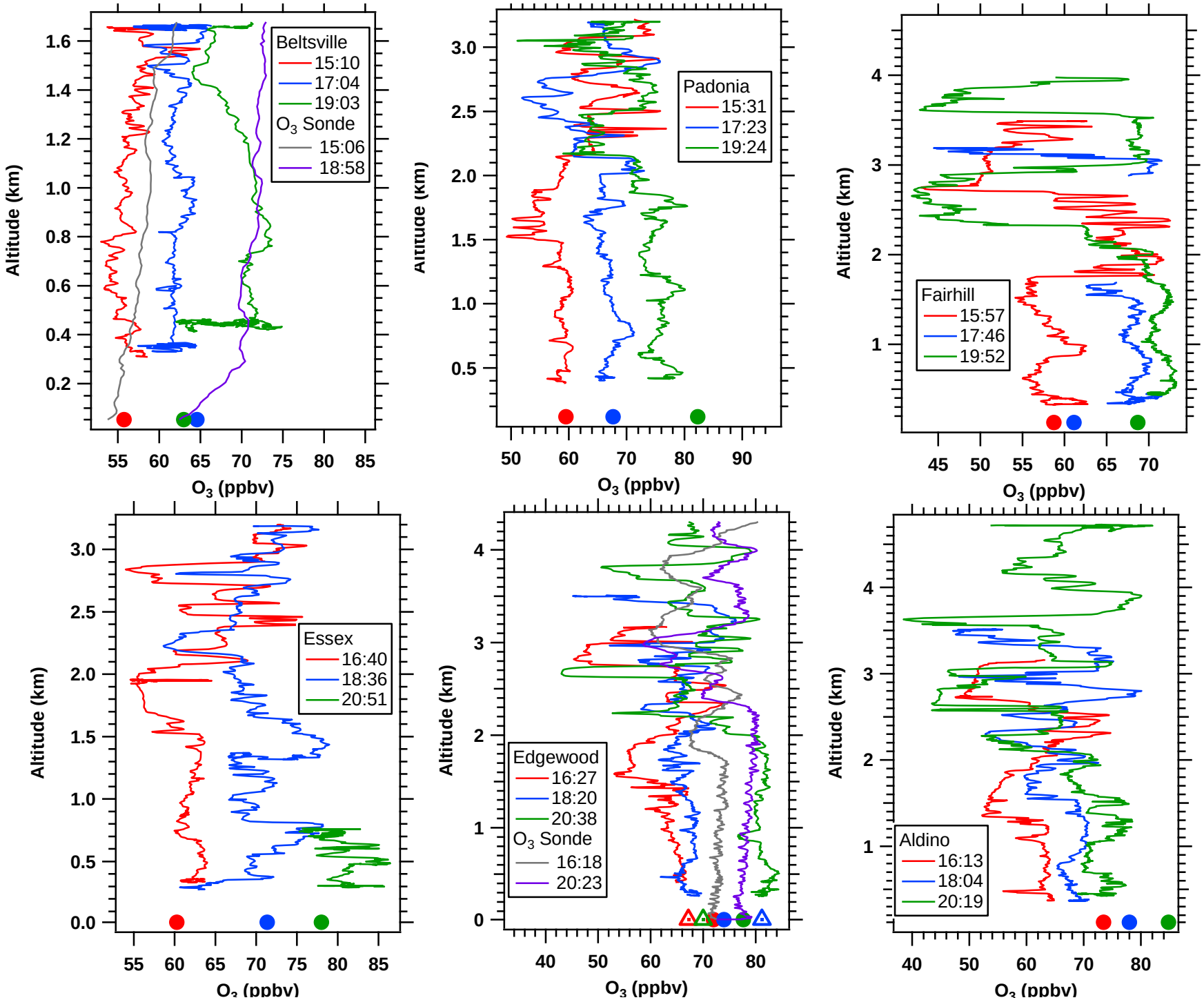
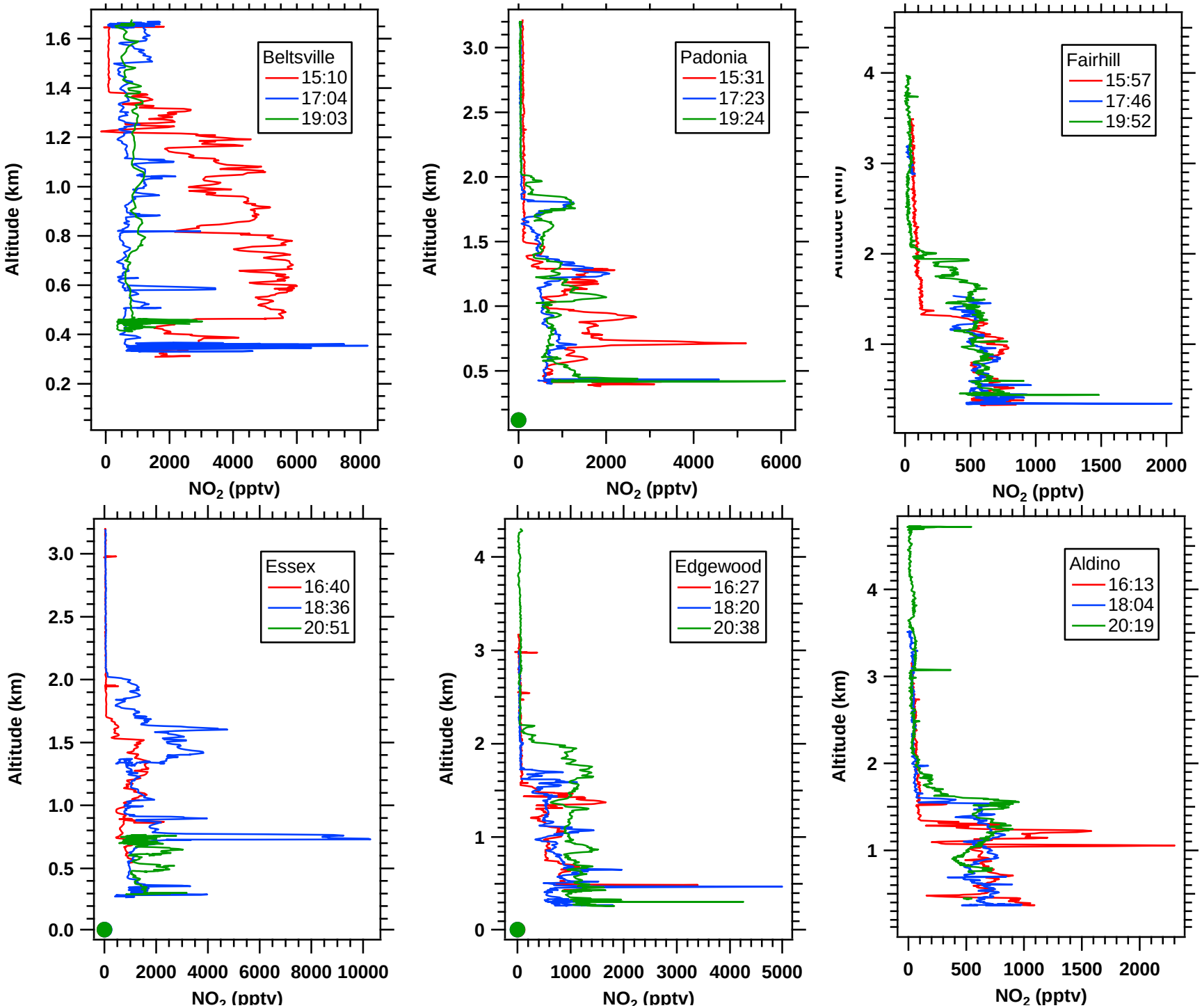
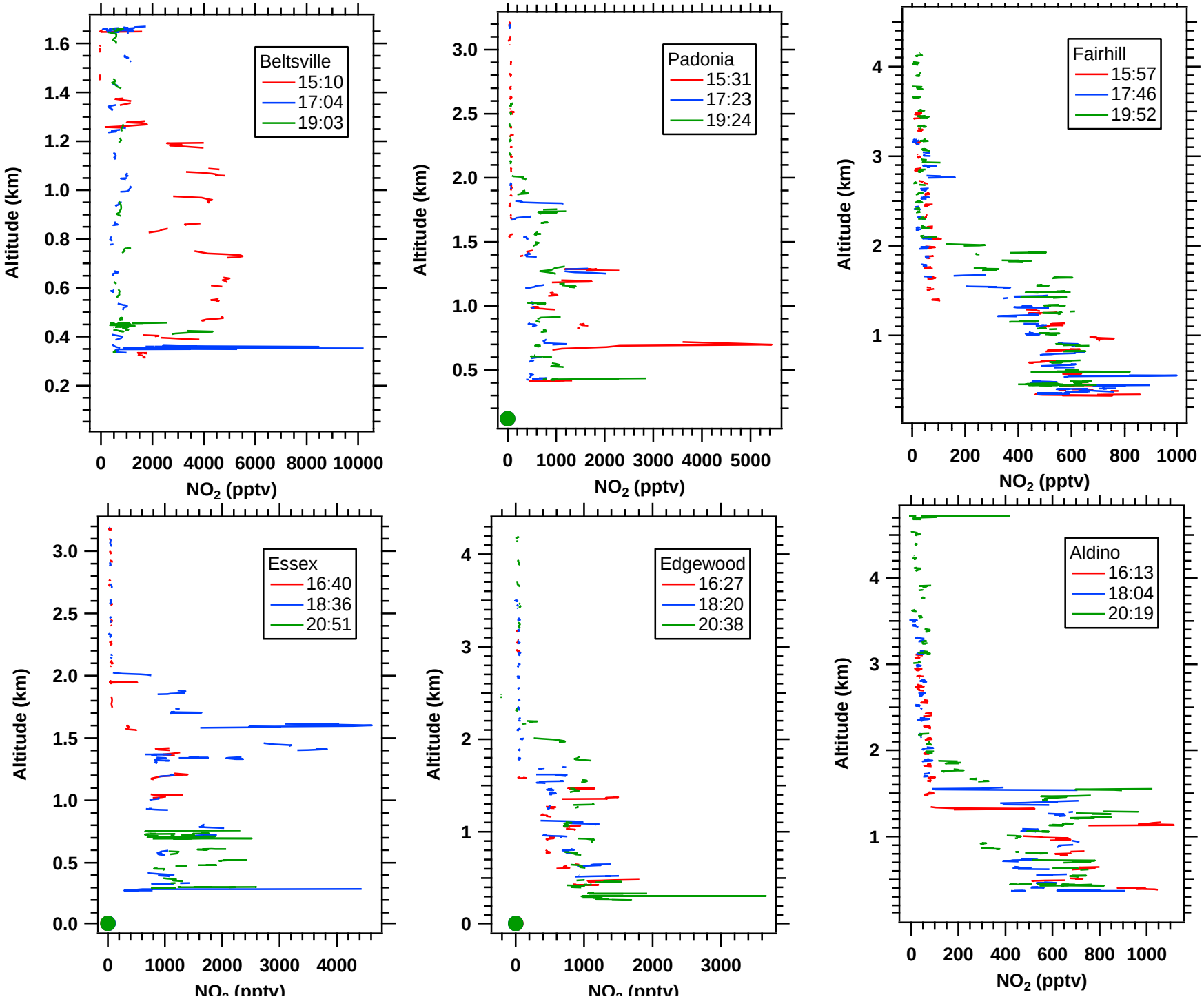
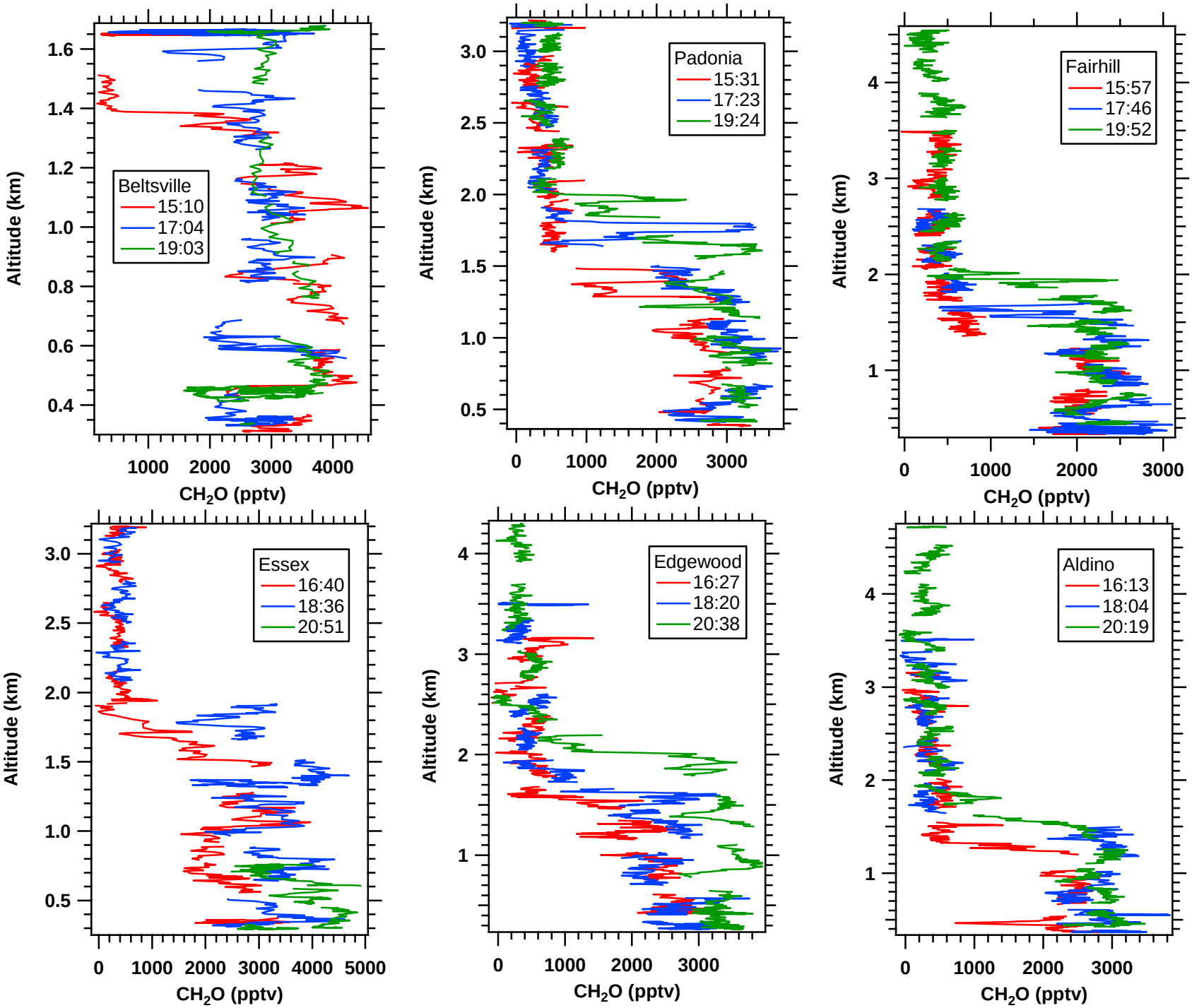
16:40
18:36
20:51
Edgewood
16:27
18:20
20:38
O3 Sonde
16:18
20:23
Aldino
16:13
18:04
20:19
Altitude (km)
Water Mixing Ratio (g/kg)


Beltsville
15:10
17:04
19:03
O3 Sonde
15:06
18:58
Altitude (km)
O3 (ppbv)
Padonia
15:31
17:23
19:24
Altitude (km)
O3 (ppbv)
Fairhill
15:57
17:46
19:52
Altitude (km)
O3 (ppbv)
Essex
16:40
18:36
20:51
Altitude (km)
O3 (ppbv)
Edgewood
16:27
18:20
20:38
O3 Sonde
16:18
20:23
Altitude (km)
O3 (ppbv)
Aldino
16:13
18:04
20:19
Altitude (km)
O3 (ppbv)


Beltsville
15:10
17:04
19:03
Altitude (km)
NO2 (pptv)
Padonia
15:31
17:23
19:24
Altitude (km)
NO2 (pptv)
Fairhill
15:57
17:46
19:52
NO2 (pptv)
Essex
16:40
18:36
20:51
Altitude (km)
NO2 (pptv)
Edgewood
16:27
18:20
20:38
Altitude (km)
NO2 (pptv)
Aldino
16:13
18:04
20:19
Altitude (km)
NO2 (pptv)


Beltsville
15:10
17:04
19:03
Altitude (km)
NO2 (pptv)
Padonia
15:31
17:23
19:24
Altitude (km)
NO2 (pptv)
Fairhill
15:57
17:46
19:52
Altitude (km)
NO2 (pptv)
Essex
16:40
18:36
20:51
Altitude (km)
Edgewood
16:27
18:20
20:38
Altitude (km)
Aldino
16:13
18:04
20:19
Altitude (km)
NO2 (pptv)


Beltsville
15:10
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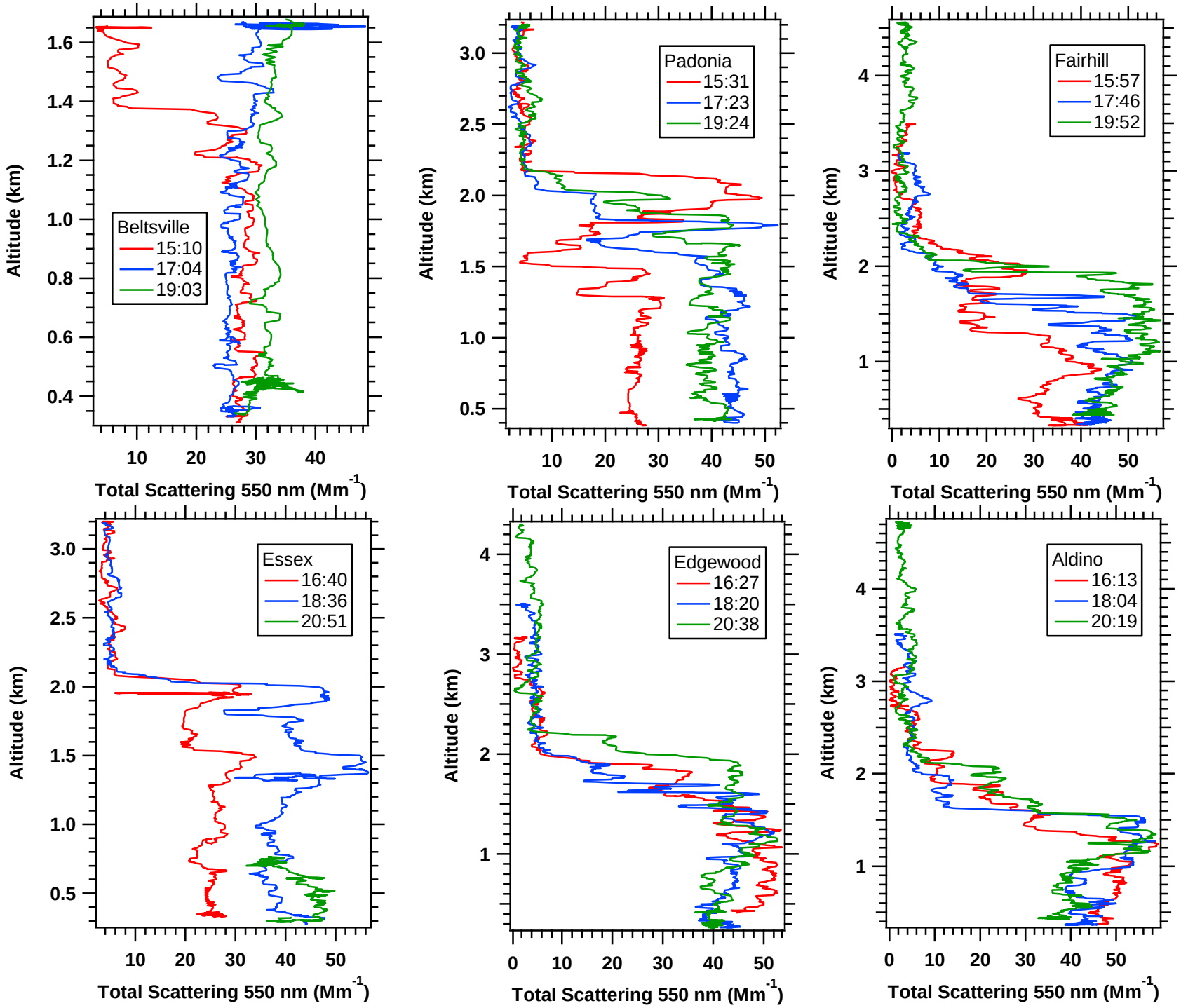
19:24
Fairhill
15:57
17:46
19:52
Essex
16:40
18:36
20:51
Edgewood
16:27
18:20
20:38
Aldino
16:13
18:04
20:19
Altitude (km)
CH2O (pptv)


Beltsville
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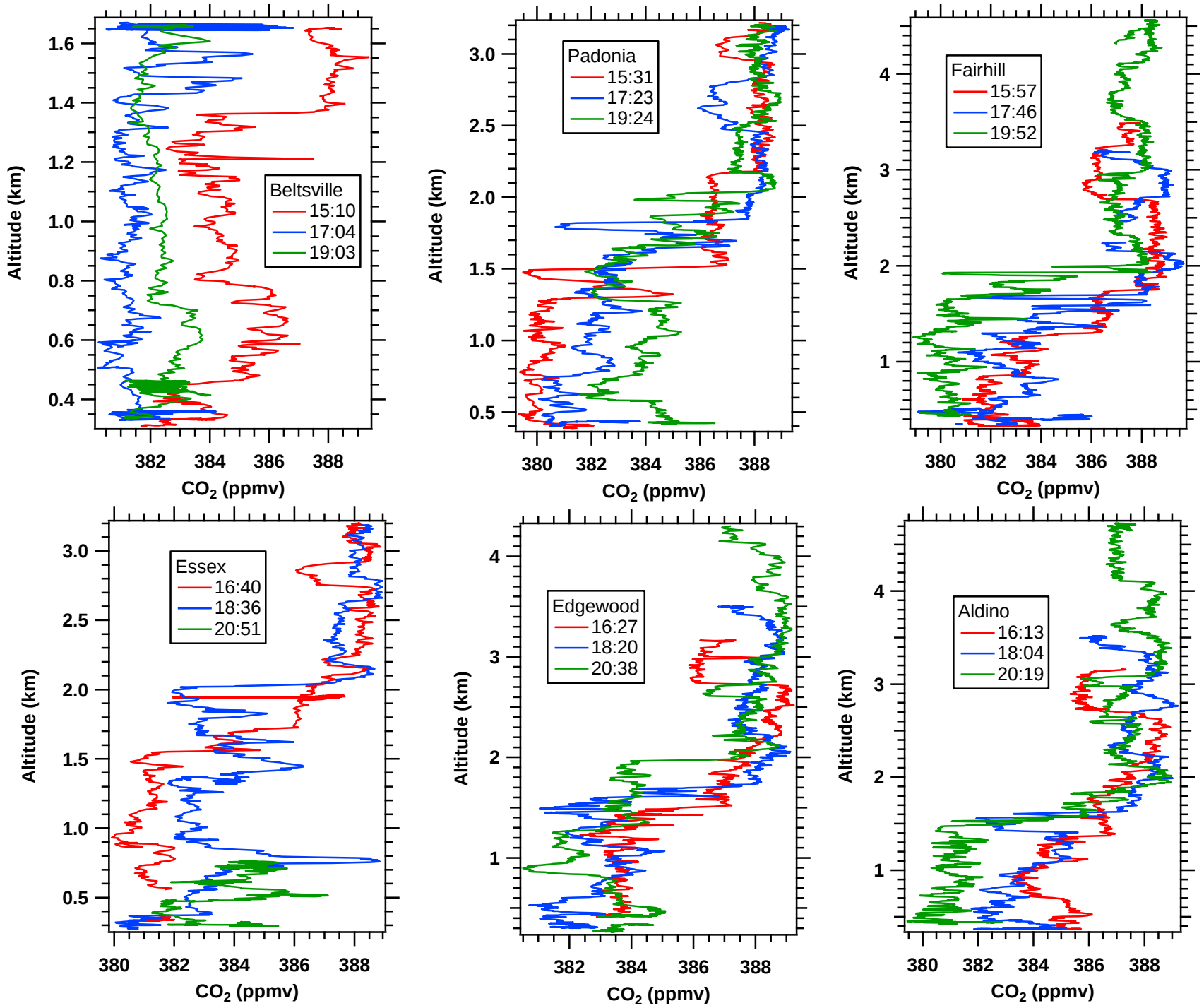
19:52
Essex
16:40
18:36
20:51
Edgewood
16:27
18:20
20:38
Aldino
16:13
18:04
20:19
Altitude (km)
Total Scattering 550 nm (Mm-1)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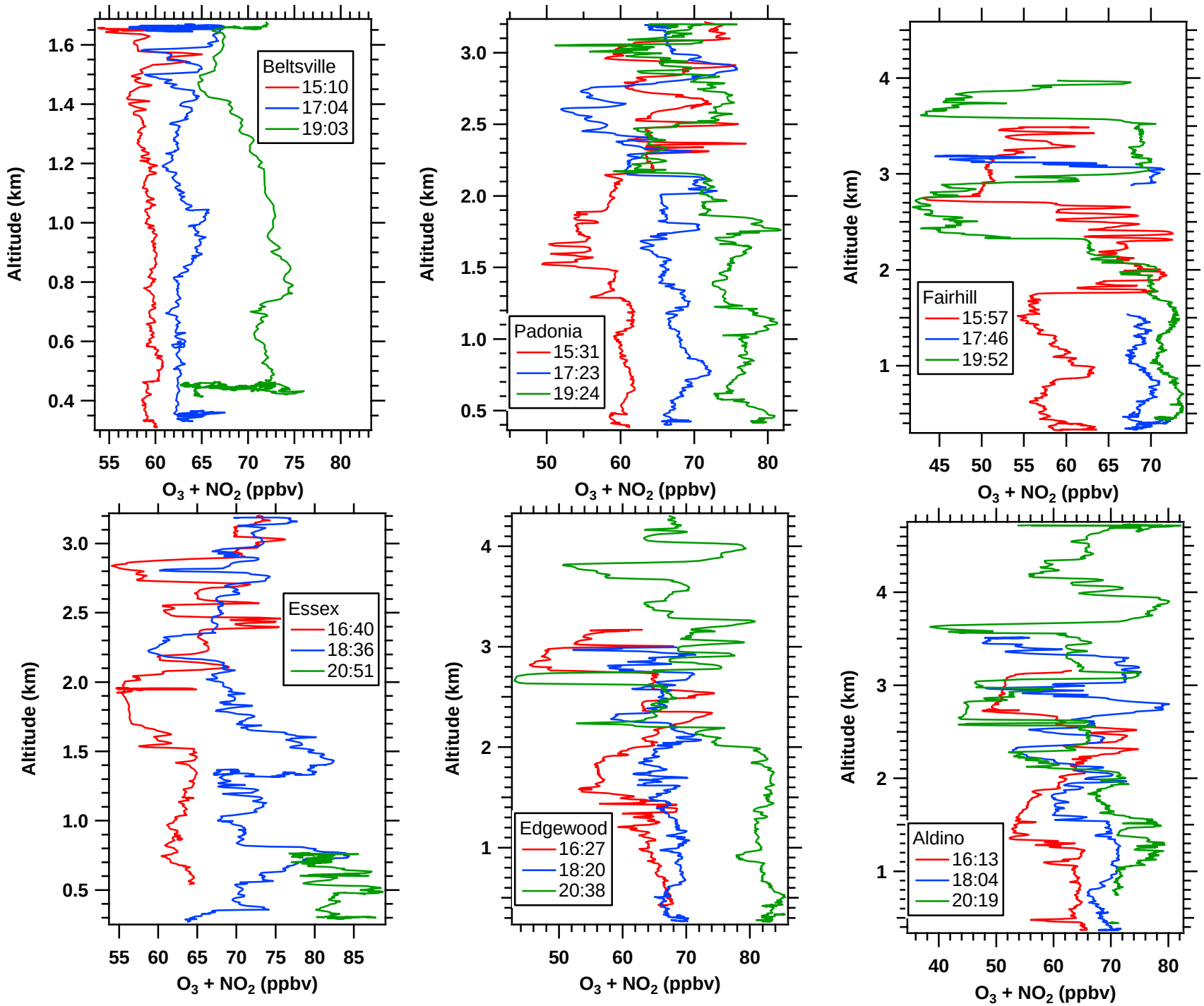
19:52
Essex
16:40
18:36
20:51
Edgewood
16:27
18:20
20:38
Aldino
16:13
18:04
20:19
Altitude (km)
CO2 (ppmv)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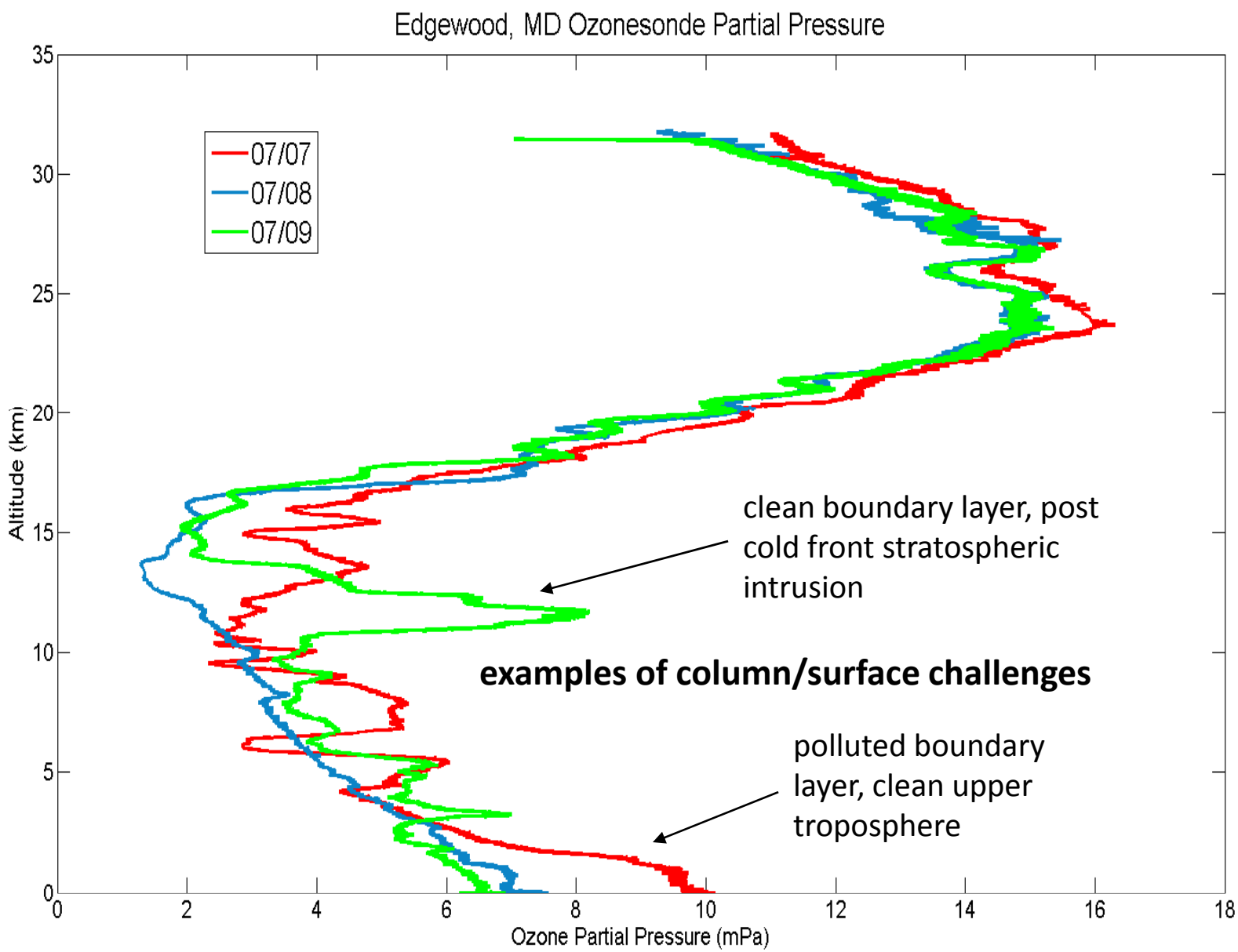
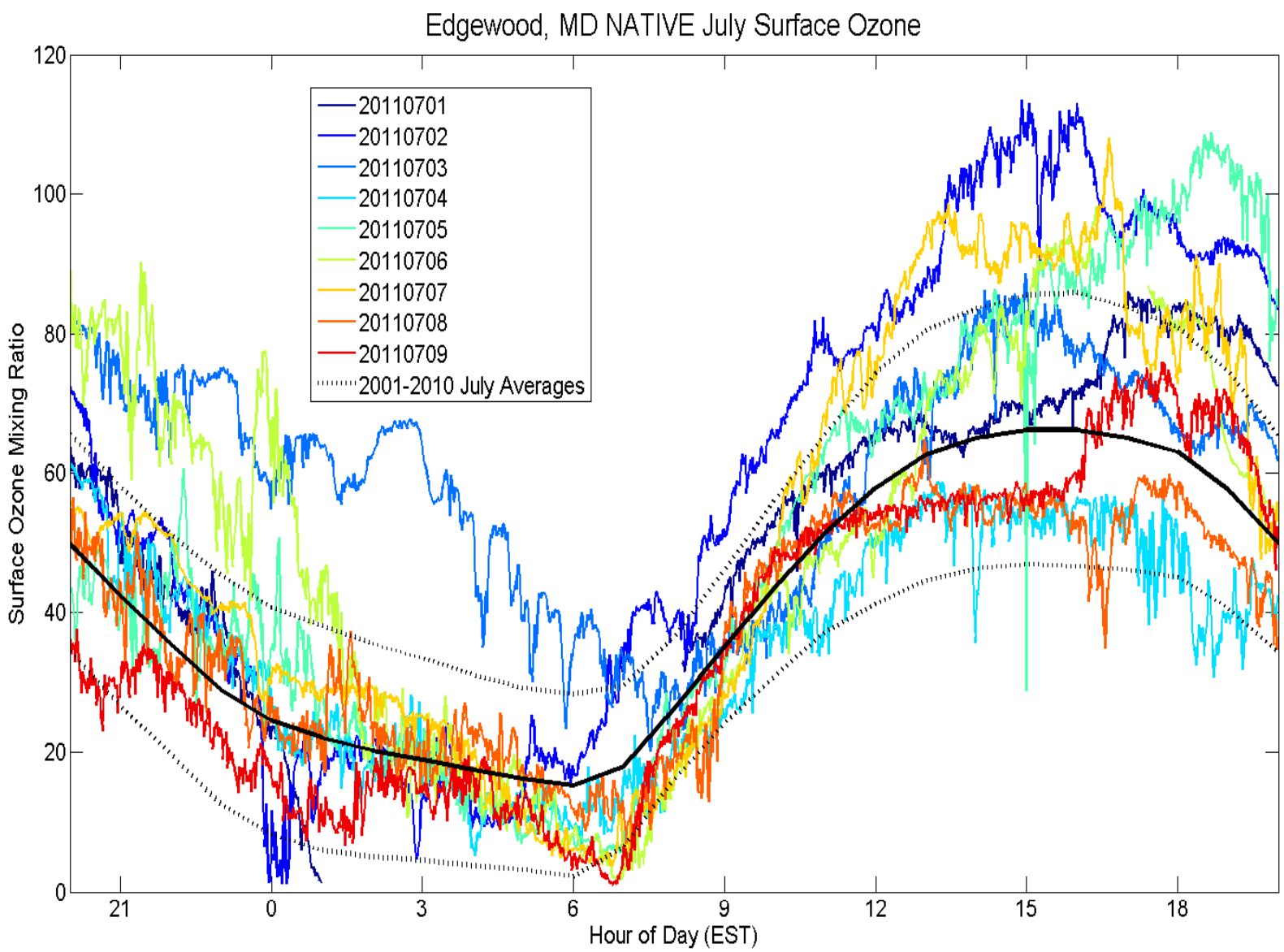
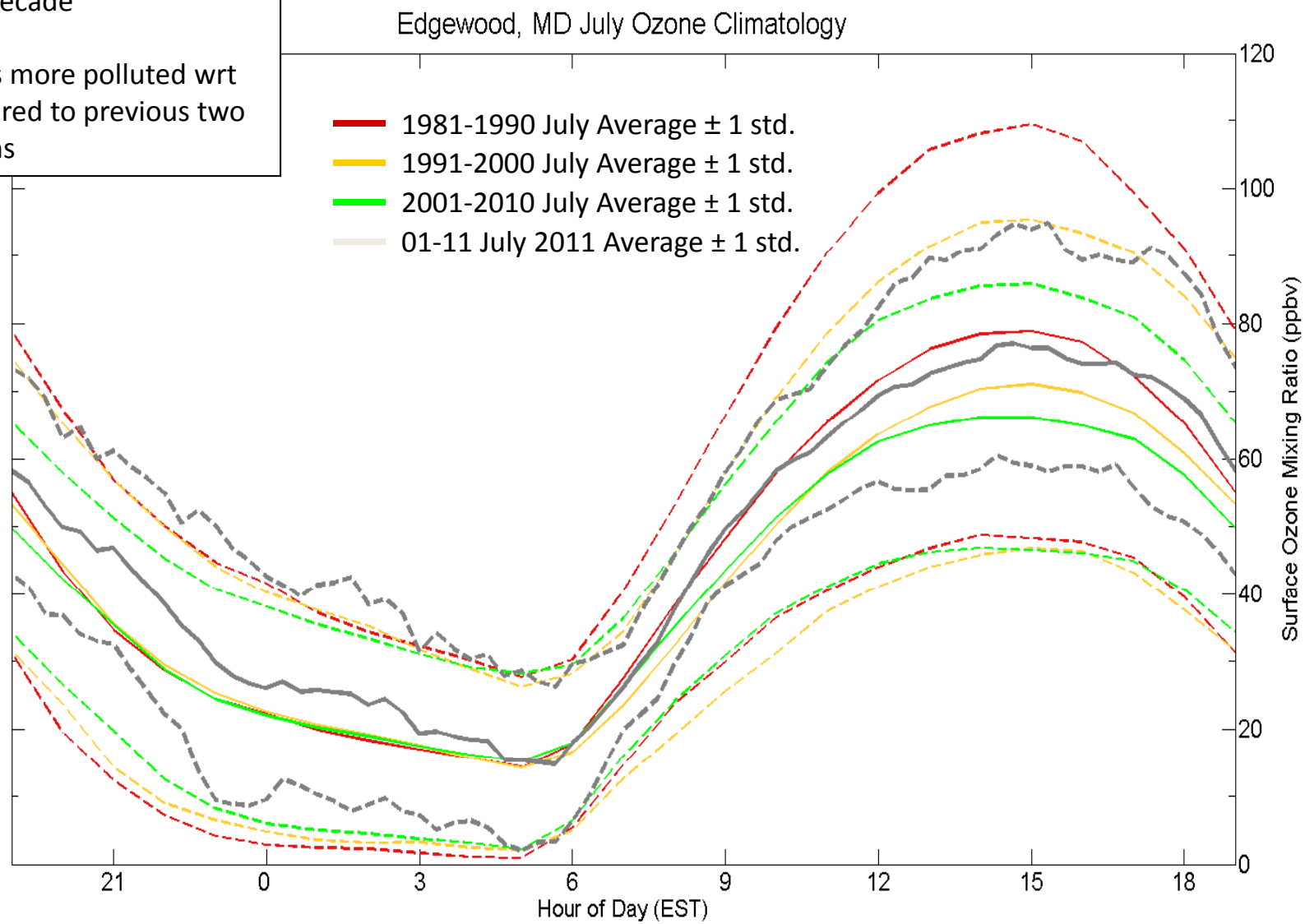
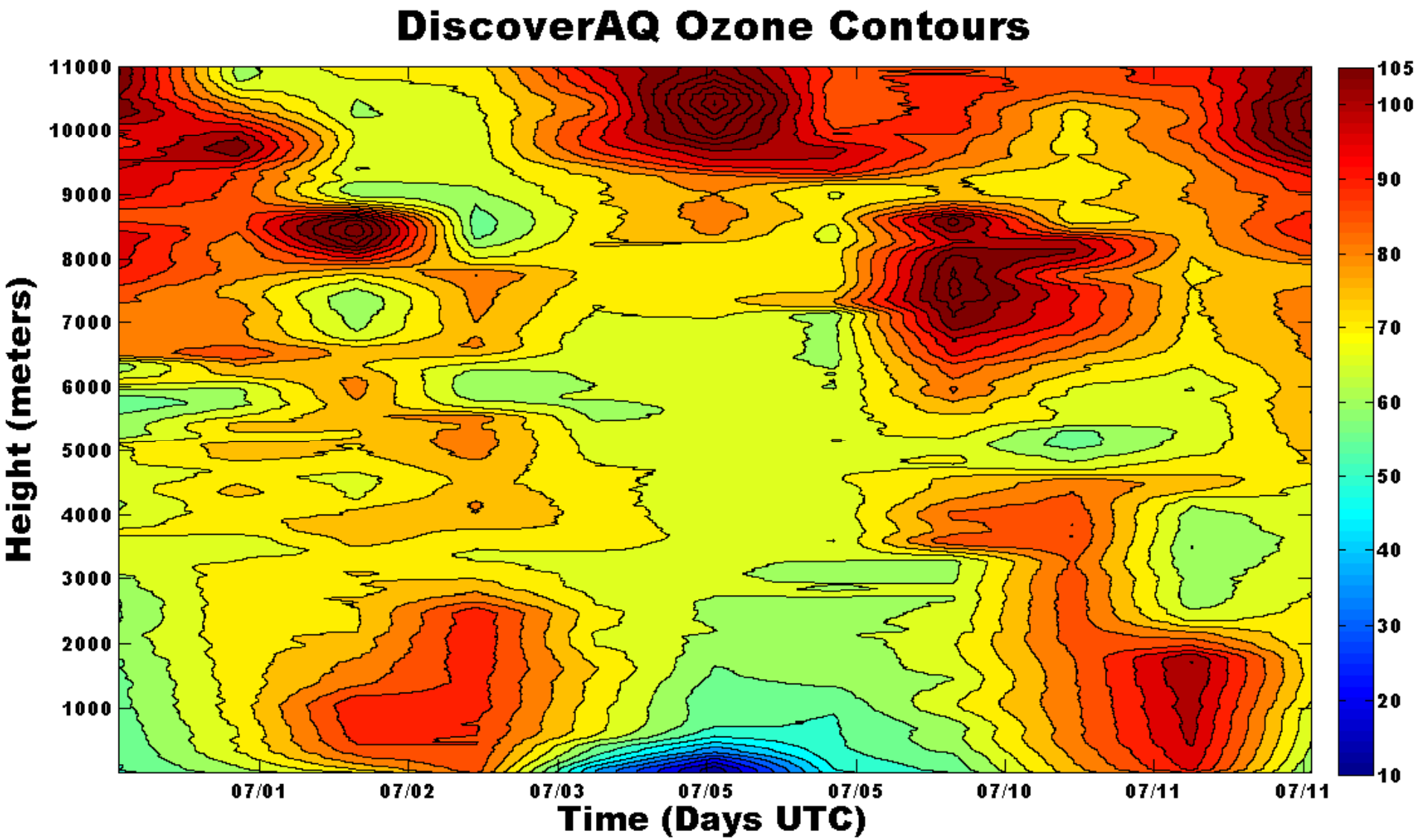
19:52
Essex
16:40
18:36
20:51
Edgewood
16:27
18:20
20:38
Aldino
16:13
18:04
20:19
Altitude (km)
O3 + NO2 (ppbv)


Edgewood, MD Ozonesonde Partial Pressure
07/07
07/08
07/09
Altitude (km)
Ozone Partial Pressure (mPa)
0
5
10
15
20
25
30
35
0
2
4
6
8
10
12
14
16
18
clean boundary layer, post cold front stratospheric intrusion
examples of column/surface challenges
polluted boundary layer, clean upper troposphere


Edgewood, MD NATIVE July Surface Ozone
Surface Ozone Mixing Ratio
Hour of Day (EST)
0
20
40
60
80
100
120
21
0
3
6
9
12
15
18
20110701
20110702
20110703
20110704
20110705
20110706
20110707
20110708
20110709
2001-2010 July Averages

• decrease in afternoon surface ozone each decade

• first 11 days more polluted wrt ozone compared to previous two decade means



Beltsville Ozonesonde Data