



**Table 1.** DJF CO 2002–2007 climatology in ppbv averaged for several atmospheric layers. Standard deviation given in parenthesis. SL (surface layer) = <950 hPa, BL (boundary layer) = 950–850 hPa, FT (free troposphere) = 850hPa up to 1 km below the tropopause, and UT (upper troposphere) = 1 km below the tropopause up to the tropopause, where the tropopause is defined as the highest level with a lapse rate lower than 2 K/km. PAR = Paris, FRA = Frankfurt, ATL = Atlanta, NYC = New York, NRT = Tokyo, BEI = Beijing, CAI = Cairo, ABU = Abu Zaby, CCSvCaracas, DEL = Delhi.

	PAR	FRA	ATL	NYC	NRT	BEI	CAI	ABU	CCS	DEL
SL	251 (41)	271 (26)	245 (48)	279 (20)	280 (44)	1925 (1558)	243 (60)	167 (9)	149 (15)	542 (172)
BL	176 (33)	175 (10)	179 (14)	186 (7)	205 (24)	536 (264)	161 (37)	132 (10)	147 (19)	200 (31)
FT	147 (23)	140 (2)	130 (6)	143 (2)	159 (18)	214 (65)	129 (16)	112 (9)	119 (12)	119 (2)
UT	130 (16)	127 (3)	115 (6)	129 (4)	129 (13)	137 (48)	111 (12)	103 (6)	92 (2)	104 (6)

**Table 2.** Same as Table 1 except for MAM.

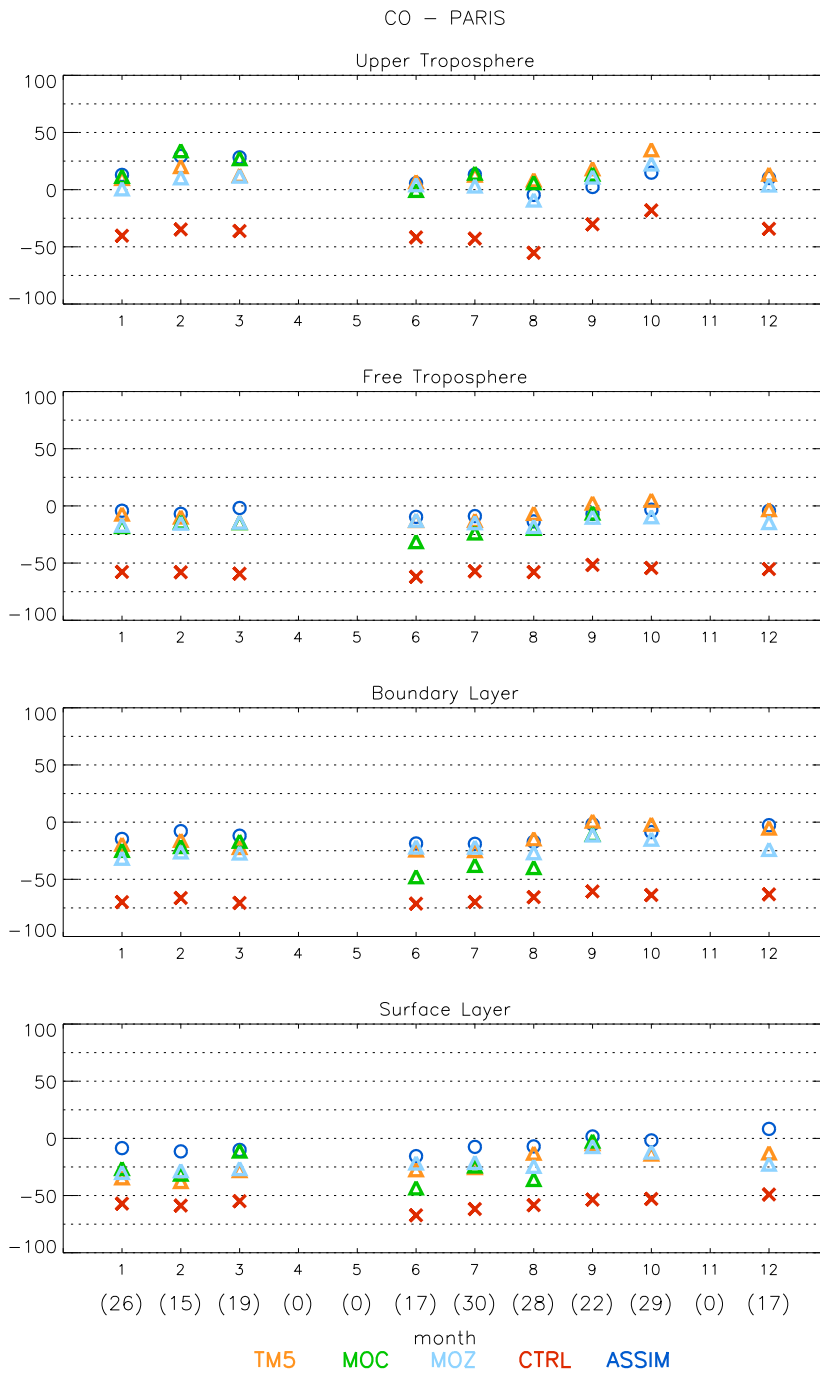
	PAR	FRA	ATL	NYC	NRT	BEI	CAI	ABU	CCS	DEL
SL	270 (99)	254 (26)	219 (13)	238 (33)	274 (42)	612 (277)	216 (9)	179 (1)	191 (49)	535 (176)
BL	201 (34)	186 (7)	204 (26)	193 (14)	222 (20)	360 (87)	172 (13)	127 (11)	200 (59)	177 (27)
FT	161 (13)	148 (5)	140 (4)	154 (5)	171 (20)	192 (14)	124 (12)	110 (3)	141 (18)	138 (10)
UT	142 (11)	135 (3)	125 (6)	138 (8)	152 (23)	139 (9)	111 (7)	103 (1)	103 (5)	110 (5)

**Table 3.** Same as Table 1 except for JJA.

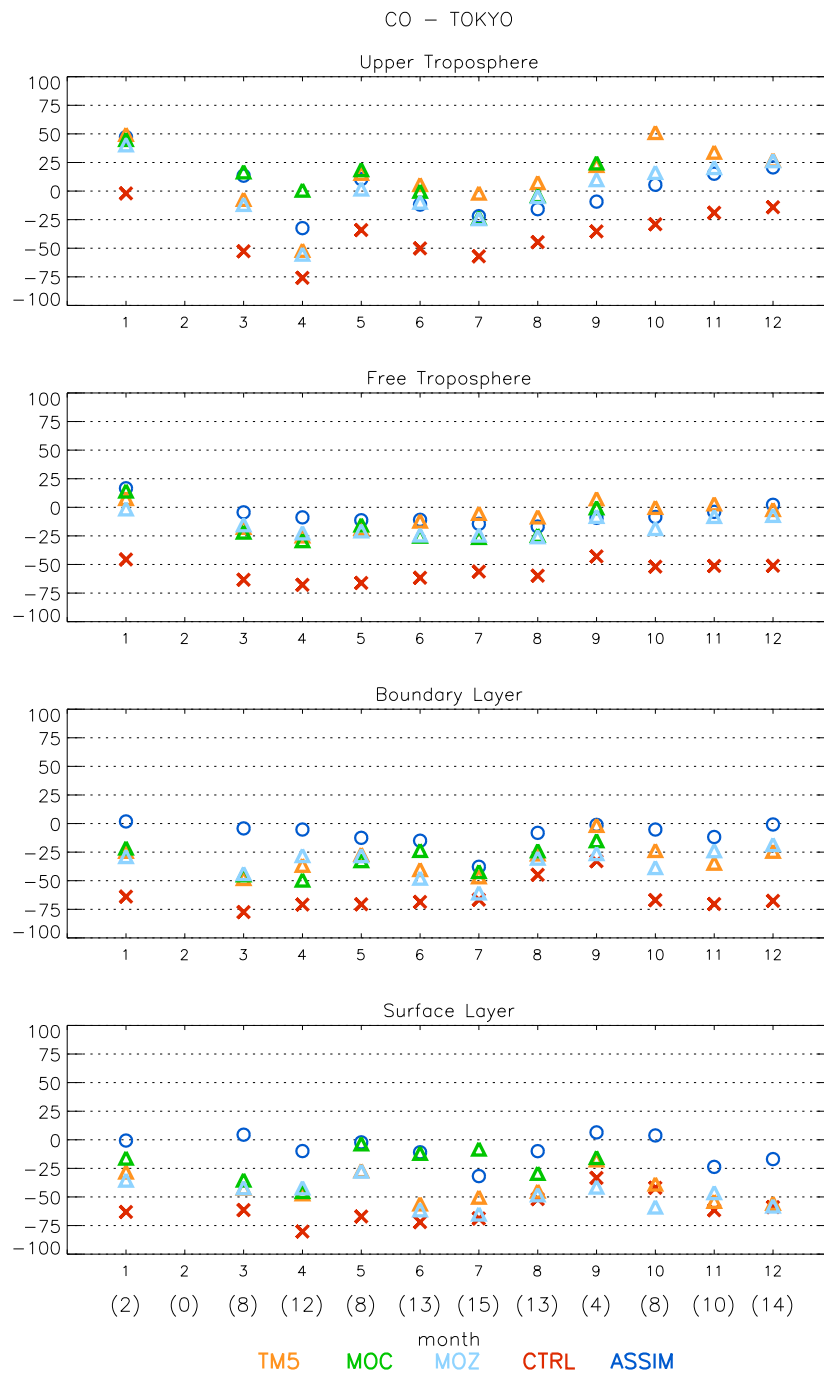
	PAR	FRA	ATL	NYC	NRT	BEI	CAI	ABU	CCS	DEL
SL	169 (15)	191 (29)	207 (22)	221 (41)	253 (23)	719 (172)	231 (8)	245 (95)	176 (61)	329 (82)
BL	145 (20)	145 (17)	173 (13)	191 (28)	179 (17)	454 (16)	163 (22)	123 (10)	158 (23)	166 (31)
FT	127 (16)	119 (8)	123 (9)	137 (9)	137 (14)	185 (22)	92 (15)	107 (5)	100 (15)	124 (18)
UT	117 (14)	111 (7)	108 (8)	116 (11)	128 (13)	132 (18)	83 (15)	98 (4)	86 (5)	107 (18)

**Table 4.** Same as Table 1 except for SON.

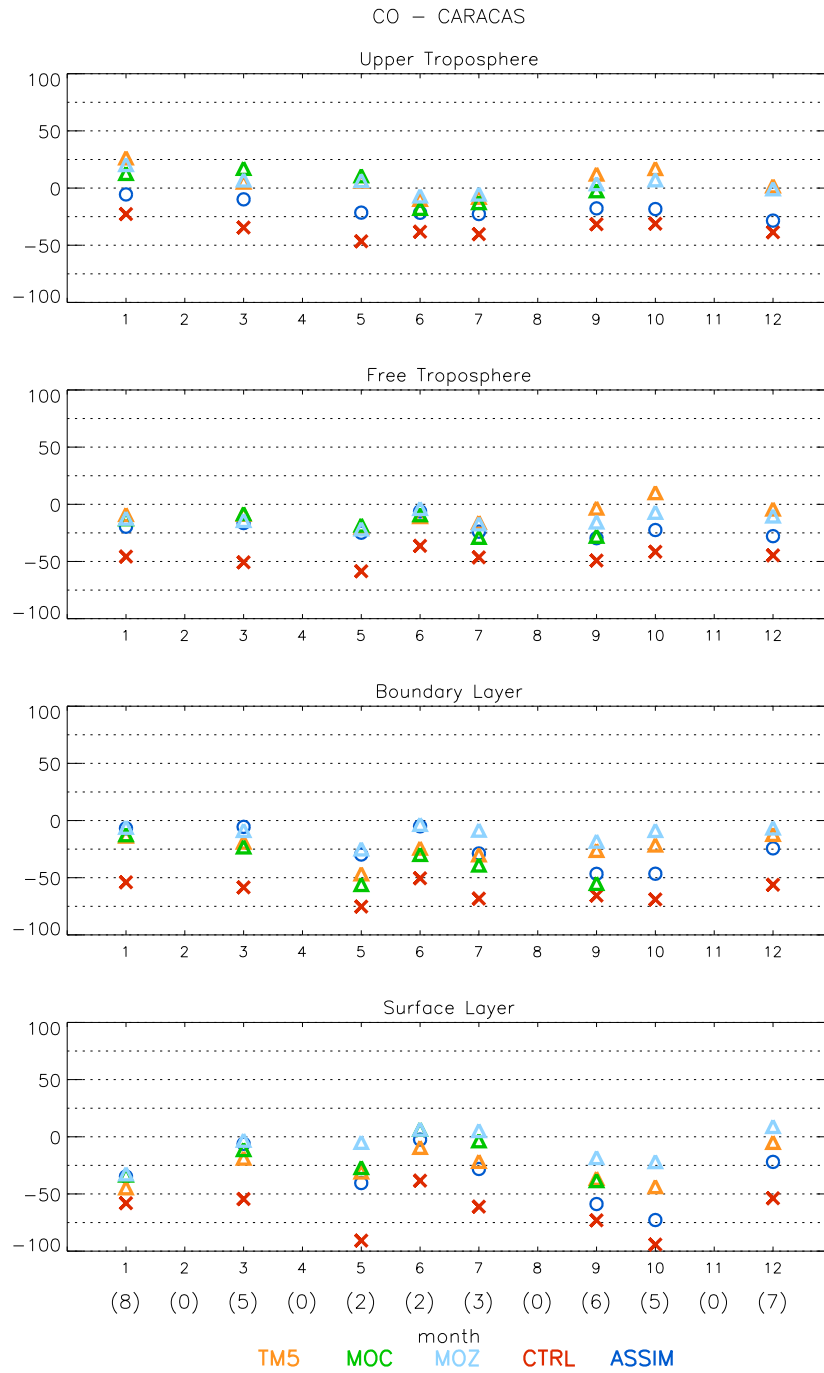
	PAR	FRA	ATL	NYC	NRT	BEI	CAI	ABU	CCS	DEL
SL	194 (26)	242 (54)	202 (26)	249 (10)	240 (42)	869 (448)	288 (27)	189 (20)	238 (106)	556 (178)
BL	144 (21)	155 (21)	157 (17)	166 (18)	174 (33)	365 (89)	154 (21)	117 (0)	175 (45)	229 (34)
FT	117 (14)	123 (14)	108 (8)	115 (15)	135 (23)	159 (17)	108 (14)	106 (6)	112 (4)	122 (20)
UT	105 (10)	112 (13)	97 (10)	96 (16)	117 (12)	116 (12)	94 (17)	93 (10)	92 (9)	96 (8)



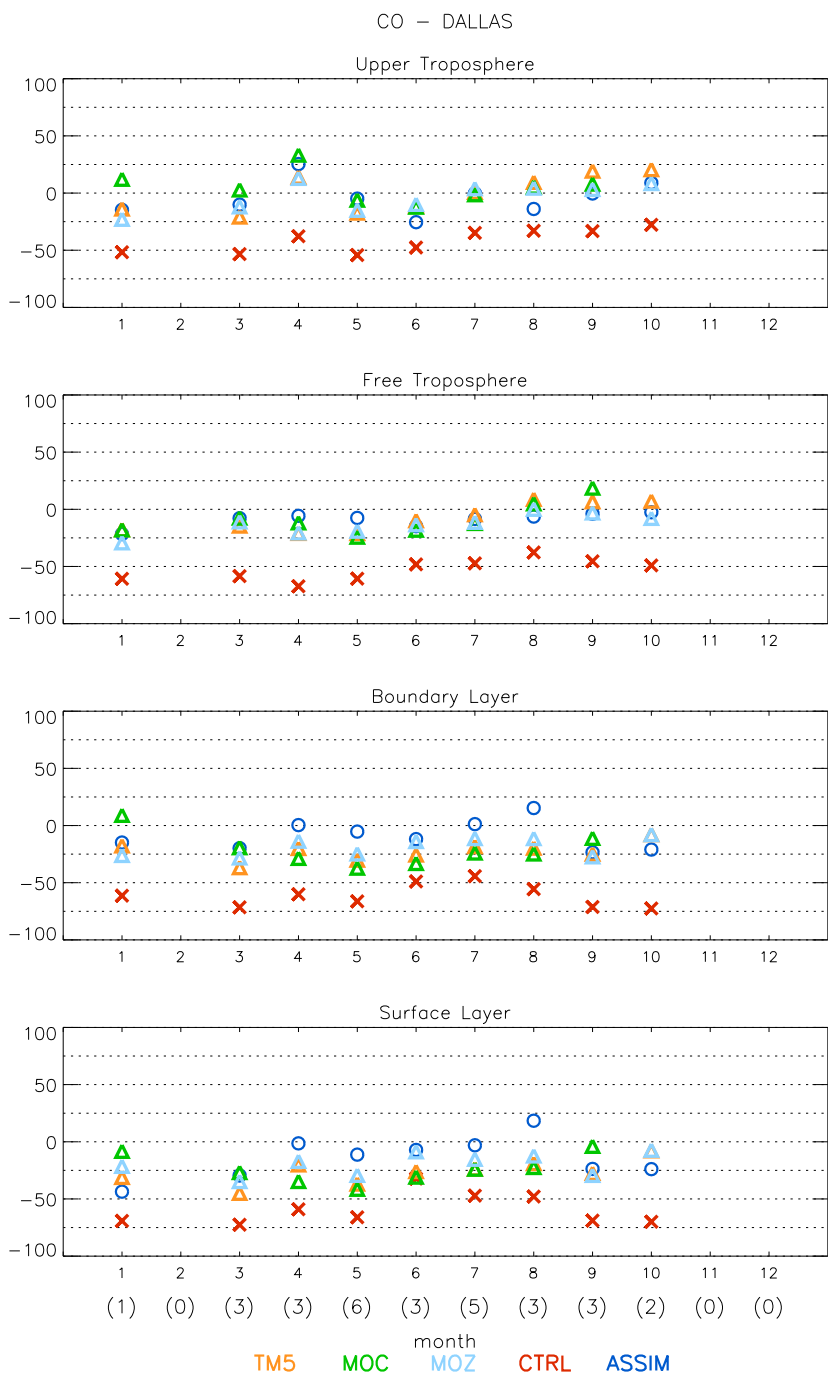
**Figure 1.** Monthly Modified Normalized Mean Bias (MNMB) based on daily averaged profiles over Paris. The numbers in parenthesis at the bottom of the graph represent the number of days with available profiles.



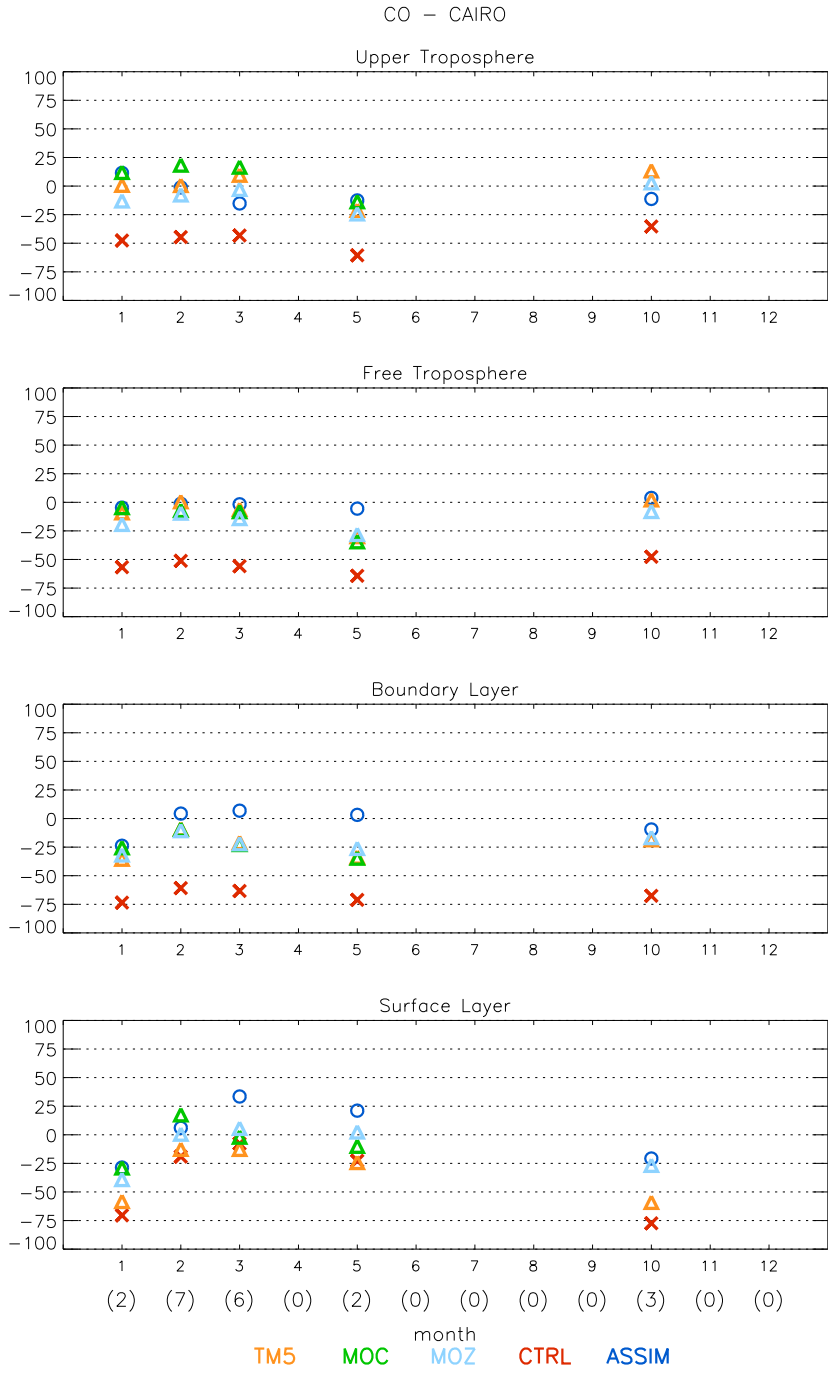
**Figure 2.** Same as Figure 1 except over Tokyo



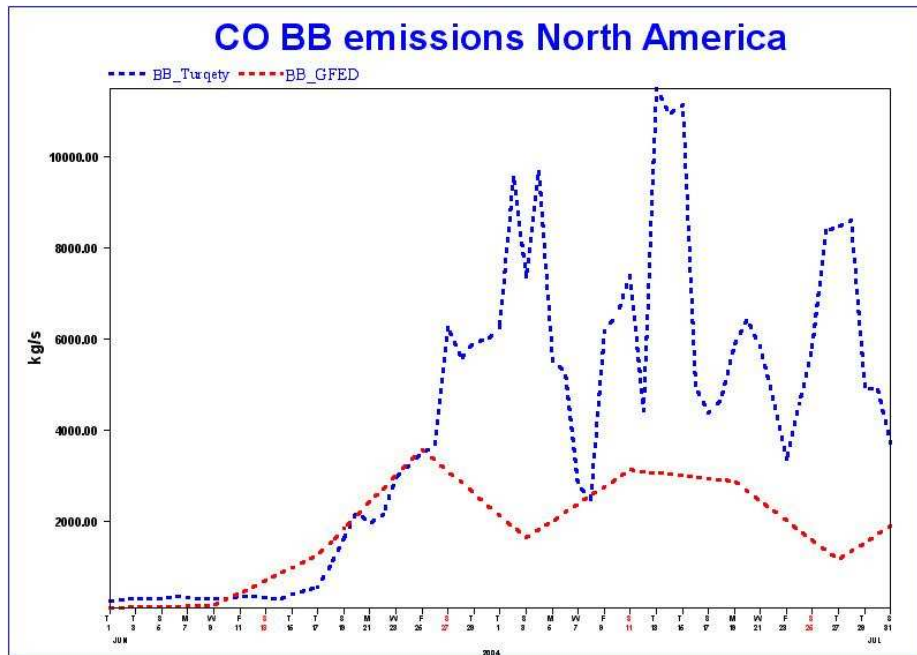
**Figure 3.** Same as Figure 1 except over Caracas.



**Figure 4.** Same as Figure 1 except over Dallas



**Figure 5.** Same as Figure 1 except over Cairo



**Figure 6.** North American biomass burning CO emissions during June and July 2004 from the Turqety and GFED datasets.