## Examination of the Responses to Reviewers' Comments of IPCC WG I Report John McLean 5 July 2007

- 1. The Freedom of Information laws in the USA have forced the publication of the comments by the IPCC's expert reviewers for the report by Working Group I (WG I). These comments are now online (see footnote <sup>1</sup>) but one wonders if this material would have been released had it been stored in a country without similar legislation because the corresponding comments were not released for previous IPCC reports.
- 2. All reviewers were able to comment on First Order Revision (FOR) and Second Order Revision (SOR) of chapters 1 to 11 of the IPCC WG I report. They also reviewed the Technical Summary Report (TSR) and the Second Order Revision (SOR) of the Summary for Policy makers (SPM) but only government representatives reviewed the Final Draft (FDR) of the SPM and no responses were made for that FDR.
- 3. The preface to the comments for each revision of each chapter says "...These comments and responses are not to be edited and/ or redistributed in part or in full to others. ..." but contents of the IPCC report were leaked to the media prior to formal release and the IPCC did themselves a disservice by releasing the Summary for Policy-makers (SPM), approved by government representatives, and delayed the releasing the parts written and approved by scientists until those parts conformed to the contents of the SPM.
- 4. Reviewers' comment vary in scope from praise for the chapter or sections thereof, to noting spelling or grammatical errors, to asking for the revision or removal of large passages of text. The responses to these comments likewise varies from acknowledgement of praise, to comments that changes are planned, to statements about why changes will not be made.

## Examples:

Reviewer - "Title is not accurate ..."

Response - "Title cannot be changed ..."

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Reviewer - "Replace 'very likely' by 'most unlikely' Response - "Rejected: no basis given for the assertion"

Response - "Noted, but disagree" (or "Noted, but not changed")

Response - "We have room for only limited discussion of ..."

Response - "Still speculative"

Reviewer - "Having read all 11 chapters of the draft Report, I had intended to provide review comments on them all. However, I became so angry at the need to point out the above elementary principles that I abandoned the review at this point: the draft should be withdrawn and replaced by another that displays an adequate level of scientific competence."

5. The rejection of reviewers' comments comes in all forms including "Noted but disagree" (or similar), redirections to other responses, comment that the substance of the reviewer's is dealt

see <a href="http://ipcc-wg1.ucar.edu/wg1/Comments/wg1-commentFrameset.html">http://ipcc-wg1.ucar.edu/wg1/Comments/wg1-commentFrameset.html</a>

with elsewhere, that space constraints prevent the inclusion of certain material, that the reviewers' comments lack justification and so on. In some chapters the responses are terse but in others the responses are detailed especially where a reviewers' comment is being dismissed or rejected. This variety of responses no doubt comes from the differing authorship team for each chapter.

- 6. In many instances one gets the impression that reviewers had to justify their requests for substantial changes (i.e. not spelling or grammatical errors, or requests for clarification) but the chapter authors did not have to justify the material they had written and in particular their interpretations or opinions.
- 7. The use of the word "rejected" provides an indication of the responses to reviewers' comments that disagreed with the text of the target draft.

The table below lists the number of reviewer responses to the first and second order drafts (FOR and SOR) of each chapter along with the number of times the word "rejected" appears in the PDF file dealing with each FOR or SOR. (The number of instances of "reject" or "disagree" appears in parentheses but the omission of the parentheses should not be taken as indicating whether a search was made for those words.) Given that other forms of rejection are also present (see point 5 above) the actual number of rejected comments could be substantially higher than indicated in this table but it is simply not practical to examine each response to more than 11,000 comments and make a subjective assessment of the extent of rejection.

	First Order Revi	`	,	Second Order Revision (SOR)						
Chapter	Total comments	Rejec	ts	Total Comments	Rejects					
1	899	152		554	152					
2	2732	242		1313	230					
3	2231	221	(49)	1256	349					
4	1137	63	. ,	516	108					
5	1204	35		635	76					
6	1789	229		1112	339					
7	1751	102		974	113					
8	963	143	(28)	794	123 (36)					
9	1436	220	(7)	1157	638					
10	1331	70		1331	309					
11	1458	12	(87)	1647	131					
SPM (*)	-	-		1455	312					
TSR (**)	-	-		1333	330					

- (\*) Only government representatives reviewed the final draft of the SPM and made 907 comments, but the document was already finalised and the comments had no impact.
- (\*\*) Only the SOR of the Technical Summary Report (TSR) was reviewed
- 8. The progression from the FOR to the SOR saw no increase in the total number of reviewers' comments for any chapter, but for 9 of the 11 chapters the number of rejected comments increased and that ignores comments rejected using other wording. Admittedly there may be valid and logical reasons for this which have nothing to do with dissatisfaction with the progress of the document.
- 9. For the SOR of chapter 9, titled "Understanding and Attributing Climate Change", more than 55% of reviewers' comments were rejected, as were 30% of comments for the SOR of chapter

6 ("Paleoclimate", i.e. historical climate) and almost 28% comments for the SOR of chapter 3 ("Observations: Surface and Atmospheric Climate Change"). For seven of the eleven chapters the number of rejected comments exceeds 20% when the additional words were included for chapter 8 (see table above). And don't forget that in each instance other words may have been used to reject even more comments.

10. The Appendix to this document shows a table listing the number of comments by each reviewer for each chapter. From that table the following were determined in relation to the 309 reviewers recorded.

125 reviewers made fewer than 10 comments, 260 reviewers made fewer than 50 comments 287 reviewers made fewer than 100 comments so only 22 reviewers made more than 100 comments

143 reviewers commented on just 1 chapter
215 reviewers commented on fewer than 3 chapters
277 reviewers commented on fewer than 5 chapters
and just 16 reviewers commented on more than 7 chapters
only 5 reviewers commented on all 11 chapters

In other words 84% of reviewers (260 of 309) made fewer than 50 comments for the entire 11 chapters (940 pages) and 70% of reviewers (215 of 309) commented only on 1 or 2 chapters.

The greatest number of reviewers for any chapter was 101 for chapter 2, "Changes in Atmospheric Constituents and in Radiative Forcing", and the least was just 34 for chapter 4, "Observations: Changes in Snow, Ice and Frozen Ground". The most important chapter was number 9, "Understanding and Attributing Climate Change" but it received comments from just 62 reviewers and only four chapters received fewer comments.

11. Were many of the reviewers so satisfied with the chapters that they made no effort to comment, in other words should we take the absence of comments to indicate approval? What are we to make of the fact that more than 20% of reviewers' comments for 7 of the 11 chapters were rejected and often with no reason?

Chapter 9 dealt with the attribution of climate change and was key to the claim of a 90% to 95% probability that humans were responsible for warming and yet just 62 reviewers made comments, more than half of which (33) made three comments or fewer for the 84-page chapter.

We've been led to believe that the review was an extensive process undertaken by diligent experts from virtually every country and that if those experts were not unanimous then they were very close to it. It is very disappointing to discover that despite the crucial nature of the report the reality is very different.

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## **APPENDIX**

List of reviewers and numbers of comments for each chapter SOR (not the TSR or SPM). This data was supplied by Bob Koss to "Climate Audit" (see <a href="http://www.climateaudit.org/?p=1790">http://www.climateaudit.org/?p=1790</a>) and I obtained it as file <a href="http://www.climateaudit.org/data/ipcc/ipcc\_sod.commenters.csv">http://www.climateaudit.org/data/ipcc/ipcc\_sod.commenters.csv</a>. Government representatives are noted for only 23 countries.

No.	Name	1	2	3	4	5	6	7	8	9	10	11	Total
1	European Commission	0	18	0	0	0	0	0	0	0	47	0	65
2	A. Brett Mullan	0	0	1	0	0	0	0	0	0	2	0	3
3 4	Adrian Simmons Aixue Hu	7 0	15 0	42 0	7 0	8 1	10 2	10 0	11 0	10 0	24 0	19 0	163 3
5	Akio Kitoh	0	0	0	0	0	0	0	7	0	0	0	7
6	Akira Noda	0	0	Ö	0	0	Ö	1	4	0	0	9	14
7	Alan Robock	Ö	Ö	9	Ö	Ö	Ö	Ö	Ö	Ö	Ŏ	Ö	9
8	Alexander Trishchenko	0	1	0	0	0	0	0	0	0	0	0	1
9	Alicia M. Lavín	0	0	0	0	3	0	0	0	0	0	0	3
10	Anders Levermann	0	0	0	0	0	0	0	0	0	10	0	10
11	Andreas Sterl	0	0	2	0	1	0	0	0	0	0	0	3
12	Andrew Lacis	4	2	0	0	1	3	3	0	1	3	0	17
13	Andrey Ganopolski	0	0 0	0	0	0	0	0	0	0	5 14	0 0	5 14
14 15	Anthony Hirst Atle Nesje	0 0	0	0	0 1	0	0 7	0	0	0 0	0	0	1 <del>4</del> 8
16	Bart Van den Hurk	0	0	0	Ó	0	Ó	0	0	1	1	128	130
17	Bette Otto-Bliesner	1	2	Ö	Ö	Ö	Ö	Ö	1	1	Ö	0	5
18	Bjorn Stevens	0	2	Õ	Ö	Ö	Õ	4	0	0	Ö	Ö	6
19	Blair Trewin	0	0	84	0	0	0	0	0	0	0	0	84
20	Brian Soden	4	0	0	0	5	0	0	0	4	0	0	13
21	Bruce Wielicki	0	0	1	0	1	0	0	0	0	0	0	2
22	C Neil Roberts	0	0	0	0	0	1	0	0	0	0	0	1
23	Carles Pelejero	0	0	0	0	0	0	12	0	0	0	0	12
24	Caroline Leck	0	23	0	0	0	0	11	0	0	0	0	34
25 26	Chiu-Ying LAM Chris Folland	0 0	0 0	4 69	0 91	5 39	0 0	0	0	0	12 0	5 0	26 199
27	Chris Foliand Chris Jones	0	6	09	0	0	0	20	0	0	26	0	52
28	Christian-D. Schoenwiese	0	0	5	0	0	0	0	Ö	0	0	0	5
29	Christof Appenzeller	Ö	0	1	Ö	Ö	Ö	Ö	Ö	Õ	Ö	0	1
30	Christoph Beck	Ö	Ö	8	Ö	Ö	Õ	Ö	Ö	Ö	Ö	Ö	8
31	Christopher Sabine	0	0	0	0	3	0	6	0	0	0	0	9
32	Chuck Hakkarinen	0	0	0	0	0	0	0	0	0	2	0	2
33	Claire Waelbroeck	0	0	0	0	0	15	0	0	0	0	0	15
34	Claudia Marcolli	0	27	0	0	0	0	0	0	0	0	0	27
35	Cliff Law	0	0	0	0	0	0	25	0	0	0	0	25
36	Connie Woodhouse	0	0	0	0	0	6	0	0	0	0	0	6
37 38	Constanta Emilia Boroneant Constantin Mares	0 0	0 0	5 0	0	0	0 0	0	0	0 0	0	0 15	5 15
39	Corinne Le Quere	0	2	0	0	0	0	17	0	0	11	0	30
40	Daithi Stone	0	0	Ö	Ö	Ö	Ö	0	2	25	0	27	54
41	Dan Hughes	Ö	Ö	Õ	Ö	Ö	Ö	Ö	2	0	Ŏ	0	2
42	Daniel Čaya	0	0	0	0	0	0	0	0	0	0	88	88
43	Daniel Murphy	0	7	0	0	0	0	22	0	0	0	0	29
44	Danny Harvey	0	27	0	0	6	10	0	10	11	15	0	79
45	Dave Rowell	0	0	0	0	0	0	0	0	2	2	45	49
46	David Pind	63	0	0	0	0	0	0	0	28	0	0	91
47 48	David Rind David Sexton	0 0	0 0	12 0	11 0	19 0	0 0	0	27 1	32 2	0 11	0 0	101 14
49	David Sexton  David Wratt & David Fahey	20	6	26	8	2	10	8	6	8	20	9	123
50	Dennis Hartmann	4	0	2	0	0	0	0	0	0	0	1	7
51	Detlef Stammer	0	0	0	Ö	7	Ö	Ö	Ö	Õ	0	Ö	7
52	Dian Seidel	1	Ö	1	Ö	0	Ö	Ö	Ŏ	Ŏ	Ö	Õ	2
53	Donald L. Forbes	0	0	0	0	14	0	0	0	0	10	0	24
54	Drew Shindell	0	2	0	0	0	0	5	0	0	0	0	7
55	Dylan Millet	0	12	0	0	0	0	0	0	0	0	0	12
56	Eduardo Zorita	0	0	0	0	0	3	0	0	0	0	0	3
57	Eric Guilyardi	0	0	0	0	0	0	0	0	0	5	0	5
58 59	Eric Martin	0 0	0 0	0	1 0	0	0 26	0	0	0	0	1 0	2 26
59	Eric Steig	U	U	U	U	U	∠0	U	U	U	U	U	∠0

60	Eric Wolff	0	2	0	0	0	59	0	0	0	0	0	61
61	Erik Kjellström	0	0	0	0	0	0	0	0	0	0	46	46
62	Eva Bauer	Ö	Ō	Ö	Ō	Ö	16	Ö	Ö	Ö	Ö	0	16
63	Eva Calvo	Õ	Ö	Ŏ	Ö	Ö	6	Ŏ	Õ	ŏ	Õ	Ö	6
64	Expédit Wilfrid VISSIN	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	1	Ö	0	1
65	Fons Baede	0	Ö	13	Ö	Ö	Ö	Ö	Ö	25	Ö	Ö	38
					32			0			0	134	
66	Francis Zwiers	0	0	0		0	0		76	0		-	242
67	Franklin SCHWING	3	0	3	0	4	0	4	1	0	0	1	16
68	Frederick Nelson	0	0	0	6	0	0	0	0	0	1	0	7
69	Friedrich Schott	0	0	1	0	15	0	0	0	0	0	0	16
70	gabi hegerl	14	0	0	0	0	0	0	0	0	7	0	21
71	Galina Churkina	0	0	4	0	0	0	17	0	0	0	0	21
72	Gareth S. Jones	5	19	37	0	0	5	0	10	49	5	0	130
73	Gavin Schmidt	0	2	0	0	0	9	0	0	0	7	0	18
74	Georgii Alexandrov	0	0	0	0	0	0	1	0	0	0	0	1
75	Gerrit Burgers	0	0	1	0	3	0	0	0	0	14	0	18
76	Gian-Kasper Plattner	0	3	0	0	0	0	12	0	0	0	0	15
77	Gill Martin	0	0	0	0	0	0	0	13	0	0	0	13
78	Giuseppe Etiope	0	0	0	0	0	0	5	0	0	0	0	5
79	Govt. of Australia	24	36	83	2	40	37	1	23	11	72	33	362
80	Govt. of Austria	1	1	0	0	0	0	2	1	3	4	0	12
81	Govt. of Additional Govt. of Belgium	Ó	14	Ö	Ö	Ö	Ö	0	Ó	0	0	0	14
82	Govt. of Brazil	0	0	7	Ö	0	Ö	21	0	0	0	1	29
83	Govt. of Canada	0	Ö	ó	6	Ö	Ö	2	29	0	14	Ó	51
ია 84													
_	Govt. of China	0	0	0	0	7	0	0	0	0	0	0	7 52
85	Govt. of China	2	8	7	6	3	4	3	10	0	4	5	52
86	Govt. of Czech Republic	0	0	0	0	0	0	0	0	0	0	7	7
87	Govt. of Finland	1	38	7	1	1	0	0	50	9	36	23	166
88	Govt. Of Finland	0	1	0	0	0	0	0	0	0	0	0	1
89	Govt. of France	20	2	22	0	1	6	0	3	12	16	13	95
90	Govt. of Germany	0	25	6	7	1	18	24	1	2	95	0	179
91	Govt. of Hungary	0	2	0	0	2	0	1	0	0	0	0	5
92	Govt. of Ireland	0	3	0	0	0	0	0	0	1	0	1	5
93	Govt. of Japan	0	5	2	1	0	1	0	0	0	1	0	10
94	Govt. of Netherlands	0	0	0	0	0	0	0	4	1	5	4	14
95	Govt. of Norway	0	7	0	0	0	0	0	0	0	0	0	7
96	Govt. of Republic of Korea	Õ	3	3	Ö	17	Ö	22	Õ	ŏ	Õ	Õ	45
97	Govt. of Spain	10	4	30	Ö	0	53	6	1	Ö	Ö	28	132
98	Govt. of Sweden	0	Ō	0	1	Ö	6	1	Ö	Ö	2	0	10
99	Govt. of Sweden	0	Ö	0	Ó	0	4	Ö	0	0	0	0	4
	Govt. of Thailand Govt. of United Kingdom	4	1	14	0	8	1	0	0	0	21	0	49
101		46	85	129	50	43	99	45	43	113	18	18	689
102	Graham Feingold	0	17	0	0	0	0	19	0	0	0	0	36
103		0	0	0	0	0	30	0	0	0	0	0	30
	Guangyu Shi	0	2	0	0	0	0	0	0	0	0	0	2
	Guus Velders	0	6	0	0	0	0	0	0	0	0	0	6
	Harold Brooks	0	0	5	0	0	0	0	0	0	0	0	5
	Haroon Kheshgi	0	1	0	0	0	0	3	0	2	10	0	16
108	Hayley Fowler	0	0	1	0	0	0	0	0	0	0	1	2
109	Hendrik M. van Aken	0	0	0	0	7	0	0	0	0	0	0	7
110	Herman Sievering	0	2	0	0	0	0	1	0	0	0	0	3
111	Hermann Held	0	0	0	0	0	0	0	0	16	2	0	18
112	Hernan Garcia	0	0	0	0	16	0	0	0	0	0	0	16
113	Hidetaka Sasaki	0	0	0	0	0	0	0	0	0	0	9	9
114	Hongbin Yu	0	16	0	0	0	0	0	0	0	0	0	16
	Howard Freeland	Ö	0	Ŏ	Ö	2	Ö	Õ	Õ	ŏ	Õ	Ö	2
	Howard K. Roscoe	0	14	5	0	0	Ō	15	Ö	Ö	Ö	Ö	34
	Hugo Beltrami	Ö	0	Ö	Ö	Ö	13	0	Ö	Ö	Ö	0	13
	Hugo De Backer	0	1	Õ	Ö	Ö	0	0	Ö	Ö	Ö	Ö	1
	Iain Colin Prentice	0	Ö	0	0	0	Ö	38	0	0	0	0	38
		0	8	0	0	0	3	9	0	0	0	0	20
	ian Enting			-									
121		0	0	13	0	0	0	0	0	0	0	0	13
	Ibouraïma YABI	0	0	0	0	0	0	0	0	0	0	261	261
	Ileana Blade	49	0	0	0	0	0	0	0	0	0	0	49
	ILEANA MARES	0	0	30	0	0	0	0	0	0	0	0	30
	Ina Tegen	0	15	0	0	0	0	5	0	0	0	0	20
	Isaac Held	9	6	17	0	0	0	0	2	19	7	0	60
	Ivan Janssens	0	0	0	0	0	0	7	0	0	0	0	7
	J. David Neelin	0	0	0	0	0	0	0	0	6	12	16	34
	James Annan	0	0	0	0	0	0	0	0	11	17	0	28
	James Crampton	0	0	0	0	0	34	0	0	0	0	0	34
	James Murphy	0	0	0	0	0	0	0	0	0	0	45	45
132	James Renwick	0	0	0	2	0	0	0	0	0	0	65	67

400	James C. Marr	^	4	^	^	^	^	_	0	0	^	^	-
	James S. Wang JAVIER MARTIN-VIDE	0 1	1 0	0 11	0	0	0 2	6 0	0	0	0	0 2	7 16
	Jean-Louis DUFRESNE	Ö	Ö	0	Ö	Ö	0	Ő	Ö	Ö	14	0	14
	Jeff Kueter	0	5	6	0	2	6	1	1	1	4	0	26
	Jeffrey Severinghaus	0	0	0	0	0	0	0	0	0	3	0	3
138		0	0	0	0	0	8	0	0	0	0	0	8
	Jilan Su	1	0	0	0	0	1	0	0	0	0	0	2
140 141		0 0	8 0	0	0	0	0 4	0	0	6 0	0	0	14 4
	John Caesar	0	0	6	0	0	0	0	1	0	0	0	7
143		Ö	Õ	28	Ö	Õ	Õ	Õ	Ö	Õ	Õ	Õ	28
144	John Cullen	0	0	0	0	0	0	36	0	0	0	0	36
	John Hunter	1	0	0	0	22	2	0	0	0	0	0	25
146		0	0	0	0	0	0	0	0	0	18	0	18
147	John Owens John S. Daniel	0 0	11 9	0	0	0	0	0	0	0	0	0	11
	John Turner	0	0	2	0	0	0	0	0	0	0	0	9 2
	Johnny Chan	0	Ö	3	Ö	Ö	Ö	Ö	Ö	0	Ö	0	3
151		21	54	0	0	0	0	21	0	0	0	0	96
	Jonathan Rougier	0	0	0	0	0	0	0	0	0	5	0	5
	Jose Marengo	0	0	7	0	0	0	0	0	0	0	1	8
	Joyce Penner	0	33	0	0	0	0	19	0	0	0	0	52
	Julia Slingo Junying Sun	0 0	0 32	0	0	0	0	0	23 0	0	0	0	23 32
	Jürg Luterbacher	1	1	3	0	2	4	0	0	1	0	0	12
	Jürgen Grieser	0	0	6	Ō	0	0	Ö	Ō	0	Ō	Ō	6
159	Katsumi Matsumoto	0	0	0	0	0	4	0	0	0	0	0	4
	KB Averyt	0	0	0	0	0	1	2	0	0	0	0	3
161		0	13	0	0	0	0	78	0	0	0	0	91 26
	Keith Shine Keith Williams	0 0	26 0	0	0	0	0	0	0 5	0	0 6	0	20 11
	Kenichi Matsuoka	0	0	0	51	0	0	0	0	0	0	0	51
	Kerry Emanuel	Ō	Ō	3	0	0	Ö	Ö	Ō	Ō	Ō	Ō	3
	Ketil Isaksen	2	0	0	14	0	0	0	0	0	0	0	16
	Kevin Gallo	0	0	2	0	0	0	0	0	0	0	0	2
	Kevin Walsh	0	0	0	0	0	0	0	0	1	1	0	2
	Koki Maruyama Lee Gerhard	0 0	0	0	0	0	0 9	0 0	0	0	1 0	0	1 9
170		2	5	6	0	3	4	1	1	2	4	0	28
172		0	0	0	Ö	0	Ö	88	Ö	0	Ö	0	88
173	Lisa Alexander	0	0	17	0	0	0	0	0	0	0	0	17
	Malcolm Ko	0	10	0	0	0	0	0	0	0	0	0	10
	Marco A. Giorgetta	0	1	0	0	0	0	0	9	0	0	0	10
	Marie-France Loutre	0	0	0	0	0	26	0	0	0	0	0	26
177 178	Marina Baldi Mark Jacobson	0 0	0 26	0	0	0	0	0 5	0	0	0 1	3 0	3 32
	Mark Siddall	0	0	0	Ö	0	44	0	Ö	0	Ö	0	44
	Mark Tamisiea	0	0	0	9	0	0	0	0	0	0	0	9
181	Markku Rummukainen	0	0	0	0	0	0	0	0	0	0	210	210
	Martin Lewitt	0	0	0	0	0	0	0	3	1	1	0	5
	Martin Manning Martin Wild	0 1	4 0	1 2	0	1 0	0	33 0	15 1	14 0	46 0	0	114 4
	Martine Rebetez	0	0	3	0	0	0	0	0	0	0	0	3
	Masahide Kimoto	ő	Ö	Ö	ő	Ö	Ő	Ő	5	Ö	2	1	8
	Masao Mikami	0	5	0	0	0	0	0	0	0	0	0	5
	Masato Sugi	0	0	0	0	0	0	0	1	2	16	0	19
	Matthew Collins	0	0	0	0	0	0	0	0	21	17	0	38
190	Melinda Marquis Melissa Bowen	11 0	0 0	19 0	21 0	8 34	20 0	3 0	1 0	5 0	4 0	5 0	97 34
	Melissa Free	0	0	8	Ö	0	0	0	0	0	0	0	8
	Menglin Jin	Ö	Ö	9	Ö	Ö	Ö	Ö	Ö	Ö	Ö	Ö	9
	Meric Srokosz	0	0	0	0	2	0	0	1	0	7	0	10
	Michael Danilin	0	14	0	0	0	0	0	0	0	0	0	14
	Michael MacCracken	21	4	1	0	3	3	0	1	20	29	0	63 76
	Michael Mann Michael Manton	0 2	0 21	6 0	0	0	37 0	0 0	0 7	30 9	3 0	0	76 39
	Michael Roderick	0	0	15	0	0	0	0	0	0	0	0	39 15
	Michael Schulz	0	0	0	Ö	0	33	0	0	0	0	0	33
201		Ö	Ö	Ö	Ö	12	0	Ö	Ö	Ö	Ö	Ö	12
	Michel Crucifix	0	0	0	0	0	119	0	0	0	0	0	119
	Michel J. ROSSI	3	11	0	0	0	0	0	0	0	0	0	14
204	Michel Rixen Michele Brunetti	0 0	0	0 4	0	1 0	0 0	0 0	0	0 0	0	0	1 4
200	MICHELE DIGHELL	U	U	4	U	U	U	U	U	U	U	U	4

206	Michio Kawamiya	0	0	0	0	6	0	27	0	0	Λ	0	33
	Michio Kawamiya MIKLOS ZAGONI	1	3	0	0	0	0	0	0	0	0 1	0	5 5
	Monika Rhein	Ö	ő	Ö	Ö	9	Õ	Ö	Ö	ŏ	Ö	Õ	9
	Motoyoshi Ikeda	Ō	Ö	Ō	Ö	4	Ö	Ö	Ö	Ō	Ö	Ö	4
210	,	0	0	0	0	0	6	0	0	0	0	0	6
211		0	104	0	0	0	0	0	15	0	0	0	119
	Neil White	0	0	0	0	7	0	0	0	0	0	0	7
	Nicolas Gruber	0	0	0	0	36	0	52	0	0	0	0	88
	Nikolai Dotzek Ola M. Johannessen	1 0	0	5 0	0 23	0	0	0	0	0	0	0	6 23
	Olivier Boucher	0	20	0	0	0	0	0	0	1	0	0	21
	P.C.D. Milly	0	0	9	Ö	Ö	Ö	0	1	1	0	Ö	11
	Pascale BRACONNOT	Ō	Ö	Ö	Ö	Ö	21	Ö	0	Ó	Ö	Ö	21
219	Pascale DELECLUSE	0	0	7	0	36	0	0	0	14	11	0	68
	Patrick Hamill	0	8	0	0	0	0	0	0	0	0	0	8
221		0	0	19	0	0	1	0	0	0	26	0	46
	Paul Baer	0	0	0	0	0	0	0	0	4	9	0	13
	Paul W Williams Pedro Ribera	0 6	0 0	0 9	0	0	8 0	0	0	0	0	0	8 15
	Per Holmund	0	0	0	2	0	2	0	0	0	0	0	4
	Pete Falloon	Ö	Ö	Ö	ō	Ö	0	26	Ö	Ŏ	Ö	Ö	26
227	Peter Barrett	0	0	0	0	0	10	0	0	0	0	0	10
	Peter Bergamaschi	0	6	0	0	0	0	19	0	0	0	0	25
	Peter Stone	0	0	0	0	0	0	0	0	3	2	0	5
	Peter Thorne	0	0	15	0	0	0	0	0	2	0	0	17
	Philip Woodworth	0	0	0	0	5	0	0 34	0	0	0	0	5
	Pierre Friedlingstein Piers Forster	0 3	0	0	0	0	0 8	0	0	0	0	0	34 11
	Qiang Fu	0	0	9	0	0	0	0	0	0	0	0	9
	R Allyn Clarke	Ö	Ö	Ö	Ö	15	Õ	Ŏ	Ö	ŏ	Õ	Õ	15
	Raimund Muscheler	0	0	0	0	0	11	0	0	0	0	0	11
237	Rasmus E. Benestad	0	5	0	0	0	0	0	0	0	0	52	57
	Ray Weiss	0	6	0	0	0	0	0	0	0	0	0	6
	Reinhard Böhm	0	0	2	0	0	0	0	0	0	0	0	2
	Renato Spahni	0	0	0	0	0	7	0	0	0	0	0	7
241	Reto Knutti Richard Allan	2 23	1 0	0 30	0	0	13 0	0	13 8	0	0	3 0	32 61
	Richard B. Alley	0	0	0	0	0	10	0	0	0	15	0	25
	Richard Betts	Ö	ŏ	Ö	Ö	Ő	0	Ö	Ö	ŏ	0	19	19
	Richard Hindmarsh	0	0	0	12	0	0	0	0	0	3	0	15
246	Richard Soulen	0	3	6	1	0	1	0	0	0	0	0	11
	Richard Wood	0	0	0	0	12	0	0	0	3	2	0	17
	Robert Kandel	15	1	2	0	0	1	0	0	0	0	0	19
	Robert Marsh	0	0	0	0	10	1	0	0	0	1	0	12
250 251	Robert Nicholls Robert Steven Nerem	0	0 0	0	0	0 4	0	0	0	0	1 0	0 0	1 4
	Rolf Müller	0	15	0	0	0	1	11	0	0	0	0	27
	Ronald J Stouffer	Ö	0	Ö	Ö	Ö	11	0	Ö	26	56	58	151
	Ronald Prinn	0	5	0	0	0	0	4	0	1	0	0	10
	Rosanne D'Arrigo	0	0	0	0	0	4	0	0	0	0	0	4
	Ross McKitrick	11	1	10	0	0	14	0	0	1	0	0	37
	Roxana Bojariu	0	0	0	9	10	0	0	0	0	0	3	22
	Ruth McDonald Sabine Wurzler	0 1	0 3	0	0	0	0	0	8 0	5 0	23 0	0	36 4
	Sandrine Bony	1	0	0	0	0	0	0	0	1	12	0	14
261		Ö	ő	Ö	Ö	Ö	Õ	Ö	2	ò	0	Õ	2
	Savitri GARIVAIT	3	3	0	0	0	0	3	0	0	0	0	9
263	Scot Martin	0	8	0	0	0	0	0	0	0	0	0	8
	Seita Emori	0	0	0	0	0	0	0	12	3	6	9	30
	Serge PLANTON	0	0	0	0	0	0	0	0	0	4	0	4
	Shamil Maksyutov	0	0	0	0 57	0	0 4	3 0	0	0	0 15	0	3
	Sharon Smith Simon Brown	0	0	0	0	0	0	0	0	0	3	0 7	76 10
	Simon Josey	0	0	0	0	1	0	0	0	0	0	ó	10
	Stefan Brönnimann	7	0	Ö	Ö	Ó	Ö	Ö	Ö	Ö	Ö	Ö	7
271		0	Ö	Ö	Ö	Ö	Ö	Ö	4	2	24	Ö	30
	Stephen J. Hawkins	0	0	0	0	0	0	2	0	0	0	0	2
	Stephen McIntyre	2	1	2	0	0	108	0	0	0	0	0	113
274		0	0	1	10	2	0	0	0	4	13	7	37
	Steven Baughcum	0	5 4	0	0	0	0	0 0	0	0	0	0	5 5
276	Steven Siems Susan Solomon	1 0	4 5	0 1	3	0	0	1	2	0 3	0 6	0 1	5 22
	Susanna Corti	0	0	1	0	0	0	0	1	0	0	0	2
0		Ü	•	•	-	•	•	•	•	-	•	•	_

	Takashi Maki Teresa Nanni	0	2	0 4	0	0 1	0 0	4 0	0 2	0 0	0	0	6
		0	0	0	0	5	0	0	1	0	0	0	6
	Terrence Joyce Thomas Crowley	0	0	0	0	5	17	0	0	0	0	0	22
	Thomas Crowley Thomas Knutson	0	0	8	0	0	0	0	3	0	3	0	14
	Thomas Peter	0	47	0	0	0	0	0	0	0	0	0	47
_	Thomas Vonder Haar	1	0	3	0	0	0	0	0	0	0	0	4
	Tianjun Zhou	0	0	0	0	0	0	0	0	1	0	0	1
287	Timothy Bates	0	3	0	0	0	0	5	0	0	0	0	ا 8
	Tiziano Colombo	1	9	1	1	1	1	1	0	1	0	0	16
	Twan van Noije	0	0	Ó	Ö	Ó	Ó	18	0	0	0	0	18
	Valentin Meleshko	0	0	0	Ö	0	0	0	0	0	6	0	6
	VINCENT GRAY	88	187	216	45	107	131	93	17	572	235	187	1878
	Vivien Gornitz	0	0	0	0	7	0	0	0	0.2	0	0	7
	Walter Zenk	Õ	Ö	Ö	Ö	12	Õ	Õ	Õ	ŏ	Ŏ	Ö	12
	Wayne F.J. Evans	Ö	8	Ö	Õ	0	Õ	0	Õ	Ö	Ö	0	8
	WG1 TSU	2	1	ĺ.	Ō	2	5	1	Ö	1	Ö	Ō	13
296	Wilfried Haeberli	0	0	0	11	0	1	0	0	0	4	0	16
297	William Collins	0	16	0	0	0	0	20	0	0	0	0	36
298	William Hare	0	21	0	13	0	0	0	0	0	70	0	104
299	William Ingram	0	0	0	0	0	0	0	286	0	0	0	286
	Wilmer Anderson	27	5	6	1	0	7	1	2	9	4	1	63
301	Wolfgang Lucht	0	0	0	0	0	0	19	0	0	0	0	19
	Xiaolan L. WANG	0	0	20	0	0	0	0	0	0	3	15	38
303	Xueliang Guo	1	2	0	0	0	0	0	0	0	0	0	3
	Yasuo Sato	0	0	0	0	0	0	0	0	0	0	7	7
305	Yoko Tsushima	0	4	0	0	0	0	0	0	0	1	0	5
306	Yukitomo TSUTSUMI	0	2	0	0	0	0	2	0	0	0	0	4
	Yusuke Yokoyama	0	0	0	0	0	4	0	0	0	0	0	4
	Zhanqing Li	0	8	3	0	0	0	0	2	0	0	0	13
309	Zong-Ci Zhao	0	0	0	0	0	0	0	2	0	0	0	2

**Total** 556 1317 1270 516 672 1232 1047 794 1158 1331 1649 **11542**