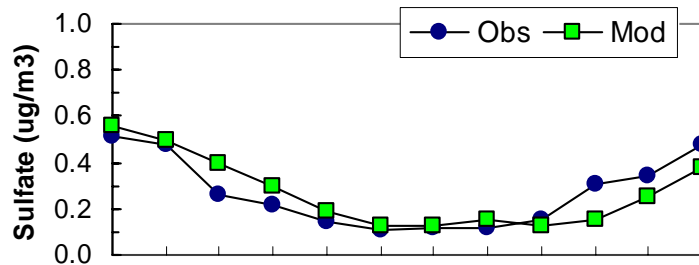


IMPACT/DAO Aerosol Model Assessment

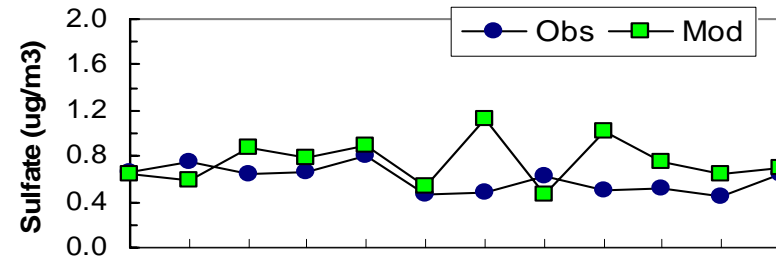
Joyce Penner, Xiaohong, Liu,
Michael Herzog

Comparison with observations

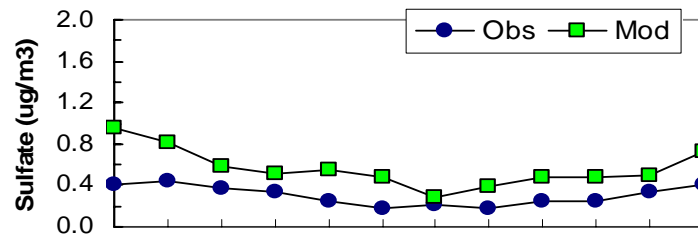
CHATHAM ISLAND - NEW ZEALAND
43.9S 176.5W



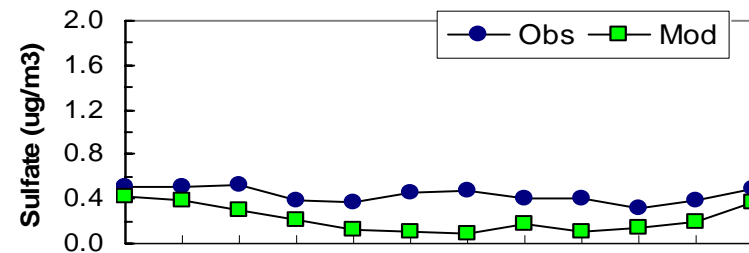
CAPE POINT - SOUTH AFRICA
34.3S 18.5E



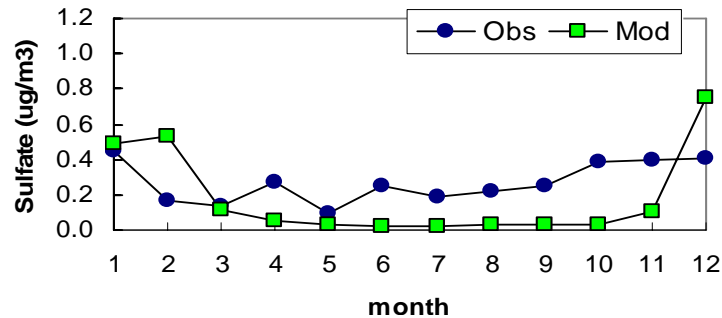
CAPE GRIM - TASMANIA
40.7S 144.7E



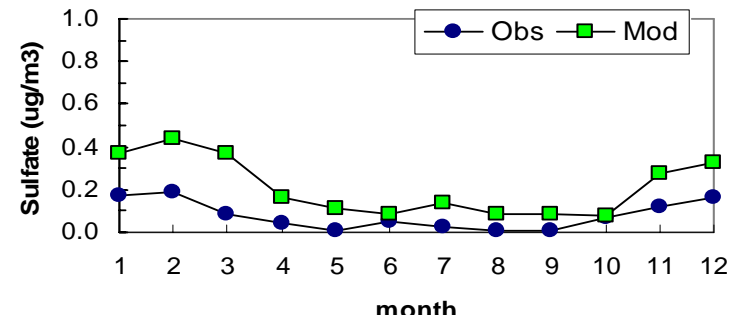
INVERCARGILL - NEW ZEALAND
46.4S 168.4E



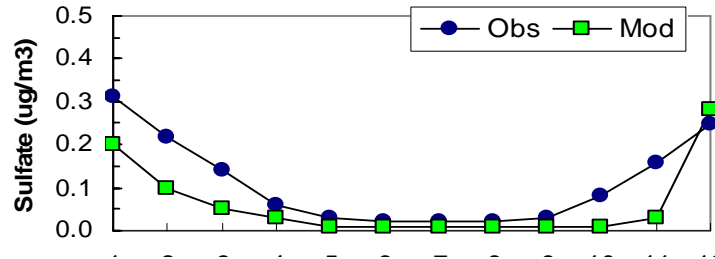
MARSH - KING GEORGE ISLAND
62.2S 58.3W



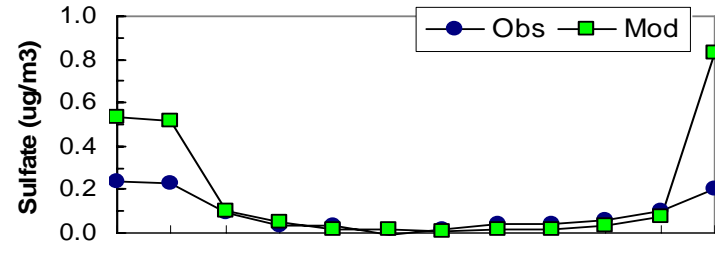
MARION ISLAND/Prince Edward Island
46.9S 37.8E



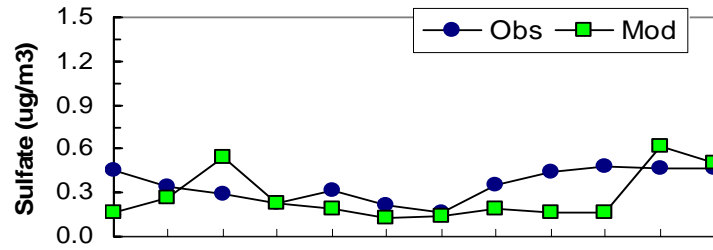
MAWSON - ANTARCTICA
67.6S 62.5E



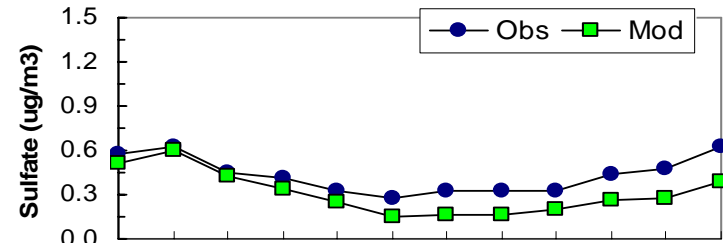
PALMER STATION - ANTARCTICA
64.9S 64.05W



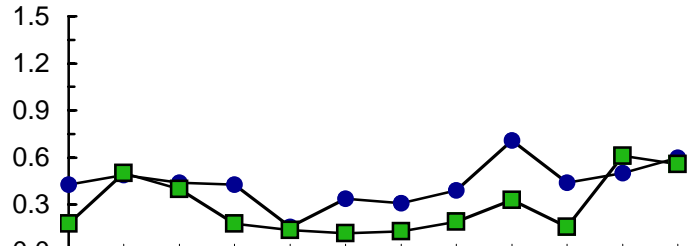
REUNION ISLAND
21.2S 55.8E



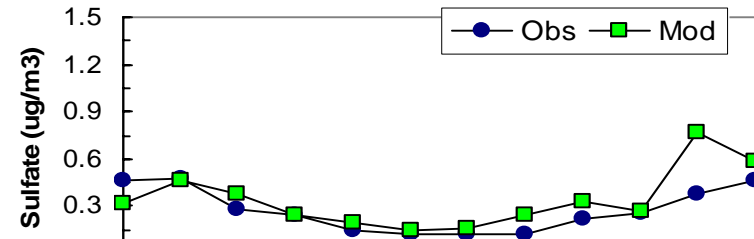
WELLINGTON/BARING HEAD - NEW ZEALAND
41.3S 174.9E



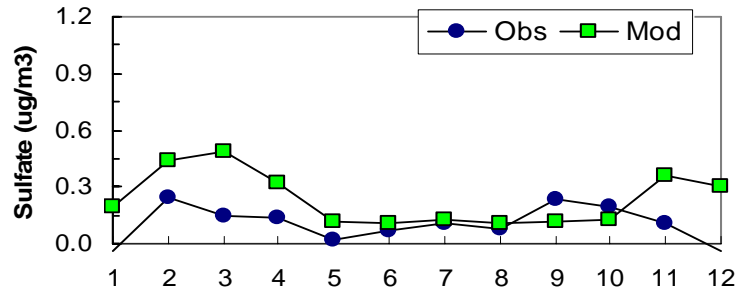
YATE - NEW CALEDONIA
22.1S 167E



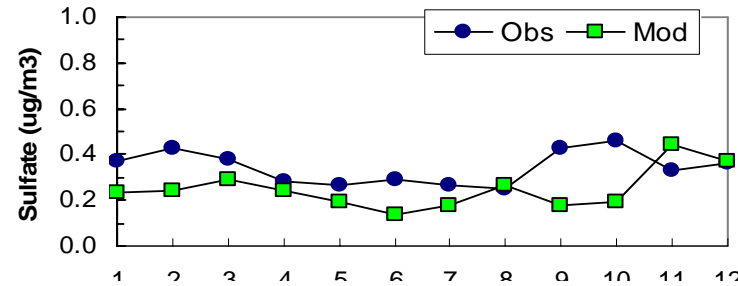
NORFOLK ISLAND
29.1S 168E

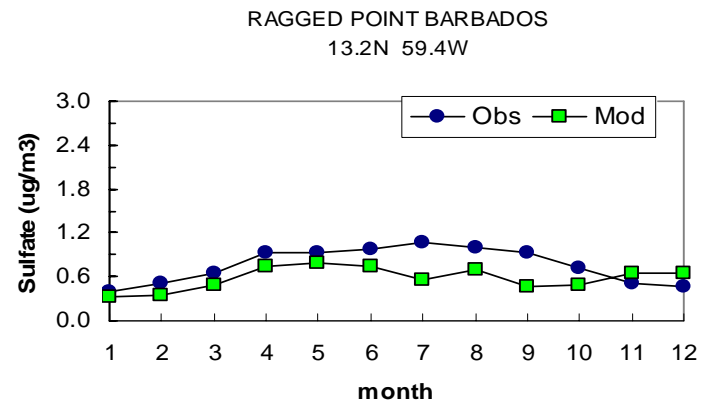
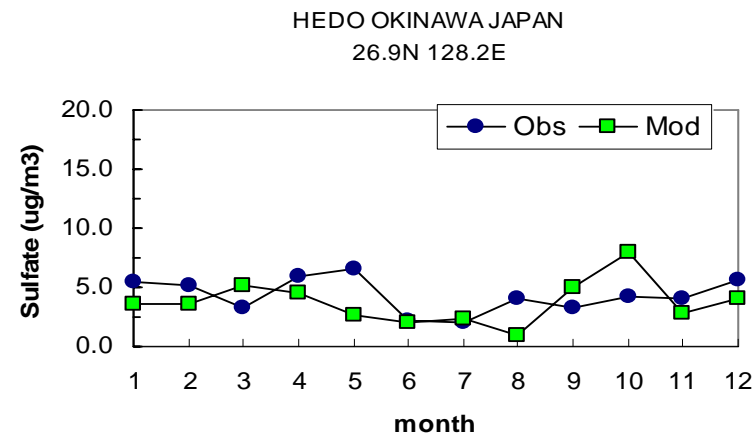
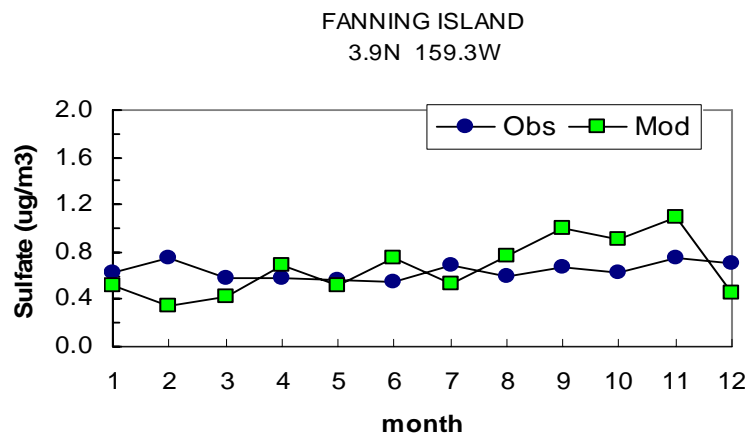
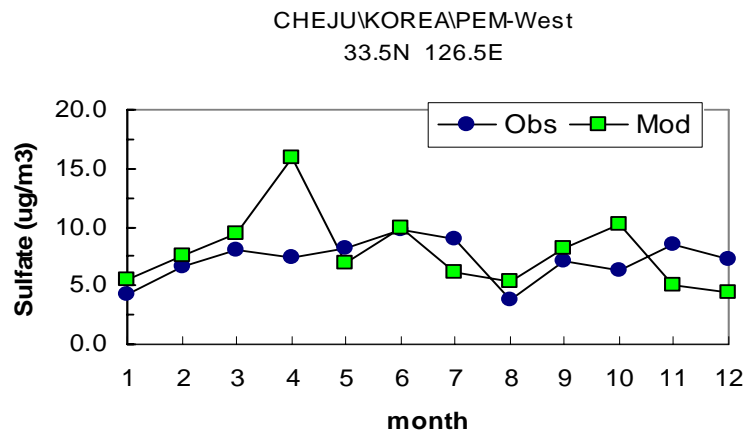
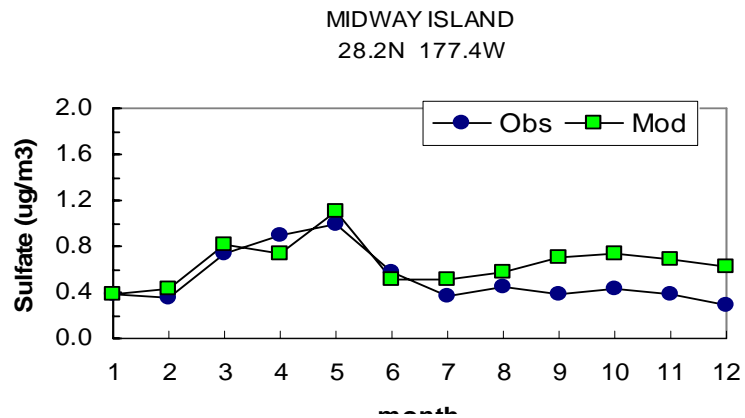


RAROTONGA - COOK ISLANDS
21.2S 159.8W

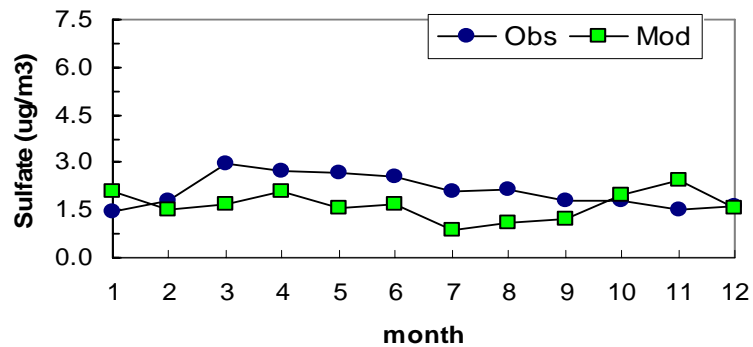


AMERICAN SAMOA
14.2S 170.6W

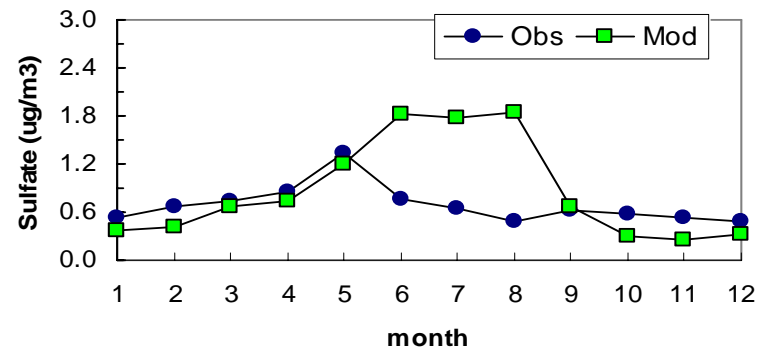




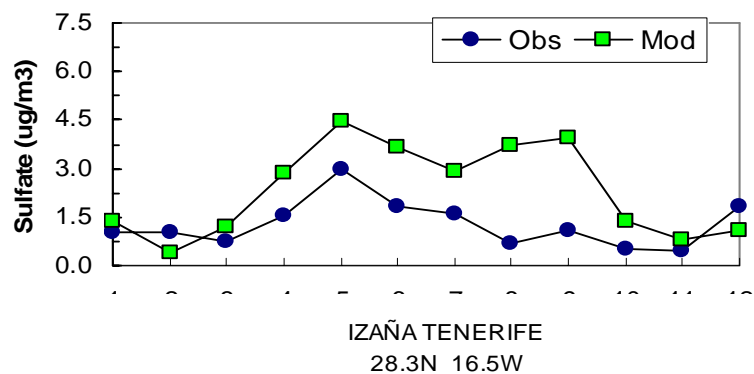
BERMUDA
32.3N 64.9W



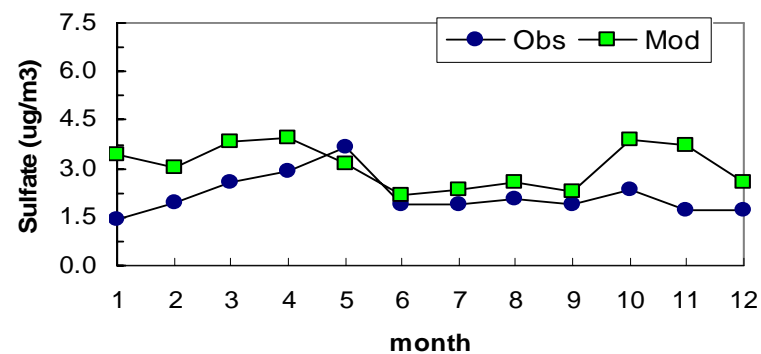
HEIMAHEY ICELAND
63.4N 20.3W



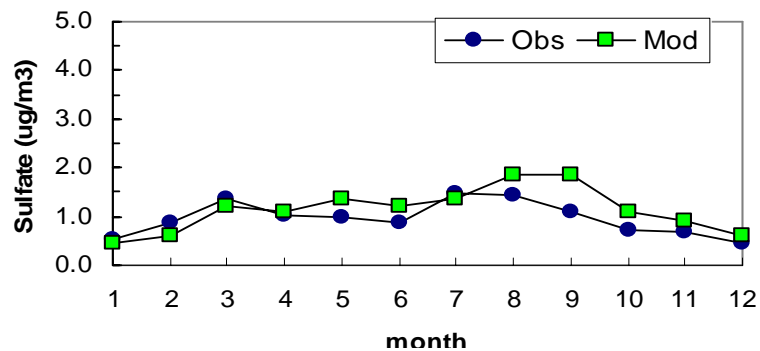
MACE HEAD IRELAND
53.3N 9.9W



ROCKY SPUR IRELAND
25.8N 80.2W

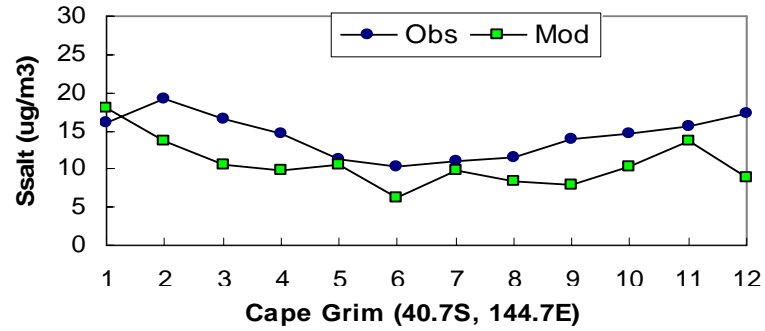


IZAÑA TENERIFE
28.3N 16.5W

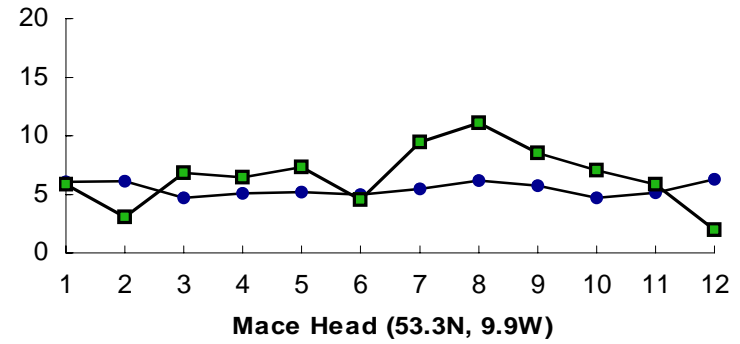


Sea salt

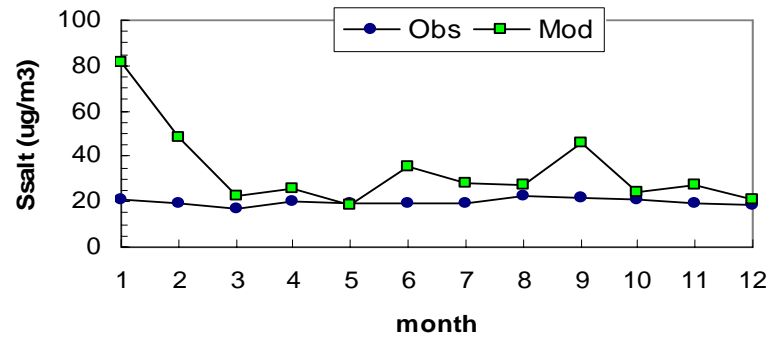
Midway Island (28.2N, 177.4W)



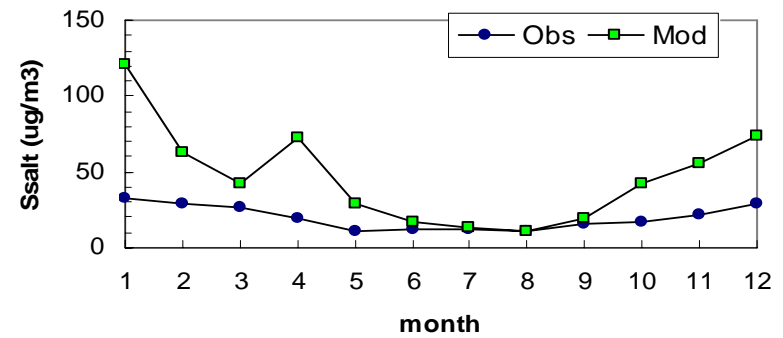
American Samoa (14.3S, 170.6W)



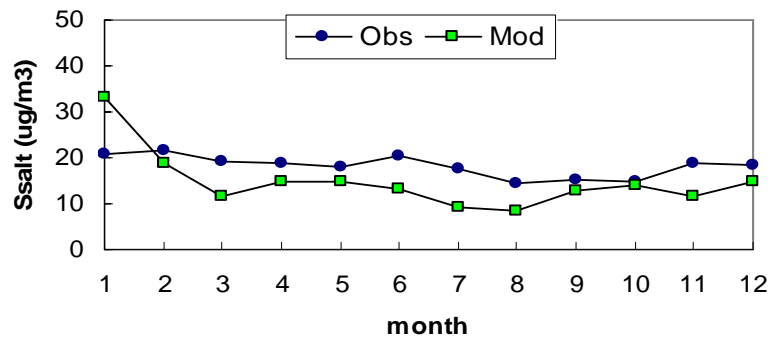
Cape Grim (40.7S, 144.7E)



Mace Head (53.3N, 9.9W)

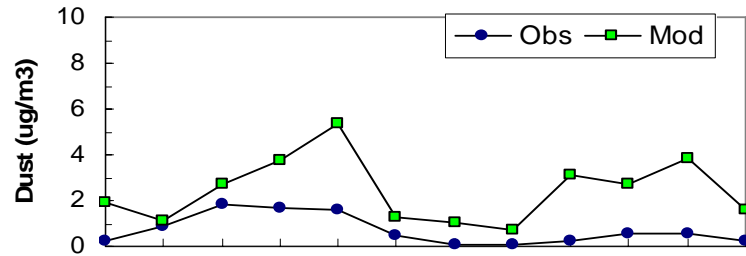


Barbados (13.2N, 59.4W)

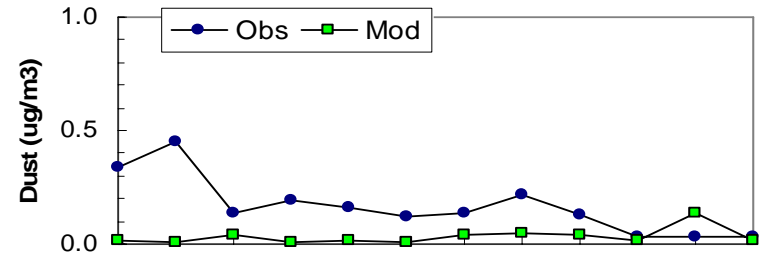


Dust

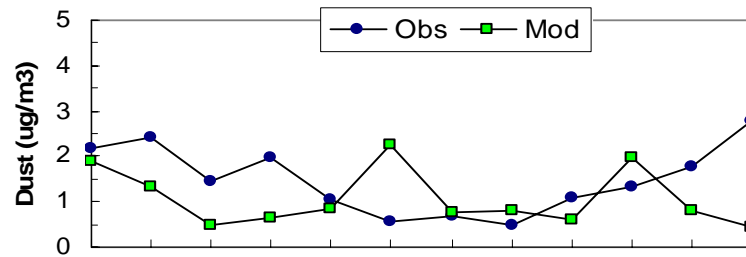
Midway Island (28.2N, 177.4W)



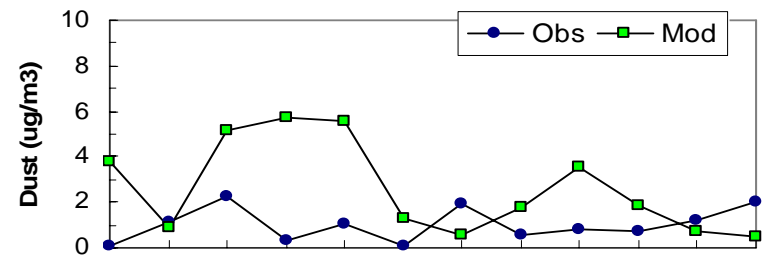
American Samoa (14.3S, 170.6W)



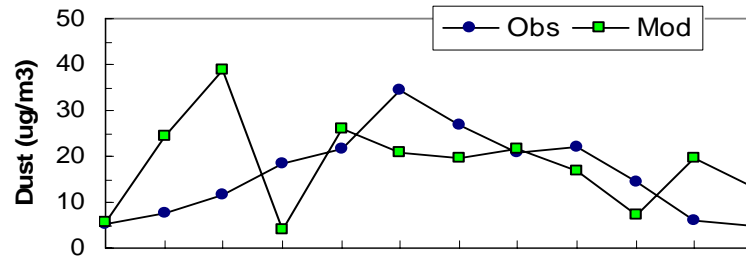
Cape Grim (40.7S, 144.7E)



Mace Head (53.3N, 9.9W)



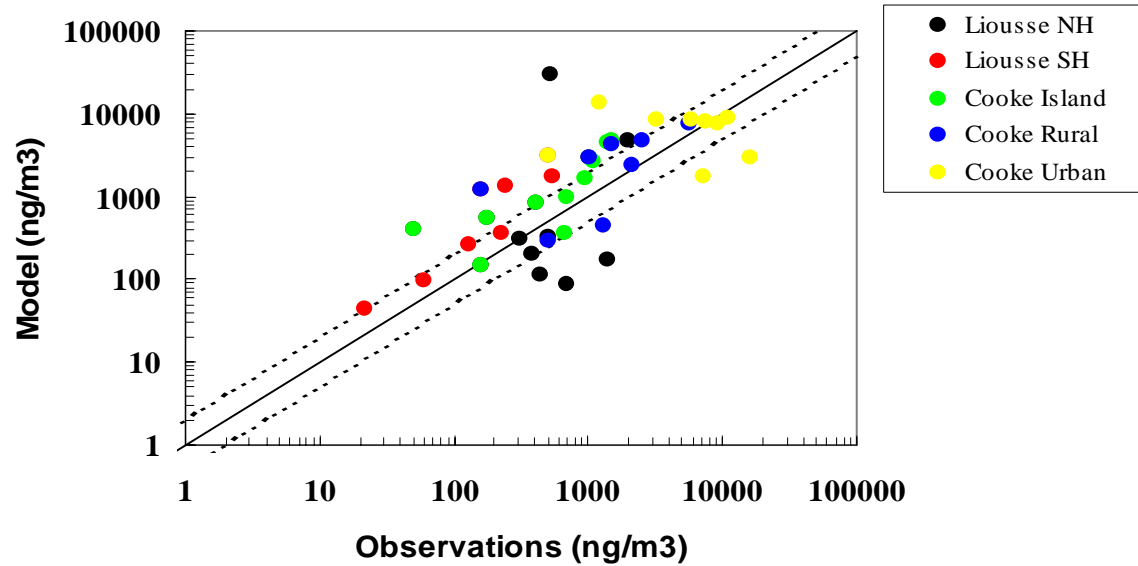
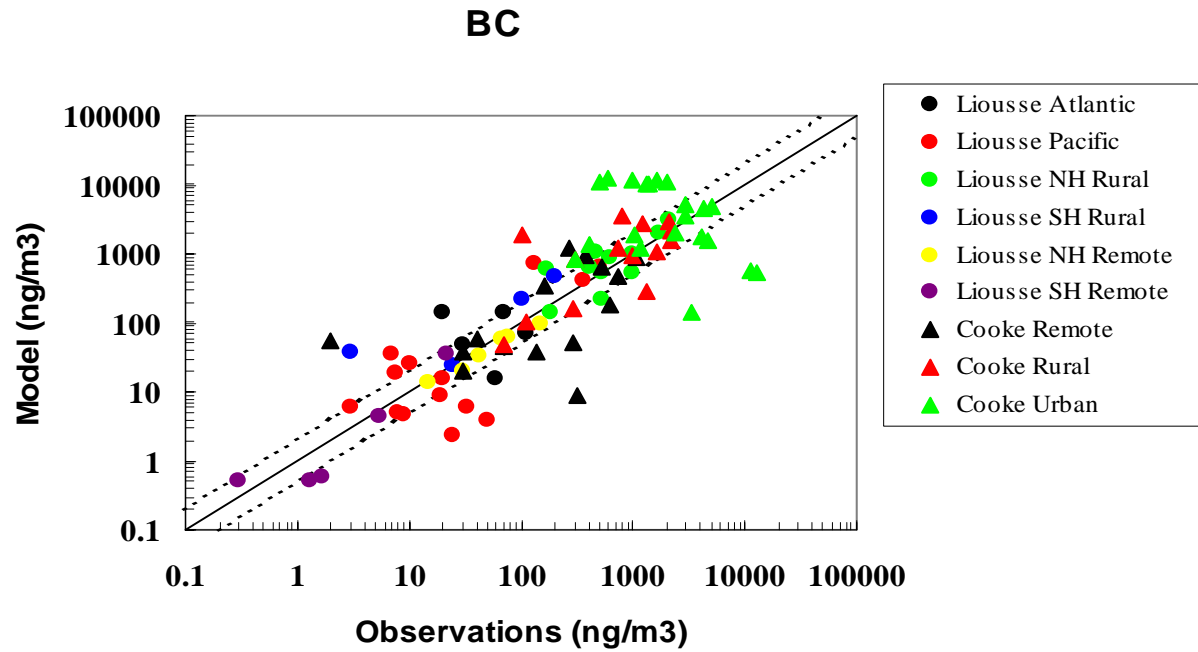
Barbados (13.2N, 59.4W)



month

month

BC and OC



$$grossbias = \sum (mod - obs)$$

$$grosserror = \sum |mod - obs|$$

Model	Sulfate		Black Carbon		Organic Carbon		Dust		SeaSalt	
	grossbias	grosserror	grossbias	grosserror	grossbias	grosserror	grossbias	grosserror	grossbias	grosserror
GSS	0.15	0.33	-0.42	0.50	-1.39	1.83	5.37	5.37	3.9	11.94
GSFC	-0.1	0.28	0.71	1.00	0.73	2.16	-0.5	1.98	-3.02	9.23
Hadley	-0.54	0.55	0.74	1.18			-2.47	3.48		
COM/Grantour	-0.31	0.4	-0.18	0.50	-1.03	1.57	1.77	2.99	5.26	14.48
ECHAM	0.09	0.42	1.31	1.50	-0.85	1.80				
Stochem	0.34	0.4								
ULAQ	0.18	0.34	-0.30	0.48	-0.71	1.77	1.82	3.69	0.81	12.57
Mozart	0.05	0.39	-0.34	0.51						
ECHAM/Granbur	0.26	0.28	0.07	0.55	-0.74	1.77	5.2	5.27	2.07	10.55
TMB	0.27	0.47								
PNNL	-0.04	0.28	0.16	0.64	0.73	2.04	-2.48	2.64	-13.46	13.74
Average of all models		0.38		0.76		1.85		3.63		12.09
IMFACT	0.11	0.26	0.56	1.35	0.61	1.74	1.72	2.53	-1.96	12.6

Comparison with satellite optical depth

