

Expert Reviewer:

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						** If you are cutting and pasting comments from another application into the review form, please DOUBLE-CLICK in the appropriate spreadsheet comment cell before pasting your comment. Only ONE comment per row, please. **
1	10	3	10	3	10	Add at end "It should be pointed out that since no model has been properly validated and shown to be capable of successful prediction, all these results should be regarded as speculative"
2	10	3	27	3	27	Add at end "It should be pointed out that the scenarios are speculative, and that some of them, notably, A@ and A1F1 are highly improbable"
3	10	3	46	3	46	Add at end "but this particular scenario is highly unlikely"
4	10	3	48	3	48	Replace "assessment" by "guessing exercise"
5	10	3	50	3	50	Replace "is likely to " by "may"
6	10	3	50	3	50	Replace "most likely" with "best guess"
7	10	3	51	3	51	Delete "very"
8	10	3	56	3	56	Delete "very likely"
9	10	4	2	4	2	Replace "are shown to " by "may"
10	10	4	6	4	6	Rep[lace "show" by "indicate"
11	10	4	9	4	9	Insert after "precipitation" "are projected to"
12	10	4	12	4	12	Replacve "increase" with "is projected toincrease"
13	10	4	13	4	13	Insert after ".that" "may"
14	10	4	15	4	15	Replacve "increase" with "is projected toincrease"
15	10	4	16	4	16	Replace "is" by "may be"
16	10	4	17	4	17	Insert after "extremes" "could"
17	10	4	21	4	21	Replace "As" by "If"
18	10	4	21	4	21	Insert after "extent" "may"
19	10	4	21	3	21	Insert after "caps" "may"
20	10	4	23	4	23	Insert after "Sea ice" "is projected to"
21	10	4	24	4	24	Insert before "reduction" "projected"
22	10	4	27	4	27	Add at end "But, of course, this scenario is highly improbable"
23	10	4	30	4	30	Delete "unanimous"
24	10	4	31	4	31	Replace "would" by "could"
25	10	4	31	4	31	Replace "anthropogenic" by "additional"
26	10	4	32	4	32	Replace "agrowingly large" by "an increrasing"
27	10	4	32	4	32	Replace "anthropgenic" by "human related"
28	10	4	42	4	42	Add at end "The highly improbable status of the A2 scenario makes all of this highly speculative""
29	10	4	50	4	50	Replace "will receive" by "is projected to receive"

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30	10	4	50	4	50	Replace "will contribute" with "may contribute"
31	10	4	55	4	55	Replace "will" by "may"
32	10	4	56	4	56	Replace "predicted" with "projected"
33	10	5	5	5	5	Replace "show" with "is projected to"
34	10	5	23	5	23	Replace "increases" with "is projected to increase"
35	10	5	27	5	27	Replace "is" by "may be"
36	10	5	28	5	28	Insert after "that" "possible"
37	10	5	34	5	34	Replace "show" with "project"
38	10	5	46	5	46	Insert after "still "a possible"
39	10	5	47	5	47	Delete "much larger"
40	10	6	11	6	11	Replace "occurs" with "is projected to occur"
41	10	6	15	6	15	Replace "would" with "might"
42	10	6	16	6	16	Replace "will" by "may"
43	10	6	17	6	17	Replace "will" by "may"
44	10	6	19	6	19	Replace "With concentrations" by "If concentrations are"
45	10	6	20	6	20	Replace "is" by "could be"
46	10	6	22	8	22	Replace "Under" by "For a projected"
47	10	6	25	6	25	Replace "With" by "If"
48	10	6	25	6	25	Replace "maintained" by "were to be"
49	10	6	26	6	26	Replace "would" by "could conceivably"
50	10	6	27	6	27	Insert after "mountains" "possibly"
51	10	6	27	6	27	Insert before "global" "projected"
52	10	6	28	6	28	Replace "would" by "could conceivably"
53	10	6	29	6	29	Replace "medium" by "a remote"
54	10	6	32	6	32	Replace "will" by "might"
55	10	6	37	6	37	Replace "will" by "could"
56	10	7	5	7	5	Add at end ""It should always be remembered that no model has ever been properly validated, in terms of its being shown capable of reliable future prediction, and the scenarios are all merely projections based on particular assumptions, some of which are improbable. The results given here are therefore speculative projections and not predictions"
57	10	7	10	7	10	Insert after "increase" "(itself a most improbable figure, as the current rate is only 0.4% a year)"
58	10	7	14	7	14	Insert after "experiments" " (itself a most improbable figure, as the current rate is only 0.4% a year)"
59	10	7	17	7	17	Replace "anthropogenic" by "human-induced"

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60	10	7	18	7	18	Add at beginning "projected"
61	10	7	22	7	22	Insert after "scenarios" "It might be mentioned that scenario A2 is highly improbable"
62	10	7	24	7	24	Add at end "even if it is sometimes obvious"
63	10	7	29	7	29	Insert before "forcing" "projected"
64	10	7	32	7	32	Insert after "warming" "shown by the contaminated surface record"
65	10	8	5	8	5	Insert before "global" "projected"
66	10	8	11	8	11	Insert before "CO2" "projected"
67	10	8	18	8	18	Replace "judgement" by "guesswork"
68	10	8	26	8	26	Add at end "projected"
69	10	8	33	8	33	Insert before "results" "projected"
70	10	8	56	8	56	Replace "suggests" by "shows"
71	10	8	57	8	57	Replace "climate change" with "changes in the climate"
72	10	9	3	9	3	Replace "climate change" with "changes in the climate"; Twice
73	10	9	36	9	36	Replace "predicted" by "projected"
74	10	9	44	9	44	Replace "predicted" by "projected"
75	10	9	48	9	48	Replace "anthropogenic" with "human-induced"
76	10	9	50	9	50	Replace "anthropogenic" with "human-induced"
77	10	10	8	10	8	This Table is unreadable
78	10	10	17	10	17	Add at end "It should be noted that A2 and A1F1scenarios are highly improbable"
79	10	10	20	10	20	Insert after "comparable" "projected"
80	10	10	21	10	21	Insert before "declimae" "projected"
81	10	11	4	11	3	Add at end "but this is only for a global average and may not be so good regionally"
82	10	13	22	13	22	Replace "predictions" with "projections"
83	10	13	31	13	34	Replace from "Recent trends" on line 31 to "agreement" on line 34 with "All the scenarios were 5% too high in 2000, and , so far, up to the last official figure in 2002, they remain so"
84	10	13	34	13	34	Delete "Perhaps the"
85	10	13	35	13	35	Insert after "are" " that all of the scenarios project large increases in methane concentration, when in actuality the concentration has stabilised. Also"
86	10	13	34	13	34	Delete "related to the decline in SO2 emissions"
87	10	13	34	13	34	Replace "predicted" with "in SO2 emissions projected"
88	10	13	42	13	42	Insert after "scenarios" "such as A2 and A1F1, which are, therefore, highly improbable"
89	10	13	44	13	44	Insert after "2005)" "but since it projects a 70% increase by 2100, when the concentration is currently stable, this is difficult to believe"

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90	10	13	44	13	47	Replace from ."Recent Trends": to end of paragraph with "Since the trend in methane concentration is a decreasing rate of increase, the actual concentration is most likely to decrease rather than increase.. All the scenarios project a current increase which is not happening. However, the scenario B1 projects a slight decrease by 2100"
91	10	13	21	13	47	These three paragraphs are completely garbled and display an ignorance of the actual projections of the SRES scenarios. They should be replaced by a Table showing the scenario projections, as compared with the measured climate parameters
92	10	14	4	14	4	Replace "anthropogenic" by "human-induced"
93	10	14	7	14	7	Replace "will" by "may"
94	10	14	23	14	23	Replace "anthropogenic" by "human-induced"
95	10	14	26	14	26	Delete "well-mixed" They are not well-mixed
96	10	14	32	14	32	Insert after "fallen" "to zero, with the possibility of negative growth in the future"
97	10	14	33	14	34	Replace from "comparable" on line 33 to end on line 34 with "all project an unrealistic increase"
98	10	14	44	14	44	Add at end "The A2 scenario projects such a huge groeth (nine times) in coal production that this result is hardly surprising"
99	10	15	5	15	5	Replace "anthropogenic" with "human-induced"
100	10	15	39	15	39	Replace "climate change" with "changes in the climate"
101	10	15	46	15	46	Replace "climate change" with "changes in the climate"
102	10	15	53	15	53	Replace "climate change" with "changes in the climate"
103	10	16	6	16	6	Replace "anthropogenic" with "human-induced"
104	10	16	11	16	11	Replace "climate change" with "changes in the climate"
105	10	16	22	16	22	Add at end "these experiments are completeluy unrealistic since the currect rate of carbon dioxide increase is only 0.4% a year"
106	10	16	45	16	45	Insert afetr "have" "":projected"
107	10	16	46	16	46	Replace "increases" with "is projected to increase"
108	10	17	15	17	15	Insert after "are" "thought to be"
109	10	17	18	17	18	Replace "are" by "we think we are"
110	10	17	20	17	20	Replace "climate change" with "changes in the climate we think"
111	10	22	7	22	7	Replace "decreases" with "is projected to decrease"
112	10	23	14	23	14	Insert after "margins" "but Zwally et al (2005) find an overall increase in Greenlamd mas between 1992 and 2002"
113	10	23	15	23	16	Replace "a continuation of" with "in contrast to the evidence of Zwally el 2005, a"
114	10	24	23	24	23	Insert after "1% year" "in contrast to the actual current rate of 0.4% a year"
115	10	24	52	24	52	Delete "robust"

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116	10	25	35	25	35	Insert after "Greenland" "(not confirmed by Zwally et al 2005, whi found a mass increase)"
117	10	26	2	26	2	Replace "anthropogenic" with "human-induced"
118	10	26	14	26	14	Add at end "But it should be remembered that the A2 scenario is highly improbable"
119	10	26	24	26	24	Insert after "As" "a projected"
120	10	26	40	26	40	Replace "shows" by "projects"
121	10	26	57	26	57	Replace "show" with "projects"
122	10	27	3	27	3	Replace "in the" with "in a projected"
123	10	27	6	27	6	Replace "cools" with "might cool"
124	10	27	7	27	7	Replace "decreases" with "may decrease"
125	10	27	16	27	16	Insert after "concentrations" "are supposed to"
126	10	29	9	29	9	Replace "can" by "is projected to"
127	10	29	15	29	15	Replace "anthropogenic" with "human-induced"
128	10	30	54	30	54	Replace "likely" with "projected"
129	10	31	16	31	16	Replace "an increased" with "a projected increased"
130	10	31	28	31	28	Replace "an increased" with "a projected increased"
131	10	31	31	31	31	Replace "an increased" with "a projected increased"
132	10	31	46	31	46	Replace "increases" with " is projected to increase"
133	10	31	47	31	47	Replace "increases" with " projection"
134	10	32	15	32	15	Replace "showed" with "projected"
135	10	32	16	32	16	Replace "an increase" with "a projected increase"
136	10	32	21	32	21	Replace "found" by "projected"
137	10	32	51	32	51	Delete "very likely"
138	10	32	52	32	52	Replace "confirmed" by "projected"
139	10	33	6	33	6	Replace "rises" with "projected to rise"
140	10	33	9	33	9	Delete from "and thus" to "result"
141	10	33	11	33	11	Insert after "possible" "projected"
142	10	33	14	33	14	Insert after "future" "projected"
143	10	33	18	33	18	Insert after "documented" "projected"
144	10	33	35	33	35	Insert after "future" "projected"
145	10	33	38	33	38	Insert after "future" "projected"
146	10	33	40	33	40	Replace "shown" by "projected"
147	10	33	43	33	43	Insert before "results" "projected"
148	10	34	1	23	1	Replace "climate change" with "change of climate"

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149	10	34	5	34	5	Replace "showed" with "projected"
150	10	34	9	34	9	Replace "demonstrated" with "projected"
151	10	34	11	34	11	Insert before "decrease" "projected"
152	10	34	13	34	13	Replace "showed" with "projected that"
153	10	34	18	34	18	Insert after "was" "projected"
154	10	34	24	34	24	Delete "credibly"
155	10	34	26	34	26	Replace "show" with "project that"
156	10	35	7	35	7	Replace "showed" with "projected"
157	10	35	12	35	12	Replace "showed" with "projected"
158	10	35	23	35	23	Replace "shown" by "projected"
159	10	35	29	35	29	Insert before "decrease" "projected"
160	10	35	33	35	33	Replace "shown" by "projected"
161	10	35	37	35	37	Replace "showed" with "projected"
162	10	35	42	35	42	Replace "documented" by "projected"
163	10	35	44	35	44	Replace "showed" with "projected"
164	10	35	53	35	53	Replace "showed" with "projected"
165	10	36	1	36	1	Replace "shows" by "projects"
166	10	36	6	36	6	Replace "shown" with "projected"
167	10	36	9	36	6	Replace "showed" with "projected"
168	10	36	30	36	30	Replace "will" by "might"
169	10	36	34	36	34	Replace "will" by "might"
170	10	36	36	36	36	Replace "leads" with "might lead"
171	10	36	37	36	37	Replace "an" by "a projected"
172	10	36	55	36	55	Add at end "As before, because the A2 scenario is so improbable, the calculations must also be suspect"
173	10	37	15	37	15	Insert after "is" "projected to be"
174	10	37	15	37	15	Add at end "but all these calculations are affected by the extreme implausibility of the A2 scenario"
175	10	37	21	37	21	Replace "will" by "is projected to"
176	10	37	26	37	26	Replace "climate change" with "changes in the claimate"
177	10	37	31	37	32	Replace "climate change" with "changes in the claimate"
178	10	38	23	38	23	Replace "found" by "projected"
179	10	38	31	38	31	Replace "show" by "project"
180	10	38	39	38	39	Replace "dominates" by "is projected to dominate"
181	10	38	45	38	45	Replace "already" by "calculated to be"

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182	10	38	45	38	45	Replace "will" by "could possibly"
183	10	38	47	38	37	Replace "will" by "could possibly"
184	10	38	48	38	48	Insert after "carbinatate " "unless evolution comes to thje rescue"
185	10	38	50	38	50	Insert after "skeletons" "without evolutionary development"
186	10	38	53	38	53	Replace "will" by "could conceivably"
187	10	38	55	38	55	Replace "will" by "might"
188	10	38	57	38	57	Replace "will" by "might"
189	10	39	1	39	1	Insert after "threaten" "some"
190	10	39	18	39	18	Replace "anthropogenic" with "human-induced"
191	10	39	23	39	23	Replace "will" by "might"
192	10	39	25	39	25	Replace "find" with "project"
193	10	39	32	39	32	Insert after "emissions" "may"
194	10	39	33	39	33	Insert before "leading" "possibly"
195	10	39	41	39	41	Replace "grows" with "may grow"
196	10	39	41	39	41	Replace "is a;Iso" by "may also be"
197	10	40	5	40	5	Replace "results" with "projections"
198	10	40	14	40	14	Replace "climate change" with "change of climate"
199	10	40	14	40	14	Replace "increases" with "projects an increase"
200	10	40	18	40	18	Replace "find" with "project"
201	10	40	27	40	27	Replace "climate change" with "change of climate"
202	10	40	28	40	28	Replace "find" with "project"
203	10	40	37	40	37	Replace "indicate" with "show"
204	10	40	37	40	37	Insert after "declone" "to zero"
205	10	41	50	41	50	Replace "anthropogenic" with "human-induced"
206	10	41	55	41	56	Replace "anthropogenic" with "human-induced"
207	10	41	57	41	57	Replace "unforced internal climate variability" by "miscellaneous clmate influences"
208	10	42	1	42	1	Replace "internal variability" by "miscellaneous clmate influences"
209	10	42	1	42	1	Insert after "can be" "vaguely"
210	10	42	2	42	1	Replace "internal variability is " by "miscellaneous clmate influences are"
211	10	43	7	43	7	Replace "anthropogenic" with "human-induced"
212	10	43	11	43	11	Insert after "CO20" "(as oposed to the measred value of 0.4%)
213	10	44	55	44	55	Insert after "assume" "unrealistically"
214	10	45	15	45	15	Delete "potentially"

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215	10	45	27	45	27	Insert after "contrivserial" "and "quite irreponsible"
216	10	46	37	46	37	Replace "anthropogenic" with "human-induced"
217	10	62	16	62	16	Replace "climate change" with 'changes in the climate"
218	10	62	18	62	18	Replace "climate change" with 'changes in the climate"
219	10	62	20	62	20	Replace "climate change" with 'changes in the climate"
220	10	62	23	62	23	Delete "system"
221	10	62	30	62	30	Delete "system"
222	10	62	38	62	38	Delete "system"
223	10	63	23	63	23	Replace "climate change" with 'changes in the climate"
224	10	69	8	69	8	Delete "the fact"
225	10	69	9	69	9	Replace "climate change" with 'changes in the climate"
226	10	69	10	69	10	Replace "climate change" with 'changes in the climate"
227	10	69	12	69	12	Delete "system"
228	10	69	29	69	29	Replace "climate change" with 'changes in the climate"
229	10	69	30	69	30	Delete "system"
230	10	70	46	70	46	Insert after "years" "but growth in the centre"
231	10	95	7	95	7	Insert after "future" "projected"
232	10	129		129		In common with your usual unscientiufic practice you have chosen once agin to present graphs with uncertainties which are only ± 1 standard deviation. This is quite unacceptable. The whole lot should be redrawn with 95% confidence limts. Doubling the uncertainties given.The minimum temperature rise for 2100 is now 1.5°C for scenario B1, somethiong which we can live with, after we have made allowance for all the upward biases of the other scenarios and models
233	10	133		133		I am surprised that you have the arrogance to present the results of a 1% increase per annum of carbon dioxide when you know that the current rate is 0.4% a year which has been stable for 30 years. This graph is nonsense
234	10	134		134		Here we have another outrageous use of the one standard deviation method for descrtibnmg uncertainty, unique to the IPCC. If you were honest you would present the normal method of using two standard deviations and 95% confidence limits. This graph is deliberately misleading
235	10	141		141		The CO2 projections on the top graph are obviously wrong. There is no sign thatn the current rate is deviating from 0.4% a year