

**Expert Reviewer: GRAY**

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						<b>Comment</b> ** If you are cutting and pasting comments from another application into the review form, please <b>DOUBLE-CLICK</b> in the appropriate spreadsheet comment cell before pasting your comment. Only <b>ONE</b> comment per row, please.
1	9	3	3	3	3	Delete from "Evidence" on line 3 to "TAR" on line 4" This sentence is arrant nonsense. "The climate" is a complex "system" involving a large number of "influences". But how can these be divided into "external" and "internal". The El Niño ocean anomaly takes place on earth, so you call it "internal"; yet it has a major influence on the lower atmosphere, so it is "external as well. Volcanoes may be considered "external", but they influence the climate on the surface directly. Thi division is misleading and unneceasry
2	9	3	4	3	4	Delete "widespread"
3	9	3	4	3	4	Replace "anthropogenic warming of" with "human influence on"
4	9	3	4	3	4	Delete "system"
5	9	3	4	3	4	Replace "in" by "from"
6	9	3	5	3	5	Insert after "surface" "due to the proximity of measuring equipment to human activity. However, measurements"
7	9	3	5	3	5	Insert after "oceans" "do not show obvious human influence".
8	9	3	5	3	5	Replace "very likely" by "most unlikely"
9	9	3	6	3	6	Insert after "warming" "on the surface"
10	9	3	6	3	18	Delete from "and it is" on line 6 to "century" on line 18. There is simply no evidence for these extravagant assertions
11	9	3	20	3	21	Delete from ".of the climate system"" on line 20 to "system" on line 21
12	9	3	21	3	21	Insert after "surface" "because of the proximity of measuring equipment to human activity. However, measurements"
13	9	3	22	3	22	Insert after "oceans" ".do not show evidence of human influence"
14	9	3	28	3	28	Add at beginning "the complete absence of"
15	9	3	29	3	30	Replace "and stratospheric cooling is very likely" with "cannot possibly be"
16	9	3	29	3	29	Replace "and" with "but there may have been an influence on"
17	9	3	31	3	32	Replace "a warming" with "very recent warming in the"
18	9	3	32	3	32	Replace "likely led to" by "possibly been a factor in"
19	9	3	32	3	32	Replace "It is likely" with "It is improbable"
20	9	3	33	3	33	Insert after "observed". "periodic"
21	9	3	34	3	34	Delete "Anthropogenic forcing, resulting in"
22	9	3	35	3	35	Replace "likely,the largest" by "a"
23	9	3	37	3	41	Delete this whole paragraph, for which there is no credible evidence. There is, however, evidence, that where there is a thorough correction of weather station information, as has been carried out in the continetal USA , and in China, the supposed "warming" all but disappears

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24	9	3	46	3	48	Replace from "and there is evidence" on line 46 to "heat wave" on line 48 with "due mainly , to greater heating in cities, particularly at night, and in the winter".
25	9	3	48	3	48	One "heat wave" does not make a "trend"
26	9	3	50	3	51	Delete from ".Anthropogenic" in line 50 to "recent" in line 51. There is no evidence that these changes are "anthropogenic"
27	9	3	51	3	51	Delete "There is evidence of"
28	9	3	52	3	52	Insert before "consistent". "are"
29	9	3	52	3	52	"replace "consistent witt" by "possibly influenced by""
30	9	3	52	3	52	Insert before "warming". "very recent"
31	9	3	52	3	52	Delete "evidence that"
32	9	3	53	3	53	Replace "has also likely" by "may have"
33	9	3	55	9	55	Add at beginning "There have been"
34	9	3	56	3	56	Delete "are likely related in part to human activity" There is no evidence for this statement. Models alone are not enough
35	9	4	2	4	2	Delete from "leading" to "pressure". There is no evidence for this statement.. Models are not enough and it is probably natural variability
36	9	4	6	4	6	Insert after "consistent" "with"
37	9	4	6	4	6	Insert in front of "suggestive" "vaguely"
38	9	4	15	4	15	Insert after "climate" "but they have not been particularly successful"
39	9	4	20	4	20	Replace "natural external forcing" by "changes in atmospheric composition". The phrase "natural extrenal forcing" is meaningless. Is this wat you actually mean by it?
40	9	4	20	4	21	Delete from "Furhermore" on line 20 to "forcing" on line 21. Ther is no supporting evidence for this statement
41	9	4	28	4	28	Insert after "to" "the utterly ridiculous assumption of"
42	9	4	30	4	37	Delete this whole paragraph. It ius not suported by evidence. Only "internal variability" is considered, not the possibility of periodic change (for example for ocean warming and ice extent) and no atenntion to possible influence of long term trends associated with changes in the sun, or in ocean circulation
43	9	4	51	4	51	Add at end "but there has been no confirmation from actual observatiomns"
44	9	4	53	4	53	Replace "some" by "most"
45	9	4	54	4	54	Delete "While"
46	9	4	55	4	55	Replace "still affect confidence in estimates of the": with "now provide no evidence whatsoever of an"
47	9	5	4	5	4	Delete from "as expressions" to "change" This distinction is confusing. You are trying to find out whether human emissions of greenhouse gases have an effect on nthe climate and you should say so. This artificial distinction seems to have the object of covering up human influences on the earth's surface which do not involve greenhouse gas emissions, such as the building of cities, the use of energy, and changing land use.

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48	9	5	6	5	6	Delete "system"
49	9	5	12	5	12	Delete "system"
50	9	5	11	5	11	Replace "sometimes" by "usually"
51	9	5	15	5	15	Paragrapg 5.1.1. is confused. First, you should avoid using the term "climate change" altogether, because it is defined, legally by the Framework Convention on Climate Change as exclusively concerbed with changes in greenhouse gases caused by humans. This is a very restricted definition which makes it impossible for scientists to study the climate before they have been able to attribute any possible cxause. It is no use claiming that the IPCC hacve changed this definition. They have not. The FCCC definition is endorsed by an international treaty, and you cannot just change it like this. You have got to find a different way of talking about how the climate is changing
52	9	5	15	5	15	Replace Title by "Change and Variability of the Climate"
53	9	5	17	5	17	The definition in the Glossary is unsatisfactory. It should begin by quoting the FCCC definition, which is, aftre all, part of a legally binding international treaty. It should then follow with a statement that because of the confusion caused by this definition the IPCC proposes to avoid using the term and replacing it with "change of climate" or "changes in the climate"
54	9	5	17	5	17	The definition in the Glossary does not even try to define "climate change" but only to tell us what it "refers to". It creates confusion by trying to draw a line between short term and long term changes but failing to do so. The difficulties of doing so are displayed by the statement "decades or longer". How much longer? Does this mean that claims that current changes are "unprecedented" over one thousand, ten thousand, a million years are wrong?. I suggest a limit with "geological eras"?
55	9	5	17	5	17	I would like to get rid of the term "climate system". It cannot be distinguished from "climate"; so iif you keep the definition in the Glossary, say that you do noy recommend its use
56	9	4	17	5	17	I have not been asked to correct the Gloasary, but it has to be changed to help clear up the confusion. "Climate" may be defined as "the totality of all the external and internal influences on the surface of the earth and its neighbouring atmosphere:, usually applied to influences longer tha the hourly, daily, and weekly influences which are called 'weather'"
57	9	5	17	5	17	You can then define "weather" as "Those changes in climate which are of comparatively short duration; such as" hourly, daily, weekly
58	9	5	17	5	17	You can then replace from "Climate change" on line 17 to "(see Glossary)" on line 19 with "Change of climate: a change in any part of the totality of influences on the surface of the earth and its neighbouring atmosphere over periods of decades or longer, extending to geological eras. .
59	9	5	19	5	19	Replace "Climate change" by "Change of climate"
60	9	5	19	5	19	Insert after "radiation", "cosmic rays, ocean instability, geological process"
61	9	5	20	5	20	Replace "occur" with "which vary and change"
62	9	5	20	5	23	Delete from "and" at end of line 20 to "activity" on line 23

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63	9	5	23	5	23	Replave "climate change" with "changes in climate"
64	9	5	23	5	23	Replace "external forcings" with " changes on the composition of the atmosphere and of the earth's surface that began with the Industrial revolurion and can be attributed to human activity"
65	9	5	24	5	24	Replace "internal" with "other"
66	9	5	24	5	24	Delete "system"
67	9	5	27	5	27	Replace "extrenal influences" with "changes in atmospheric constituents"
68	9	5	27	5	27	Replace "internal climate variability" with "other climate influences"
69	9	5	28	5	28	Replace "external' with "atmospheric composition"
70	9	5	30	5	30	Replace "external' with "atmospheric composition"
71	9	5	33	5	33	Replace "external' with "atmospheric composition""
72	9	5	33	5	33	Replace "internal variability" with "the many other climate influences"
73	9	5	35	5	35	Replace "climate change" by "changes in the climate"
74	9	5	35	5	35	Replace "natural variability" with "every influence on the climate"
75	9	5	35	5	37	Delete from "which' on line 35 to "scales" on line 37
76	9	5	35	5	35	I disagree with the contrast you make between "external influences" and "internal variability" It is a ruse to try and convince us all that only greenhouse gases cause "CHANGE and everything else is VARIABLE , The climate changes without greenhouse gases and you know it. You wish to conceal the very existence of "naural change" and also of changes caused by humans which do not involve greenhouse gases, such as the bulkdng of cities, changes in the land, and emission of energy. You just leave these out and so that your precious greenhouse gases remain as the only source of "climate change" You also want to pretend that ERI Niño ocean events are merely "internal variability" and draw attention away fgropm the fact that they have a major influence on the lower atmosphere.
77	9	5	36	5	36	Delete the definition of "internal climate processes" from the Glossary and refrain from using the term
78	9	5	37	5	37	Replace "internal variability" with ".natural changes in the climate can also involve a variability which"
79	9	5	37	5	37	Insert in front of "atmospheric processes "Besides long-term changes"
80	9	5	37	5	37	Relace from "that generate" to "ranging" with "range"
81	9	5	41	5	41	Insert after "centuries" :besides any longer term changes"
82	9	5	41	5	42	Delete from "components" on line 41 to "atmosphere" on line 42
83	9	5	42	5	43	Replace from ."internal" on line 42 to "by" on line 43 with "there are"
84	9	5	44	5	55	Replace from "The climate's" on page 44 to "forcing" on line 46 with It is difficult to distinguish the effects of increases in greenhouyse gases from all the other climate influences"
85	9	5	48	5	48	Delete "Climate Change"
86	9	5	49	5	49	Insert "of changes in theClimate" after "attribution"

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87	9	5	50	5	50	Delete "climate Change"
88	9	5	50	5	50	Insert "of changes in the climate" after "attribution"
89	9	5	55	5	56	Replace from "random chance" on line 55 to "alone" on line 56 by "all the other climate influences"
90	9	5	57	5	57	Replace "internal variability" by "the other influences"
91	9	6	2	6	2	Delete "anthropogenic"
92	9	6	2	6	2	Insert after "influence" "from increases in greenhoude gases"
93	9	6	3	6	3	Replace "anthropogenic forcing" by "changes in atmosphereic composition"
94	9	6	4	6	4	Replace "external forcing" with "changes in atmospheric composition"
95	9	6	8	6	8	Replace "external forcing" with "changes in atmospheric composition"
96	9	6	14	6	14	Replace "external forcing" with "changes in atmospheric composition"
97	9	6	15	6	15	Delete "system"
98	9	6	17	6	17	Replace "an external" by "a greenhouse gas"
99	9	6	20	6	20	Replace "climate change" with "changes in the climate"
100	9	6	21	6	21	Replace "internal variability" with "the many other climate influences"
101	9	6	25	6	25	Replace "internal variability" with "otherclimate influences"
102	9	6	25	6	25	Add at end "but not the climate influences which could not be simulated by models"
103	9	6	28	6	28	Replace "an external" by "a greenhouse gas"
104	9	6	31	6	31	Insert "some of" after "reduce"
105	9	6	34	6	34	Replace "external" with "change in atmospheric composition"
106	9	6	43	6	43	Replace "external" with "change in atmospheric composition"
107	9	6	47	6	47	Insert after"(see Gloaary)" "but,of course, suc attribution can never be certain"
108	9	6	49	6	49	Add at end "but hardly anywhere else"
109	9	6	51	6	51	Replace "anthropogenic" with "greenhouse gas"
110	9	6	51	6	51	Replace "natural forcing" with "all the other climate influences"
111	9	6	51	6	51	May I here complain about the use of the term "anthropgenic" to imply the influence of human emissions of grenhouse gas. The term, presumably should include human influences on the climate which do not invoive emissions of greenhouse gases, such as the building of cities, energy emission and land-use changes. You behave as if these influences can be totally ignored. You should only use "anthropogenic" when all human influences are being considered, but, on the whole, it should be replaced by "human-induced"
112	9	6	52	6	52	Replace "climate change" with "changes in the climate"
113	9	7	14	7	14	Replace "internal climate variability" with "other climate influences"
114	9	7	15	7	15	Replace " variability" with "other climate influences"

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115	9	7	16	7	16	Replace "internal variability" with "the remaining climate influences"
116	9	7	18	7	19	Replace "internal climate variability" with "some part of the remaining climate influences"
117	9	7	20	7	20	Replace "variability" with "influences"
118	9	7	21	7	21	Replace "internal variability" with "the many other climate influences"
119	9	7	22	7	22	Replace "variability" with "climate influences"
120	9	7	23	7	23	Replace "variability" with "climate influences"
121	9	7	29	7	29	Replace "climate change" with "changes in the climate"
122	9	7	43	7	43	Replace "climate change" with "changes in the climate"
123	9	7	44	7	44	Insert before "temperature" "surface"
124	9	7	44	7	44	Insert after "century" "as a result of the influence of proximity of measuring equipment to human activity rather than to the influence of increases in greenhouse gases"
125	9	7	45	7	45	Replace "robust" by "confirmed"
126	9	8	4	8	4	Add at end "Unfortunately such expert judgement is not based on scientific principles and it can be unreliable"
127	9	8	10	8	10	Replace "anthropogenic" with "human"
128	9	8	12		12	Insert after "century" " This statement did not specify the origin of the 'human influence', so it should not be interpreted as necessarily involving emissions of greenhouse gases, but would include the result of the influence of proximity of the measuring equipment to human activity."
129	9	8	14	8	14	Insert after "influence". "such as the building of cities, the use of energy, and changes in the land"
130	9	8	14	8	14	Replace "climate change" with "changes in the climate"
131	9	8	20	8	20	Add at end "But, of course, this did not include human contributions to changes in the climate which do not involve emissions of greenhouse gases, such as the building of cities, energy emissions, or changes in land use, which were not included in the models"
132	9	8	22	8	22	Replace "anthropogenic" with "human-emitted"
133	9	8	24	8	24	Insert after "observations" "but increases in temperature around cities, where most measurements are made, is a better explanation"
134	9	8	24	8	24	Insert before "known" "some"
135	9	8	26	8	26	Insert before "warming". "surface"
136	9	8	26	8	26	Insert after "century" "which did not occur in the lower troposphere".
137	9	6	26	8	26	Delete "nor"
138	9	8	27	8	27	Add at end "are probably related to a very recent warming spell".
139	9	8	31	8	31	Replace "found" by "thought"
140	9	8	32	8	32	Insert after "not" "most"

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141	9	8	33	8	33	Insert after "be" "vaguely"
142	9	8	36	8	36	Replace "found to be robust to attempts" with "to some extent, able"
143	9	8	40	8	41	Replace "climate changes" with "changes in climate"
144	9	8	41	8	41	Insert before "model" "some"
145	6	8	41	8	41	Replacw "anthropogenic" with "greenhouse gas"
146	9	8	41	8	41	Replace "warming" by "temperature change"
147	9	8	46	8	46	Replace "internal climate variability" with "other climate influences,besides that of greenhouse gases""
148	9	8	47	8	47	Replace "internal variance" with "alternative climate influences"
149	9	8	48	8	48	Replace "an anthropogenic" by "a greenhouse gas"
150	9	8	48	8	48	Insert after "climate" "but many imporatat influences, such as human ewffects on the surface, were omitted from the models"
151	9	8	49	8	49	Delete "external" All 'forcing' is 'external' by definition
152	9	8	49	8	49	Delete "anthropogenic", There are uncertainties in all the aerosols, not just the human ones
153	9	8	52	8	52	Replace "warming" by "temperature change" It sometimes cools, and in the lower troposphere, shows little overall change for extended periods
154	9	6	52	6	52	Replace "anthropogenic forcings" with "human climate influences". Surely "forcing" is what takes place at the top of the atmosphere. You cannot have "forcings" that are confined to the surface
155	9	8	54	8	54	Delete "external"
156	9	9	3	9	3	Add at end. "This statement suffered from two difficulties. First, the surface temperature record showed no 'warming' between 1950 and 1978, so a "warming" was only "observed" from 1978 onwards, a mere 20 years. Secondly, there is no mention of human influence, so the increases in greenhouse gases could be purely natural; for example by an increase in the chief greenhouse gas, water vapour"
157	9	9	7	9	7	Delete "by briefly" It is, by contrast, excessively long-winded
158	9	9	21	9	21	Replace from "relatively" to "amounts" with "based on very limited, and poorly distributed"
159	9	10	34	10	34	Replace "1.5±1" with "1.5±2" . 67% confidence intervals are unacceptable by truly professional scientists. You must give 95% confidence intervals, and it must be imposed throughout this Report
160	9	10	34	10	34	Delete "(67% confidence interval)"
161	9	11	4	11	4	Delete "Hihowever"
162	9	11	4	11	4	Replacve "would be impossible" with "is not easy"
163	9	11	5	11	6	Replace from "explanations" on line 5 to "both" on line 6 with "of"
164	9	11	8	11	8	Add at end "However, if the warming of the ocean is merely periodic, and the models have omitted important climate influences, there is a possibility that it is true"
165	9	13	31	13	31	Replace "produces" by "expected to produce"

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166	9	13	31	13	31	Insert after "troposphere" but temperature measurements in the troposphere have found extensive periods (1858 to 2004 for radiosondes, and 1978 to 1998 for satellites) where no overall rtempersture change is found. On the other hand"
167	9	13	31	13	31	Insert after "stratosphere" " could be influenced by greenhouse gases"
168	9	13	31	13	31	Delete "and"
169	9	13	33	13	33	Insert after "921c)" "due to the increased heating in winter and at night in urban areas"
170	9	13	37	13	37	Delete from "thereby" to "warming". There is no evidence of consistent "warming"
171	9	13	39	13	38	is" by "ought to"
172	9	13	40	13	40	Add at end "but temperature measurements in the troposphere have failed to detect any such warming"
173	9	13	44	13	44	Insert before "greenhouse" "the supposed"
174	9	13	44	13	44	Delete "to the response to greenhouse warming" It is redundant
175	9	17	52	17	52	Replace "climate change" with "changes in the climate"
176	9	17	53	17	53	Replace "climate changes" with "changes in the climate"
177	9	17	53	17	53	Insert before "These" "Some of"
178	9	17	56	17	56	Insert after "variability" "and change"
179	9	17	57	17	57	Replace "anthropogenic" by "human-induced"
180	9	17	57	17	57	Replace "natural external forcings" with "other climate influences"
181	9	18	11	18	11	Replace "anthropogenic forcing" with "human activity"
182	9	18	12	19	13	Replace "increrases our confidence in" by "improves"
183	9	18	14	18	14	Replace "anthropogenic": by "human- induce"
184	9	18	14	18	15	Deledte from "In addition" on line 14 to "variability" on line 15. I don't understand how errors can be so "helpful"
185	9	20	19	20	19	Add at end 'due to the proximity of temperature measuring equipment to increased human activity"
186	9	21	48	21	48	Replace "anthropogenic" with "human-induced"
187	9	22	25	2	25	Insert after "variability" "and change"

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188	9	22	50	22	50	Insert after "record)" "However, drawing a linear curve through such irregular data cannot be justified. There were, essentially, four distinct phases; the first, from 1856 to 1910, showed a slight fall of 0.01°C, the second, from 1910 to 1942, showed a steady rise of 0.4°C, the third, from 1942 to 1978 showed a fall of 0.04°C, from 1978 to 1998 a fairly steady rise of 0.45°C followed by an irregular fall to 2005.. It is very difficult to attribute any of these phases to external forcing. The first two took place when greenhouse gas concentrations were relatively low, and in any case, why should the influence suddenly occur in 1910? The third phase, a temperature fall, was at a time of increasing greenhouse gas concentrations. For the fourth phase, 1978 to 1999 it is difficult to explain why greenhouse gases should suddenly be effective after being so long undetectable and the 1999 peak is undoubtedly due to El Niño. The fall in temperature since 1999 is incompatible with a greenhouse gas explanation. The whole sequence is much better explained by the development of meteorological services over the period, and its influence from the proximity of measuring equipment to human development
189	9	22	51	22	51	Insert after "(see Chapter 3)" " A statistical study by McKittrick and Michaels (2004) on the sequence from 1979 to 2000 showed that both individual records and the global average were significantly influenced by a variety of socioeconomic factors such as increases in population, wealth, coal usage, and poor data quality",
190	9	22	55	22	55	Insert after "(see Chapter 6)" "but this depends on comparing measurements made far from human activity with those much influenced by human activity. Also McIntyre and McKittrick (2003) have identified serious errors in some of the calculations"
191	9	22	55	23	3	Delete from "Global mean" on page 22, line 55 to "(Figure 3.2.6)" on page 23, line 3 This consideration should appear immediately after the mention of the surface record on page 22 line 50; and I have provided a better and more detailed treatment there.
192	9	23	4	23	4	Insert after "period", due to better heating in urban areas at night and in the winter.
193	9	23	4	23	4	Delete "and" and capitalise "Warming"
194	9	23	3	23	6	Transfer the whole section from "Since the mid 1970s" on line 3 to "ocean" on line 6; including the previous two amendments to line 51 on page 22; inserting it after "period". The material on "surface measurements should all be in one place. You should also start a new paragraph for "A large number of proxy reconstructions"
195	9	23	13	23	13	Replace "anthropogenic" with "human-induced"
196	9	23	22	23	22	Replace "anthropogenic" with "human-induced"
197	9	23	23	23	23	Insert after "without" "It is, however, very difficult to simulate the period from 1855 to 1910, with its slight cooling, followed with a steady rise from 1910 to 1940 with a combination of volcanic activity and solar changes"
198	9	23	26	23	26	Replace "natural internal variability" with " a few of the climate influences other than in the atmosphere"
199	9	23	28	23	28	Delete "quite well"
200	9	23	26	23	26	Delete "also"

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201	9	23	26	23	26	Insert after "well" "provided they can be assumed to change in a linear fashion"
202	9	23	33	23	33	Replace "anthropogenic" with "human-induced"
203	9	23	34	23	34	Insert before "the observed" "In contrast to"
204	9	23	35	23	35	Insert at the beginning "to the actual record, which is highly irregular and contains several sustained temperature falls, the falsely linearised"
205	9	23	35	23	35	Insert after "shows" "bogus"
206	9	23	37	23	37	Insert before "Such" "Unsurprisingly"
207	9	23	37	23	37	Replace "a pattern" with "such an artificially fabricated pattern"
208	9	23	38	23	38	Replace "modes of climate variability" with "many climate influences, but it is capable of being related to the many changes in the number, reliability, location and surroundings of the measuring instruments"
209	9	23	38	23	38	Replace "For example" with "Also"
210	9	23	41	23	41	Replace "anthropogenic" with "human-induced"
211	9	23	42	23	42	Replace "observed" with "the false linear trend fitted to the observed record"
212	9	23	44	23	44	Replace "anthropogenic" with "human-induced"
213	9	23	45	23	45	Add at end "and even better agreement if the influence of urban and land-use changes are included"
214	9	23	49	23	49	Add at beginning "There is little evidence to show that"
215	9	23	50	23	50	Insert after "forcings" "but"
216	9	23	51	23	51	Replace "both" by "only"
217	9	23	51	23	51	Replace "anthropogenic" with "human-induced"
218	9	23	51	23	51	Insert after "forcing" but does not include surface human influences such as urban and land-use changes"
219	9	23	51	23	51	Delete "successfully"
220	9	23	54	23	54	Replace "external" by "other climate"
221	9	23	54	23	54	Delete "external control"
222	9	23	55	23	55	Replace "anthropogenic" with "human-induced"
223	9	24	2	24	2	Replace "are consistent in showing" with "show"
224	9	24	2	24	2	Insert before "global" falsely linearised"
225	9	24	2	24	2	Replace "observed" by "shown by the surface observations"
226	9	24	2	24	2	Delete "only be"
227	9	24	3	24	3	Replace "captured" by "simulated"
228	9	24	3	24	3	Replace "anthropogenic" with "human-induced"
229	9	24	3	24	3	Add at the end "although the use of local human-induced effects from urban and land-use change give a more likely explanation"
230	9	24	4	24	4	Replace "anthropogenic" with "human-induced"

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231	9	24	7	24	7	Replace "anthropogenic" with "human-induced"
232	9	24	9	24	9	Replace "anthropogenic" with "human-induced"
233	9	24	9	24	9	Insert after "warming" ".as indicated by the uncorrected surface record"
234	9	24	9	24	9	Add at end "but human-induced changes on the surface such as urban and land-use changes are a much more likely explanation"
235	9	24	11	24	11	Insert after "century "observed surface"
236	9	24	12	24	12	Insert after "warming" "but, of course, they ignore the obvious influences of instrument numbers, location and reliability"
237	9	24	30	24	30	Add at end "the universal disregard of the most important influences, such as instrument numbers, reliability, location, and the changes around them, means that most of these studies are of marginal significance"
238	9	24	33	24	33	Replace "anthropogenic" with "human-induced" in both places
239	9	24	34	24	33	Insert after "forcings "but ignore other human-induced effects, such as urban and land-use changes"
240	9	24	34	24	34	Replace "anthropogenic" with "human-induced" in both places
241	9	24	34	24	34	Insert after "climate" "with the local changes in urban and land-use being far more important"
242	9	24	35	24	36	Replace "could have been" with "was"
243	9	24	36	24	36	Insert after "fortuitously" "not only because local human changes at the surface have been ignored, but also"
244	9	24	41	24	41	Add at end "but, of course, ignoring many other important factors"
245	9	25	3	25	3	Delete "reasonably well"
246	9	25	4	25	4	Insert before "observations" "surface"
247	9	25	5	25	5	Delete "internal"
248	9	25	10	25	10	Replace "anthropogenic" with "human-induced" in both places
249	9	25	36	25	36	Replace "anthropogenic" with "human-induced"
250	9	25	38	25	38	Replace "anthropogenic" with "human-induced"
251	9	25	38	25	38	Insert after "record" "and"
252	9	25	38	25	38	Delete "and strengthening anthropogenic signal"
253	9	25	38	25	39	Delete "confidence in"
254	9	25	41	25	41	Replace "anthropogenic" with "human-induced"
255	9	25	41	25	41	Insert after "warmin' "in the surface record"
256	9	25	41	25	42	Replace " is a result that is robust to" with "covers"
257	9	25	45	25	45	Replace "anthropogenic" with "human-induced"
258	9	25	46	25	46	Add at beginning "global surface mean temperature"
259	9	25	46	25	46	Replace "also increase confidence" with "were also made"

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260	9	25	47	25	47	Delete "robust"
261	9	25	47	25	47	Insert after "mean" "global surface"
262	9	25	48	25	48	Replace "natural climate variability" with "all other climate influences except greenhouse gases etc."
263	9	25	50	25	50	Insert after "temperatures" "indicating an important contribution from urbanisation and land-use changes"
264	9	25	51	25	51	Replace "anthropogenic" with "human-induced"
265	9	25	51	25	51	Add at end "and human effects from urbanisation and land-use change"
266	9	25	55	25	55	Insert after "observed" "surface"
267	9	25	55	25	55	Replace "anthropogenic" with "human-induced"
268	9	25	56	25	56	Insert after "aerosols" " and urban and land-use change":
269	9	25	57	25	57	Replace "anthropogenic" with "human-induced"
270	9	26	2	26	2	Replace "well-mixed" by "minor". No gases are "well-mixed"
271	9	26	3	26	3	Replace "anthropogenic" with "human-induced"
272	9	26	5	26	5	Replace "linear" with "pseudo-linear"
273	9	26	5	26	5	Delete "well-mixed" They are NOT "well-mixed"
274	9	26	6	26	6	Replace "0.9±0.24" with "0.9±0.48" to give 95% confidence figures
275	9	26	6	26	6	Replace "anthropogenic" with "human-induced"
276	9	26	6	26	6	Replace "0.4±0.26" with "0.4±0.52" to give 95% confidence figures
277	9	26	7	26	7	Replace "anthropogenic" with "human-induced"
278	9	26	7	26	7	Insert before "trend" "spurious"
279	9	26	7	26	7	Replace "0.5±0.15" with "0.5±0.30" to give 95% confidence figures
280	9	26	7	26	7	Insert after "century" "the few"
281	9	26	8	26	8	Insert after "forcings" "considered"
282	9	26	9	26	9	Delete "best"
283	9	26	11	26	11	Replace "internal variability" with "other factors, which include urban and land-use changes"
284	9	26	14	26	14	Add at end "but. Again. Insufficient attention was given to the influences of urban and land-use changes"
285	9	26	17	26	18	Replace "internal variability" by "other climate factors, including urban and land-use changes"
286	9	26	29	26	29	Replace "anthropogenic" with "human-induced"
287	9	26	34	26	34	Replace "anthropogenic" with "human-induced"
288	9	27	16	27	16	Delete "robust"
289	9	27	18	27	18	Delete "it was likely that"
290	9	27	19	27	19	Replace "were" with "might be"
291	9	27	20	27	20	Delete "it was likely that"
292	9	27	21	37	21	Replace "would" by "might"

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293	9	27	34	27	34	Insert after "Bayesian" "(or super-guesswork)"
294	9	27	39	27	39	Insert before "Calibrated" "Bogus"
295	9	27	46	27	46	Replace "internal variability" by "extraneous climate factors",,three times
296	9	27	54	27	54	Delete "clear"
297	9	28	2	28	2	Replace "anthropogenic" with "human-induced"
298	9	28	3	28	3	Delete "decisive"
299	9	28	5	28	5	Replace "internal variability" with "extraneous climate factors"
300	9	28	7	28	7	Add at end "Of course, none of these studies considered the possible influence of urban or land-use changes on the surface and their influence on the instruments"
301	9	28	27	28	27	Delete "positive"
302	9	28	31	28	31	Replace "anthropogenic" with "human-induced"
303	9	28	47	28	47	Replace "warming" with "temperature change"
304	9	28	53	28	53	Replace "anthropogenic" with "human-induced"
305	9	28	57	28	57	Delete "forecast"
306	9	29	5	29	5	Insert before "1%" "highly improbable"
307	9	29	17	29	17	Replace "anthropogenic" with "human-induced"
308	9	29	18	29	18	Replace "anthropogenic" with "human-induced"
309	9	28	19	28	19	Replace "internal variability" with "climate influences"
310	9	28	24	28	24	Replace "internal variability" with "climate influences"
311	9	29	53	29	53	Replace "anthropogenic" with "human-induced"
312	9	22	39	30	9	This whole section is positively obsessed with the global mean surface temperature record, as if it was the only temperature record worth considering. Yet the "external forcing" to which you persistently allude takes place externally, at the top of the atmosphere, in the lower troposphere, and the first place to test its influence should be with temperature records in this region. There are two reliable records, the radiosonde record (which you try to dismiss as grossly inaccurate without good reasons) and the satellite record from MSU units. You make no attempt to simulate these records, because the results are in conflict with the studies on the surface, but they should have priority. The radiosonde records (Thorne et al 2005) and Angell 2006) both show no temperature change in the lower atmosphere from 1958 to 2004. The MSU record shows no temperature change from 1978 to 1998, followed by a large El Niño peak in 1999 and a short irregular cooling spell since.. The attempt to convince us that these records are compatible with the surface record in Chapter 3 depends on plotting them altogether and trying to pretend that the El Niño peak represents a long term trend which can be attributed to "external forcing" This argument is absurd. There is no evidence for the influence of "external forcing" in the place where it is supposed to happen, so that the contents of this section of this report are irrelevant

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313	9	22	39	30	9	This entire section is full of false conclusions because it gives incomplete consideration to several important influences on the climate and on the surface record which are not considered in any of the simulations. As a result, none of the simulations can be taken seriously. This defect is concealed by the use of misleading and ill-defined generalised entities such as "internal variability" external forcing "anthropogenic" and the like which I have tried to translate into actual climate influences.
314	9	22	39	30	9	The most important natural climate influence that has been omitted is the El Niño ocean phenomenon with its counterpart El Niña which has a distinct and obvious influence on all the temperature records. The Hadley people at one time used to "correct" for its influence. Now, you decide to forget it completely, despite the fact that it was responsible for the "highest annual mean temperature since records began" in 1999. The simulation of past temperatures without El Niño is meaningless
315	9	22	39	30	9	Then you have failed to question any of the many problems with the actual data, which have been so scrutinised with the other temperature records. Peterson (2003. Journal of Climate Volume 16 pages 2941-2959) has shown that instrument errors are a major source of bias in the United States and, when allowed for, give a "corrected" record which shows little or no warming for the continental US (see Figure 3.2.3). A similar exercise has recently been carried out in China ( Zhao et al. 2005 Acta Meteorologica Sinica Vol 19, pages 389-399). with a similar result. Unfortunately a similar correction process cannot be made for most of the data making up the surface record because of insufficient numbers of stations for comparison purposes, but it is most probable that the entire record would display very little "warming if this could be done
316	9	22	39	30	9	Gray (2000. "The Cause of global Warming" Energy and Environment Volume 11, pages 613-639) has summarised the abundant evidence that weather station measurements are influenced by changes in surrounding buildings, towns, vegetation, and energy usage. The claims made in Chapter 3 that these claims are "negligible do not answer this evidence
317	9	22	39	30	9	McKittrick & Michaels (2004 "A test of corrections for extraneous signals in gridded surface temperature data", Climate Research Vol 20) made a statistical study on individual stations and on the supposedly "corrected" mean global temperature record from 1979 to 2000 and found a significant influence of a range of socioeconomic factors such as population, energy usage and prosperity
318	9	22	39	30	9	McKittrick and Michaels (2004) also found a significant upwards bias from the use of incomplete data. The data from Russia from 1979 is particularly suspect, but nothing has been done to question it or to enquire how many other data are so contaminated
319	9	30	44	30	44	Replace "internal variability" by miscellaneous climate influences"
320	9	30	46	30	46	Replace "internal variability" by miscellaneous climate influence"
321	9	30	47	30	47	Replace "variability by large factors" by "other factors by large amounts"

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322	9	31	6	31	6	Replacxe "negligible" by "important" Gray (2000, "The Cause of Global Warming" Energy and Environment Volume 11, pages 613-639) has shown why it is not negligible and McKitrick & Michaels (2004 "A test of corrections for extraneous signals in gridded surface temperature data", Climate Research Vol 20 pages 159-173)) made a statistical study on individual stations and on the supposedly "corrected" mean gloibal temperature record from 1979 to 2000 and found a significant influence of a range of socioeconomic factors such as population, energy usage and prosperity
323	9	31	15	31	15	Insert after "has been" an irregular series of cooling and warming sequences which do not justify the pretence of a linear behaviour, however if this pretence is made it is possible to claim"
324	9	31	17	31	17	Insert after "Asia" "(enhanced by incomplete data (see McKitrick & Michaels (2004 "A test of corrections for extraneous signals in gridded surface temperature data", Climate Research Vol 20 pages 159-173))
325	9	31	30	31	30	Delete "do not"
326	9	31	30	31	30	Replace "natural internal variability" .by "other important climate influences, becaues they ignore El Niño ocean effects, urban and land-use changes, as well as instrument inaccuracies"
327	9	31	31	31	31	Delete "although" and capitalise The"
328	9	31	32	31	32	Replace "variability" with "changes in climate"
329	9	31	32	31	32	Replace "may not be well" by "are not"
330	9	31	34	31	34	Replace "can" by "mistakenly thought"
331	9	31	36	31	36	Replace "robustly" with "mistakenly"
332	9	31	37	31	37	Replace "anthropogenic" with "human-induced"
333	9	31	37	31	37	Insert after "this" "coubtful"
334	9	31	45	31	45	Replace "anthropogenic climate change" by "human induced changes in the climate"
335	9	31	49	31	49	Add at end "These studies ignore the fact that no such warming has been found in the lower troposphere"
336	9	32	1	32	1	is robust to" with "requires"
337	9	32	2	32	2	Replace "
338	9	32	3	32	3	Replace "anthropogenic" with "human-induced"
339	9	32	8	32	8	Replace "climate change" with "change in climate"
340	9	32	10	32	10	Add at end "which should be done anyway, as it is standard scientfic practice"
341	9	32	14	32	14	Replace "anthropogenic" with "human-induced"
342	9	32	16	32	16	Insert before "warming" "supposed"
343	9	32	23	32	23	Replace "anthropogenic" with "human-induced"
344	9	32	34	32	34	Insert after "influence" " from urban and land-use changes"
345	9	32	39	32	40	Replace "natural internal variability" by "a whole range of climate influences"
346	9	32	46	32	46	Replace "internal variability" with "miscellaneous climate influences"

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347	9	32	57	32	57	Replace "anthropogenic" with "human-induced"
348	9	33	3	33	3	Replace "anthropogenic" with "human-induced"
349	9	33	7	33	7	Replace "anthropogenic" with "human-induced"
350	9	33	11	33	1	Replace "anthropogenic" with "human-induced"
351	9	33	32	33	32	Replace "anthropogenic" with "human-induced"
352	9	35	46	35	46	Replace (ince 1958) with "show no change in temperature between 1958 and 2004"
353	9	35	46	35	46	Replace "(since 1979)" with "show no temperature change from 1979 to 1998, but then was followed by a sharp 1999 peak attributed to the El Niño ocean effect, and a short cooling spell afterwards . These results show that the supposed human-induced forcing cannot be detected in the region where it is supposed to happen, so all the studies with the surface record are worthless."
354	9	35	46	35	47	Replace "show warming trends in the troposphere and" with They show"
355	9	35	47	35	47	Replace "All datasets show" by "The satellite record can be manipulated by pretending that the 1999 El Niño peak can be held responsible for a human-induced trend to"
356	9	35	49	36	2	Delete all this section. It is disgraceful nonsense. The large El Niño peak on the stelliete record cannot be used to pretend that there was a "linear trend", or that this "trendf" could possibly be connected with "human-induced "forcing". The only "Trend" with mentioning is the zero trend in the satellite record between 1979 and 1998 which show conclusively that human-induced "forcing is undetectable in the region where it is supposed to be prominent.
357	9	35	49	36	2	I also object most strongly to the dismissal of the radiosonde record with wholly unjustified aspersions on its accuracy and validity. It records faithfully all the "natural" climate events (volcanos and El Niño) which are evident in the surface record as well as in the satellite record, which proves its reliabnility. What it does not do is record the supposed "warming" in the surface record, which casts doubt on that record, instead
358	9	36	10	36	10	Replace "anthropogenic" with "human-induced"
359	9	36	18	36	18	Replace "anthropogenic" with "human-induced"
360	9	36	26	36	36	Replace "anthropogenic" with "human-induced"
361	9	36	34	36	34	Replace "temeperature" by "temperature"
362	9	36	34	36	34	Replace "anthropogenic" with "human-induced"
363	9	36	37	36	37	Replace "anthropogenic" with "human-induced"
364	6	36	40	36	40	Add at end "All this was done by assuming that the large temperature peak in 1999 usually attributed to an El Niño anomaly, can be considered to generate a spurious "linear trend" ever since 1978,, implying its depenedence on human-induced forcing"
365	9	36	42	36	42	Delete "robust"
366	9	36	42	36	42	Replace "found" by "claimed by the same illegitimate procedure of assuming that the 1999 El Niño temperature peak can generate a linear "trend related to human-induced forcing"

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367	9	36	51	36	51	Replace "robustly" with "spuriously"
368	9	36	55	36	55	Replace "robust" with "spurious"
369	9	37	7	37	7	Replace "spurious" with "alleged"
370	9	37	22	37	22	Replace "internal variability" with "all the other climate influences"
371	9	35	41	38	4	This whole section ignores the El Niño ocean effects which are so prominently seen in all the temperature records and which you categorise, wrongly, as an "internal variability". Presumably this is to draw attention away from the fact that these effects are being recruited as spurious human-induced forcing effects
372	9	38	7	38	7	Replace "near" by "on"
373	9	38	8	38	8	Insert after "influence" "due to the proximity of measuring instruments to human activity"
374	9	38	9	38	9	With the greatest in 1999 due to the El Niño event of that year"
375	9	38	11	38	11	Insert after "include" "many climate influences, but exclude"
376	9	38	11	38	11	Replace "forcings" by "influences",
377	9	38	11	38	11	Insert after "climate" "such as the El Niño ocean events, and urban and land-use effects"
378	9	38	11	38	11	Delete "system"
379	9	38	13	38	13	Insert before "strong" "not very"
380	6	38	14	38	14	Insert after "climate" "when human effects on the surface, such as the building of cities, the emission of energy and land-use changes have been ignored"
381	9	38	15	38	15	Replace "very likely" with "highly unlikely to have"
382	9	38	16	38	16	Replace "robust to" with independent of"
383	9	38	20	38	20	Insert after "simulations" "but this has depended on the false assumption that the prominent temperature peak in 1999 caused by the El Niño ocean change, was involved with human activities"
384	9	38	21	38	21	Replace "adequate" with "inadequate"
385	9	38	21	38	21	Replace "internal variability" with miscellaneous climate influences"
386	9	38	23	38	23	Insert after "change" "on the surface"
387	9	38	24	38	24	Add at end "because of the building of cities, energy emission and land-use change"
388	9	38	44	38	44	Replace "anthropogenic" with "human-induced"
389	9	38	45	38	45	Insert after "areas" "as a result of urban development , energy consumption and land-use change"
390	9	38	48	38	48	Insert after "climate" "but not from greenhouse gases"
391	9	38	51	38	51	Insert after "regions" "because of globalised economic development"
392	9	38	51	38	52	Replace from "The chance that" on line 51 to "considering that " on line 52 with "although"
393	9	38	53	38	53	Replace "internal variability" with "other miscellaneous climate influences"
394	9	38	55	38	55	Delete from "Evidence to "is emerging" The sentence is unnecessary
395	9	38	55	38	55	Delete "significant"

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396	9	38	57	38	57	Insert after "nights" "because of increases in comfort standards"
397	9	39	1	39	1	Insert ater "year" "for the same reason"
398	9	39	10	39	10	Replace "a significant" with "an unmeasureable"
399	9	39	10	39	10	Replace "anthropogenic" with "human-induced"
400	9	39	12	39	12	Insert after "has" "never"
401	9	39	12	39	12	Replace "as has the" with "but there may be an":
402	9	39	13	39	13	Delete "The combination of a warming troposphere and "
403	9	39	14	39		Repolace "has likely" with could possibly have"
404	9	39	15	39	15	Replace "likely largely" by "possibly"
405	9	39	19	39	19	Delete "some"
406	9	39	19	39	19	Delete "possible"
407	9	39	21	39	21	Replace "are remarkably consistent in their predictions" with "predict"
408	9	39	22	39	22	Delete "of"
409	9	39	41	39	41	Replace "climate change" with "changes in climate"
410	9	39	43	39	43	Replace "inceased by 14/1x10 to the 21 J" by "varied in a periodic fashion"
411	9	39	44	39	44	Delete from "This overall" to "variations"
412	9	39	44	39	44	Replace "The fact that" by "Because"
413	9	39	45	39	45	Insert after is" "not"
414	9	39	46	39	47	Delete from "If the observed" on line 46 to "variability then" on line 47. The atmosphere is not warming, according to the radiosondes and satellites, unles you count the El Niño event of 1999
415	9	39	47	39	47	Replace "have likely been" with "seem to be"
416	9	39	51	39	51	Replace "variability" with "periodicity"
417	9	40	10	40	10	Replace "natural internal variability" by "various climate influences"
418	9	41	17	41	17	Replace "climate change" with "changes in the climate"
419	9	41	30	41	30	Replace "anthropogenic" with "human-induced"
420	9	41	31	41	31	Replace "anthropogenic" with "human-induced"
421	9	41	34	41	34	Replace "anthropogenic" with "human-induced"
422	9	41	38	41	38	Replace "anthropogenic" with "human-induced"
423	9	43	12	43	12	I hope all the uncertainties in the above sectuion are two standard errors
424	9	45	47	45	47	Replace "climate change" with "changeof climate"
425	9	47	4	47	4	Replace "As" by "If"
426	9	47	5	47	5	Unsert after "pressure" "at equilibrium"
427	9	47	5	47	5	Add at end "But the atmosphere is never in equilibrium"

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428	9	47	8	47	8	Double the confidence figures if they are only one standard error
429	9	52	49	52	49	Replace "internal climate variuability" with "varous climate influences"
430	9	52	50	52	50	Replace "likely to be" by "possibly"
431	9	53	19	53	19	Delete "quantitative"
432	9	53	20	53	20	Delete "atmospheric and" There is no evudence from the atmosphere
433	9	53	20	53	20	Replace "anthropogenic" with "human-induced"
434	9	53	20	53	20	Replace "identified" withn "postulated"
435	9	53	22	53	22	Replace "strengthening" by "promoting"
436	9	53	22	53	22	Replace "anthropogenic" with "human-induced"
437	9	53	22	53	23	Delete from "further" on line 22 to "models' on line 23
438	9	53	25	53	25	Replace "have noe been shown" by "are"
439	9	53	25	53	26	Replace "simulated natural variability" with "several natural climate influences"
440	9	53	26	52	26	Insert before "consistent".. "possibly"
441	9	53	26	53	26	Replace "anthropogenic" with "human-induced"
442	9	53	27	53	27	Replace "anthropogenic" with "human-induced"
443	9	53	28	53	28	Replace "anthropogenic" with "human-induced"
444	9	53	28	53	28	Insert after "rise" "recently"
445	9	53	32	53	32	Replace "variability " with "climate influences"
446	9	53	35	53	35	Replace "detectabke" with "possible"
447	9	53	36	53	36	Replace "anthropogenic" with "human-induced"
448	9	53	38	53	38	Replace "an anthropogenic" with " a human-induced"
449	9	53	41	53	41	Replace "anthropogenic" with "human-induced"
450	9	53	56	53	57	Replace "simulated internal variability" with "some simulated climate influences"
451	9	54	21	54	22	Replace "climate change" with "change of climate"
452	9	62	30	62	30	Insert after "(see Sections 9.4,1-3)" "is most likely due to proximity of measuring equipment to human activities that are enjoying an increasing prosperity This is confirmed by the absence of evidence of temperature change in the "
453	9	62	31	62	31	Insert after "atmosphere" "until the disturbances caused by the 1999 El Niño event"
454	9	62	31	62	31	Replace "and ocean" by "There has been a large temperature increase in the ocean, but this appears to be periodic and may not represent an upwards trend."
455	9	62	31	62	31	Delete "together with consistent evidence of"
456	9	62	32	62	32	Replace "strengthen the overall evidence" by "do not confirm"
457	9	62	34	62	34	Replace "substantially stronger" by "no better"

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458	9	62	39	62	39	Replace " strong" with "That human activity on the surface, suchas building, energy emission and land-use change have had an influence on the climate"
459	9	62	40	63	40	Replace "anthropogenic" with "human-induced"
460	9	62	40	63	40	Insert after "included" "but they exclude important influences such as the El Niño effect and that of human activities on the surface"
461	9	62	40	63	41	"The" on line 40 to "reconstructions" on line 43. This is nonsense. How can "observed warming" be "highly significant"?
462	9	62	43	63	43	Replace "anthropogenic" with "human-induced"
463	9	62	43	63	43	Insert before "detectable" "is thought to be"
464	9	62	47	63	45	Replace from "It is highly unlikely (<5%)"in line 44 to "from" in line 45 with The highest recent temperature was the result of "
465	9	62	47	63	2	The extravagant assertions in this section have not been substantiated and it sjould be deleted
466	9	63	4	63	23	I can't go along with all this It has simply not been established
467	9	63	26	63	26	Insert after "surface" "as a result of increased human activity in the vicinity of the measuring equipment"
468	9	69	41	69	41	Insert "Gray, V.R. 2000 "The Cause of Global Warming", Energy and Environemnt. Vol 11, pages 613-529"
469	9	74	34	74	34	Insert " McKitrick, R., % Michaels, P.J. 2004; "A test of corrections for extraneous signals in gridded surface temperature data. "Climate Research" Vol 26 pages 159-173."
470	9	74	34	74	34	Insert "McIntyre, s., & McKitrick, R., 20003. "Corrections to the Mann et al (1998) proxy data base and northern hemispheric average temperature series",Energy and Environemnt. Vol 14, pages 751-771."
471	9	76	54	76	54	Insert "Peterson, T.C. 2003: "Assessment of Urban Versus Zrural in Situ Surface Temperatures in the contiguous Unitd states. Journal of Climate Vol 16. pages 2939-2959"
472	9	83	23	83	23	Insert "Zhao,Z., Y. Ding, Y Luo, & S Wang; Recent Studies on attributions of climate change in China" Acta Meteorologica Sinica, Vol 19. pages 389-400"
473	9	84	1	84	1	Delete "by Climate Change" You are now using the forbidden definition of the FCCC
474	9	84	4	84	4	Delete "difficult if not"
475	9	84	5	84	6	Dlete from "However" on ;ine 5 to "likelihood of" You have not established that there is any unusual "warming"
476	9	84	6	84	6	Delete "that"
477	9	84	10	84	10	Replace "greater" by "overwhelming"
478	9	84	15	84	15	Replace "climate change" with "changes the climate"
479	9	84	32	84	32	Replace "anthropogenic" with "human-induced"
480	9	84	45	84	45	Replace "variability" with "other climate influences"
481	9	84	46	84	46	Replace "variability" with "other climate influences"
482	9	84	47	84	47	Replace "climate variability" by "all the many other climate influences"

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483	9	85	1	85	1	Replace "variability" by "climate influences"
484	9	85	3	85	3	Replace "over the last centiury" with "" shown only by the surface record, from 1978, but not between 1942 and 1978"
485	9	85	6	85	5	Insert after "concentration", "but is much more likely to reflect better living conditions in human activities near the measuring equipment"
486	9	85	6	85	6	Replace "and" with "It is"
487	9	85	7	85	7	Insert "many" after from"
488	9	85	8	85	8	Insert after "activity)" "but the most prominent feature, the maximum temperature shown, in 1999, is attributable to the unusually strong El Niño event of that year"
489	9	85	8	85	8	Delete "good"
490	9	85	9	85	9	Insert after "include "several of"
491	9	85	9	85	9	Delete "dominant"
492	9	85	10	85	10	Insert after "but" "one of the most important, the El Niño and La Niña ocean effects. Have been omitted, despite their obvious influence, and the local effect due to the proximity of measuring equipment to human activity, which have been shown to be significant in a recent statistical study, have also been omitted so it is not surprising that it""
493	9	85	10	85	10	Replace "fail" by "fails"
494	9	85	13	85	13	Replace "the most important patterns of climate varuiabilitysuch assuch as"" with "some climate influences, but not""
495	9	85	14	85	14	Insert after "ENSO)" "which was always evident, particularly with the high temperature poeak of 1999, and aslo, the local human effects on the surface have been neglected"
496	9	85	15	85	15	Replace "external" with "deliberately restricted"
497	9	85	16	85	16	Replace "various" with "highly distorted"
498	9	85	17	85	17	Replace "20th century warming" with 'the restricted warming period since 1978 as shown only by the surface record"
499	9	85	17	85	18	Replace from "natural variability on line 17 to ""activity)' on line 18 with "human-induced forcing effects"
500	9	85	20	85	20	Replace "natural internal processes" with "many natural and human influeces near the surface"
501	9	85	20	85	29	Insert after "ENSO" "and human influences such as building of cities, energy emission and land-use changes"
502	9	85	24	85	24	Insert after "of" "a deliberately restricted number of"
503	9	85	24	85	24	Replace "naturaal internal processes" with "a whole range of miscellaneous climate influences""
504	9	85	27	85	27	Replace "natural internal variability" with ."miscellaneous climate influences"
505	9	85	31	85	31	Replace "over the 20th century" by "in the surface record since 1856"
506	9	85	33	85	33	Replace "external forcing" with climate influences"

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507	9	85	33	85	33	Replace "external forcing factors" with "climate influences"
508	9	85	33	85	33	Insert after "aersols" "the El Niño ocean events,"
509	9	85	36	85	36	Insert after "variations" "El Niño causes an observable temperature rise, particularly prominent in 1999, and its counterpart, La Niña, a temperature fall".
510	9	85	37	85	37	Replace "a rapid" by "an"
511	9	85	37	85	37	Delete "well-mixed" They are NOT "well-mixed"
512	9	85	38	85	38	Replace remained at near stable" with "had smaller"
513	9	85	40	85	40	Adsdcat end "Human actibility on the surface, such as the building of cities, the emission of energy, and land-use changes, has had a major influence in the climate, reflected in the surface temperature record"
514	9	85	44	85	44	Replace "external forcing" by"the building of cities, the emission of energy, and land-use changes, has had a major influence in the climate, reflected in the surface temperature record"
515	9	85	46	85	46	Insert after "before" "weather stations were surrounded by buildings, cars or aircraft",
516	9	85	48	85	48	Replave "levelling off" with "fall"
517	9	85	48	85	48	Insert after "temperatures" ".of the surface"
518	9	85	48	85	48	Replace "in the 1950s and 1960s" with "from 1942 to 1978"
519	9	85	48	85	48	Add at end "a move of weather stations to the early airports,
520	9	85	52	85	52	Replace "greenhouse gas forcings has " with "improved huiman living conditions have"
521	9	85	52	85	52	Replace "forcings" .by "other climatre influences"
522	9	85	54	85	54	Insert after "warming" "in the surface record"
523	9	85	54	85	54	Replace "four" by "two"
524	9	85	54	85	54	Replace "consistent" with "inconsistent"
525	9	85	55	85	55	Insert after "forcing" "because the temperature fell since 1942, and there is no evidence of such an efgect inn the lower troposphere, where it is supposed to be prominent"
526	9	85	55	85	55	Insert after "(the troposphere)" " but only if the single El Niño peak of 1999 is taken to represent a warming trend, after consistent evidence showing no warming since 1958 (for radiosondes) and 1978 (for satellites)"
527	9	85	55	85	55	Replace "and" by "there was also"
528	9	85	56	85	56	Delete "Also"
529	9	85	57	86	2	Replace from "Such patterns" on page 85 line 57 to (ENSO) on pahe 86 line 2 with "Such patterns are consistent with the bether living conditions in developed countries, and particularly, the better heating in the winter"
530	9	86	5	86	5	Add at end "but with little success"
531	9	86	7	86	7	Insert after "only" "a deliberately restricted number of"
532	9	86	8	86	8	Insert after "aerosols" "but not El Niño effects, or the important local influences of human urban and land-use developments"

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533	9	86	10	86	10	Delete "all the most important forcings including"
534	9	86	11	86	11	(insert after "aerosols") "but not the important local influences of human urban and land-use developments"
535	9	86	11	86	11	Replace "natural external forcings" by "some climate influences, but not including the important El Niño"
536	9	86	12	86	12	"are" "claimed to be"
537	9	86	13	86	13	Replace "forcing" by local effects due to urban development and land-use change"
538	9	86	15	86	15	Replace "variability" by "changes"
539	9	86	16	86	17	Replace "internal climate variability" by "various climate influences"
540	9	86	18	86	18	Replace "internal climate mechanisms" by miscellaneous climate influences"
541	9	86	18	86	18	Add at end "but urban and land-use change does"
542	9	86	22	86	22	Add at end "as"
543	9	86	24	86	24	Delete "common"
544	9	86	25	86	25	Insert after "ocean" ", they wrongly predict"
545	9	86	25	85	25	Replace "and cooling" with "but do predict"
546	9	86	26	86	26	Replace "help" by "fail"
547	9	86	30	86	30	Replace "forcing" by "local effects caused by urbanisation and land-use changes"
548	9	86	35	86	35	Replace "natural internal variability and natural external forcings" by a variety of miscellaneous climate influences"
549	9	86	36	86	36	Replace "some" by "considerable"
550	9	86	36	86	36	Delete "variability"
551	9	86	38	86	38	Insert after "1000 years" "and is due to human activity on the earth's surface such as urban development, energy emissions and land-use change"
552	9	86	40	86	40	Insert after "forcing" " and some as a result of errors in calculation"
553	9	86	42	86	42	Replace "forcings" by "human activity on the earth's surface such as urban development, energy emissions and land-use change "
554	9	84	1	86	42	These two sections are utterly repetitive of what has already been said over and over again. Do we really need it so many times!. Delete them
555	9	89		89		The climate is never in equilibrium so this Table never applies
556	9	91		91		So you repeat the whole lot once again, in a form incapable of amendment> I suppose you think that if it is indefinitely repeated somebody might believe it
557	9	95		96		These pages are to divert attention from your statistical misdemeanours, which are : The derivation of averages from non-representative samples- most evident with the surface temperature record; The drawing of straight lines through irregular or periodic sequences; also with the surface record, and with the ocean heat record; and total neglect of bias assessments in practically all of your figures.

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558	9	100		100		These graphs are based on the false assumption that temperature changes can be properly represented by a linear trend. All of the influences mentioned are highly irregular. Also you leave out an important influence, the El Niño ocean events, let alone the surface effects due to humans such as urbanisation and land-use change
559	9	101		101		The value or importance of these graphs is not explained. The earth is never in equilibrium and they seem to be irrelevant
560	9	103		103		These simulations are incomplete. They omit El Niño ocean effects and they ignore completely the human-induced surface effects, such as urban development, energy emission and land-use change.
561	9	104		104		These simulations are incomplete. They omit El Niño ocean effects and they ignore completely the human-induced surface effects, such as urban development, energy emission and land-use change. Also I cannot believe that volcanoes and solar effects can realistically simulate the temperature rise from 1910 to 1942 in the surface record
562	9	105		105		Misleading, because there is no such "linear trend" from 1901 to 2005, only a series of sequences, some rising, some falling for which a linear trend line is inappropriate
563	9	106		106		As with the others, leaves out the most important influences, and ignores bias
564	9	107		107		As with the others, leaves out the most important influences, and ignores bias
565	9	108		108		Misleading, because there is no such "linear trend" from 1901 to 2005, and certainly not from 1950 to 1999 .
566	9	109		109		Again, ignores important climate influences such as El Niño and surface human influences such as urbanisation, energy emissions and Land-use changes Linear trends per decade are just as ridiculous a lineartrends per century
567	9	110		110		Linear trends per decade are just as ridiculous a lineartrends per century
568	9	111		111		This map is grossly misleading, as none of the "observed" graphs have been properly corrected for urban and instrumental effect. Most cannot, because the necessary number of stations for comparison are not available. However, you do not even have the sense to provide the corrected records for the contiguous United States and for China, which have a very different appearance from the ones you exhibit, indicating the fact that all of them are faulty
569	9	113		113		As usual, you leave out El Niño which had a very large effect in the troposphere in 1999 and may be continuing
570	9	114		114		The "signal strength" is falsely pretended to be linear when it is actually periodic. The models are linear, the "signal" wobbles back and forth, so the models are wrong
571	9	115		115		Again, we are talking of "decadal means" as if there was such a thing. The pressure varies in a non linear fashion
572	9	117		117		Very poor agreement
573	9	119		119		The climate is never in equilibrium.

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574	9	120		120		There is no linear "warming rate" over the "century" and you would get a different "linear rate" wherever you chose to start or finish. Your surface record starts at 1856, Why not 1856-2005?The "warming" is highly irregular" and you can get any "rate you want depending where you start and where you finish
575	9	122		122		A completely phony graph. There are well-authenticated corrected mean annual surface records for the continental United States, and for China which you refuse to make use of. None of these supposed "observed" records have ever been published anywhere, and it is obvious from the effects of comprehensive correction in USA and China, that all of the others would lose most of their "warming" if a proper correction procedure was available