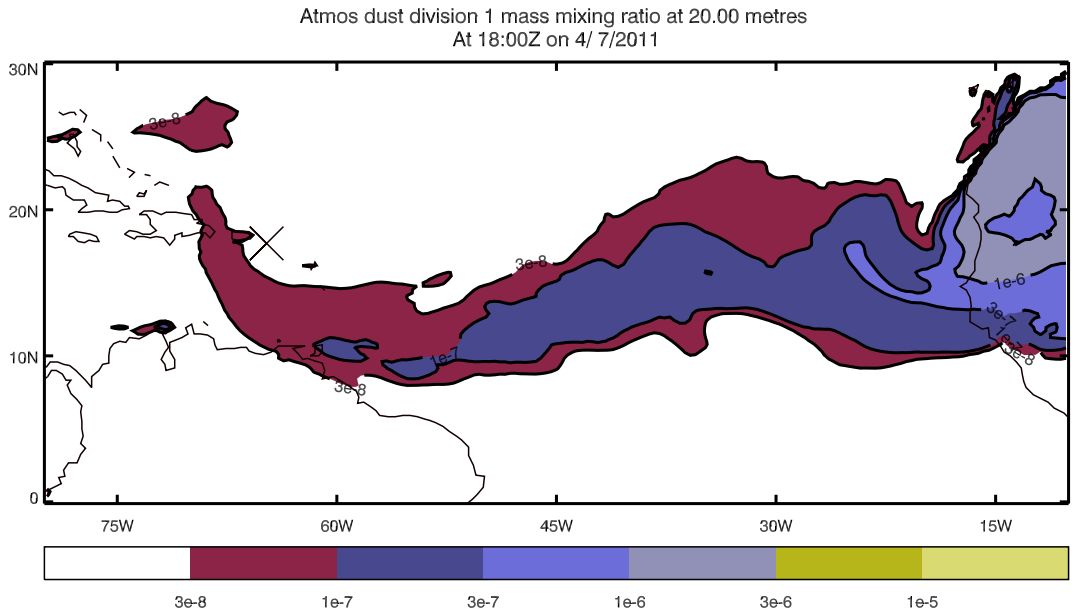
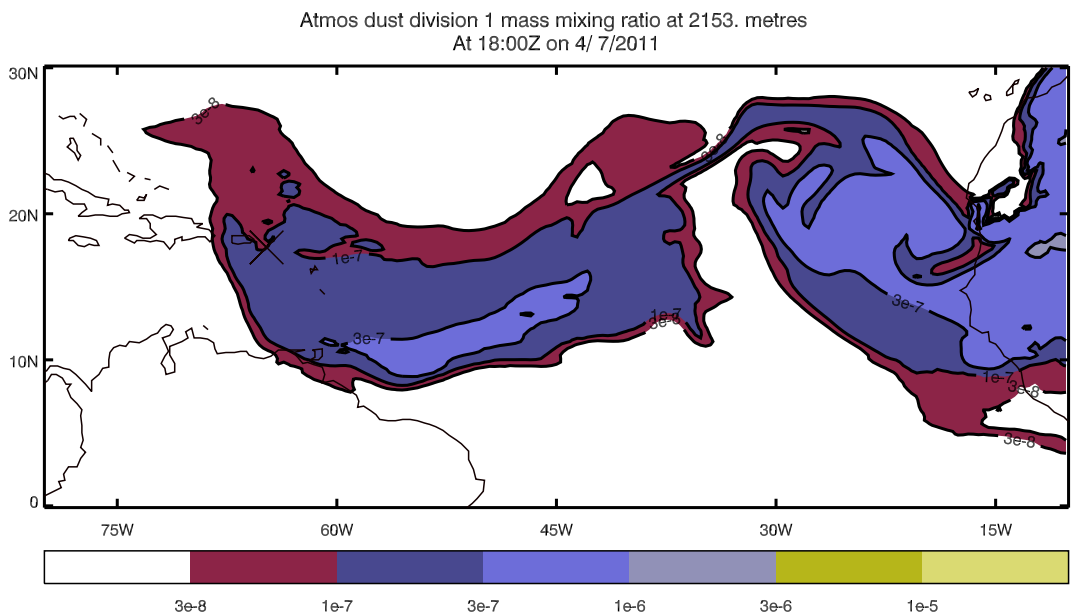
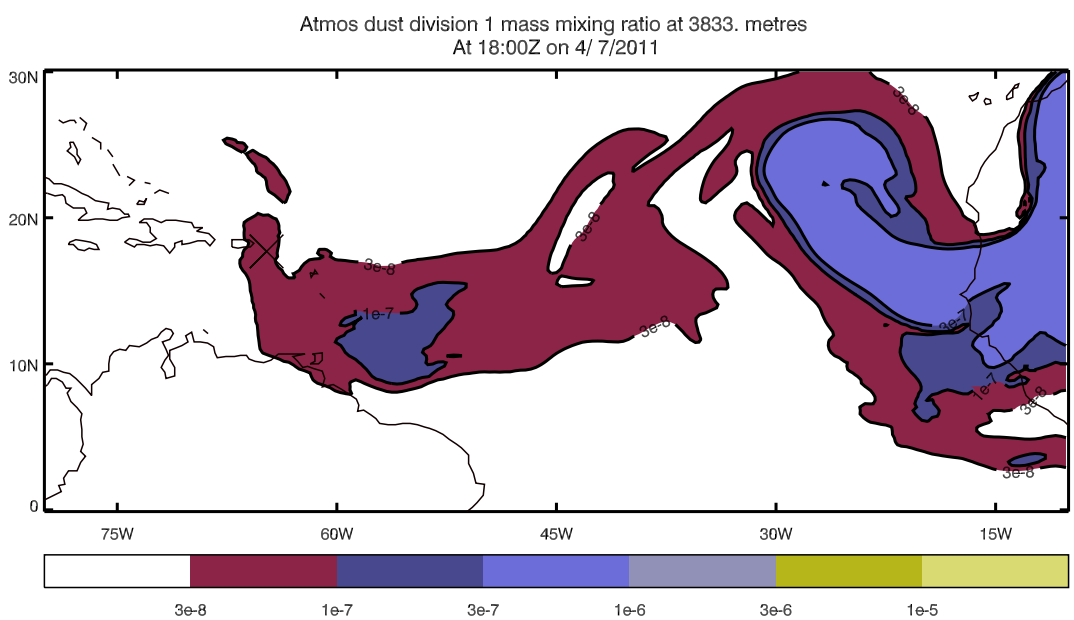
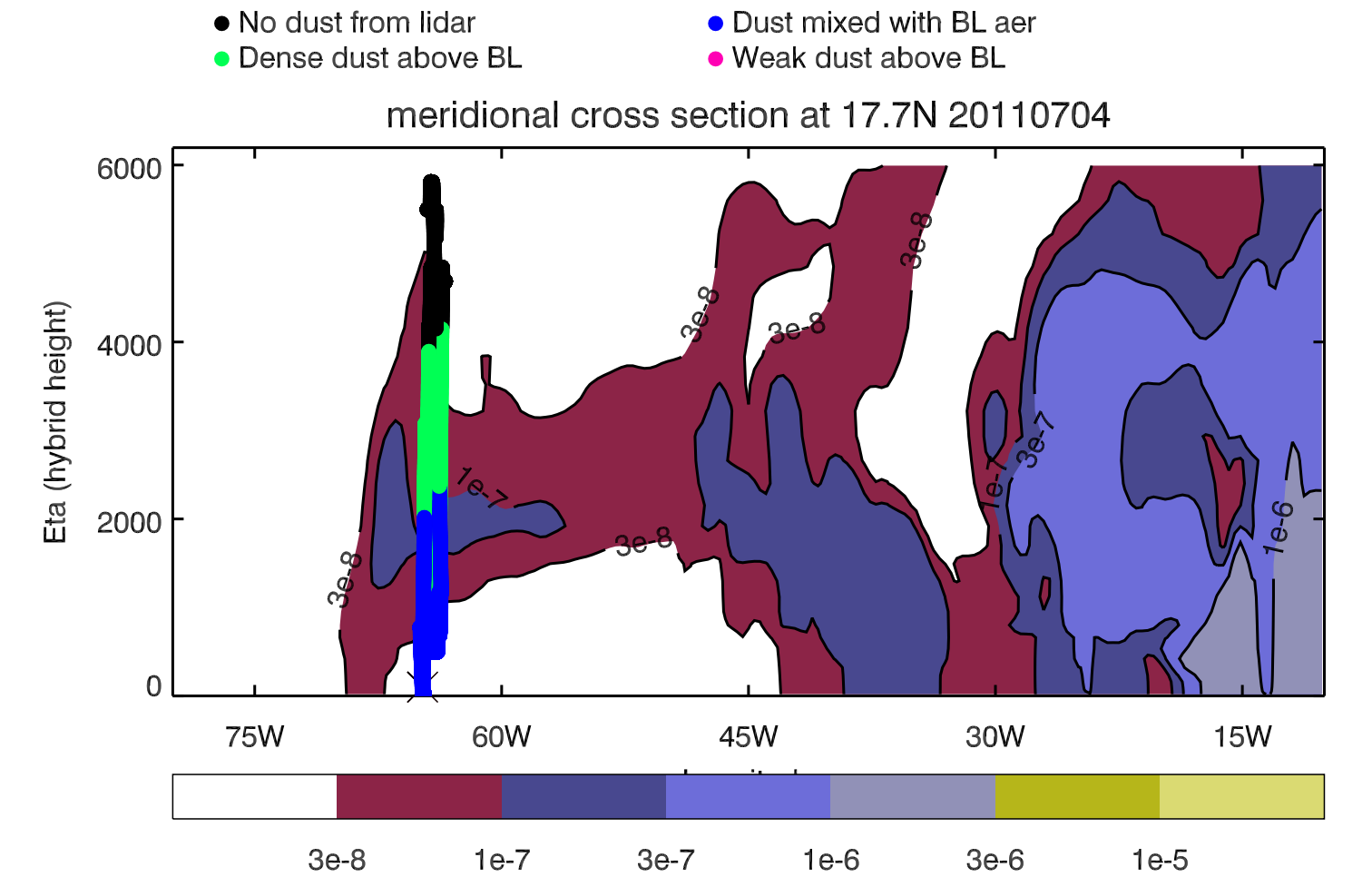
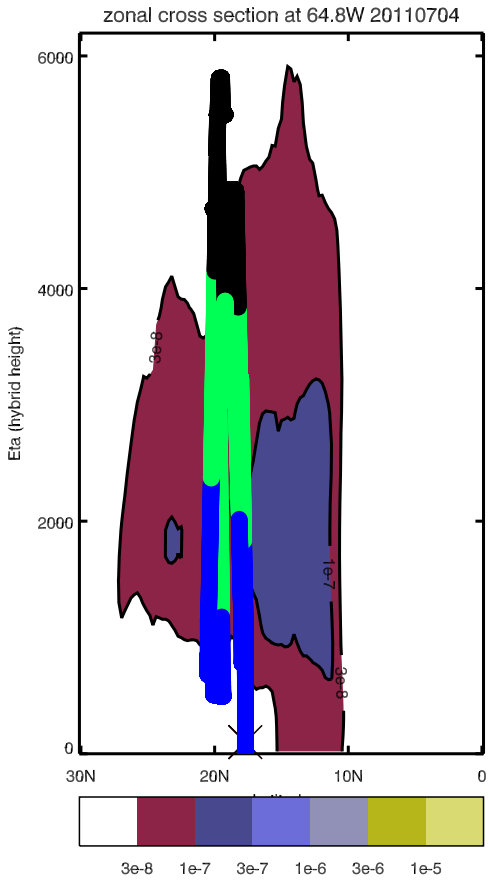
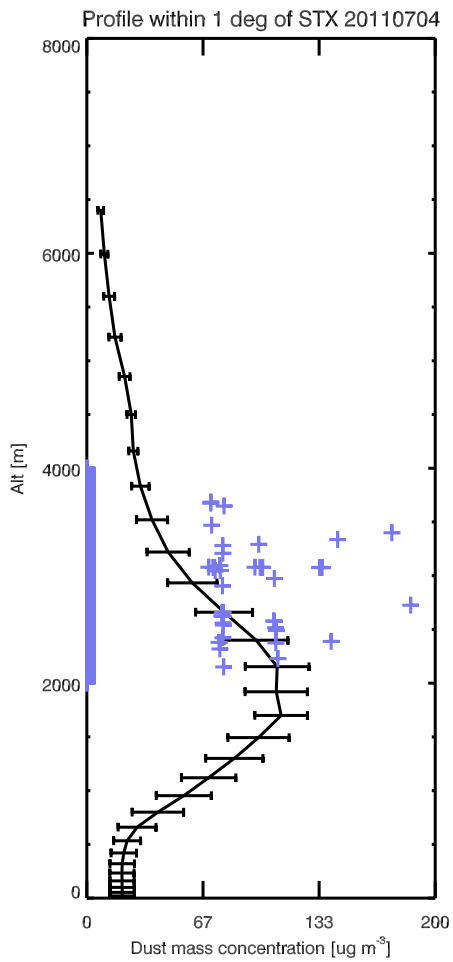

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 4/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

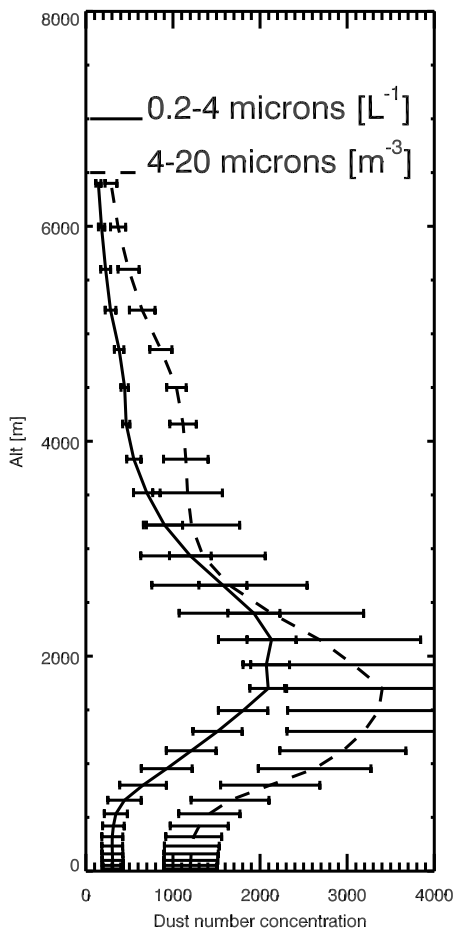

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 4/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

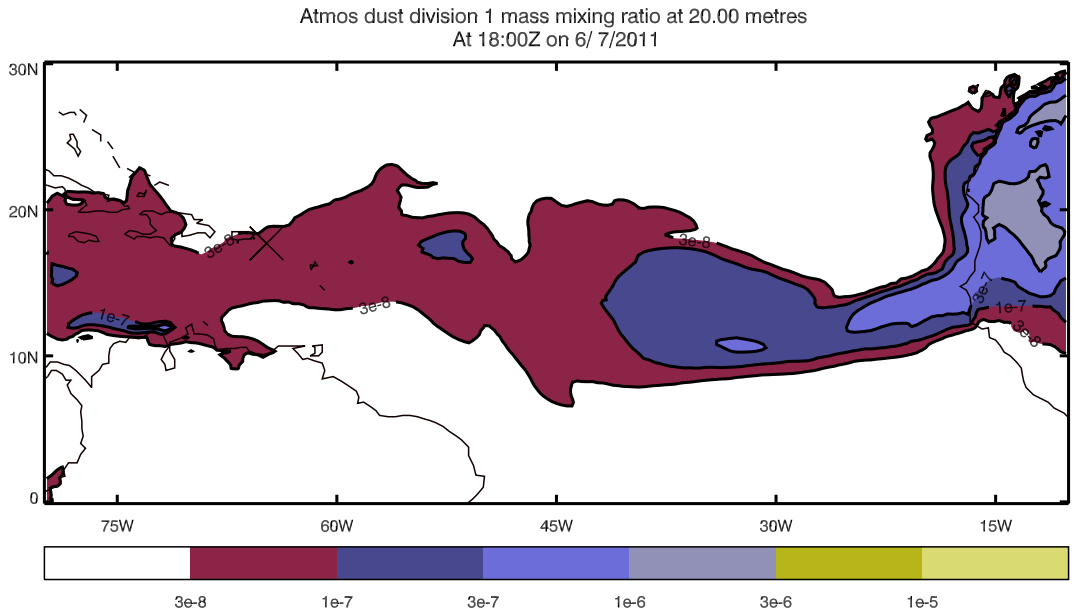

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 4/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

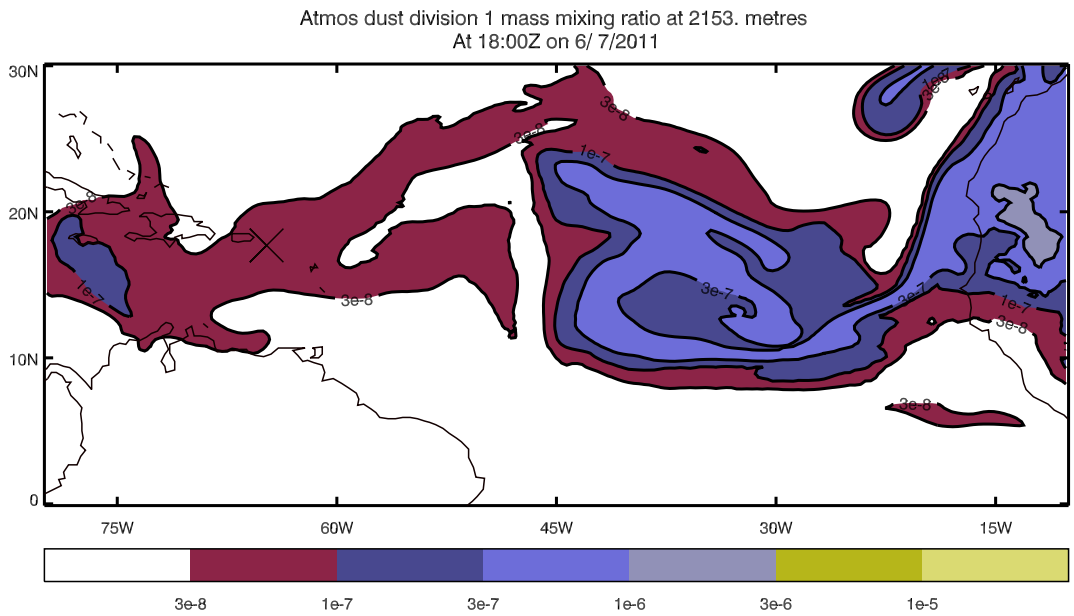

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110704
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

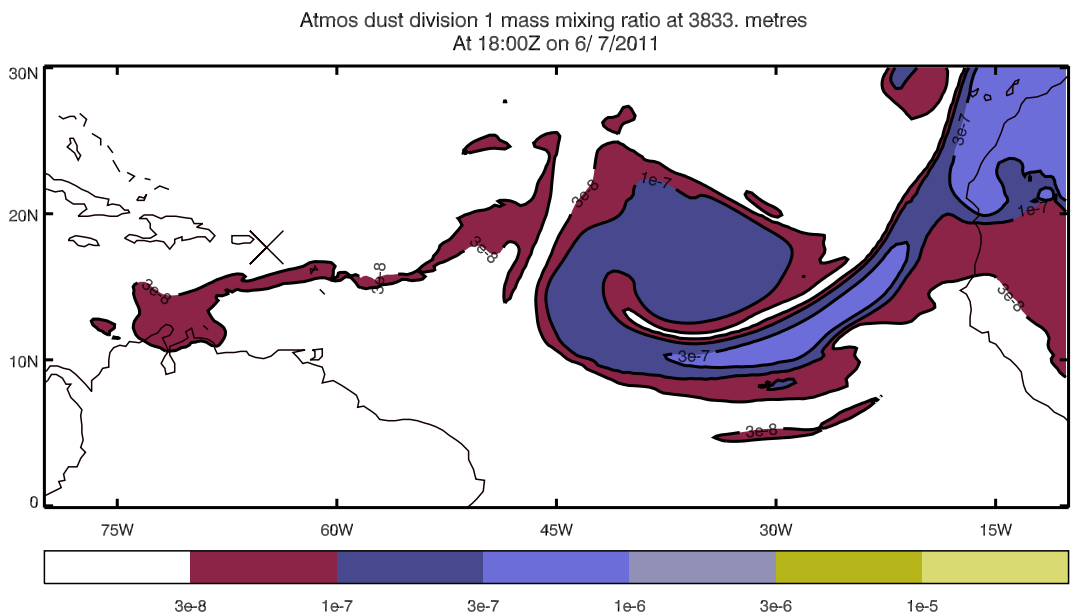

zonal cross section at 64.8W 20110704
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

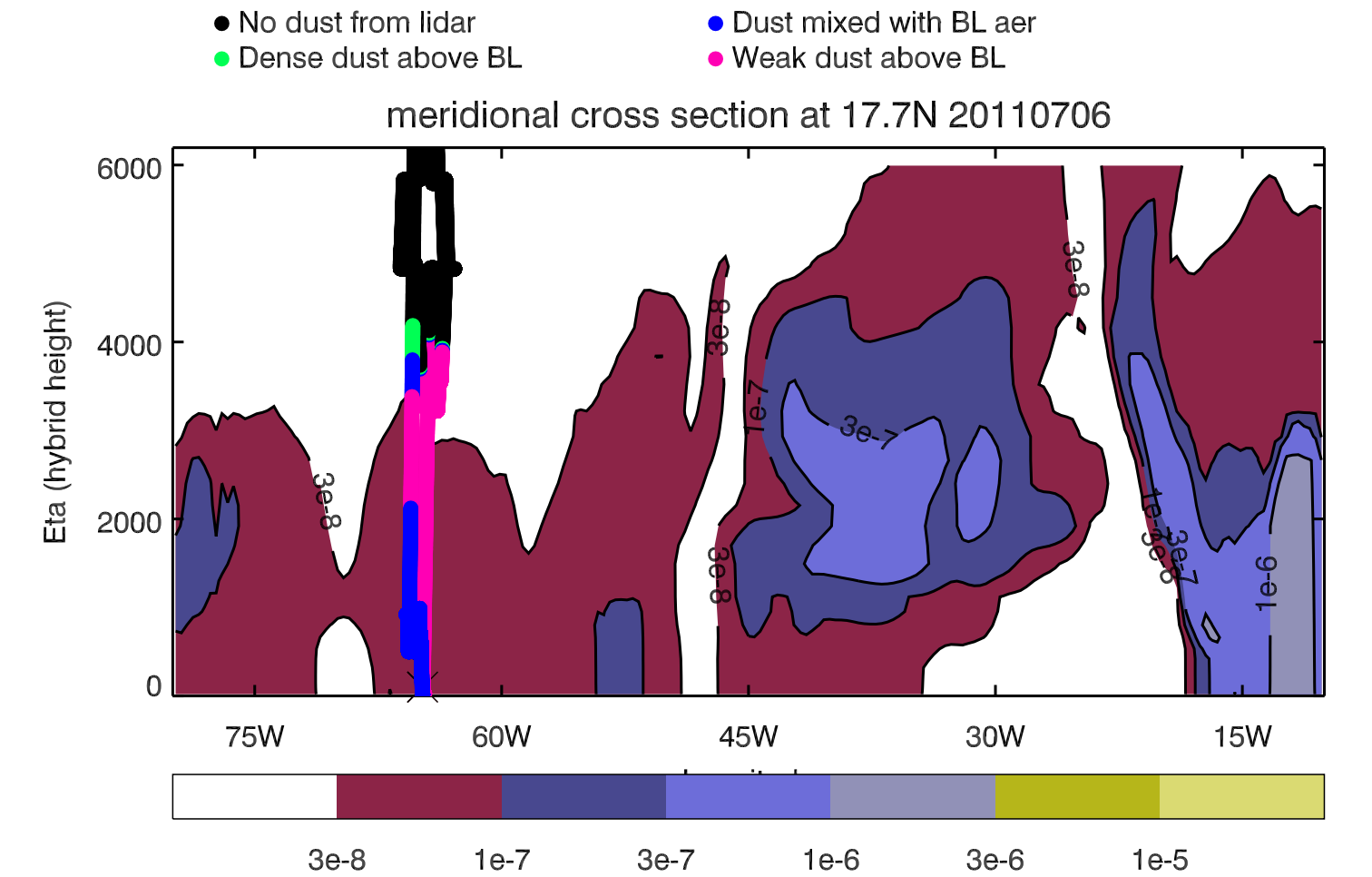

Profile within 1 deg of STX 20110704
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

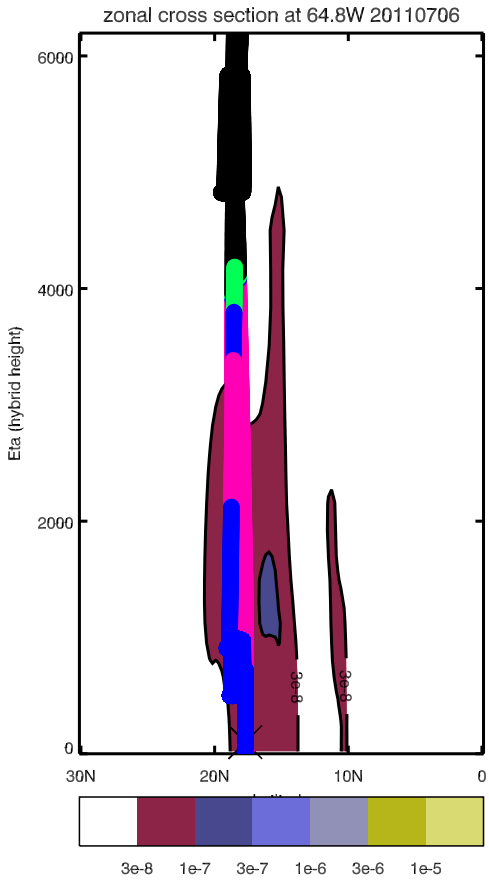

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

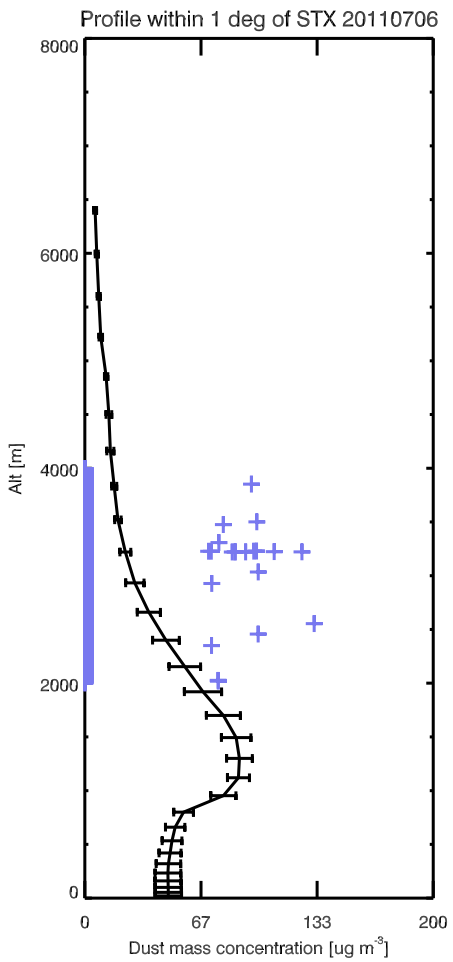

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 6/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

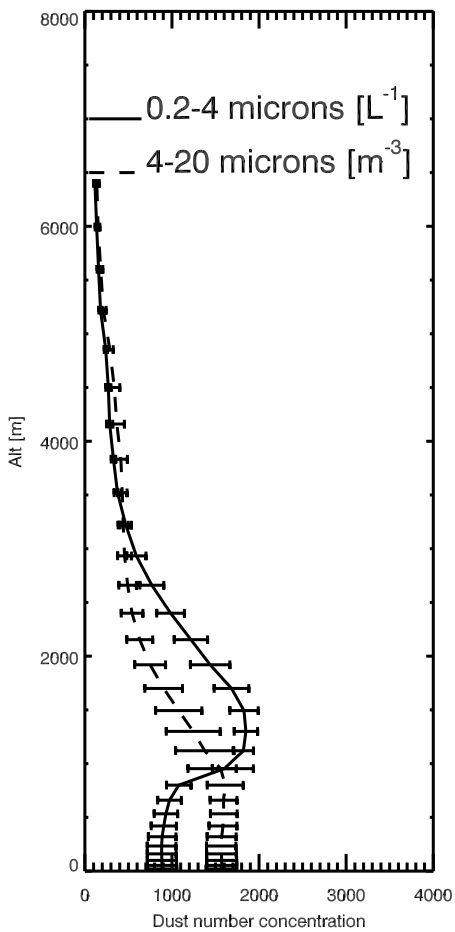

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 6/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

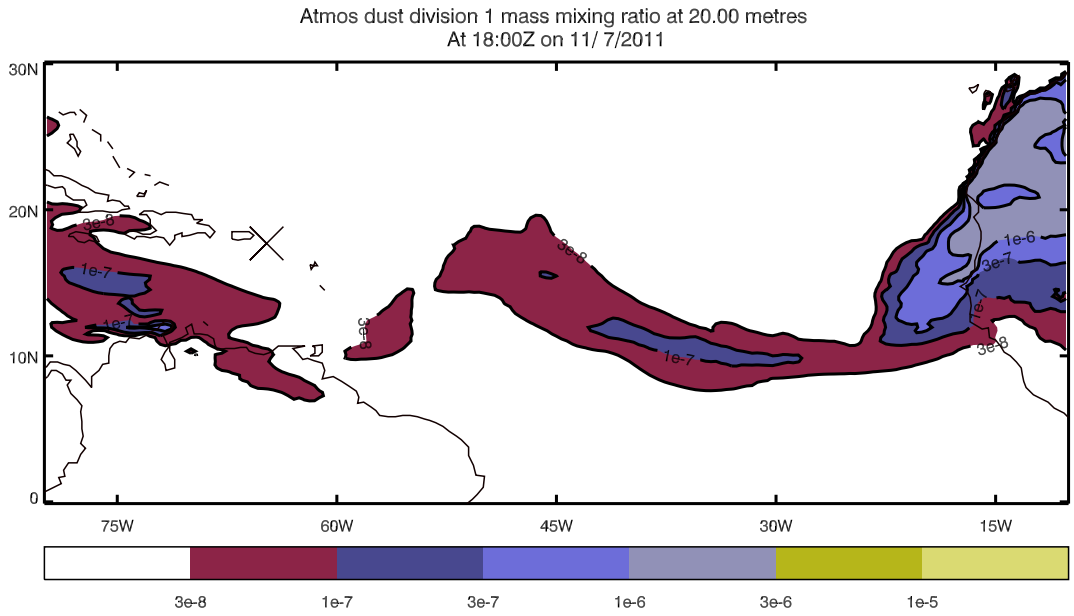

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 6/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

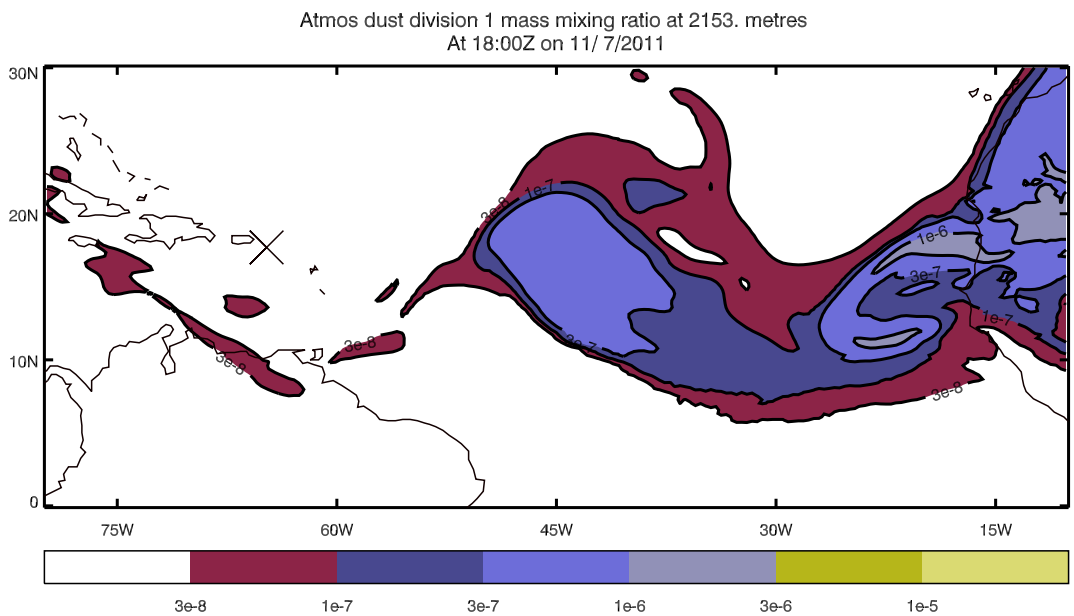

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110706
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

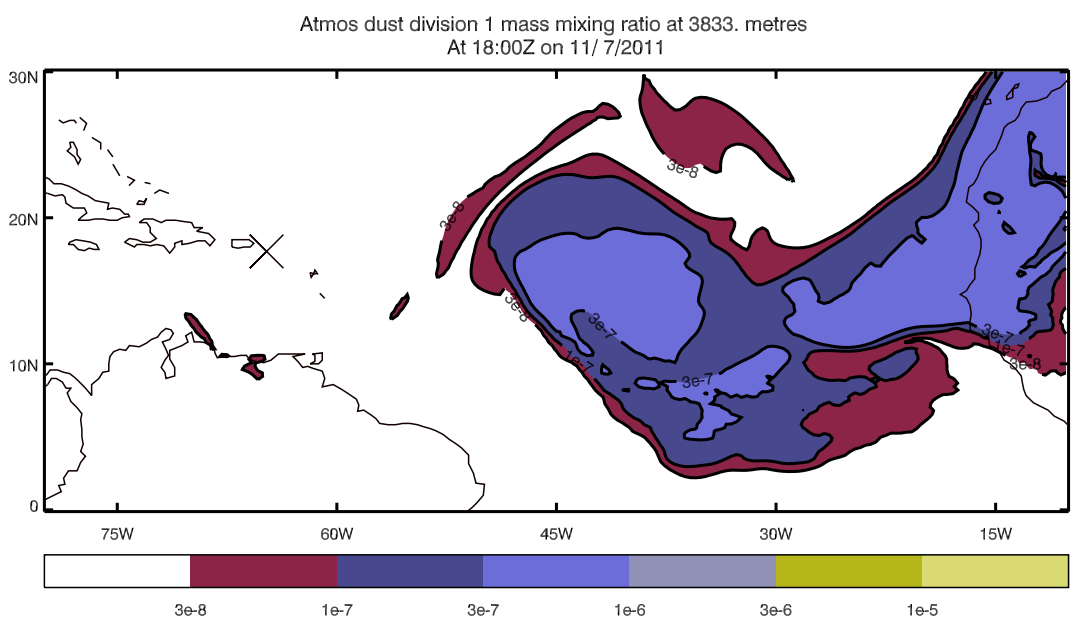

zonal cross section at 64.8W 20110706
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

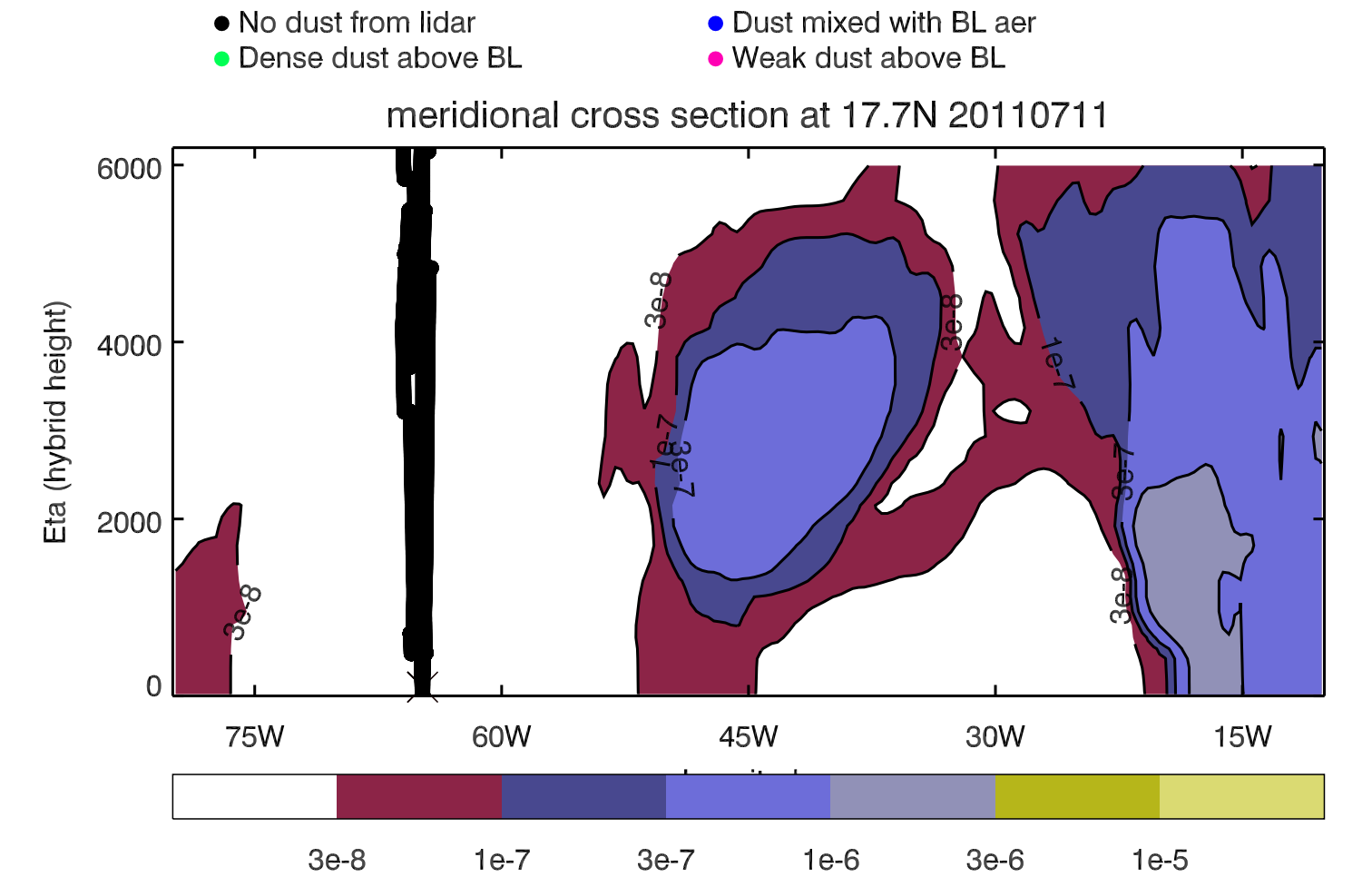

Profile within 1 deg of STX 20110706
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

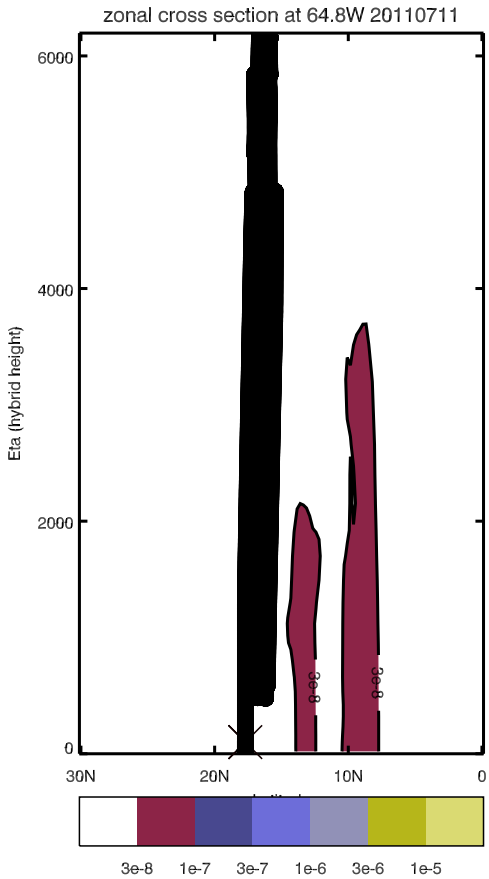

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

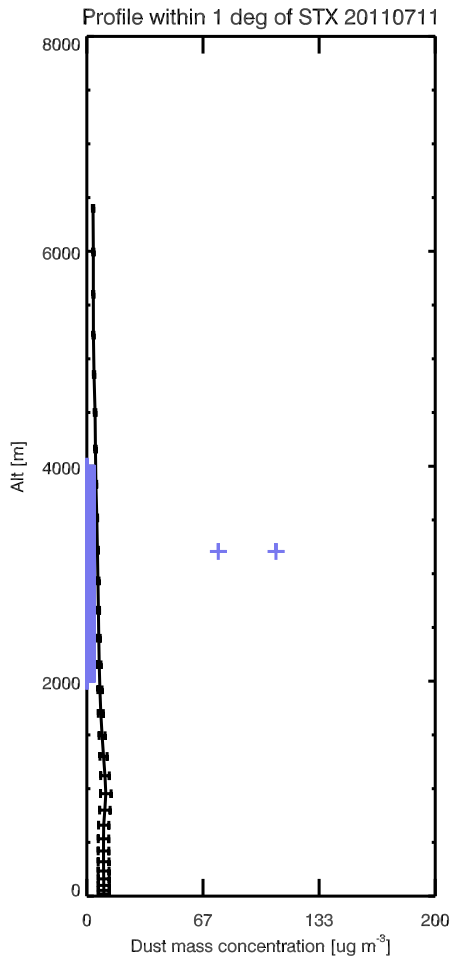

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 11/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

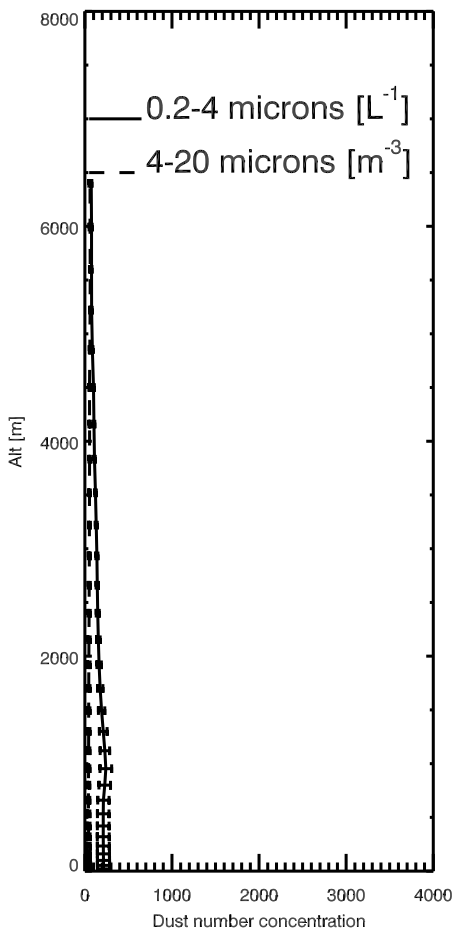

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 11/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

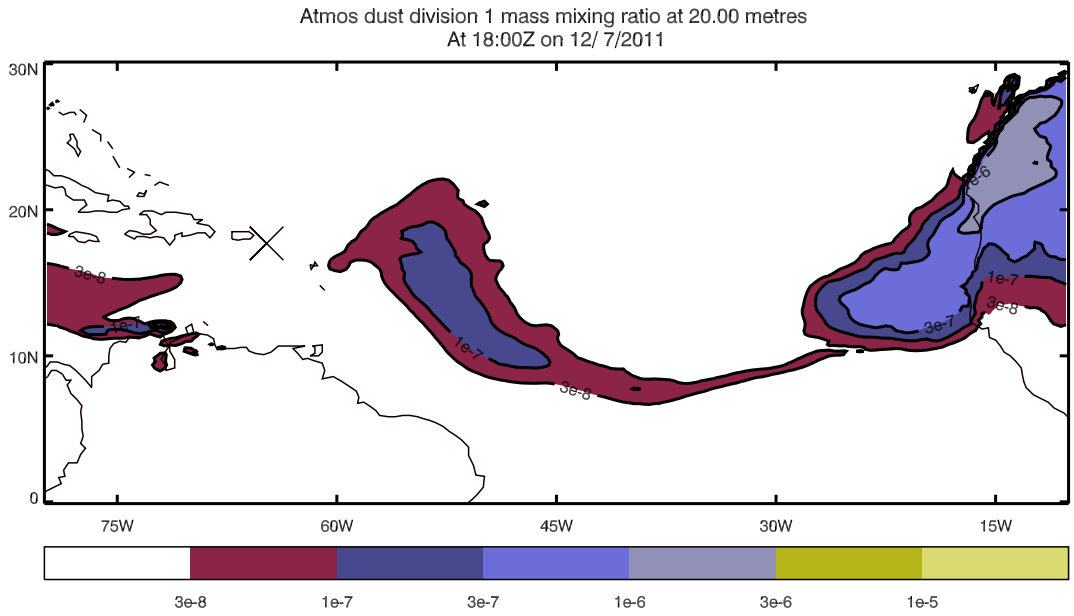

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 11/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

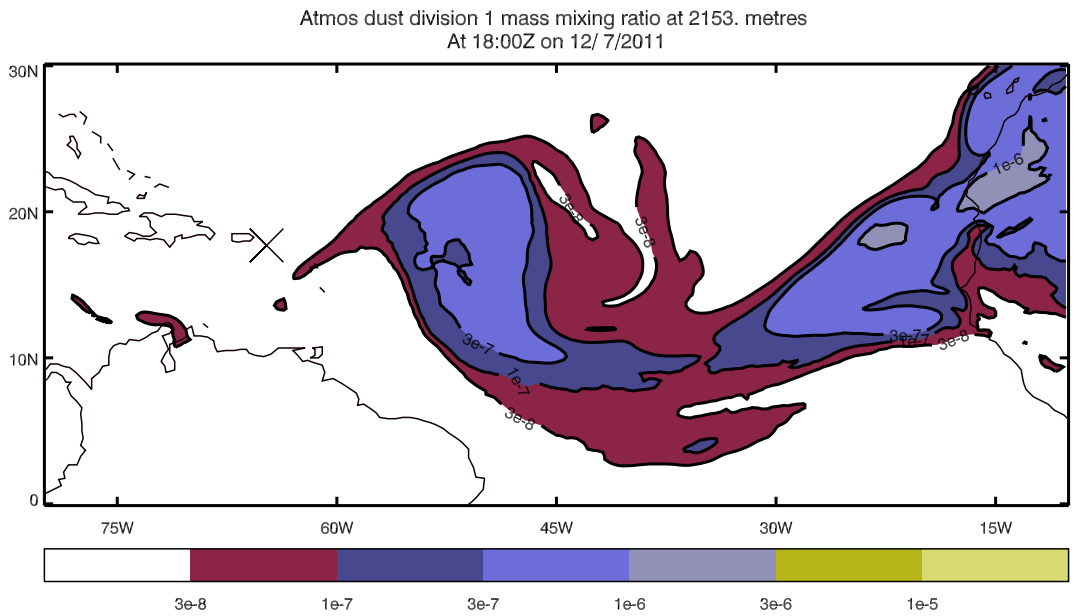

No dust from lidar
Dust mixed with BL aer
Dense dust above BL
Weak dust above BL
meridional cross section at 17.7N 20110711
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

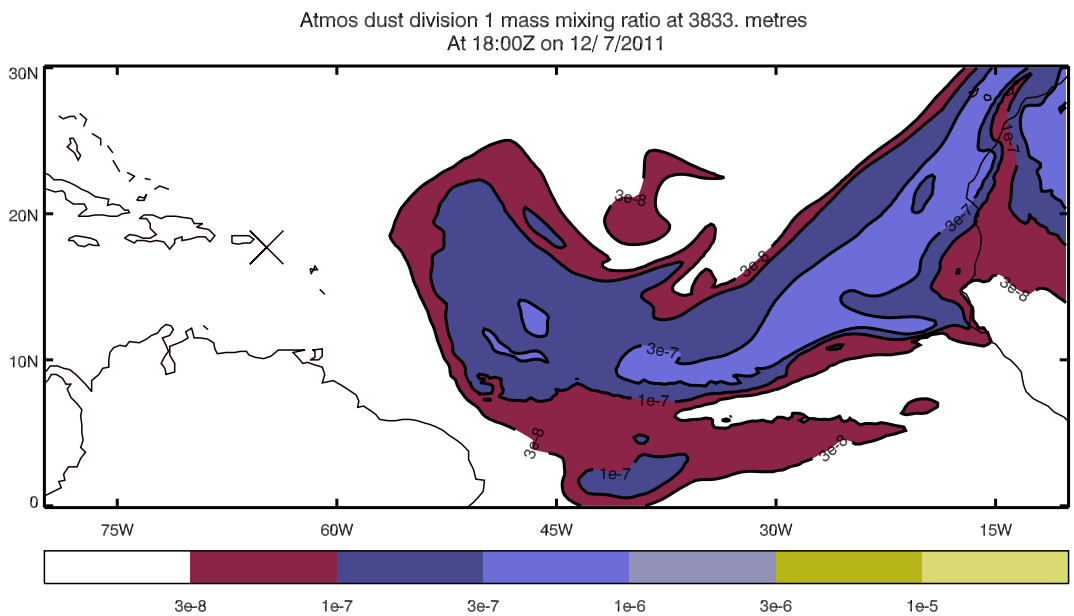

zonal cross section at 64.8W 20110711
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

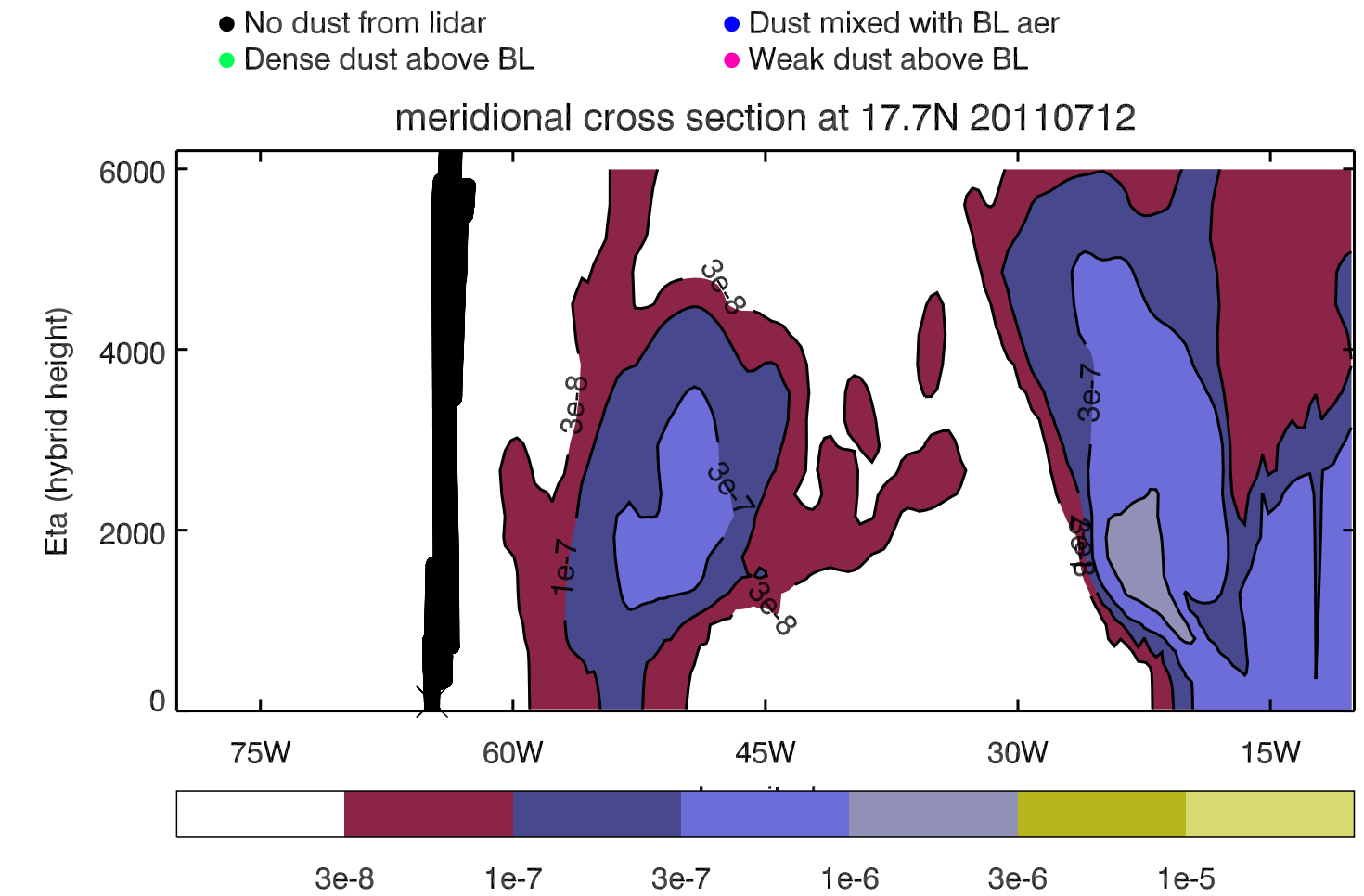

Profile within 1 deg of STX 20110711
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

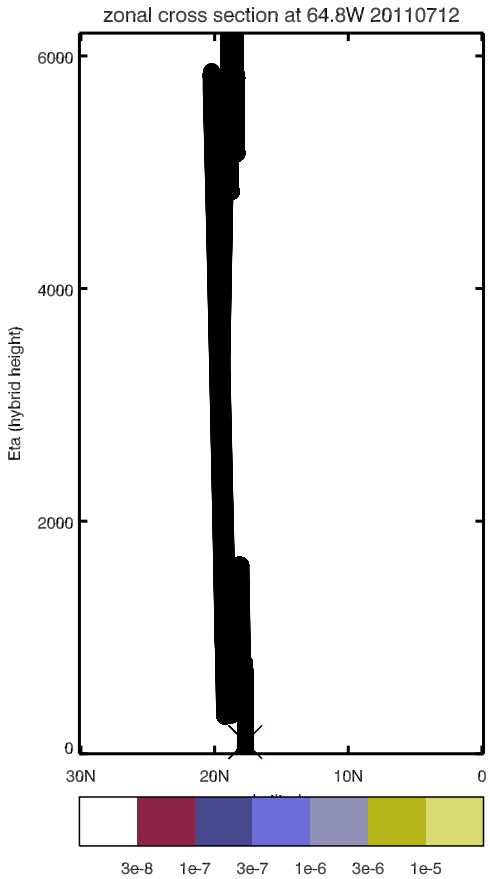

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

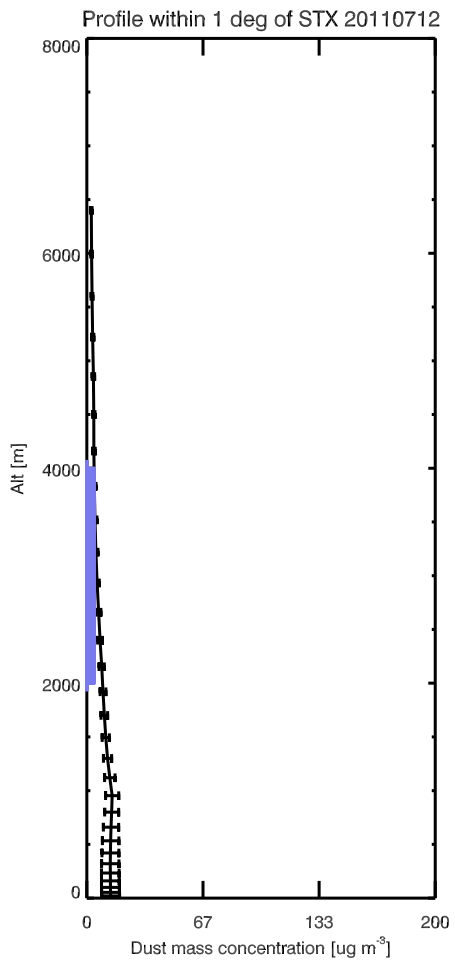

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 12/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

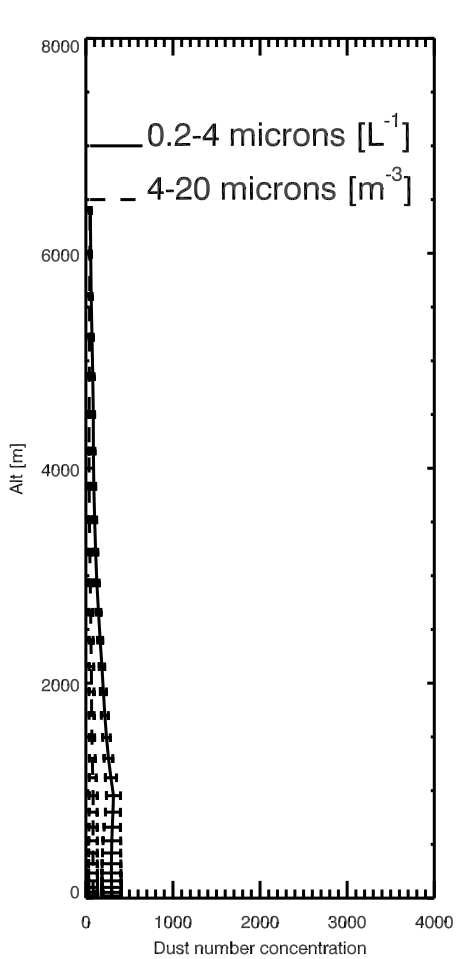

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 12/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

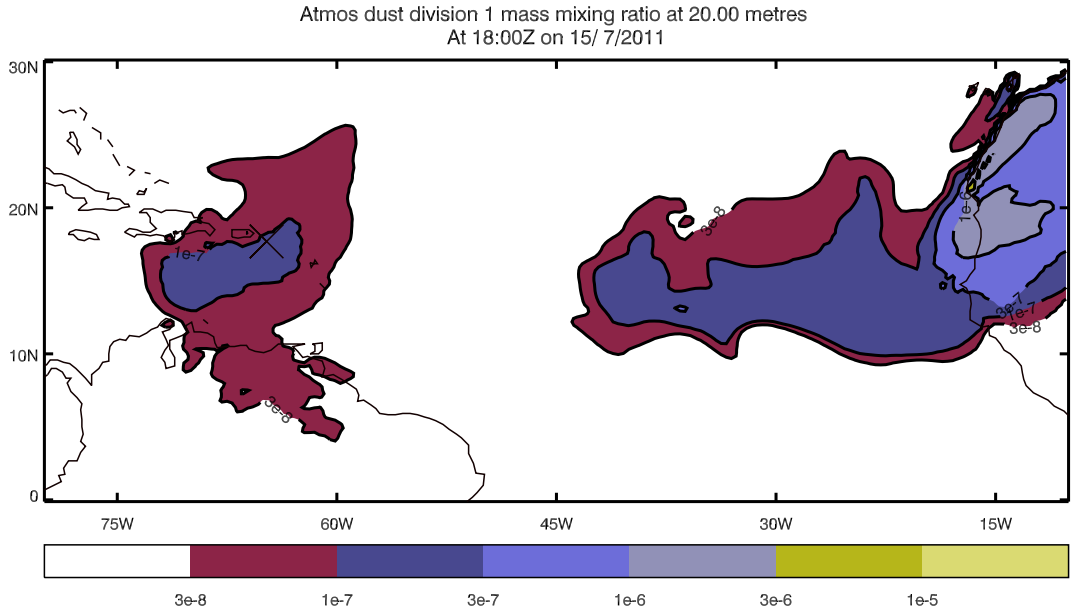

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 12/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

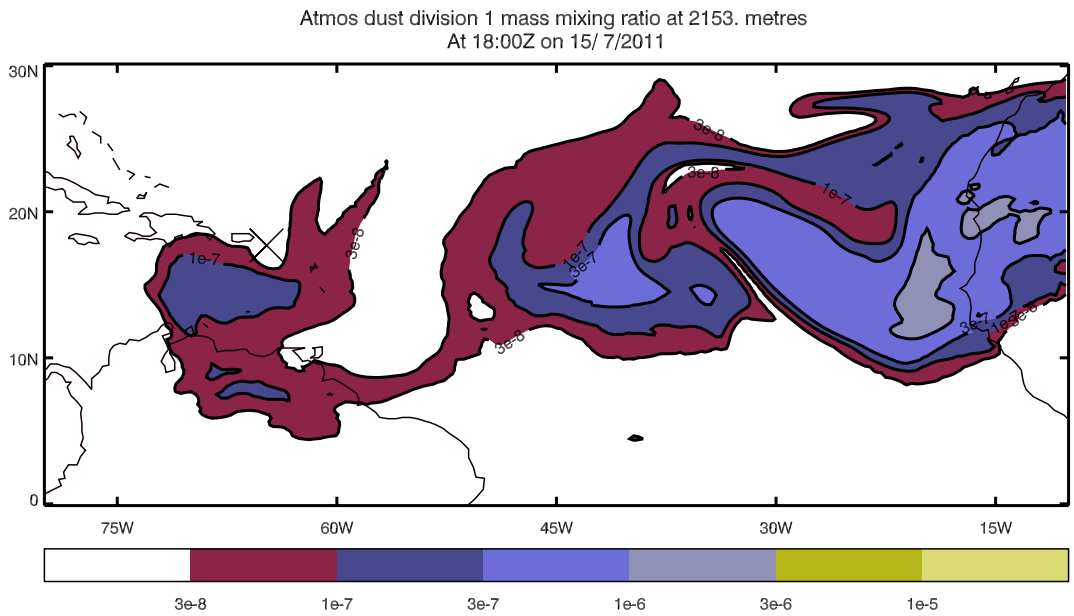

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110712
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

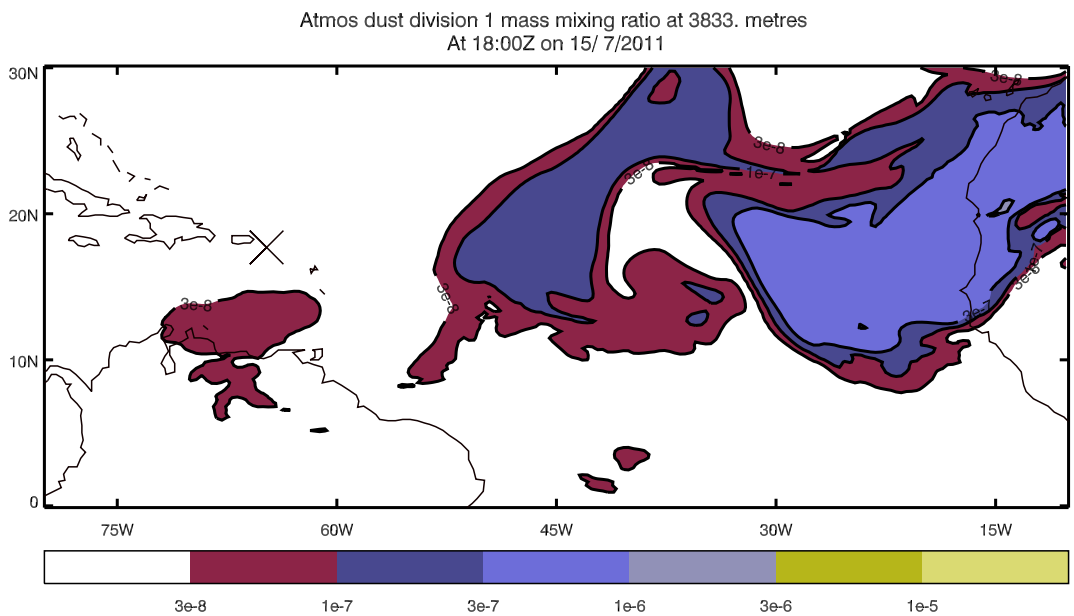

zonal cross section at 64.8W 20110712
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

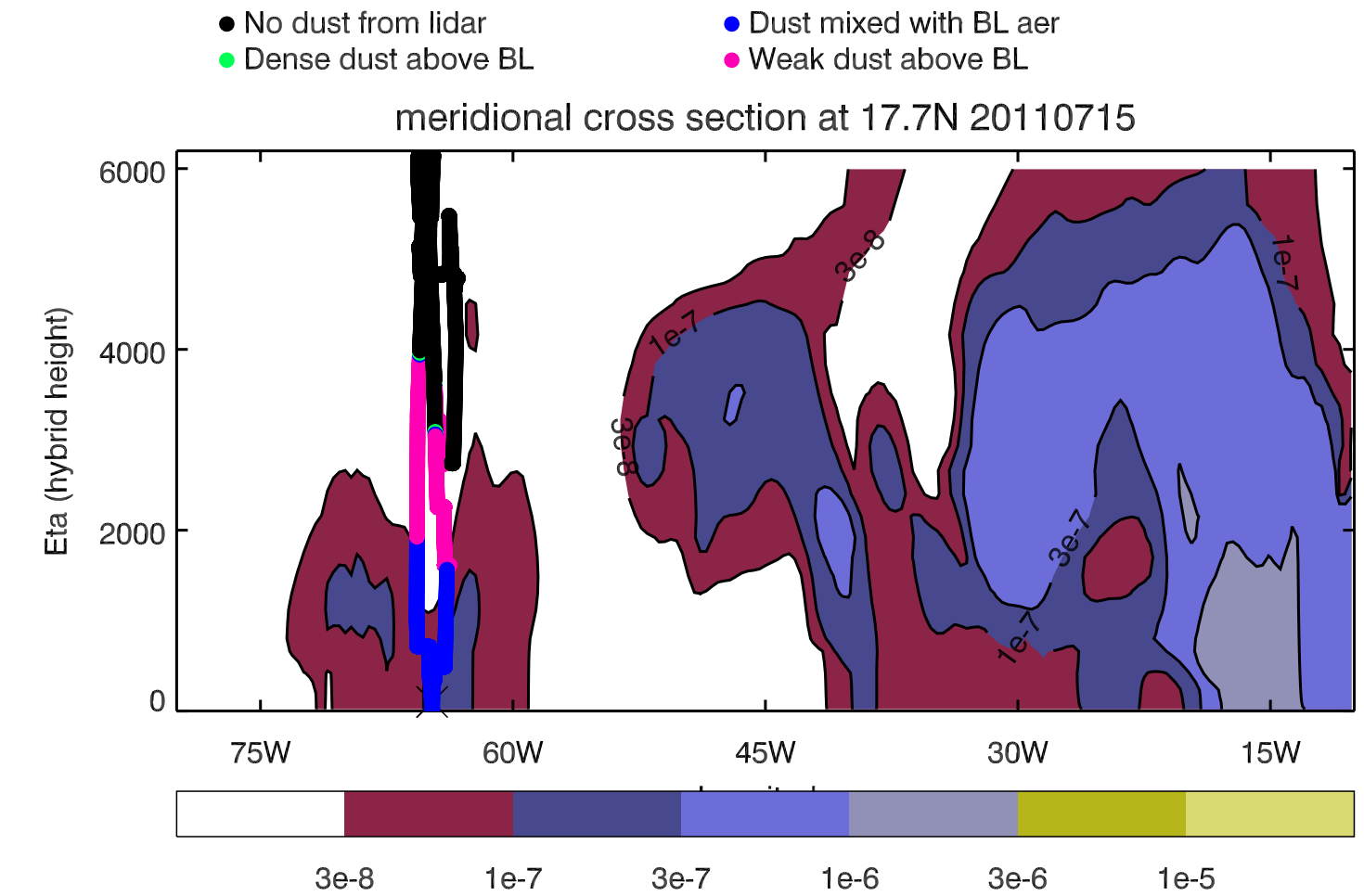

Profile within 1 deg of STX 20110712
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

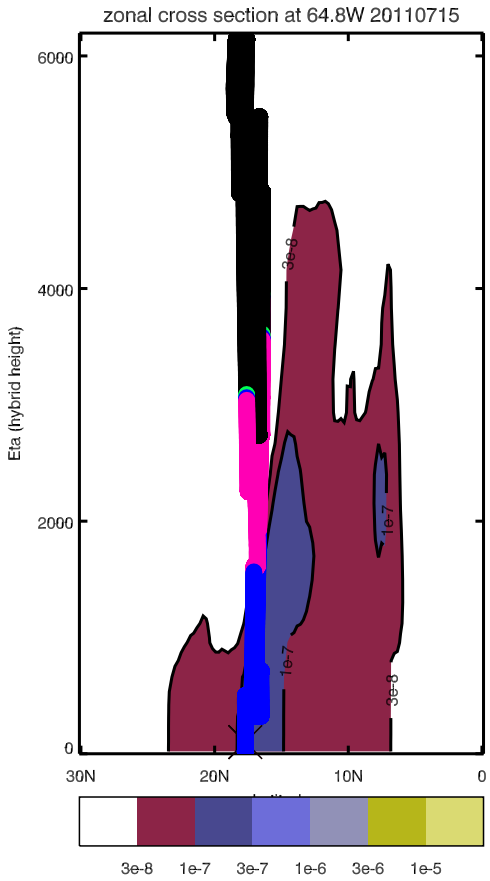

Alt [m]
8000
6000
4000
2000
0
0.2-4 microns [L-1]
4-20 microns [m-3]
0
1000
2000
3000
4000
Dust number concentration

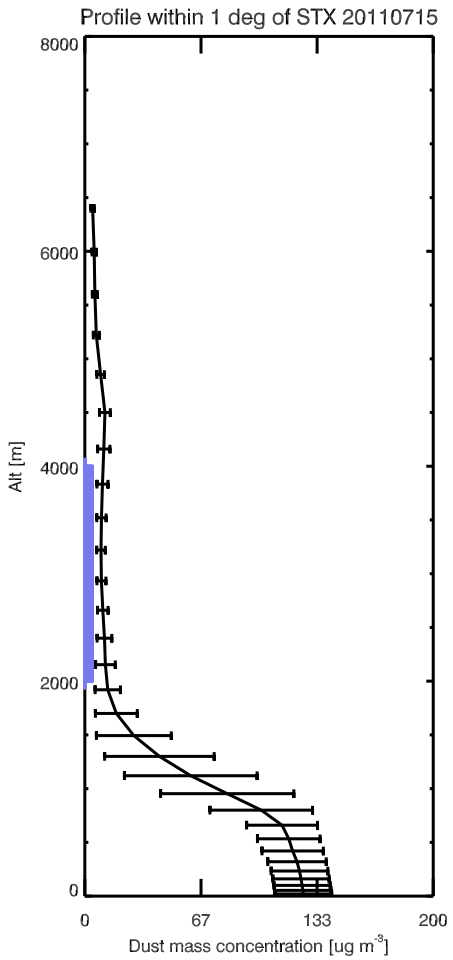

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 15/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

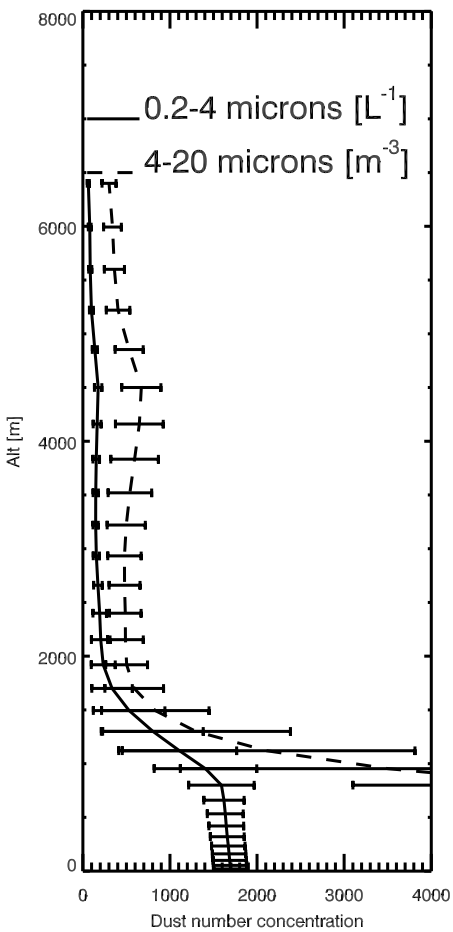

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 15/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

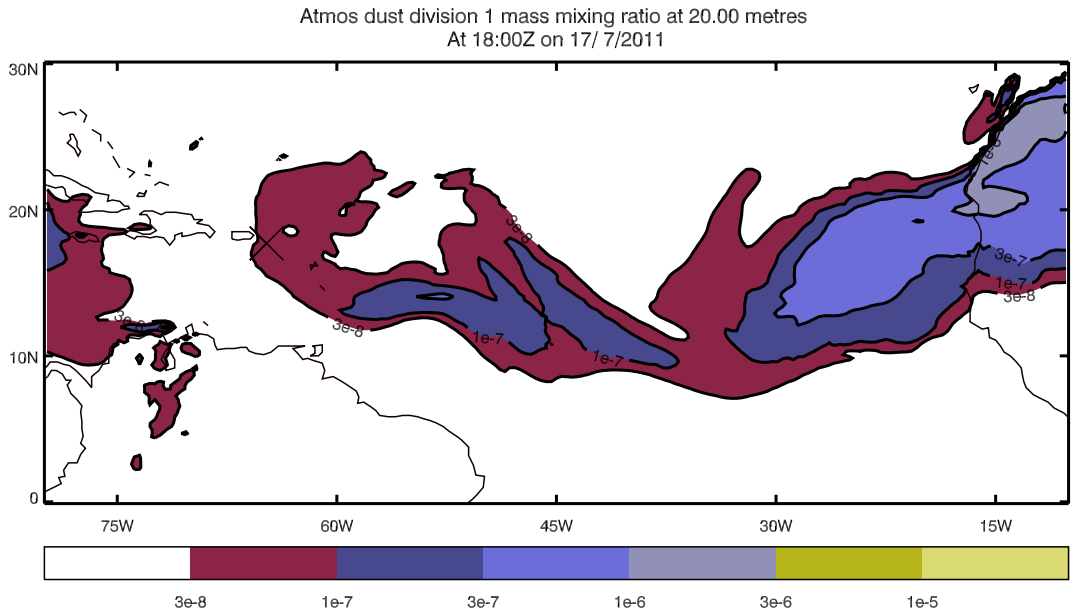

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 15/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

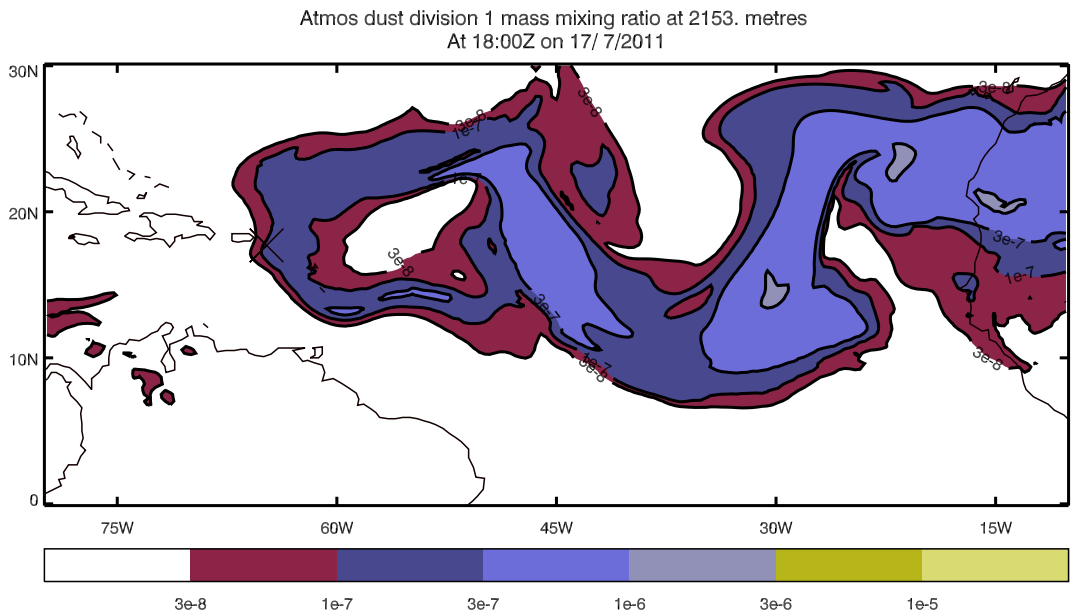

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110715
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

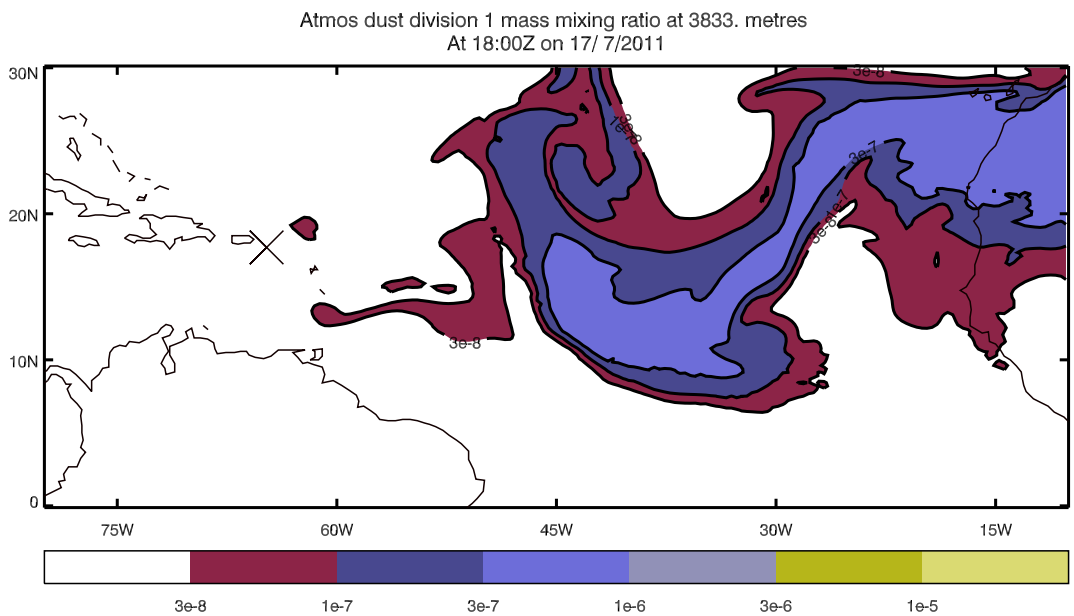

zonal cross section at 64.8W 20110715
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

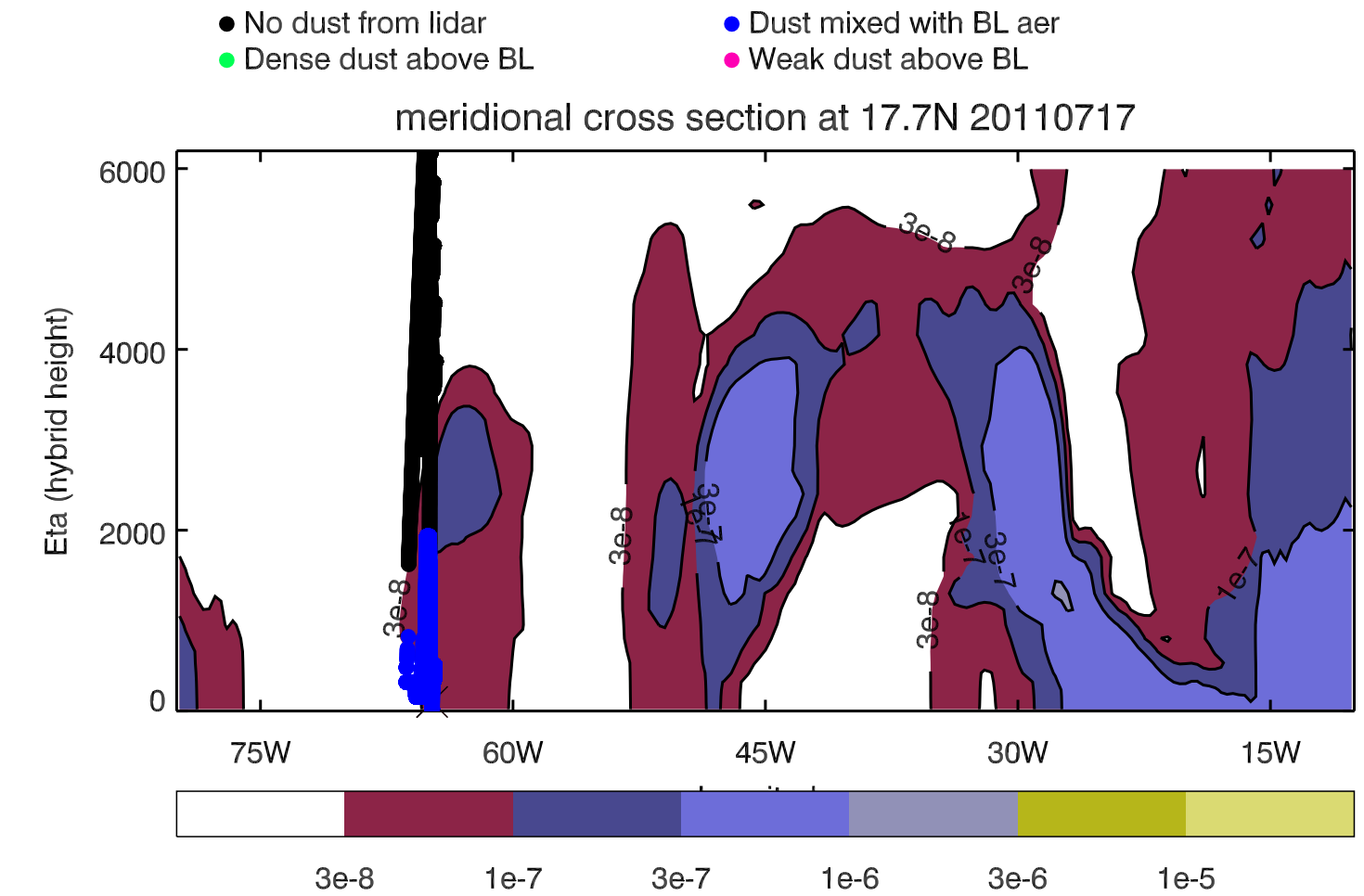

Profile within 1 deg of STX 20110715
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

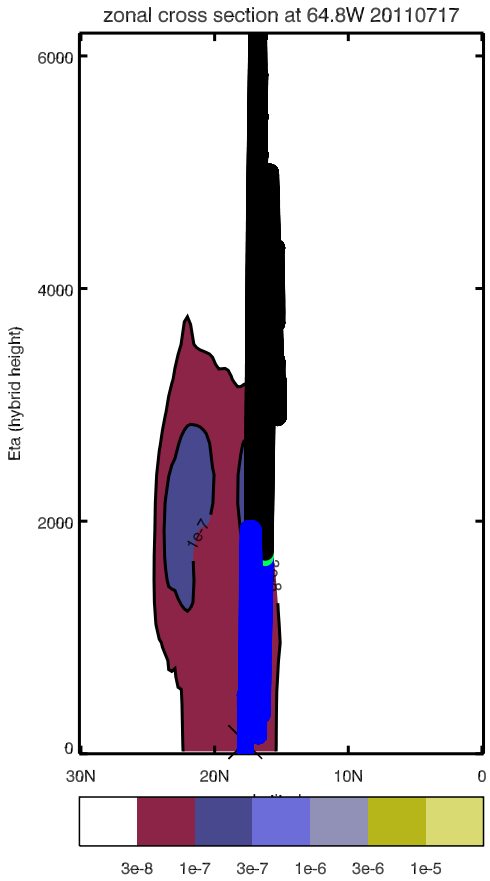

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

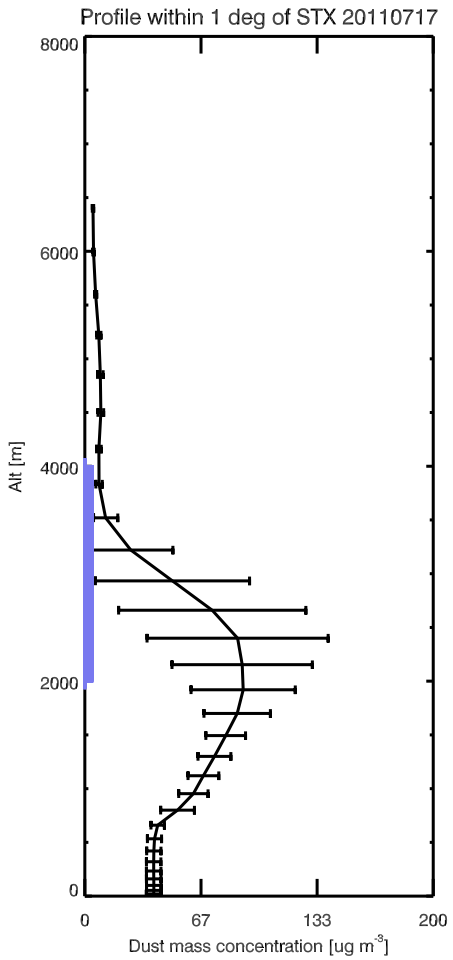

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 17/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

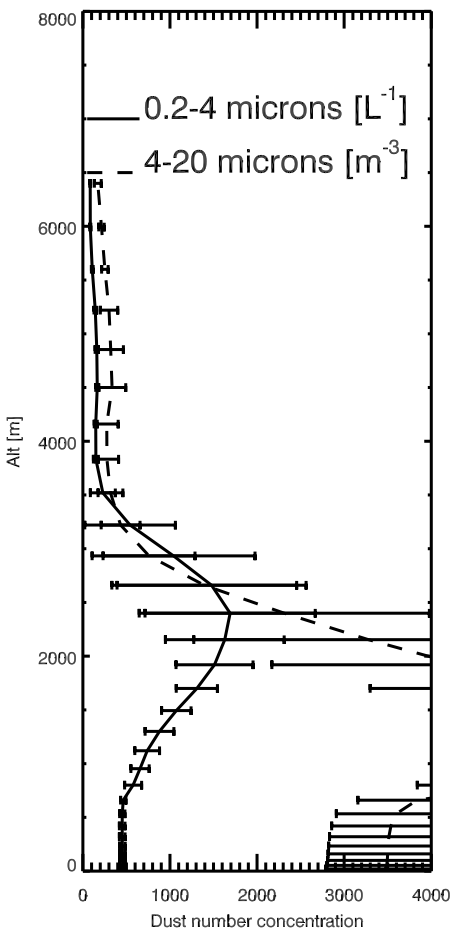

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 17/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

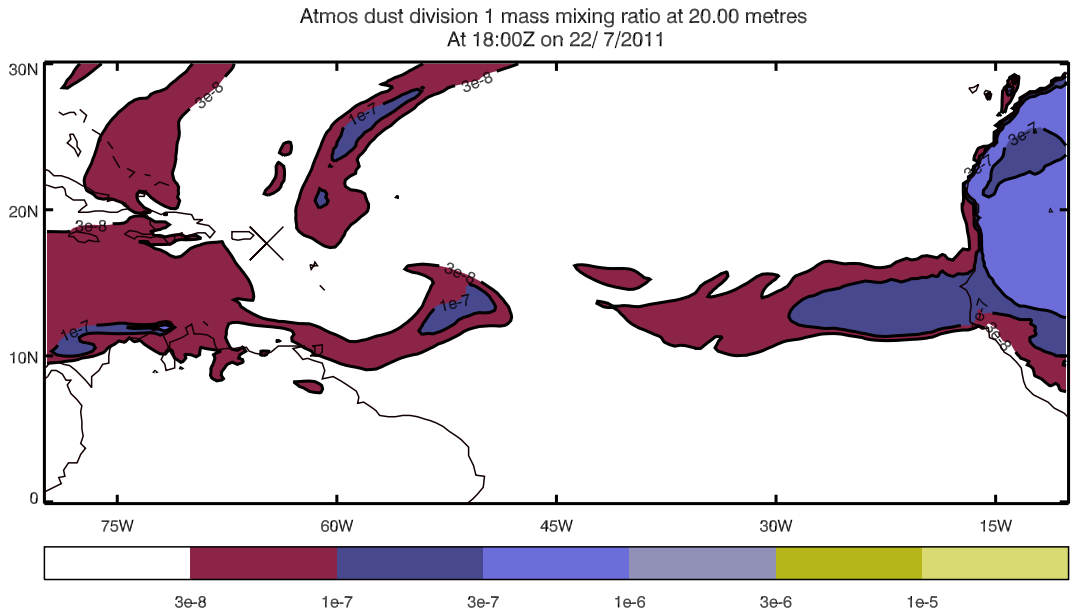

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 17/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

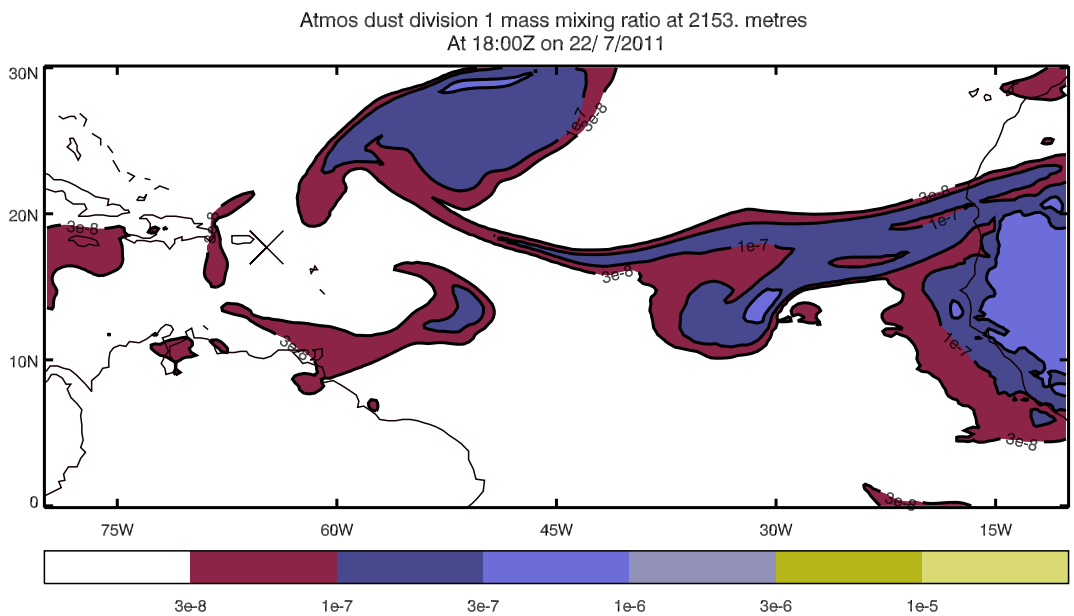

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110717
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

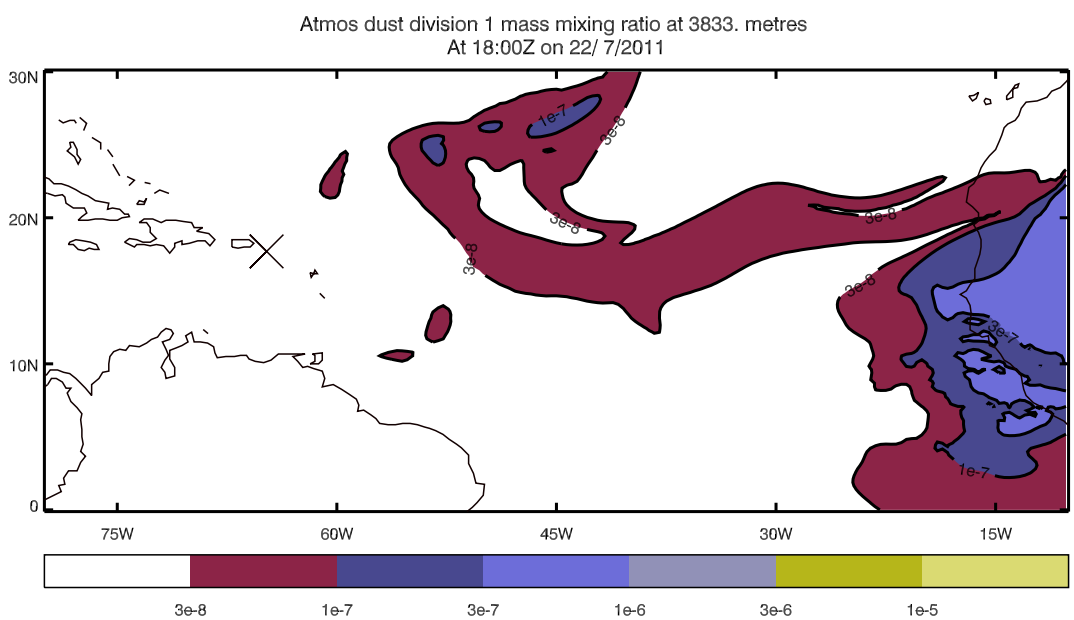

zonal cross section at 64.8W 20110717
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

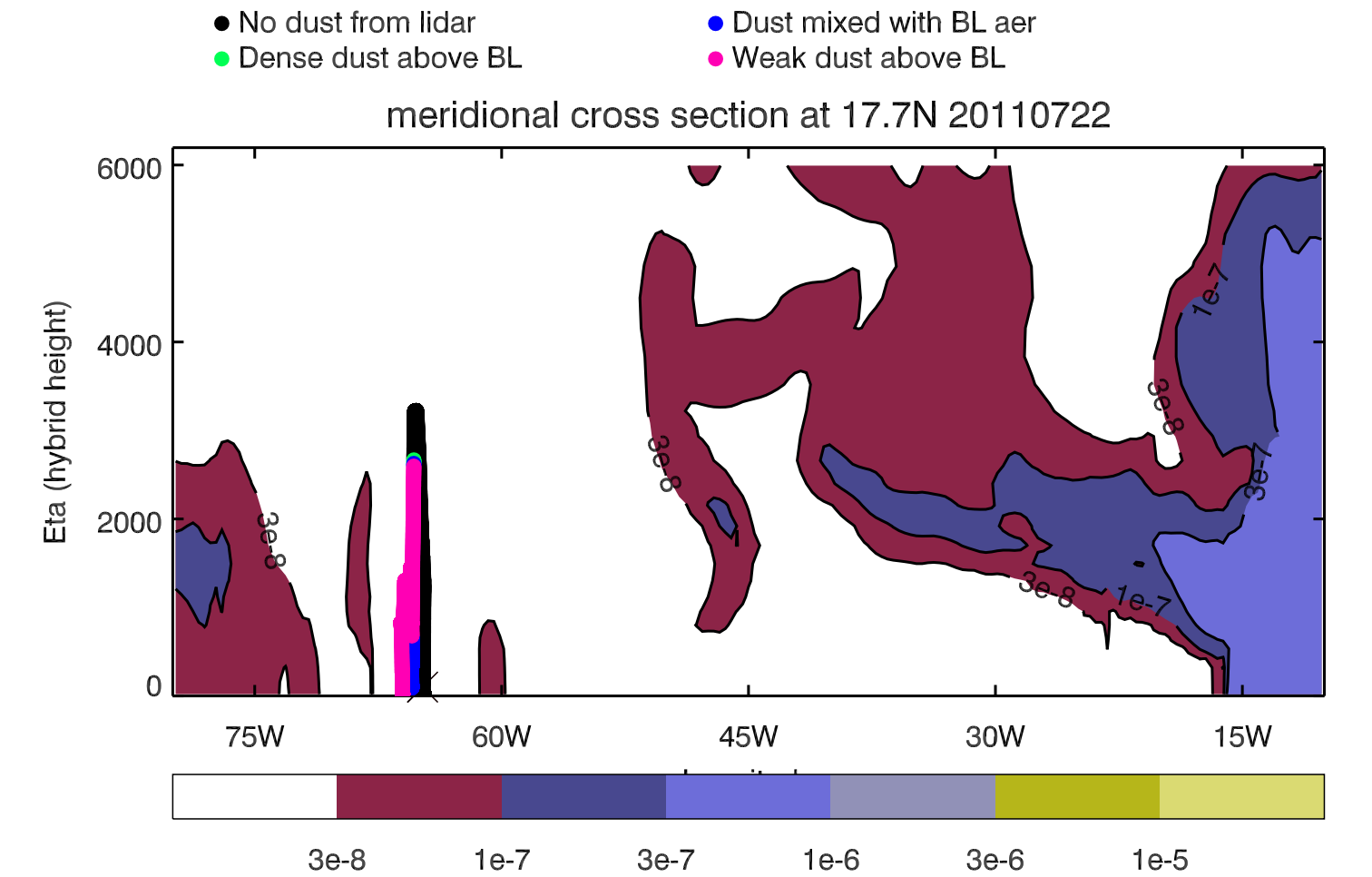

Profile within 1 deg of STX 20110717
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

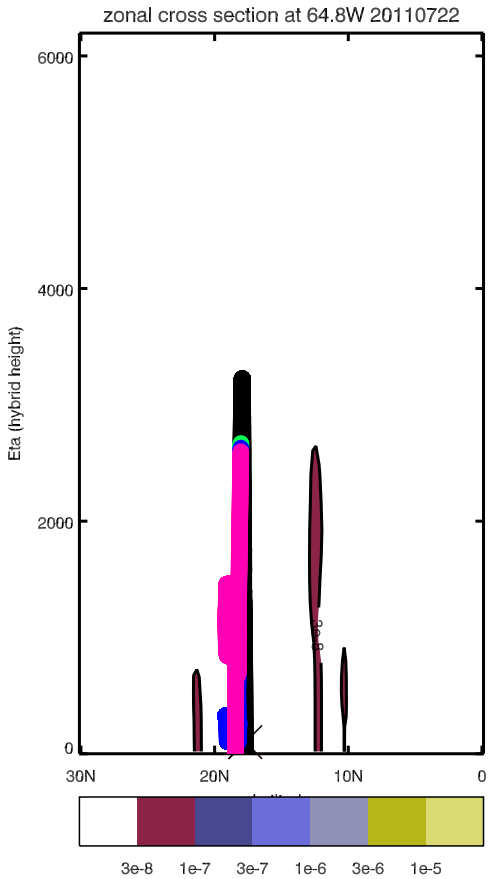

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

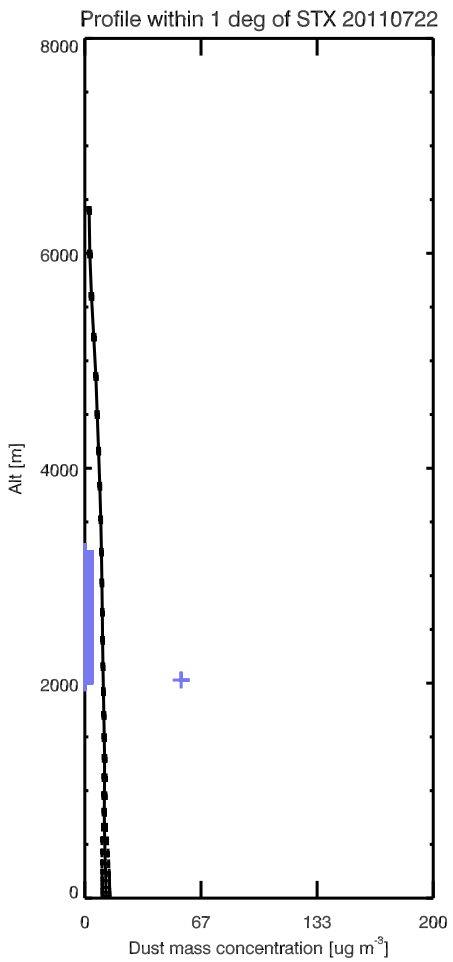

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 22/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

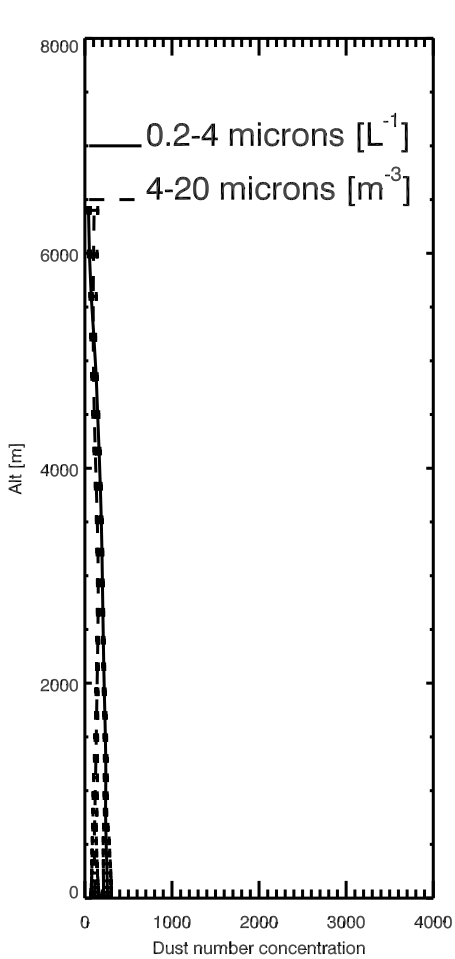

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 22/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

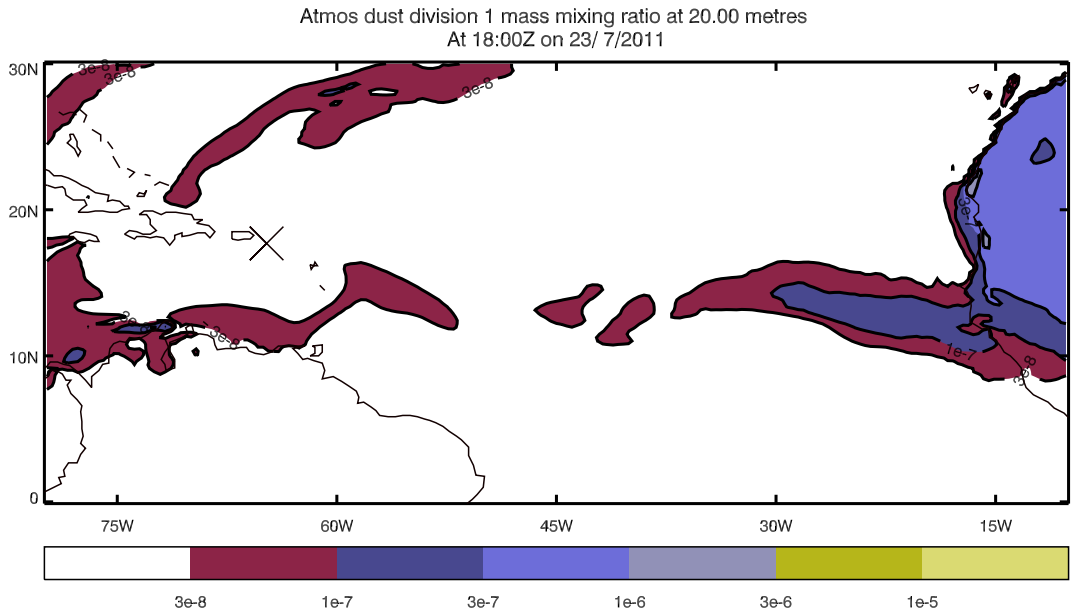

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 22/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

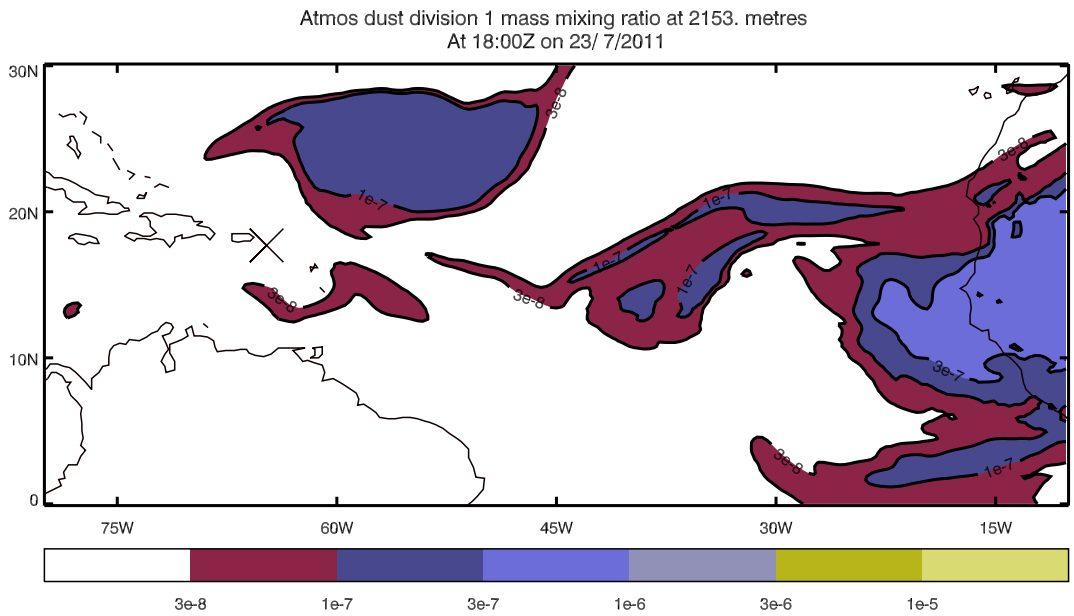

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110722
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

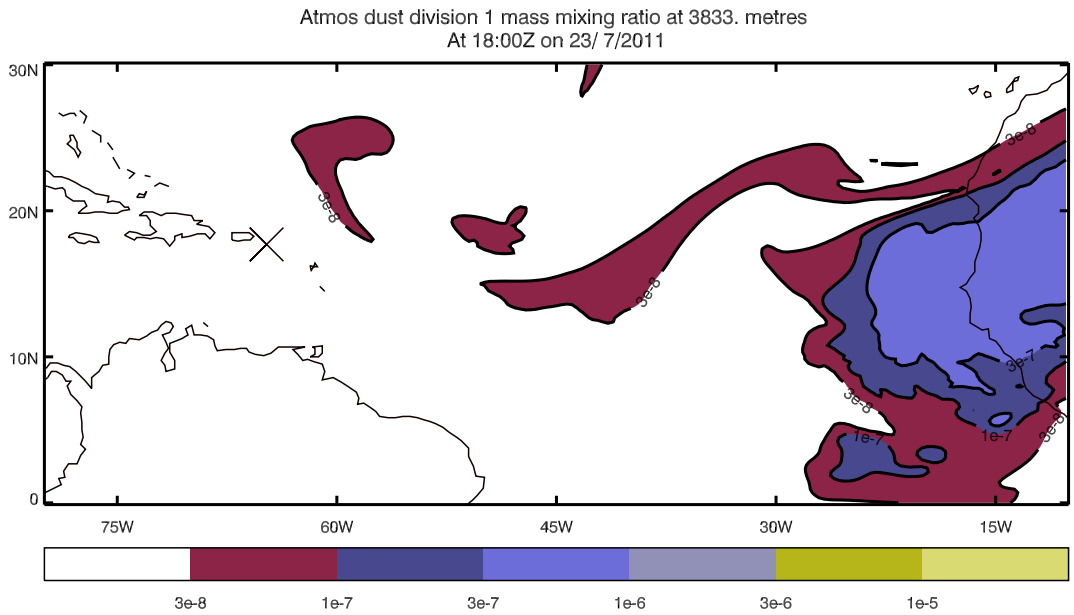

zonal cross section at 64.8W 20110722
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

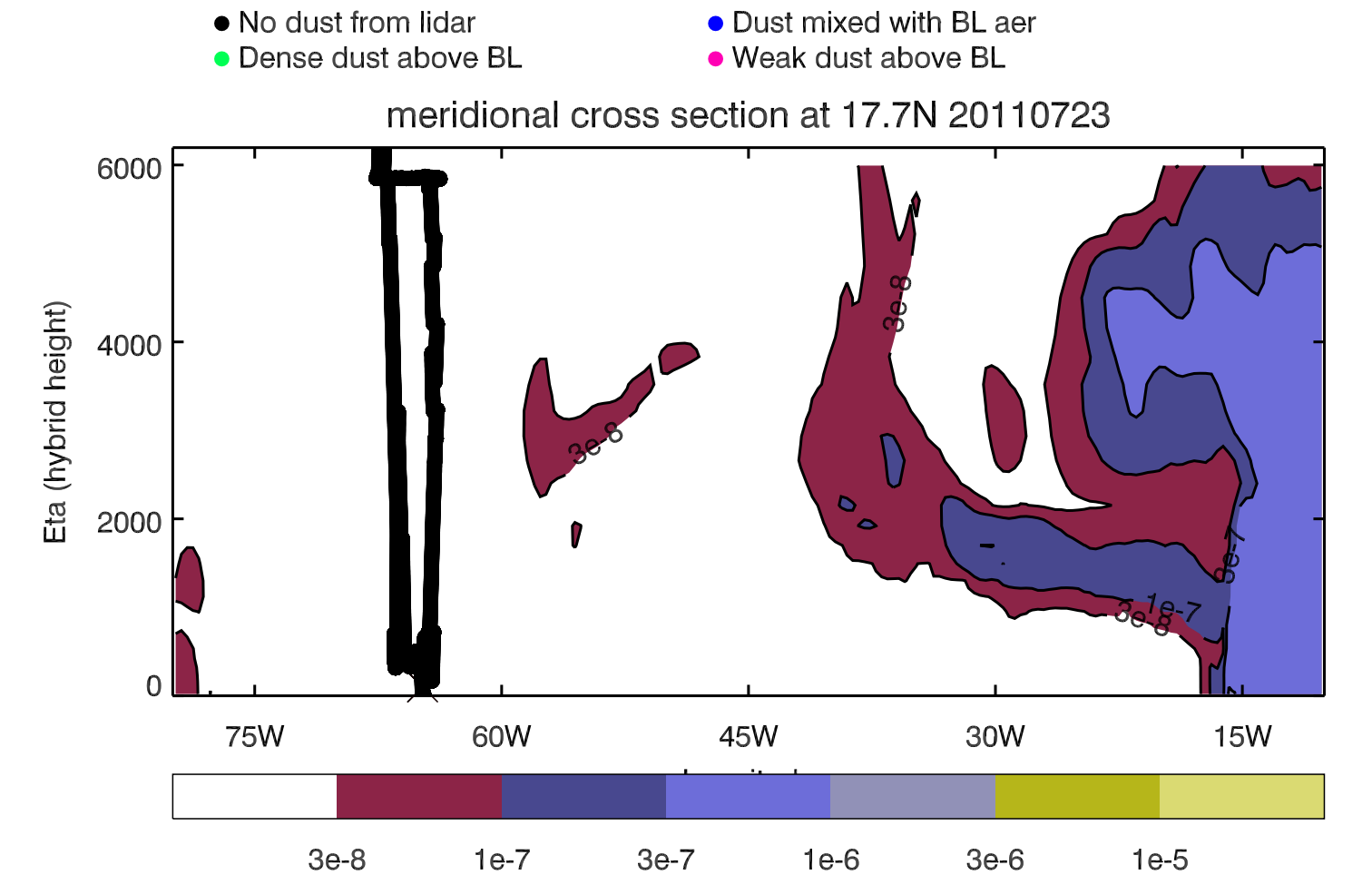

Profile within 1 deg of STX 20110722
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

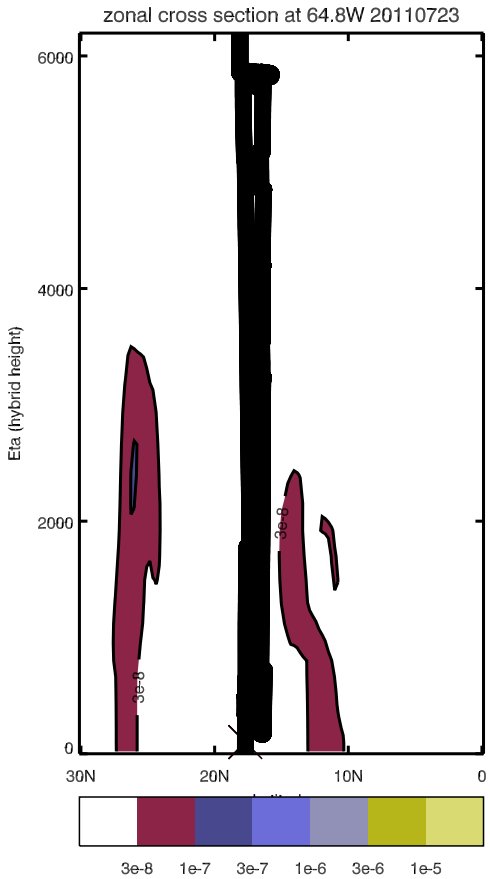

Alt [m]
8000
6000
4000
2000
0
0.2-4 microns [L-1]
4-20 microns [m-3]
0
1000
2000
3000
4000
Dust number concentration

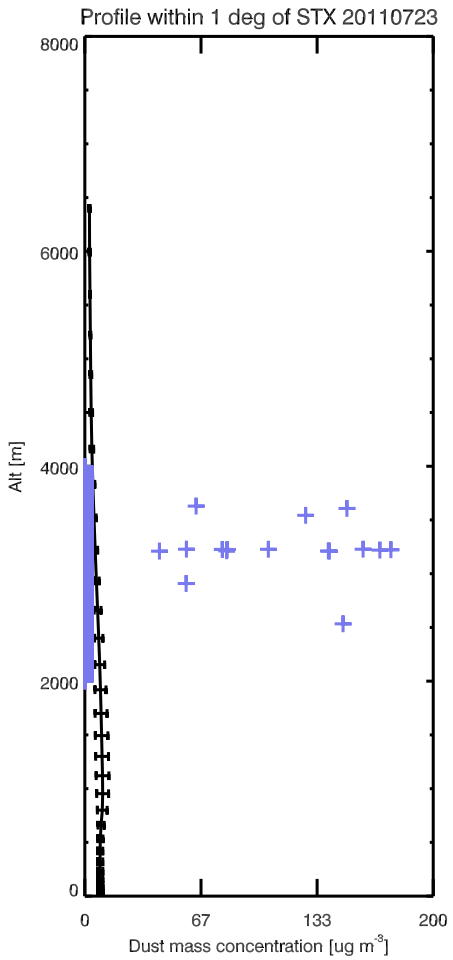

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 23/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

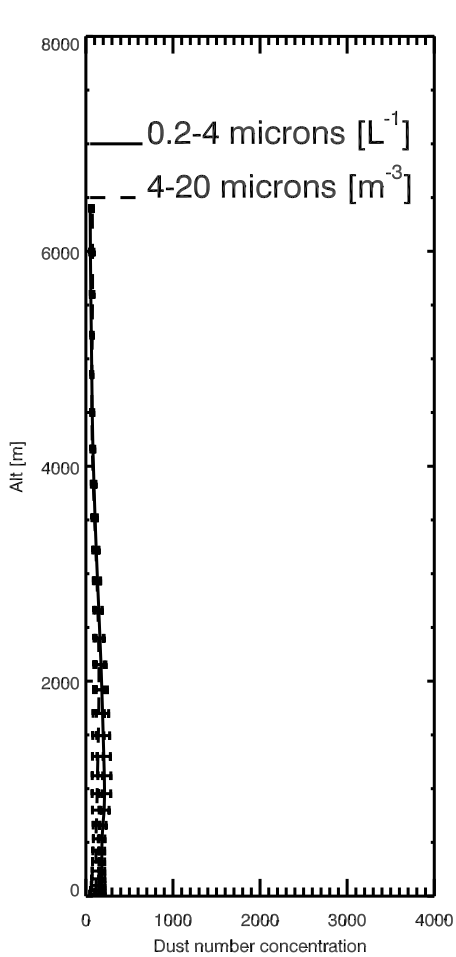

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 23/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

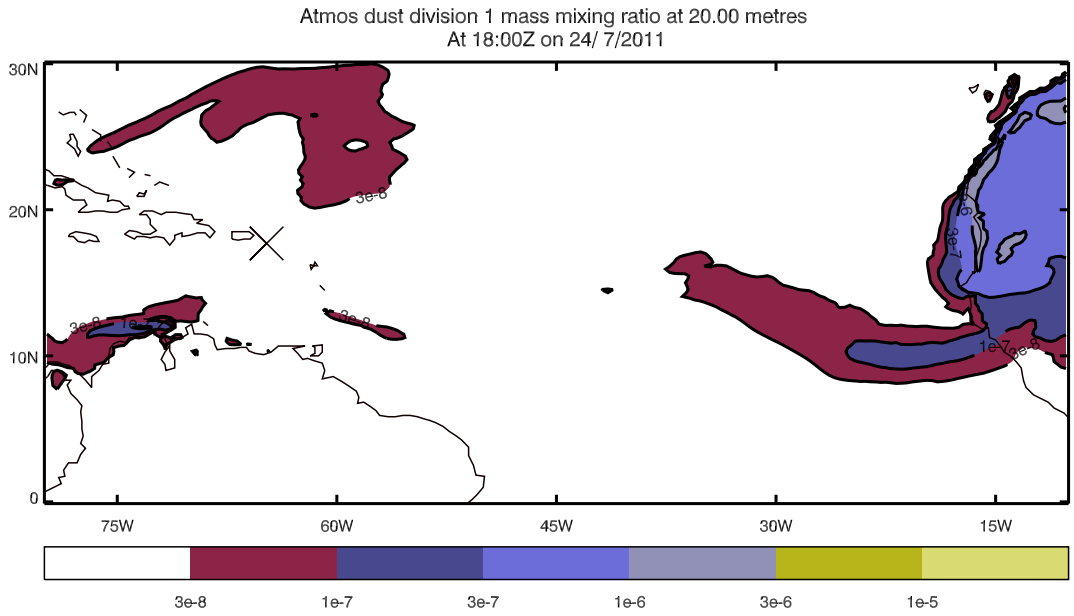

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 23/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

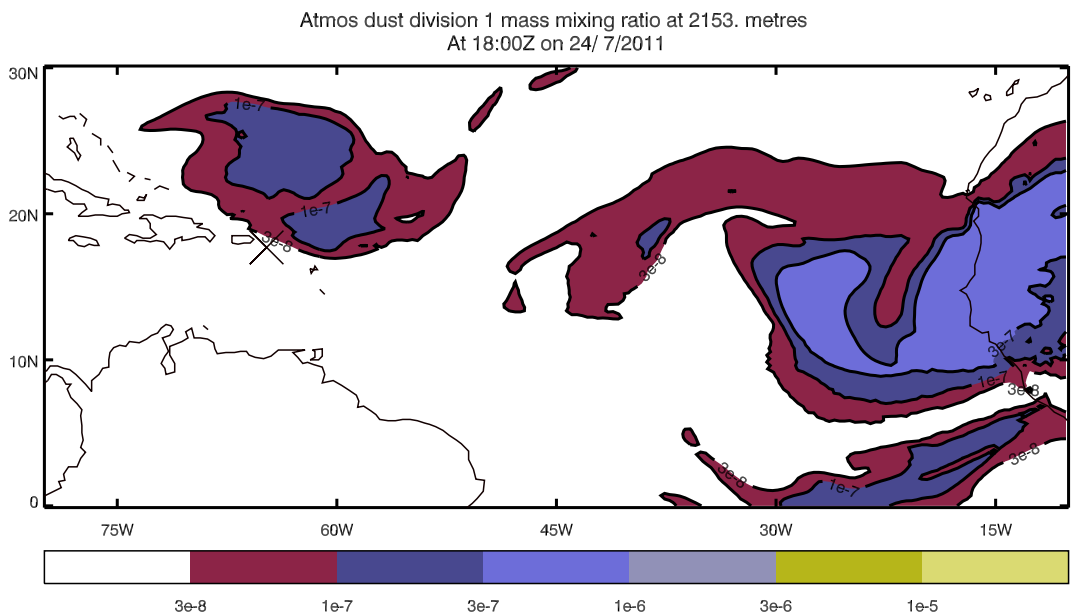

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110723
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

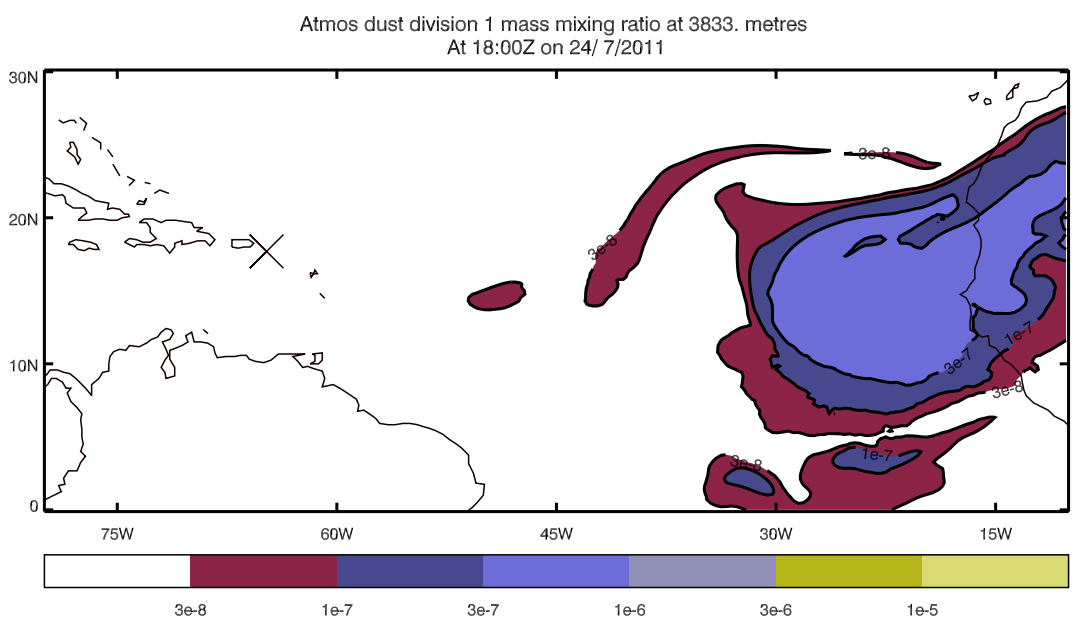

zonal cross section at 64.8W 20110723
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

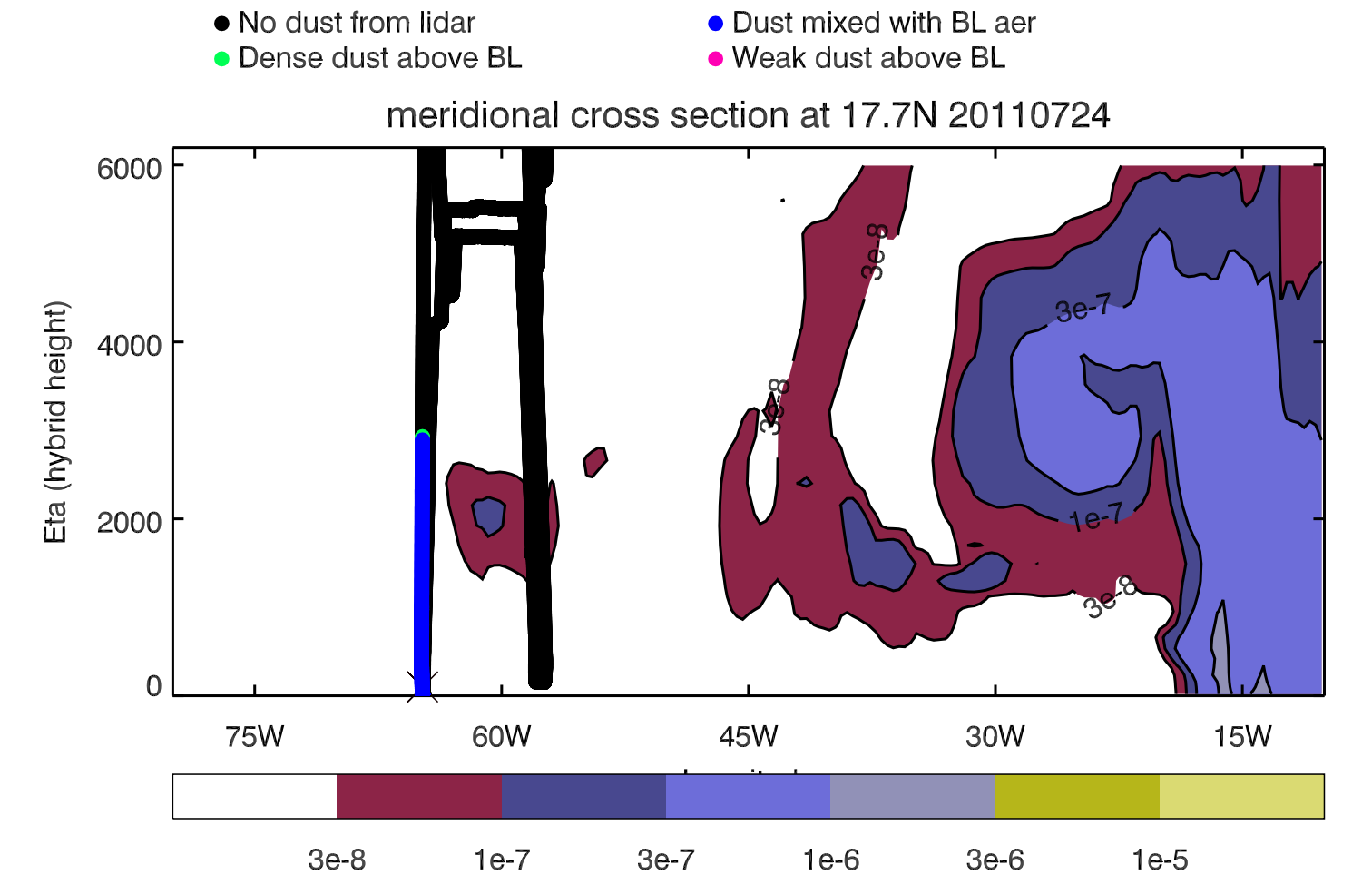

Profile within 1 deg of STX 20110723
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

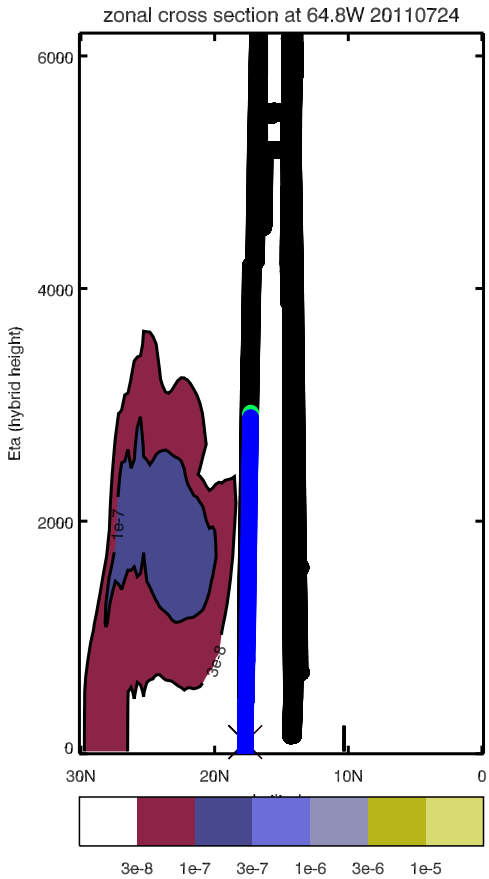

Alt [m]
8000
6000
4000
2000
0
0.2-4 microns [L-1]
4-20 microns [m-3]
0
1000
2000
3000
4000
Dust number concentration

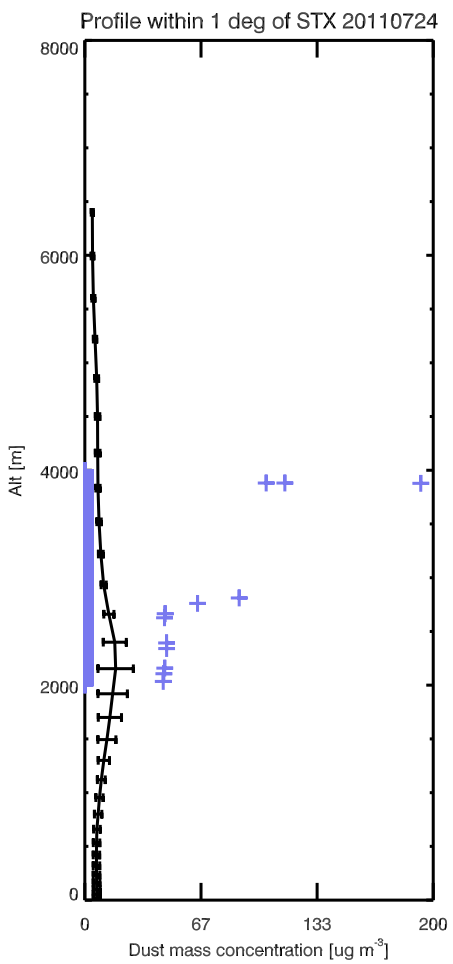

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 24/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

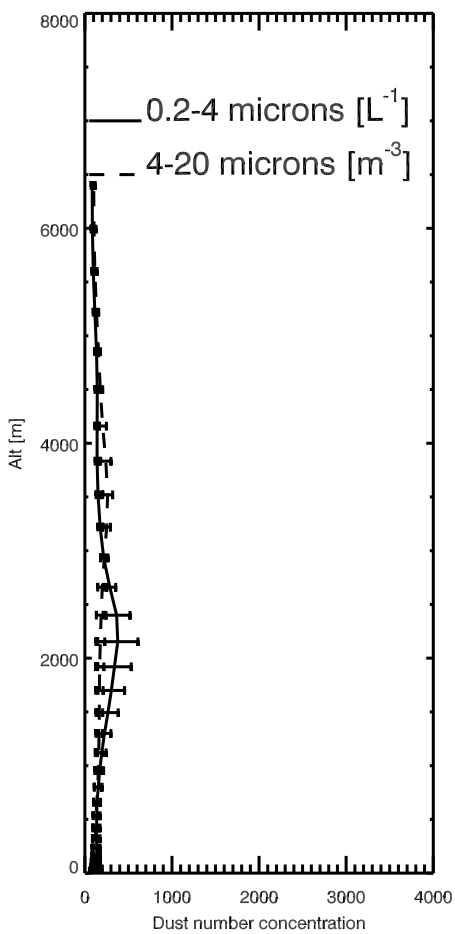

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 24/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

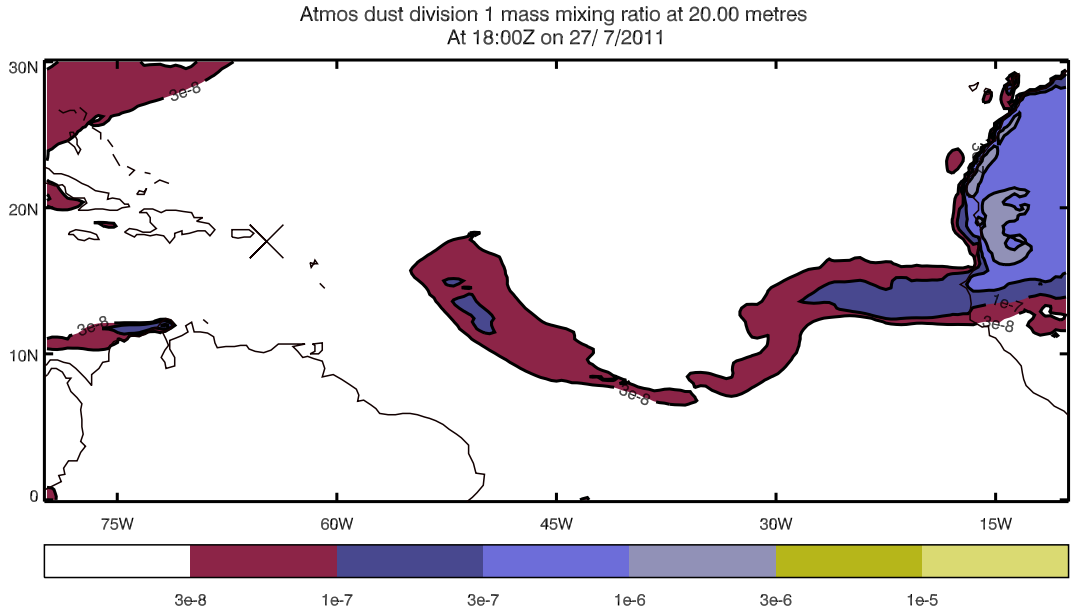

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 24/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

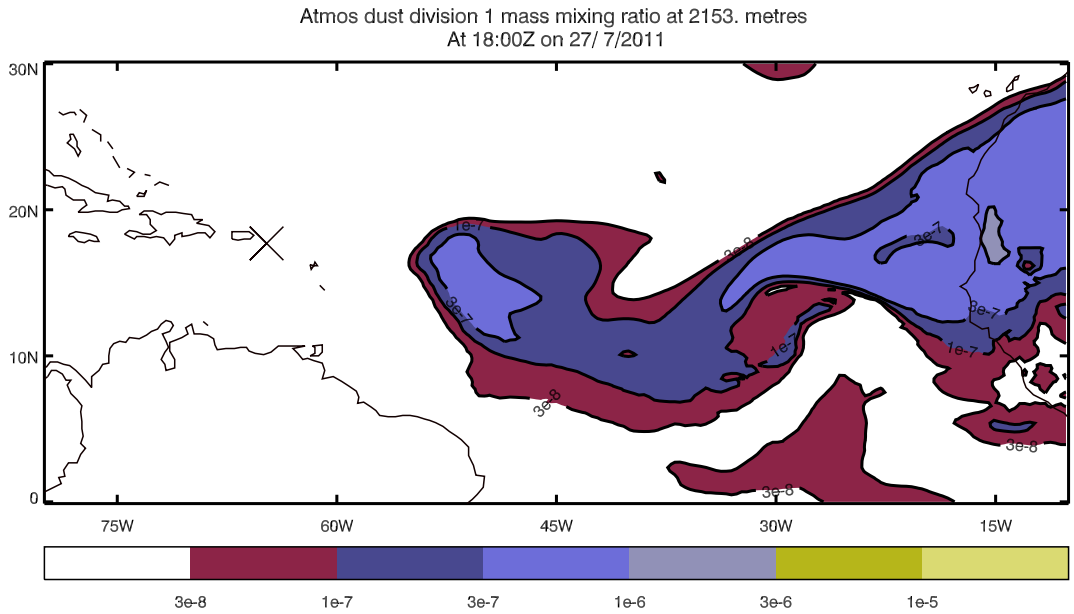

No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110724
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
3e-7
1e-7
3e-8
3e-8
3e-7
1e-7
3e-8
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

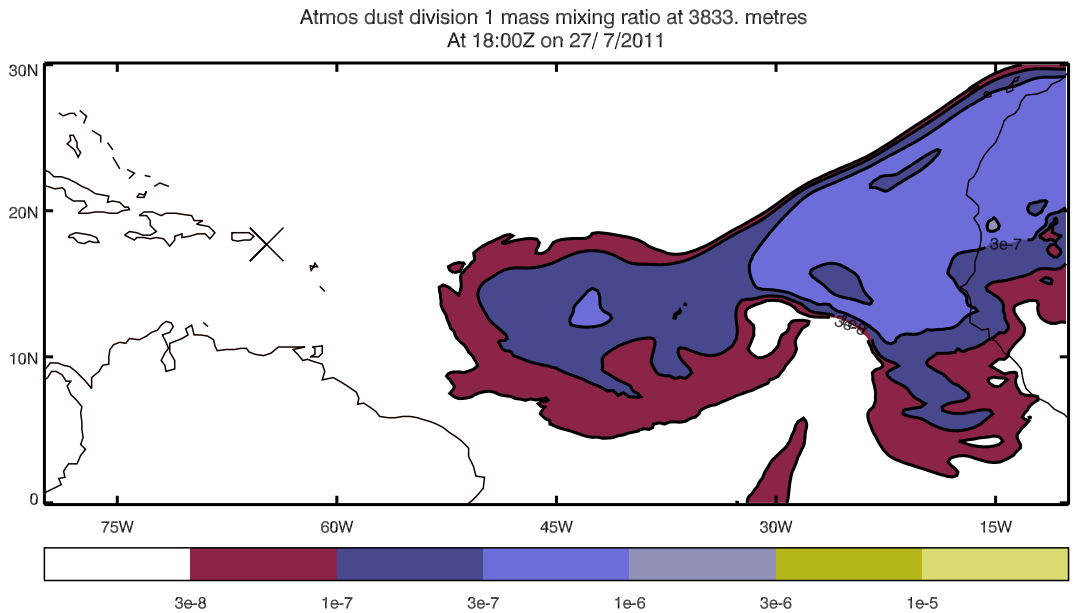

zonal cross section at 64.8W 20110724
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
1e-7
3e-8
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

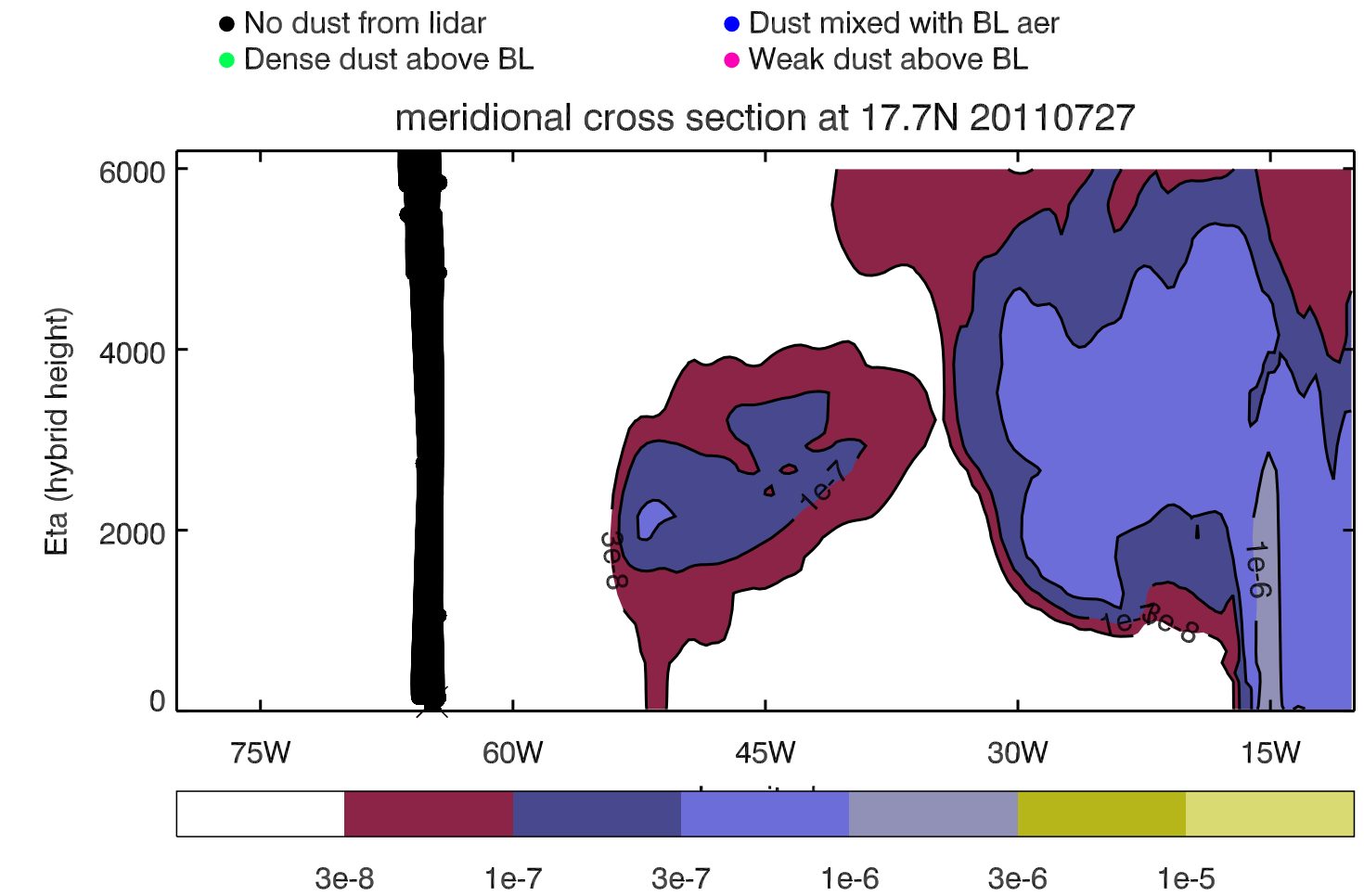

Profile within 1 deg of STX 20110724
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

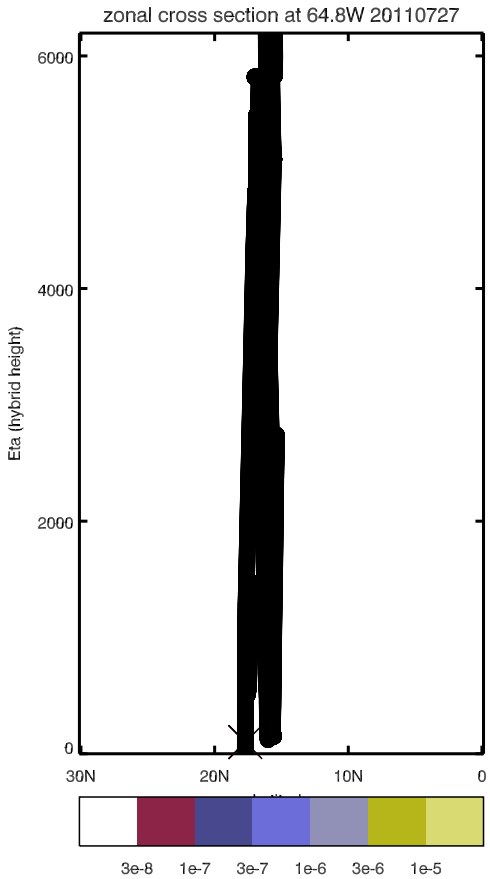

0.2-4 microns [L-1]
4-20 microns [m-3]
Alt [m]
8000
6000
4000
2000
0
0
1000
2000
3000
4000
Dust number concentration

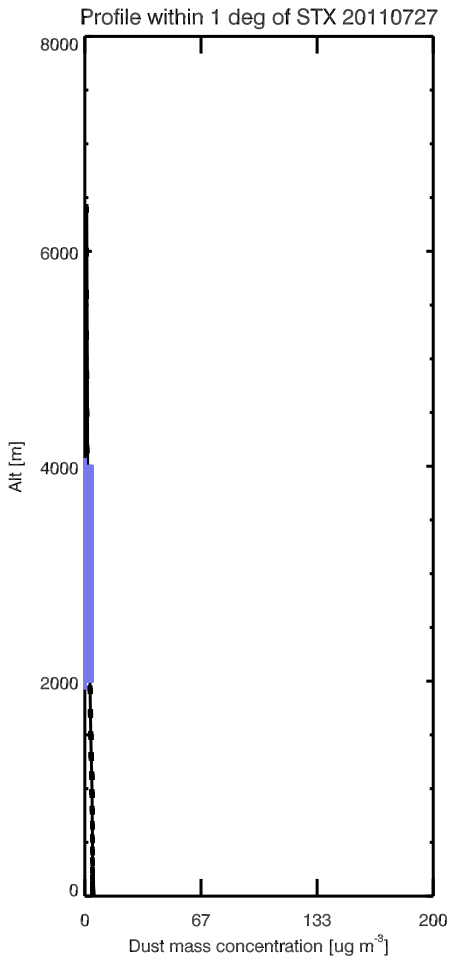

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 27/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

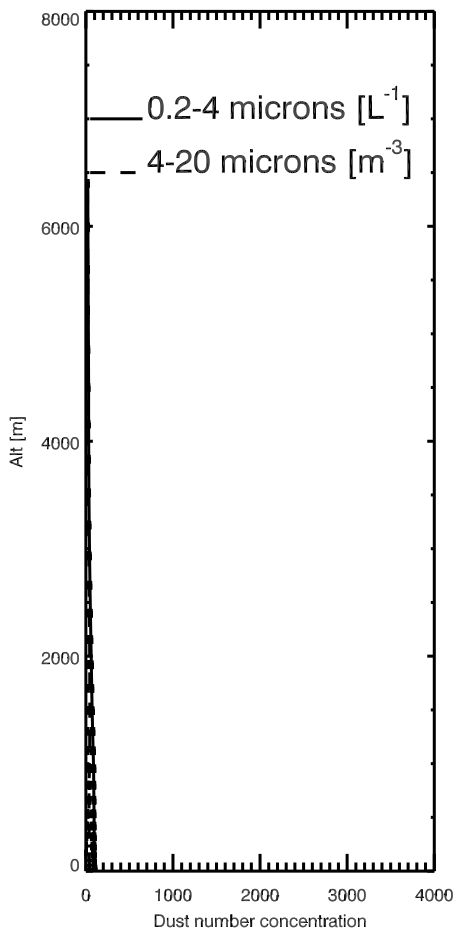

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 27/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

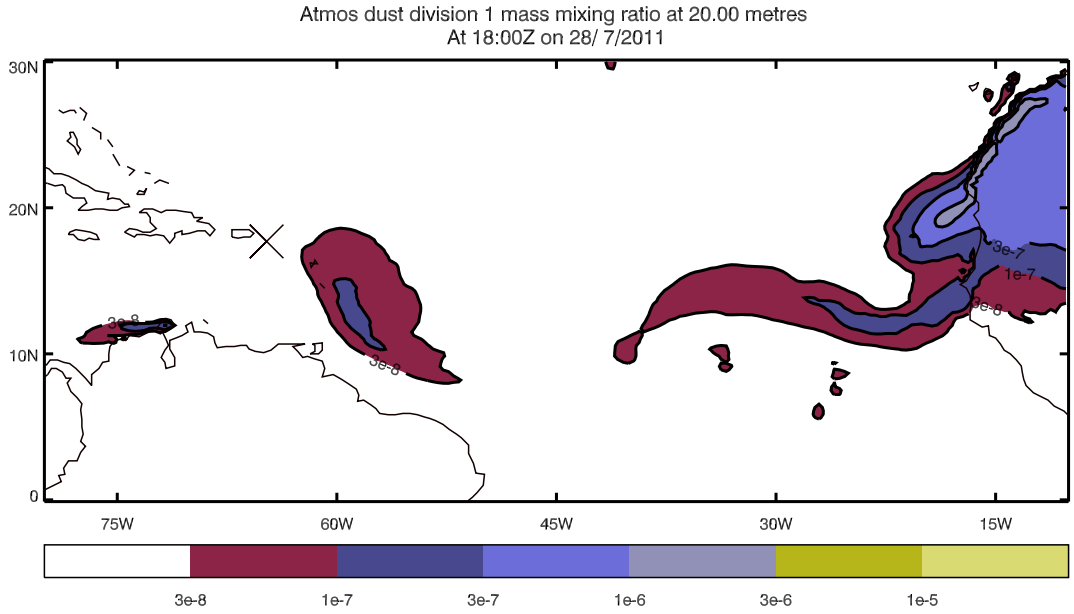

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 27/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

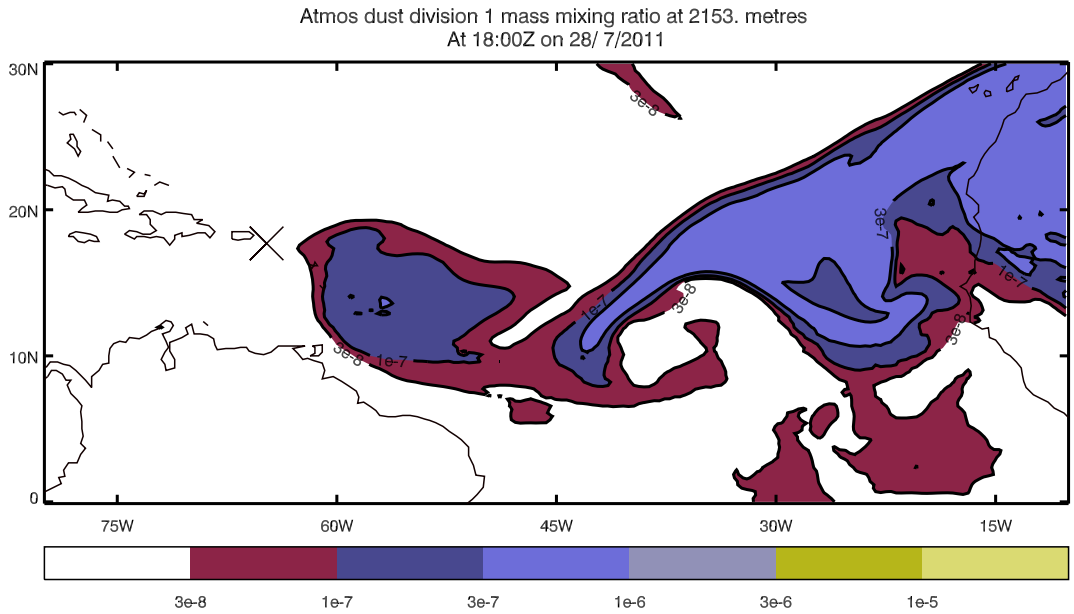

No dust from lidar
Dust mixed with BL aer
Dense dust above BL
Weak dust above BL
meridional cross section at 17.7N 20110727
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
1e-7
3e-8
1e-6
1e-8
3e-8
1e-5
3e-6
1e-6
3e-7
1e-7
3e-8

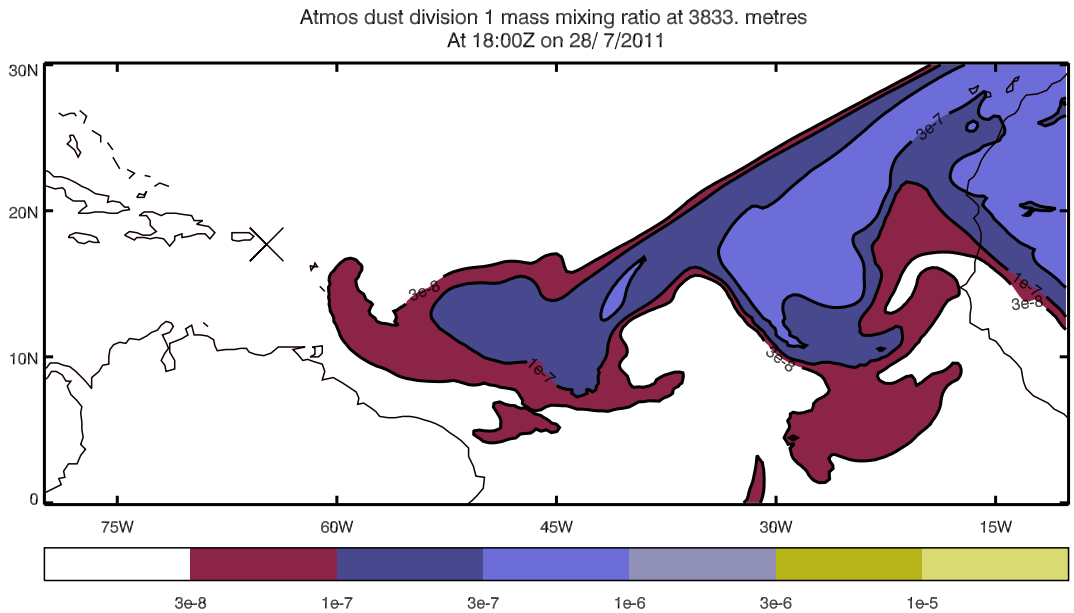

zonal cross section at 64.8W 20110727
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

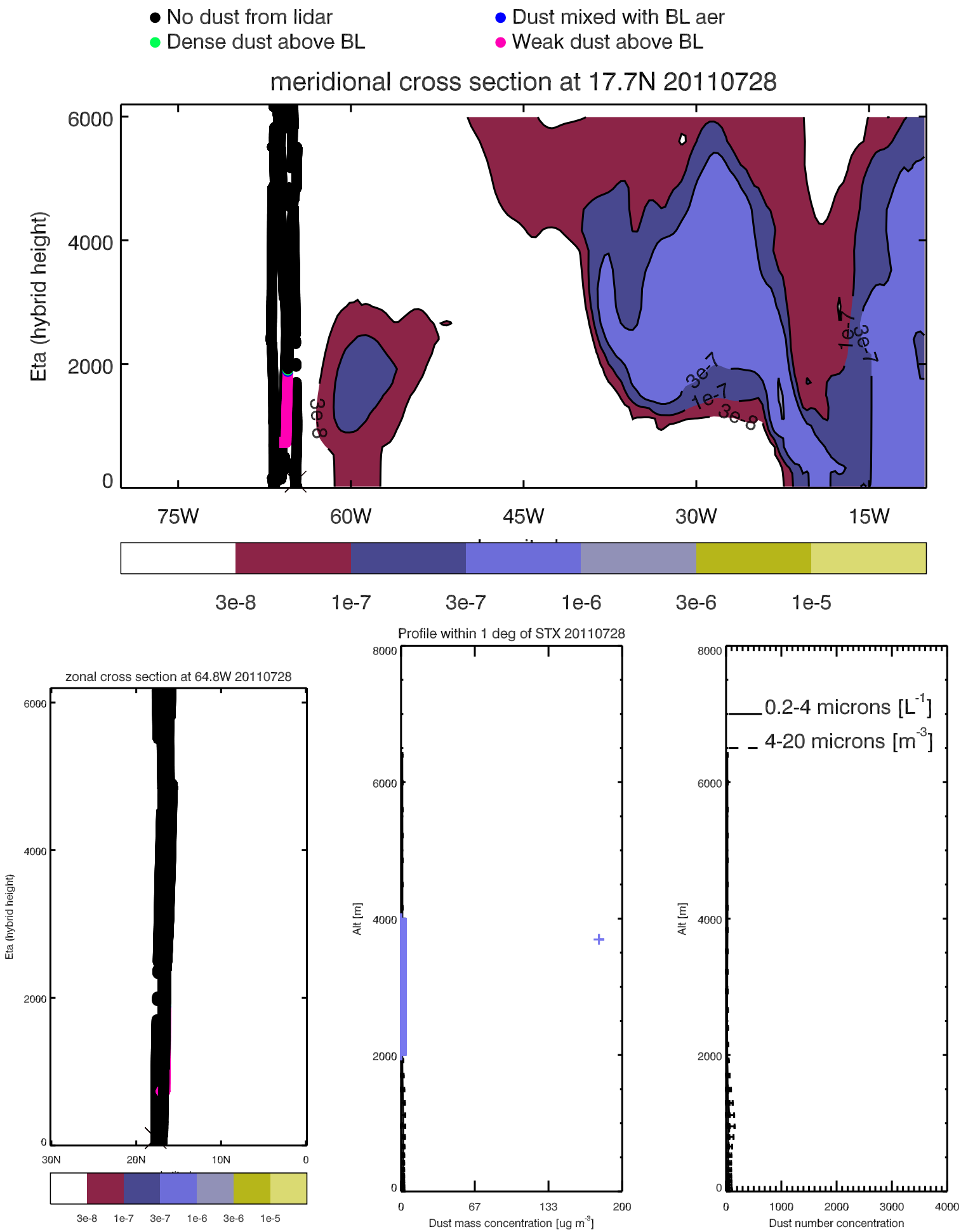

Profile within 1 deg of STX 20110727
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]

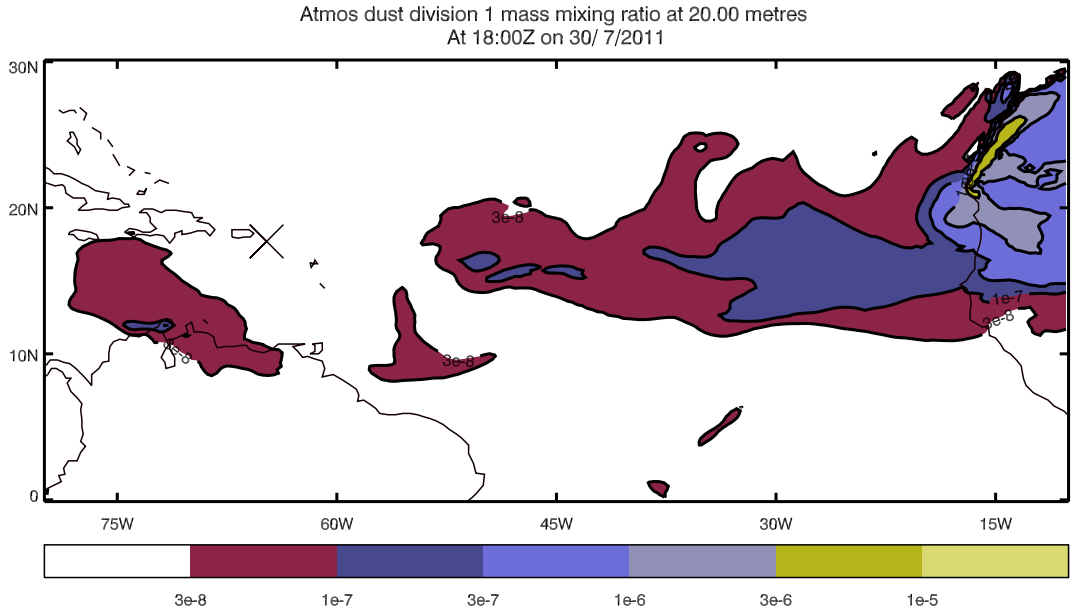

Alt [m]
8000
6000
4000
2000
0
0.2-4 microns [L-1]
4-20 microns [m-3]
0
1000
2000
3000
4000
Dust number concentration

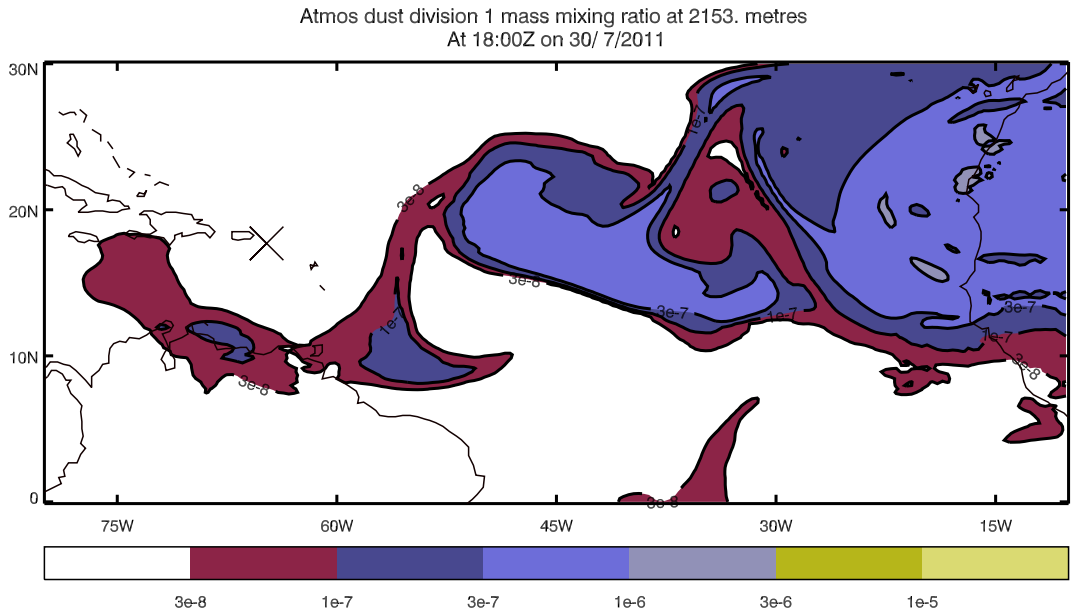

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 28/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

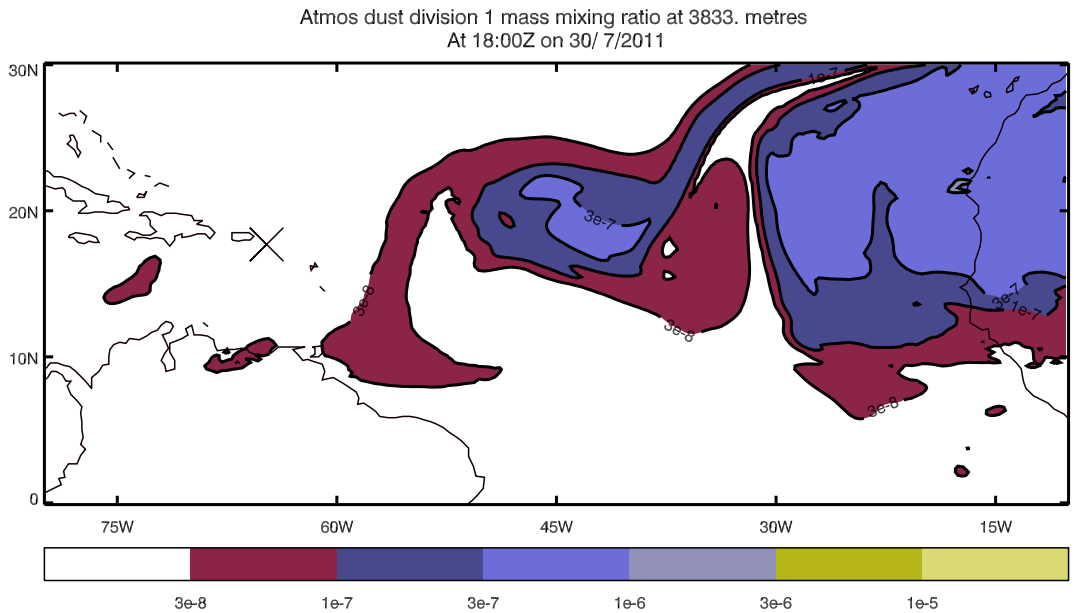

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 28/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

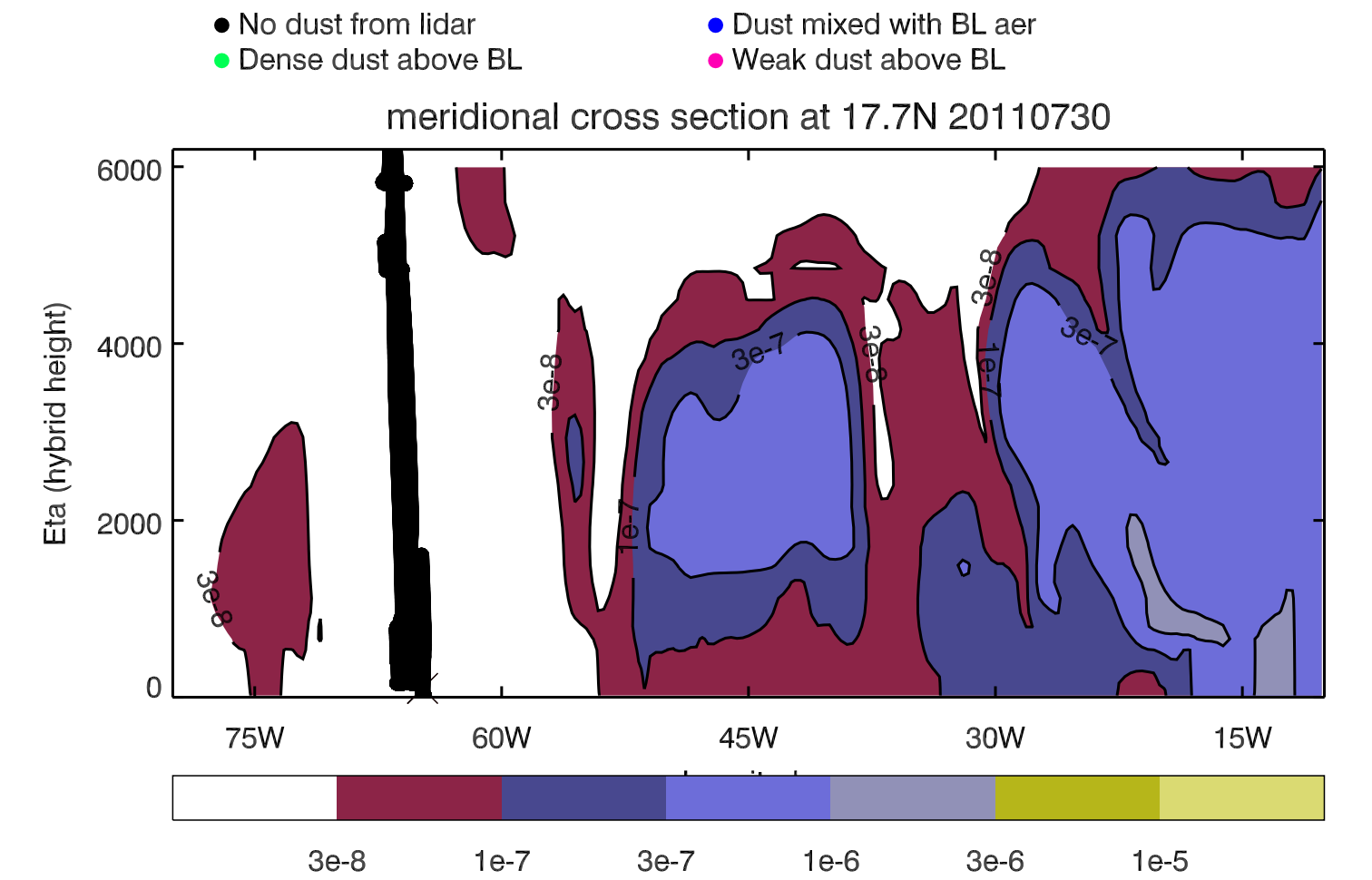

Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 28/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

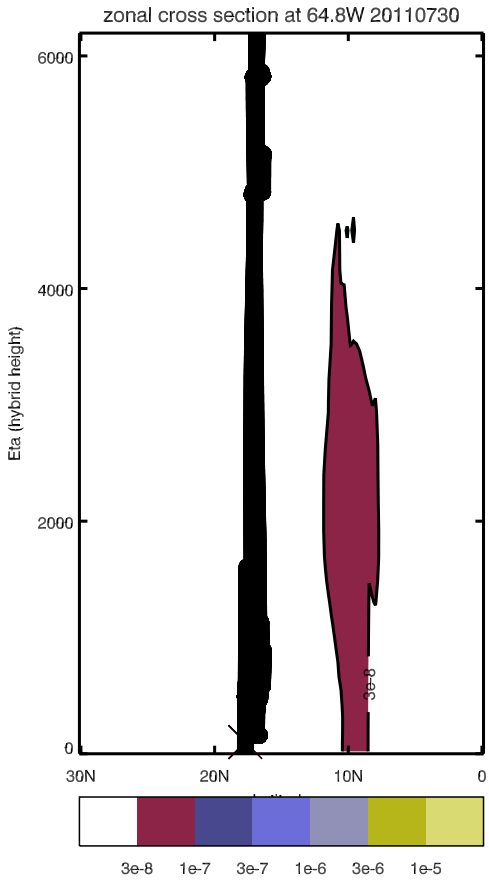

No dust from lidar
Dust mixed with BL aer
Dense dust above BL
Weak dust above BL
meridional cross section at 17.7N 20110728
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5
zonal cross section at 64.8W 20110728
30N
20N
10N
0
Profile within 1 deg of STX 20110728
Alt [m]
8000
6000
4000
2000
0
67
133
200
Dust mass concentration [ug m-3]
0.2-4 microns [L-1]
4-20 microns [m-3]
1000
2000
3000
4000
Dust number concentration

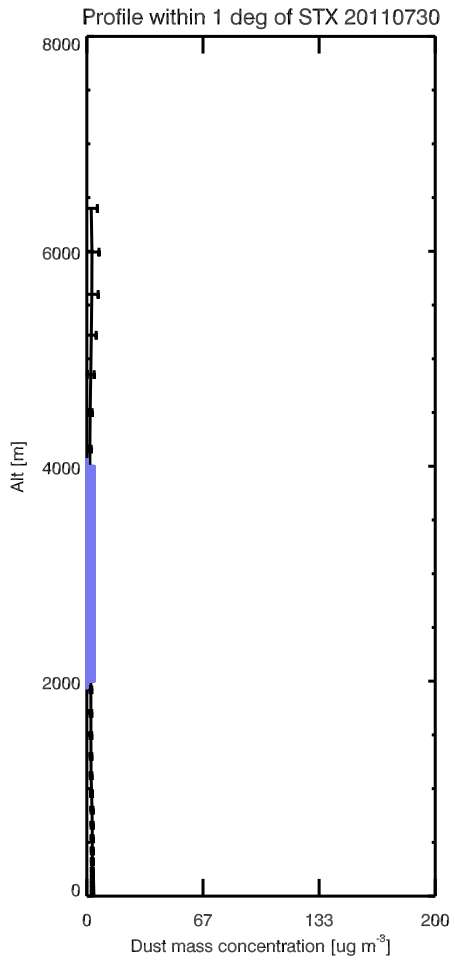

Atmos dust division 1 mass mixing ratio at 20.00 metres
At 18:00Z on 30/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5

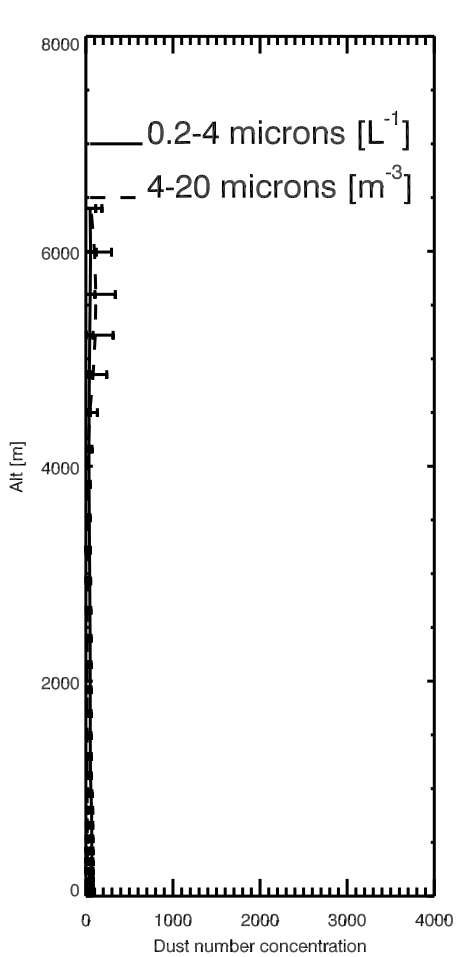

Atmos dust division 1 mass mixing ratio at 2153. metres
At 18:00Z on 30/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5


Atmos dust division 1 mass mixing ratio at 3833. metres
At 18:00Z on 30/ 7/2011
30N
20N
10N
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5


No dust from lidar
Dense dust above BL
Dust mixed with BL aer
Weak dust above BL
meridional cross section at 17.7N 20110730
Eta (hybrid height)
6000
4000
2000
0
75W
60W
45W
30W
15W
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5


zonal cross section at 64.8W 20110730
Eta (hybrid height)
6000
4000
2000
0
30N
20N
10N
0
3e-8
1e-7
3e-7
1e-6
3e-6
1e-5


Profile within 1 deg of STX 20110730
Alt [m]
8000
6000
4000
2000
0
0
67
133
200
Dust mass concentration [ug m-3]


Alt [m]
8000
6000
4000
2000
0
0.2-4 microns [L-1]
4-20 microns [m-3]
0
1000
2000
3000
4000
Dust number concentration