Daily Peak Eight-Hour Ozone Concentrations (ppb)

Data through July 25, 2004

Daily Peak 8-Hour Ozone Concentrations (ppb)

May 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						42
2	3	4	5	6	7	8
38	38	49	57	64	75	54
9	10	11	12	13	14	15
69	80	97	77	68	62	63
16	17	18	19	20	21	22
59	58	55	41	46	55	71
23	24	25	26	27	28	29
71	60	80	62	56	55	60
30	31					
54	41					

Daily Peak 8-hour Ozone Concentrations (ppb)

JUNE 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		48	62	55	50	52
6	7	8	9	10	11	12
49	64	80	88	68	27	70
13	14	15	16	17	18	19
55	49	59	52	51	60	60
20	21	22	23	24	25	26
56	67	57	48	75	65	60
27	28	29	30			
59	69	58	79			

Daily Peak 8-Hour Ozone Concentrations (ppb)

JULY 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				76	123	109
4	5	6	7	8	9	10
48	54	70	60	59	66	85
11	12	13	14	15	16	17
84	51	67	57	49	58	80
18	19	20	21	22	23	24
59	73	78	99	75	64	45
25	26	27	28	29	30	31
27						

Daily Peak One-Hour Ozone Concentrations (ppb)

Data through July 25, 2004

Daily Peak One-Hour Ozone Concentrations (ppb)

May 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						52
2	3	4	5	6	7	8
42	43	54	64	71	89	57
9	10	11	12	13	14	15
79	80	118	87	80	72	72
16	17	18	19	20	21	22
66	68	65	52	50	70	87
23	24	25	26	27	28	29
83	69	94	73	65	58	64
30	31					
58	49					

Daily Peak One-hour Ozone Concentrations (ppb)

JUNE 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		61	74	60	45	55
6	7	8	9	10	11	12
54	83	90	103	75	36	84
13	14	15	16	17	18	19
59	61	71	65	71	73	85
20	21	22	23	24	25	26
63	73	73	56	87	86	66
27	28	29	30			
64	83	62	93			

Daily Peak One-Hour Ozone Concentrations (ppb)

JULY 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				87	140	129
4	5	6	7	8	9	10
62	65	81	77	76	71	98
11	12	13	14	15	16	17
96	64	80	78	51	66	94
18	19	20	21	22	23	24
66	90	89	118	94	78	52
25	26	27	28	29	30	31
39						

Daily Peak 24-Hour Fine Particle Concentrations (ug/m3)

Data through July 25, 2004

Daily Peak 24-Hour Particle Concentrations (ug/m3)

May 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
						1
						10
2	3	4	5	6	7	8
6	6	7	12	11	17	7
9	10	11	12	13	14	15
17	21	30	24	18	16	13
16	17	18	19	20	21	22
12	15	13	8	9	16	7
23	24	25	26	27	28	29
17	14	16	7	7	9	7
30	31					
14	12					

Draft

Daily Peak 24-hour Particle Concentrations (ug/m3)

JUNE 2004

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		1	2	3	4	5
		7	6	12	11	5
6	7	8	9	10	11	12
9	21	26	35	18	7	8
13	14	15	16	17	18	19
5	13	19	19	19	18	15
20	21	22	23	24	25	26
3	15	17	12	20	27	16
27	28	29	30			
14	19	10	22			

Draft

Daily Peak 24-Hour Particle Concentrations (ug/m3)

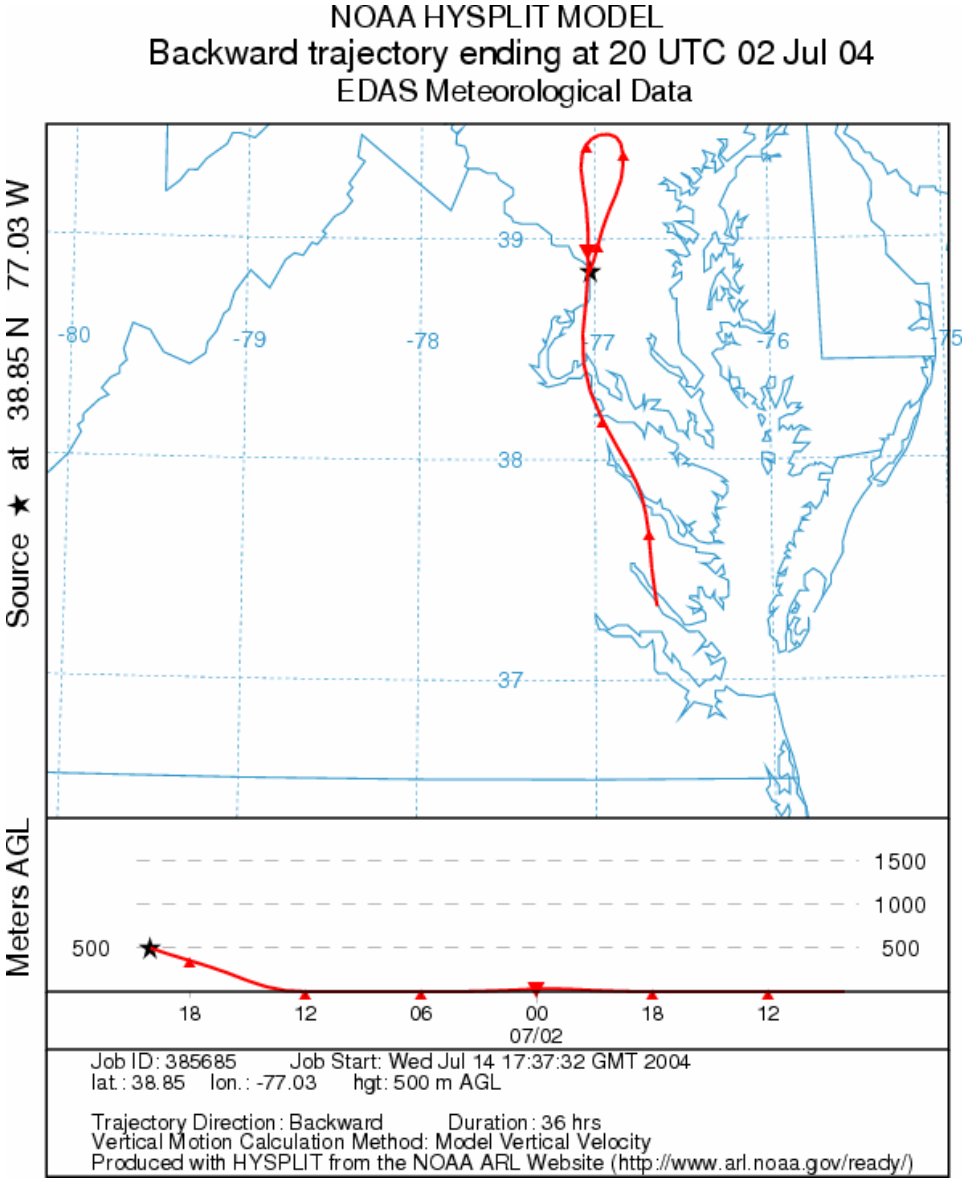
JULY 2004

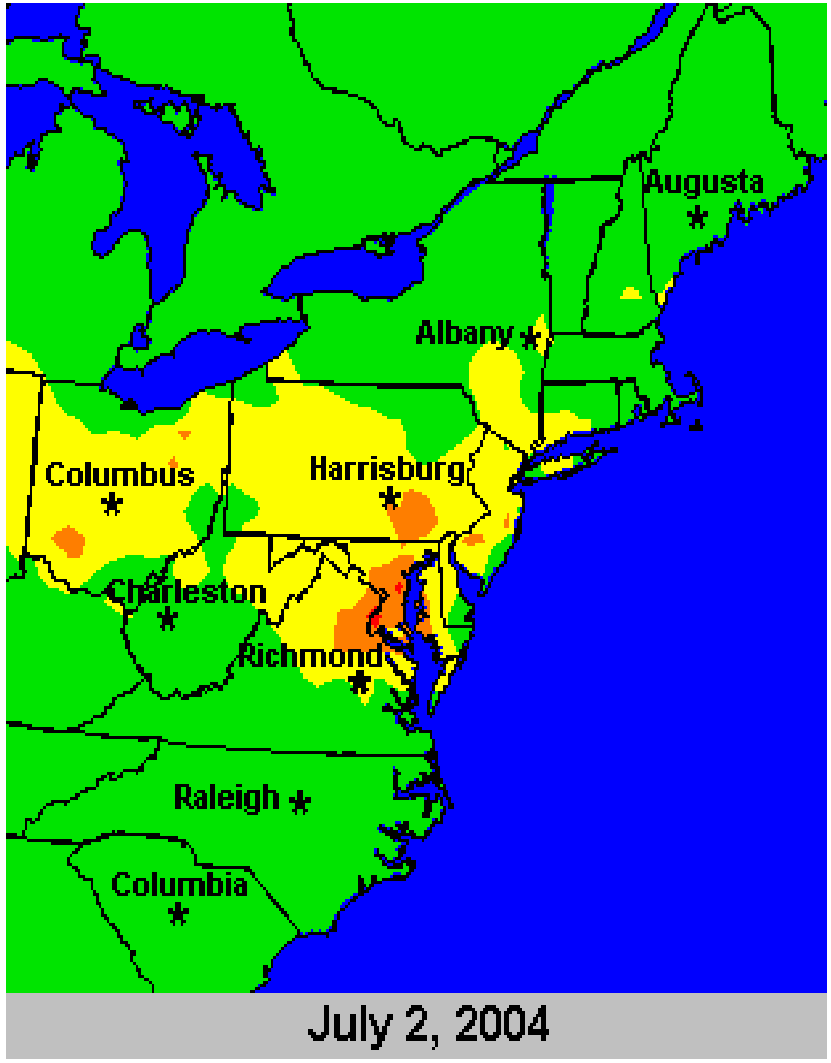
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
				1	2	3
				29	32	38
4	5	6	7	8	9	10
34	12	17	20	11	20	25
11	12	13	14	15	16	17
41	24	28	21	11	20	29
18	19	20	21	22	23	24
16	24	26	37	38	21	8
25	26	27	28	29	30	31
11						

Meteorological Analyses
July 2, 2004 (Code Red Day)

- Formation of a stationary front - High pressure system.
- Prevented formation of cloud cover.
- Light winds accompanied the raise in pressure, notably during peak ozone production hours.
- Little cloud cover and light winds helped build up ozone levels, which remained stagnant.

July 2 2004

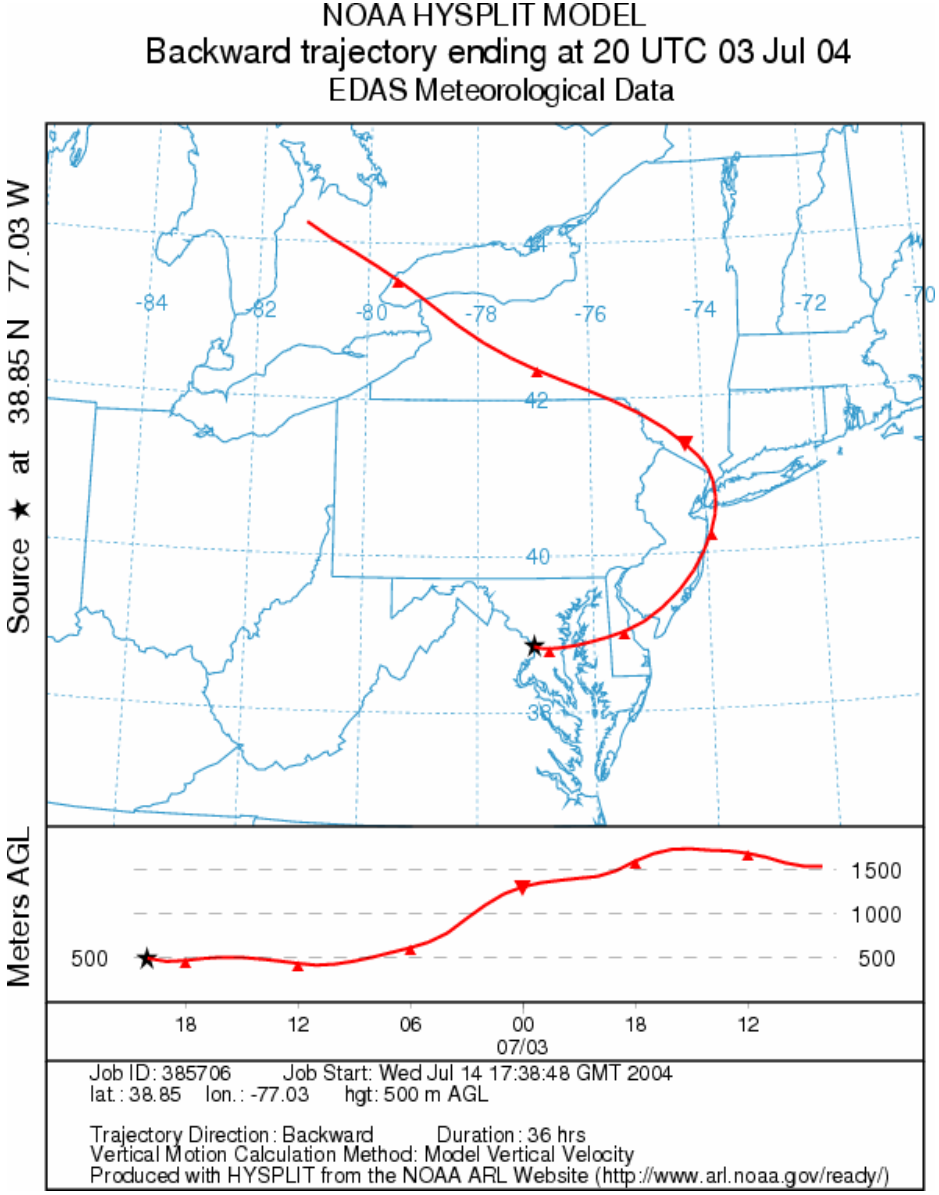

NOAA HYSPLIT MODEL
Backward trajectory ending at 20 UTC 02 Jul 04
EDAS Meteorological Data
Source ★ at 38.85 N 77.03 W
-80
-79
-78
77
-76
-75
39
38
37
Meters AGL
1500
1000
500
500
18
12
06
00
18
12
07/02
Job ID: 385685 Job Start: Wed Jul 14 17:37:32 GMT 2004
lat.: 38.85 lon.: -77.03 hgt: 500 m AGL
Trajectory Direction: Backward Duration: 36 hrs
Vertical Motion Calculation Method: Model Vertical Velocity
Produced with HYSPLIT from the NOAA ARL Website (http://www.arl.noaa.gov/ready/)


Augusta
Albany
Columbus
Harrisburg
Charleston
Richmond
Raleigh
Columbia
July 2, 2004

Meteorological Analyses
July 3, 2004 (Code Red Day)

- Stationary front continued.
- Conditions similar to July 2nd were observed - Light winds, no cloud.
- With a hefty regional ozone concentration left over from July 2nd, light afternoon winds, and limited vertical mixing, extreme ozone concentrations were observed.

July 3 2004


NOAA HYSPLIT MODEL
Backward trajectory ending at 20 UTC 03 Jul 04
EDAS Meteorological Data
Source ★ at 38.85 N 77.03 W
-84
-82
-80
-78
-76
-74
-72
-70
42
40
38
Meters AGL
1500
1000
500
500
18
12
06
00
07/03
18
12
Job ID: 385706 Job Start: Wed Jul 14 17:38:48 GMT 2004
lat.: 38.85 lon.: -77.03 hgt: 500 m AGL
Trajectory Direction: Backward Duration: 36 hrs
Vertical Motion Calculation Method: Model Vertical Velocity
Produced with HYSPLIT from the NOAA ARL Website (http://www.arl.noaa.gov/ready/)

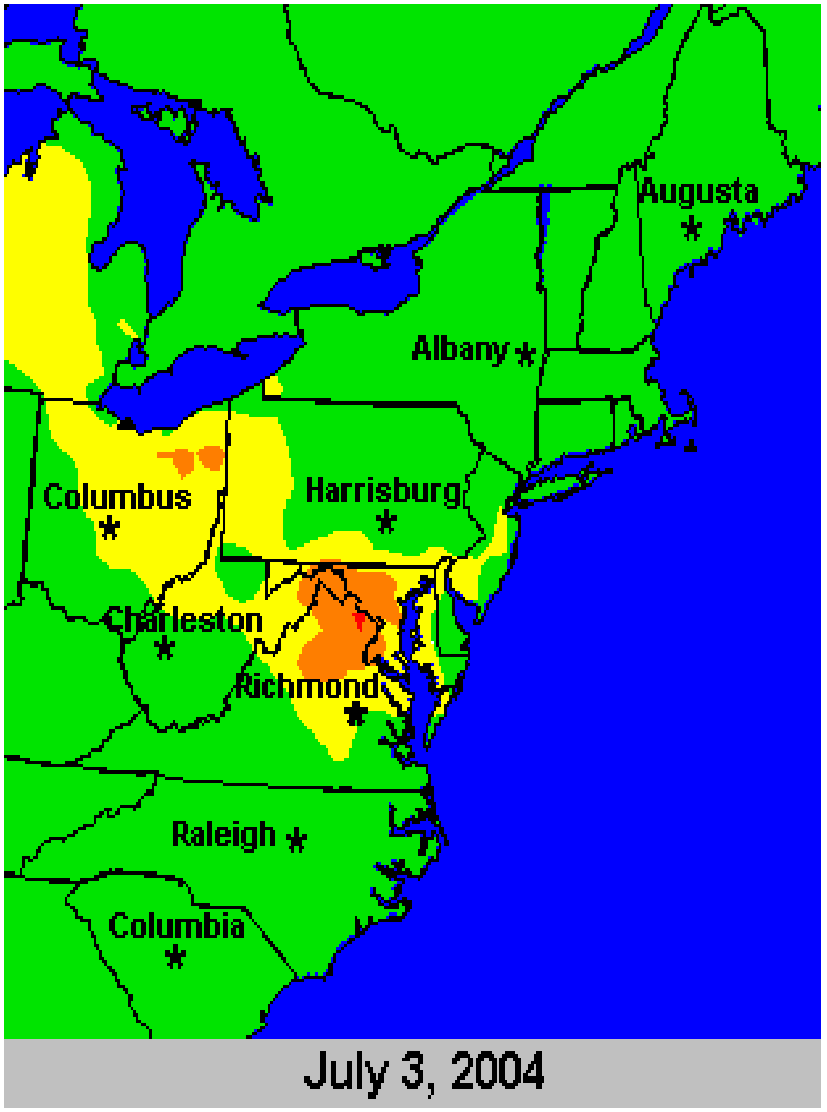
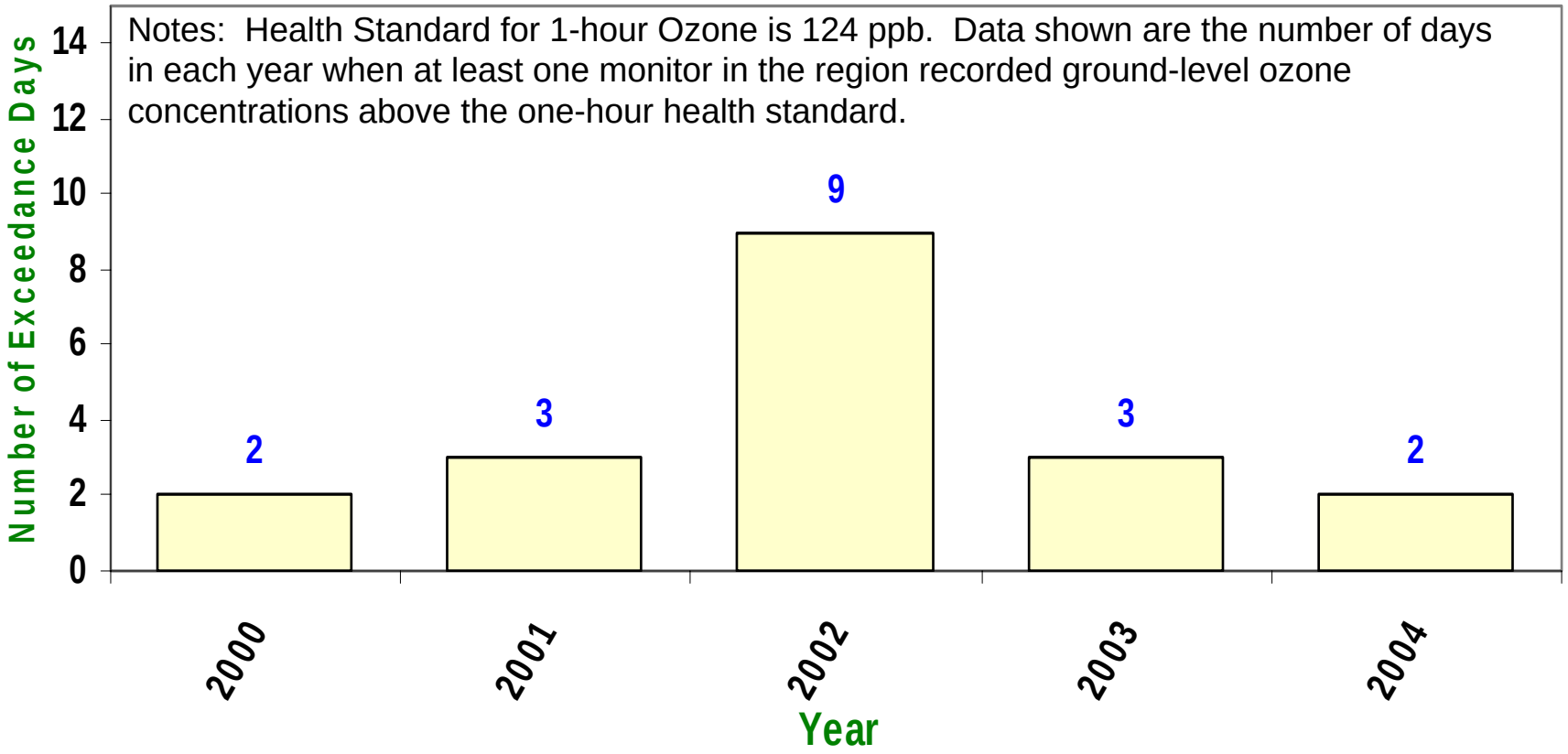
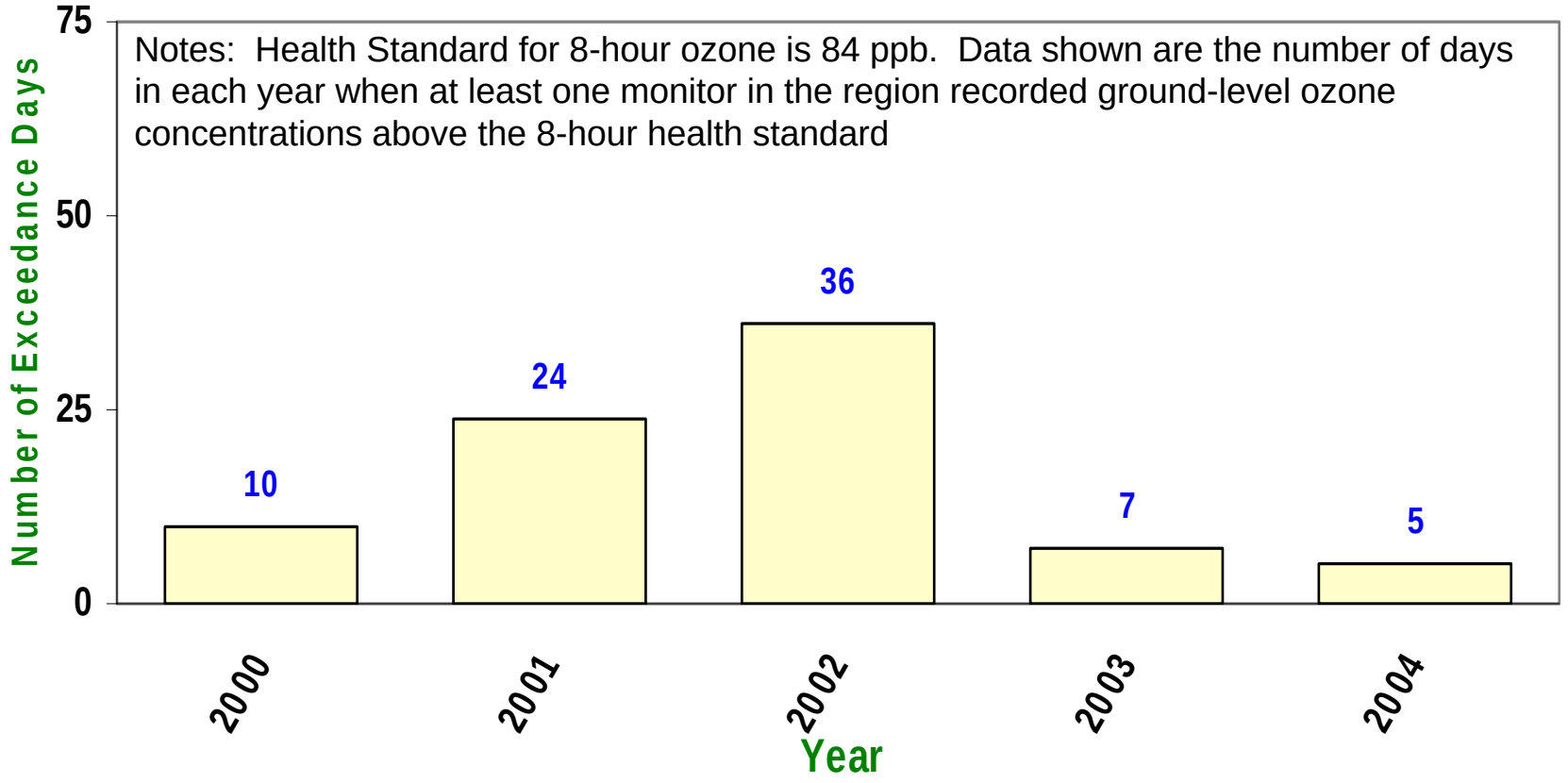

Augusta
Albany
Columbus
Harrisburg
Charleston
Richmond
Raleigh
Columbia
July 3, 2004

Figure 1a: Exceedances of 1-Hr Ozone Standard
Washington Metropolitan Region, 2000-2004



Note: Data for 2004 is preliminary and is valid through 7/27/04

Figure 1b: Exceedances of 8-Hour Ozone Standard Washington Metropolitan Region, 2000-2004



Note: Data for 2004 is preliminary and is valid through 7/27/04