

Table 3. Climate forcings, responses and efficacies for miscellaneous forcings tested in GISS model III.

Forcing	Run Name	Fi	Fa	Fa' ^a	Fs	Fs* ^a	δT_o	ΔT_s	Ei	Ea	Es	Es*	Fe ^a
10 x Contrail	E3ACTx10	--	--	--	0.029	0.033±0.05	-0.003	0.031±0.028	--	--	2.34±2.05	2.26	0.068
<u>Solar Irradiance</u>													
-20% S ₀	E2S2	-45.28	-45.87	--	-45.91	-43.20	-1.43	-26.85	1.28	1.26	1.26	1.34	-57.98
-10% S ₀	E2S1	-22.64	-22.94	--	-22.69	-22.24	-0.69	-9.51	0.91	0.90	0.91	0.92	-20.54
-5% S ₀	E2S5	-11.32	-11.47	--	-11.30	-10.85	-0.35	-4.53	0.86	0.85	0.87	0.90	-9.78
-2% S ₀	E2S0	-4.53	-4.59	-4.61	-4.51	-4.29±0.18	-0.13	-1.93±0.05	0.92	0.91	0.93±0.02	0.97	-4.18
+2% S ₀	E2s0	4.53	4.59	4.61	4.52	4.23±0.20	0.14	2.07±0.02	0.99	0.97	0.99±0.01	1.06	4.47
+5% S ₀	E2s5	11.32	11.47	11.51	11.11	10.45	0.33	5.31	1.01	1.00	1.03	1.10	11.47
Lean's Change	E2SO	0.288	0.299	0.30	--	0.319	--	0.11	0.86	0.83	--	0.77	0.247
4 x Lean's Change	E2Sox4	1.15	1.19	1.20	1.16	1.10	0.04	0.51	0.95	0.92	0.95	1.00	1.10

a: For Fa', Fs* and Fe definitions see footnotes a,b,c of Table 1.

Table 4. Climate forcings, responses and efficacies for 1880-2000 changes of climate forcing agents employed in transient simulations with GISS model III.

Forcing	Run Name	Fi	Fa	Fa' ^a	Fs	Fs* ^a	δT_o	ΔT_s	Ei	Ea	Es	Es*	Fe ^a
(a) W-M GHGs	E2GHG	2.52	2.40	2.31	2.55	2.54±0.10	0.14	1.21±0.02	1.04	1.09	1.02±0.02	1.03	2.61
(b) H ₂ O	E2ch4	---	---	---	0.061	0.036±0.01	0.000	0.027±0.01	---	---	0.96±0.31	1.62	0.05
(c) Ozone	E2oz	0.438	0.281	--	0.256	0.203±0.12	0.019	0.107±0.02	0.53	0.82	0.90±0.13	1.14	0.23
(d) Land Use	E2CRP	---	---	---	-0.088	-0.08±0.03	-0.015	-0.042±0.02	---	---	1.02±0.60	1.13	-0.09
(e) Snow Albedo (BC)	E2SNA	0.083	0.082	0.082	0.136	0.14±0.08	0.026	0.065±0.01	1.69	1.71	1.03±0.16	0.95	0.14
(f) Solar (4xLean)	E2SOx4	1.15	1.19	1.20	1.16	1.10	0.04	0.51	0.95	0.92	0.95	1.00	1.10
0.33 x Pinatubo	E2PIN	-1.09	-1.01	-0.98	-1.04	-0.94±0.23	-0.02	-0.43	0.84	0.91	0.88	1.00	-0.92
(g) All Trop. Aerosols	E2TRA	-0.41	-0.38	--	-0.52	-1.14	-0.04	-0.28	1.48	1.60	1.14	0.53	-0.60
(g)+(h) Direct + AIE _{CldCov}	E3IE2	---	---	---	-1.39	-1.15	-0.08	-0.64±0.03	---	---	0.99±0.05	1.20	-1.37
<u>"All forcings" (a+b+c+d+e+0.25f+g+h)</u>													
All Forcings at Once	E3Af8	---	---	---	1.71	1.52	0.09	0.782±0.02	---	---	0.99±0.02	1.11	1.69
Sum of All Responses	---	---	---	---	1.81	---	---	0.856	---	---	1.02	--	1.85

a: For Fa', Fs* and Fe definitions see footnotes a, b, c of Table 1.