

Annual Final Report

AFR

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In the year 2011, Solar Cycle no. 24

The Average CV was: 63,5 and the Average 6-rot. Smoothed CV was: 47,9

The Average CV-USAF was: 50,7

giving an Estimated STDEV of: 9,5

CV-Helios Network observed on 365 days

CV-Helios Network had a total of 6471 observations in 2011

CV-Helios Network have received 395 observation entries in the year 2011

CV-Helios Network's observers had an average of 15,5 observations per day

This Annual Final Report contain results from 42 CV-observers

A sincere thanks to all observers for their fine contributions in the passed year.

CV-Helios Network 01. April 2012



Kjell Inge Malde
Director

CV-Helios Network Annual Final Report for 2011

Collated results CV for the year 2011												
CV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	49,13	14,20	50,87	58,16	35,75	91,03	30,42	137,99	87,41	94,33	91,46	113,91
2	44,51	12,88	61,09	52,07	27,70	82,89	16,88	132,79	96,54	104,05	116,91	110,41
3	42,29	6,57	71,46	41,88	33,40	72,93	21,62	122,21	93,10	91,93	110,72	130,54
4	29,75	10,64	87,48	46,20	34,35	70,04	21,69	105,95	82,19	114,74	91,91	156,11
5	26,18	7,23	96,53	43,93	31,75	56,75	20,42	90,78	69,90	84,39	103,89	139,79
6	24,00	1,00	117,80	41,86	38,11	46,21	17,42	88,64	64,13	82,14	131,82	116,25
7	19,77	6,22	130,82	41,15	33,47	29,27	16,69	71,19	68,11	78,87	132,07	101,48
8	14,81	31,70	134,08	42,43	39,60	17,71	26,07	66,87	70,00	64,10	137,84	108,21
9	12,72	34,06	101,63	30,97	54,08	11,87	16,34	55,36	78,05	91,00	139,00	89,98
10	11,72	14,74	81,80	28,28	55,08	6,53	36,55	26,64	84,75	102,84	148,00	75,22
11	14,57	21,04	79,27	36,57	39,24	6,05	54,28	9,79	80,28	115,09	146,83	61,40
12	9,88	36,41	79,60	63,14	20,14	6,38	47,34	4,63	89,48	132,58	131,40	49,42
13	0,75	57,47	73,07	82,86	16,07	3,43	35,29	0,89	111,45	150,99	112,62	48,23
14	0,22	70,58	60,63	87,00	23,14	36,89	43,25	0,19	125,97	157,67	125,92	48,85
15	10,54	74,72	35,02	95,08	34,76	50,08	39,85	17,41	139,34	135,52	125,16	45,52
16	14,55	79,99	37,04	82,58	41,45	64,56	36,00	35,30	147,52	127,25	101,06	53,18
17	14,14	73,93	18,83	74,42	39,19	67,76	51,12	43,02	105,00	144,79	93,40	50,31
18	19,33	105,50	17,40	79,22	29,13	62,71	72,44	46,45	107,16	139,20	87,77	55,96
19	15,38	106,64	14,27	77,81	24,51	43,11	64,33	43,17	97,33	148,86	78,95	61,32
20	16,11	65,82	13,52	60,79	26,99	41,71	51,01	41,69	79,44	147,52	88,18	82,04
21	25,50	52,93	28,18	67,18	25,01	26,93	44,81	60,01	75,80	154,74	90,52	90,38
22	33,17	48,30	60,08	71,35	18,66	28,60	35,52	71,68	99,18	134,66	83,59	112,70
23	40,36	29,78	48,45	72,95	18,68	33,05	21,23	59,59	114,09	99,46	94,08	120,22
24	38,27	11,72	38,61	67,93	16,91	33,57	5,88	45,39	115,25	108,94	93,13	86,02
25	33,30	9,68	57,86	48,51	15,44	31,65	7,02	56,02	107,16	93,92	92,28	92,73
26	29,55	31,40	63,33	47,81	27,00	12,70	42,95	48,57	96,04	70,35	82,48	101,57
27	13,27	31,29	85,32	54,46	57,63	3,84	65,46	43,32	85,28	77,80	79,70	106,00
28	2,89	35,47	94,46	62,36	71,44	7,02	98,88	35,13	82,04	80,18	80,37	114,80
29	2,17		79,96	58,76	90,36	15,16	108,86	33,68	88,35	71,03	108,83	102,06
30	11,03		67,71	66,28	120,21	34,25	116,53	48,07	84,13	66,68	118,13	98,31
31	22,42		63,04		97,68		133,91	72,84		66,70		75,25
63,24	20,72	38,64	66,10	59,47	39,90	36,49	45,16	55,33	94,15	107,49	107,27	90,26

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Collated results Observers for the year 2011												
Obsrvrs.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	8	10	18	21	19	15	18	21	22	19	16	11
2	15	8	21	25	20	20	20	19	25	22	16	16
3	7	15	23	21	17	20	13	24	24	19	18	19
4	12	11	21	18	22	21	12	22	23	17	17	9
5	19	13	17	15	22	21	23	15	21	12	19	16
6	6	12	26	17	23	14	19	18	19	22	17	12
7	13	17	26	24	22	18	20	21	19	15	15	17
8	16	20	24	19	24	19	21	17	10	20	16	14
9	24	18	19	27	24	13	20	21	22	17	11	9
10	20	19	10	26	22	15	26	19	27	10	12	14
11	7	14	18	18	20	16	25	21	24	14	16	15
12	8	24	22	11	17	18	21	24	21	12	25	9
13	4	17	14	17	21	18	14	19	20	17	17	13
14	9	16	16	20	21	15	12	21	20	14	12	10
15	13	16	17	19	16	18	23	21	21	26	9	10
16	21	20	16	24	20	21	27	23	22	24	16	11
17	14	15	6	22	14	17	25	26	21	19	15	15
18	9	8	10	25	18	13	18	22	16	20	14	16
19	10	14	20	19	19	20	20	22	15	14	14	17
20	19	11	24	21	22	17	15	24	18	17	16	12
21	12	14	22	22	24	16	14	22	22	18	12	8
22	15	20	26	21	22	13	15	20	17	22	11	11
23	11	18	23	24	25	11	19	20	19	18	13	9
24	13	18	23	21	22	15	19	18	21	14	13	15
25	10	22	21	21	21	17	17	18	27	13	16	13
26	11	15	21	22	18	22	19	23	26	11	15	7
27	13	15	21	19	14	23	18	21	20	10	19	14
28	19	15	22	22	16	20	20	23	20	18	18	15
29	23		23	22	21	17	17	21	25	20	13	15
30	20		21	25	22	15	15	22	25	18	16	14
31	12		14		21		16	20		15		12
17,77	13,32	15,54	19,52	20,93	20,29	17,27	18,74	20,90	21,07	17,00	15,23	12,84

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Collated results CV-USAF for the year 2011												
USAF-CV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	34,70	6,83	36,25	42,86	23,19	74,49	18,84	123,32	70,88	77,79	74,92	97,83
2	30,64	5,97	45,56	37,33	16,69	66,41	8,65	117,75	80,02	87,65	100,97	94,21
3	28,72	2,24	55,33	28,37	21,25	56,74	12,05	106,52	76,56	75,38	94,53	115,35
4	18,31	4,56	70,95	32,12	22,04	53,98	12,11	89,61	65,72	98,69	75,36	143,01
5	15,51	2,59	80,01	30,14	19,91	41,57	11,17	74,23	53,85	67,89	87,50	125,26
6	13,83	0,00	101,89	28,35	25,17	32,13	9,03	72,10	48,40	65,67	116,71	100,27
7	10,70	2,06	115,65	27,74	21,31	17,92	8,52	55,07	52,14	62,48	116,97	85,03
8	7,24	19,87	119,13	28,84	26,42	9,23	15,42	50,97	53,94	48,37	123,16	91,94
9	5,87	21,79	85,19	19,28	39,14	5,33	8,28	40,30	61,68	74,45	124,40	73,44
10	5,23	7,19	65,34	17,15	40,05	2,22	23,86	15,86	68,24	86,42	134,14	58,95
11	7,08	11,62	62,87	23,87	26,11	1,98	39,32	4,05	63,86	99,07	132,87	45,85
12	4,10	23,74	63,20	47,47	10,97	2,15	33,12	1,28	72,93	117,52	116,26	34,96
13		42,23	56,88	66,38	8,09	0,77	22,81		95,28	137,40	96,49	33,91
14		54,49	45,13	70,47	13,19	24,14	29,55		110,49	144,72	110,44	34,46
15	4,50	58,46	22,58	78,55	22,37	35,55	26,64	9,02	124,77	120,67	109,63	31,52
16	7,06	63,57	24,27	66,11	28,00	48,80	23,40	22,81	133,62	111,84	84,61	38,33
17	6,80	57,70	10,03	58,18	26,08	51,82	36,48	29,35	88,63	130,66	76,86	35,76
18	10,39	89,14	9,01	62,82	17,81	47,07	56,27	32,34	90,85	124,62	71,24	40,85
19	7,62	90,32	6,88	61,45	14,22	29,43	48,58	29,48	80,82	135,08	62,56	45,78
20	8,12	49,98	6,38	45,29	16,13	28,22	36,38	28,21	63,04	133,62	71,64	65,58
21	14,98	38,10	17,06	51,26	14,60	16,08	30,90	44,57	59,50	141,51	73,97	73,83
22	21,06	33,97	44,63	55,23	9,91	17,40	23,00	55,54	82,69	119,74	67,10	96,58
23	27,07	18,33	34,10	56,76	9,92	20,97	11,77	44,18	98,02	82,98	77,54	104,43
24	25,30	5,23	25,58	51,97	8,67	21,40	1,89	31,41	99,23	92,69	76,58	69,50
25	21,17	3,99	42,59	34,16	7,67	19,83	2,48	40,90	90,85	77,38	75,73	76,19
26	18,14	19,63	47,65	33,53	16,14	5,86	29,29	34,20	79,51	54,27	66,01	85,13
27	6,22	19,54	68,81	39,49	42,37	0,94	49,65	29,61	68,77	61,44	63,29	89,66
28	0,56	22,96	77,93	46,75	55,31	2,48	82,39	22,68	65,57	63,76	63,94	98,76
29	0,30		63,54	43,42	73,82	7,48	92,61	21,48	71,81	54,92	92,57	85,62
30	4,80		51,77	50,42	104,42	21,95	100,57	33,76	67,64	50,80	102,23	81,82
31	12,64		47,38		81,17		118,94	56,65		50,81		58,97
50,49	13,06	27,72	51,73	44,53	27,81	25,48	33,03	45,42	77,98	91,95	91,34	74,60

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Collated results STDEV for the year 2011												
std. Dev.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10,20	5,21	10,34	10,82	8,88	11,70	8,19	10,38	11,69	11,69	11,70	11,37
2	9,81	4,88	10,98	10,42	7,79	11,65	5,82	10,64	11,68	11,59	11,28	11,46
3	9,59	3,06	11,40	9,55	8,59	11,45	6,77	11,09	11,70	11,70	11,45	10,74
4	8,09	4,30	11,69	9,96	8,71	11,36	6,78	11,56	11,64	11,34	11,70	9,27
5	7,55	3,28	11,68	9,75	8,37	10,73	6,54	11,70	11,35	11,67	11,59	10,28
6	7,19	0,71	11,25	9,55	9,15	9,96	5,93	11,70	11,12	11,64	10,68	11,30
7	6,41	2,94	10,73	9,48	8,60	8,02	5,78	11,40	11,29	11,59	10,67	11,63
8	5,35	8,36	10,58	9,61	9,32	5,99	7,53	11,24	11,36	11,12	10,38	11,51
9	4,85	8,67	11,63	8,26	10,56	4,63	5,70	10,65	11,57	11,70	10,32	11,70
10	4,59	5,34	11,64	7,88	10,63	3,05	8,98	7,62	11,67	11,61	9,80	11,51
11	5,30	6,66	11,60	8,98	9,28	2,88	10,58	4,06	11,61	11,33	9,87	10,99
12	4,08	8,96	11,60	11,08	6,48	3,00	10,05	2,36	11,70	10,65	10,70	10,22
13		10,78	11,45	11,65	5,64	1,88	8,82		11,43	9,61	11,40	10,13
14		11,38	10,95	11,69	7,04	9,02	9,69		10,94	9,16	10,95	10,18
15	4,27	11,50	8,79	11,69	8,76	10,28	9,34	5,93	10,30	10,50	10,98	9,90
16	5,29	11,61	9,03	11,65	9,51	11,14	8,91	8,83	9,83	10,89	11,64	10,50
17	5,20	11,48	6,23	11,49	9,27	11,28	10,35	9,67	11,57	9,99	11,70	10,29
18	6,33	11,56	5,93	11,59	8,00	11,06	11,43	9,98	11,53	10,31	11,69	10,68
19	5,48	11,54	5,23	11,57	7,28	9,67	11,13	9,68	11,68	9,74	11,59	10,99
20	5,65	11,20	5,04	10,96	7,68	9,54	10,35	9,53	11,60	9,83	11,69	11,64
21	7,44	10,48	7,86	11,25	7,36	7,67	9,83	10,92	11,52	9,36	11,70	11,70
22	8,56	10,13	10,92	11,40	6,19	7,92	8,85	11,41	11,66	10,55	11,66	11,40
23	9,40	8,10	10,15	11,45	6,20	8,54	6,69	10,90	11,36	11,65	11,70	11,16
24	9,17	4,59	9,21	11,28	5,82	8,61	2,82	9,89	11,33	11,49	11,70	11,68
25	8,58	4,03	10,80	10,15	5,50	8,36	3,21	10,69	11,53	11,70	11,70	11,70
26	8,06	8,32	11,09	10,09	7,68	4,84	9,66	10,16	11,68	11,37	11,65	11,63
27	4,98	8,31	11,68	10,59	10,79	2,05	11,18	9,69	11,68	11,57	11,60	11,56
28	1,65	8,85	11,69	11,04	11,40	3,21	11,66	8,81	11,64	11,61	11,61	11,34
29	1,32		11,61	10,85	11,70	5,43	11,50	8,62	11,70	11,39	11,50	11,62
30	4,40		11,27	11,22	11,16	8,70	11,29	10,12	11,66	11,23	11,24	11,67
31	6,91		11,07		11,67		10,58	11,45		11,23		11,51
9,52	6,40	7,72	10,16	10,57	8,55	7,79	8,58	9,68	11,43	10,99	11,26	11,07

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Collated results CV 6 rot. averages for the year 2011												
CV-6 rot.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	26,68	25,54	29,33	35,39	39,90	42,55	46,10	49,55	48,64	54,78	67,03	78,24
2	26,77	25,62	29,39	35,45	39,72	43,05	46,11	49,71	48,86	55,00	67,62	78,75
3	26,85	25,66	29,54	35,46	39,77	43,49	46,14	50,05	49,14	55,13	68,19	79,37
4	26,87	25,67	29,79	35,52	39,86	43,92	46,12	50,37	49,40	55,38	68,64	80,12
5	26,86	25,64	30,03	35,55	39,99	44,26	46,04	50,63	49,47	55,48	69,18	80,77
6	26,86	25,59	30,39	35,52	40,16	44,52	45,90	50,99	49,48	55,69	69,82	81,28
7	26,87	25,55	30,77	35,41	40,30	44,67	45,77	51,36	49,37	55,88	70,28	81,82
8	26,77	25,67	31,16	35,32	40,48	44,74	45,73	51,70	49,23	55,93	70,68	82,46
9	26,61	25,75	31,43	35,21	40,76	44,74	45,65	51,85	49,21	56,11	70,98	82,96
10	26,48	25,69	31,53	35,09	41,08	44,70	45,79	51,82	49,32	56,38	71,15	83,33
11	26,43	25,69	31,63	35,04	41,26	44,67	46,10	51,67	49,42	56,68	71,45	83,50
12	26,30	25,78	31,76	35,17	41,28	44,66	46,38	51,38	49,61	57,27	71,69	83,61
13	26,11	25,97	31,94	35,41	41,25	44,48	46,53	51,02	49,98	58,02	71,87	83,80
14	25,92	26,25	32,13	35,79	41,15	44,41	46,65	50,58	50,49	58,78	72,20	83,97
15	25,73	26,53	32,16	36,29	41,10	44,44	46,81	50,15	51,06	59,39	72,53	84,11
16	25,55	26,85	32,24	36,76	41,08	44,58	46,95	49,78	51,69	59,97	72,80	84,31
17	25,38	27,24	32,29	37,19	40,99	44,81	47,22	49,33	52,07	60,63	73,09	84,52
18	25,26	27,82	32,39	37,62	40,86	45,03	47,60	48,81	52,48	61,27	73,45	84,75
19	25,12	28,47	32,47	38,02	40,73	45,15	47,95	48,26	52,81	61,94	73,82	84,97
20	24,98	28,87	32,56	38,26	40,58	45,28	48,25	47,89	53,11	62,51	74,29	85,37
21	24,95	29,18	32,73	38,55	40,46	45,36	48,49	47,76	53,40	63,11	74,80	85,70
22	24,96	29,42	33,09	38,95	40,31	45,45	48,51	47,71	53,78	63,70	75,27	86,05
23	25,05	29,53	33,35	39,29	40,11	45,58	48,43	47,59	54,09	64,18	75,81	86,50
24	25,18	29,52	33,54	39,58	39,95	45,70	48,38	47,42	54,29	64,75	76,35	86,81
25	25,23	29,45	33,85	39,73	39,81	45,83	48,29	47,39	54,41	65,18	76,69	87,11
26	25,29	29,54	34,14	39,85	39,69	45,91	48,33	47,48	54,41	65,39	76,89	87,49
27	25,28	29,50	34,54	39,97	39,83	45,93	48,38	47,51	54,43	65,62	76,98	87,91
28	25,26	29,34	34,89	40,04	40,18	45,91	48,55	47,61	54,48	65,87	77,06	88,30
29	25,25		35,12	40,00	40,67	45,91	48,76	47,71	54,53	66,12	77,34	88,48
30	25,32		35,24	40,05	41,40	46,03	48,98	47,92	54,57	66,38	77,80	88,69
31	25,45		35,37		41,99		49,35	48,28		66,62		88,84
48,01	25,86	27,19	32,28	37,18	40,54	44,86	47,23	49,40	51,57	60,29	72,86	84,32

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NOAA Regions year 2011							249 regions					
Reg.	Date	Lat.	Long.	Rot.	Class		Reg.	Date	Lat.	Long.	Rot.	Class
1	1140	01.01.11	32	188	2105	HSX	271					
2	1141	02.01.11	35	267	2105	DSO	272					
3	1142	02.01.11	-14	208	2105	DSO	273					
4	1143	08.01.11	-22	147	2105	DSO	274					
5	1144	10.01.11	-16	173	2105	AXX	275					
6	1145	10.01.11	15	97	2105	BXO	276					
7	1146	11.01.11	23	77	2105	AXX	277					
8	1147	16.01.11	24	344	2106	HRX	278					
9	1148	18.01.11	-28	65	2105	BXO	279					
10	1149	22.01.11	18	343	2106	DRI	280					
11	1150	29.01.11	-22	184	2106	BXO	281					
12	1151	29.01.11	09	306	2106	CRO	282					
13	1152	04.02.11	-18	157	2106	BXO	283					
14	1153	05.02.11	15	172	2106	CRO	284					
15	1154	09.02.11	08	152	2106	HRX	285					
16	1155	09.02.11	17	75	2106	CRO	286					
17	1156	09.02.11	-19	63	2106	CRO	287					
18	1157	09.02.11	22	64	2106	CRO	288					
19	1158	12.02.11	-19	36	2106	CRO	289					
20	1159	12.02.11	18	35	2106	AXX	290					
21	1161	15.02.11	11	330	2107	BXO	291					
22	1162	19.02.11	18	336	2107	DAI	292					
23	1163	25.02.11	18	176	2107	CRO	293					
24	1164	26.02.11	28	162	2107	HKX	294					
25	1165	27.02.11	-22	181	2107	BXO	295					
26	1166	03.03.11	10	95	2107	HRX	296					
27	1167	04.03.11	14	126	2107	BXO	297					
28	1168	05.03.11	24	218	2107	AXX	298					
29	1169	07.03.11	21	62	2107	BXO	299					
30	1170	09.03.11	-26	160	2107	BXO	300					
31	1172	12.03.11	11	340	2108	BXO	301					
32	1173	17.03.11	-28	308	2108	CAO	302					
33	1174	18.03.11	22	10	2107	BXO	303					
34	1175	19.03.11	13	330	2108	CRO	304					
35	1176	22.03.11	-13	200	2108	HSX	305					
36	1177	24.03.11	21	204	2108	AXX	306					
37	1178	25.03.11	-13	174	2108	AXX	307					
38	1179	25.03.11	09	274	2108	BXO	308					
39	1180	26.03.11	26	162	2108	HSX	309					
40	1181	26.03.11	-25	159	2108	HSX	310					
41	1182	28.03.11	13	201	2108	AXX	311					
42	1183	28.03.11	15	140	2108	EAI	312					
43	1184	02.04.11	15	107	2108	AXX	313					
44	1185	05.04.11	23	35	2108	HSX	314					
45	1186	07.04.11	22	13	2108	AXX	315					
46	1187	08.04.11	-19	354	2109	AXX	316					
47	1188	09.04.11	-25	50	2108	CRO	317					
48	1189	09.04.11	23	33	2108	DSO	318					
49	1190	12.04.11	12	339	2109	CRI	319					
50	1191	13.04.11	09	280	2109	HSX	320					
51	1192	13.04.11	11	352	2109	BXO	321					
52	1193	14.04.11	17	266	2109	DAO	322					
53	1194	15.04.11	-32	07	2108	BXO	323					
54	1195	20.04.11	-16	189	2109	DAO	324					
55	1196	21.04.11	-27	175	2109	DAO	325					
56	1197	22.04.11	-16	175	2109	AXX	326					
57	1198	22.04.11	-26	270	2109	BXO	327					
58	1199	27.04.11	21	189	2109	CAI	328					
59	1200	27.04.11	-17	124	2109	BXO	329					
60	1201	06.05.11	14	118	2109	BXO	330					
61	1202	29.04.11	15	177	2109	BXO	331					
62	1203	29.04.11	19	62	2109	HSX	332					
63	1204	03.05.11	17	48	2109	CSO	333					
64	1205	03.05.11	14	34	2109	AXX	334					
65	1206	04.05.11	22	91	2109	BXO	335					
66	1207	06.05.11	24	07	2109	BXO	336					
67	1208	09.05.11	13	318	2110	CRO	337					
68	1209	09.05.11	35	00	2110	BXO	338					
69	1210	10.05.11	20	347	2110	DSI	339					
70	1211	10.05.11	-12	18	2109	BXO	340					
71	1212	12.05.11	-13	281	2110	AXX	341					
72	1213	15.05.11	-21	08	2109	AXX	342					
73	1214	15.05.11	-20	270	2110	BXO	343					
74	1215	15.05.11	-23	318	2110	BXO	344					
75	1216	17.05.11	-14	195	2110	HSX	345					
76	1217	18.05.11	-23	267	2110	BXO	346					
77	1218	19.05.11	-16	169	2110	AXX	347					
78	1219	22.05.11	15	125	2110	AXX	348					
79	1220	23.05.11	14	248	2110	BXO	349					
80	1221	24.05.11	-18	238	2110	BXO	350					
81	1222	26.05.11	15	166	2110	BXO	351					
82	1223	27.05.11	-15	114	2110	CSO	352					
83	1224	28.05.11	21	131	2110	DSO	353					
84	1225	28.05.11	18	60	2110	HSX	354					
85	1226	28.05.11	-18	42	2110	HSX	355					
86	1227	30.05.11	-19	21	2110	CSO	356					
87	1228	30.05.11	17	23	2110	HSX	357					
88	1229	31.05.11	16	39	2110	CAO	358					
89	1230	01.06.11	19	06	2110	BXO	359					
90	1231	02.06.11	09	341	2111	HSX	360					

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184	1325	20.10.11	16	278	2116	HAX	454							
185	1326	21.10.11	16	22	2115	CSO	455							
186	1327	21.10.11	-22	336	2116	BXI	456							
187	1328	21.10.11	18	322	2116	BXO	457							
188	1329	22.10.11	-30	15	2115	CSO	458							
189	1330	23.10.11	04	254	2116	DSO	459							
190	1331	24.10.11	11	07	2115	BXO	460							
191	1332	25.10.11	32	217	2116	HSX	461							
192	1333	28.10.11	16	242	2116	DAI	462							
193	1334	31.10.11	13	188	2116	CSO	463							
194	1335	01.11.11	19	184	2116	BXO	464							
195	1336	01.11.11	14	145	2116	AXX	465							
196	1337	01.11.11	17	134	2116	HSX	466							
197	1338	02.11.11	-12	118	2116	DAO	467							
198	1339	02.11.11	22	117	2116	DAO	468							
199	1340	06.11.11	-09	73	2116	HSX	469							
200	1341	06.11.11	10	58	2116	HSX	470							
201	1342	06.11.11	18	60	2116	DSO	471							
202	1343	07.11.11	29	46	2116	HSX	472							
203	1344	08.11.11	-22	102	2116	AXX	473							
204	1345	10.11.11	-25	84	2116	CSO	474							
205	1346	13.11.11	-17	338	2117	HSX	475							
206	1347	14.11.11	07	346	2117	CRO	476							
207	1348	15.11.11	20	87	2116	DSO	477							
208	1349	15.11.11	15	19	2116	BXO	478							
209	1350	15.11.11	26	310	2117	DSO	479							
210	1351	15.11.11	-23	326	2117	BXO	480							
211	1352	17.11.11	-23	285	2117	CSO	481							
212	1353	18.11.11	08	261	2117	HSX	482							
213	1354	18.11.11	-15	265	2117	DAO	483							
214	1355	19.11.11	14	251	2117	CAO	484							
215	1356	20.11.11	14	229	2117	HSX	485							
216	1357	21.11.11	17	316	2117	DRO	486							
217	1358	23.11.11	20	192	2117	HSX	487							
218	1359	25.11.11	16	297	2117	CAO	488							
219	1360	26.11.11	17	213	2117	CAO	489							
220	1361	26.11.11	19	172	2117	AXX	490							
221	1362	28.11.11	08	130	2117	CSO	491							
222	1363	30.11.11	-18	111	2117	HSX	492							
223	1364	30.11.11	17	106	2117	HSX	493							
224	1365	03.12.11	20	125	2117	CSO	494							
225	1366	04.12.11	17	60	2117	HSX	495							
226	1367	05.12.11	-18	77	2117	BXO	496							
227	1368	06.12.11	-18	42	2117	CAO	497							
228	1369	06.12.11	22	57	2117	CAO	498							
229	1370	08.12.11	-24	76	2117	BXO	499							
230	1371	08.12.11	09	60	2117	HRX	500							
231	1372	08.12.11	10	45	2117	BXO	501							
232	1373	09.12.11	-30	99	2117	DRO	502							
233	1374	09.12.11	-16	351	2118	CSO	503							
234	1375	09.12.11	08	354	2118	BXO	504							
235	1376	14.12.11	21	302	2118	BXO	505							
236	1377	15.12.11	12	297	2118	DRO	506							
237	1378	17.12.11	-17	324	2118	DSO	507							
238	1379	18.12.11	-29	324	2118	CRO	508							
239	1380	18.12.11	-20	232	2118	HRX	509							
240	1381	19.12.11	-18	268	2118	DAO	510							
241	1382	19.12.11	-18	263	2118	DRO	511							
242	1383	20.12.11	04	207	2118	HSX	512							
243	1384	21.12.11	12	201	2118	DAO	513							
244	1385	24.12.11	-31	224	2118	DSO	514							
245	1386	24.12.11	-16	150	2118	HSX	515							
246	1387	26.12.11	-22	225	2118	DAO	516							
247	1388	28.12.11	-23	103	2118	HSX	517							
248	1389	29.12.11	-20	86	2118	DSO	518							
249	1390	29.12.11	09	113	2118	BXO	519							
250							520							
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ZÜRICH/McINTOSH-CLASSIFICATIONS DISTRIBUTION for the year 2011

A	B	C	D	E	F	H
AXX	BXO	CRO	DRO	ERO	FRO	HRX
12,9 %	24,5 %	8,8 %	3,2 %			2,4 %
	BXI	CRI	DRI	ERI	FRI	HAX
	0,4 %	0,4 %	0,4 %			0,8 %
	CAO	DAO	EAO	FAO	HSX	
	3,2 %	5,2 %				16,1 %
	CAI	DAI	EAI	FAI	HKX	
	0,4 %	3,6 %	0,4 %			0,4 %
	CSO	DSO	ESO	FSO	HHX	
	6,4 %	8,4 %				
	CSI	DSI	ESI	FSI		
	0,4 %	0,4 %				
	CKO	DAC	EAC	FAC		
	CKI	DSC	ESC	FSC		
	CHO	DKO	EKO	FKO		
	CHI	DKI	EKI	FKI		
			0,4 %			
		DHO	EHO	FHO		
		0,8 %				
		DHI	EHI	FHI		
		DKC	EKC	FKC		
		DHC	EHC	FHC		

SUNSPOT CLASS

1st letter

	249	
A	32	12,9 %
B	62	24,9 %
C	49	19,7 %
D	55	22,1 %
E	2	0,8 %
F	0	0,0 %
H	49	19,7 %

MAIN SUNSPOT TYPE

2nd letter

	249	
X	94	37,8 %
R	38	15,3 %
A	34	13,7 %
S	79	31,7 %
K	2	0,8 %
H	2	0,8 %

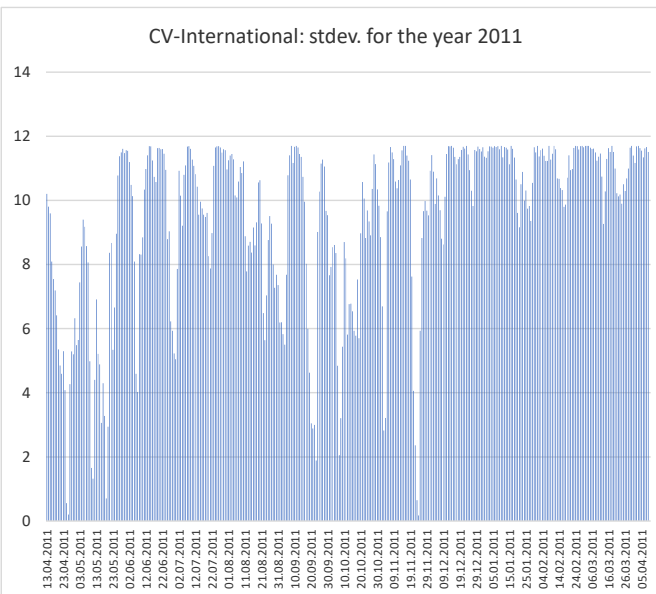
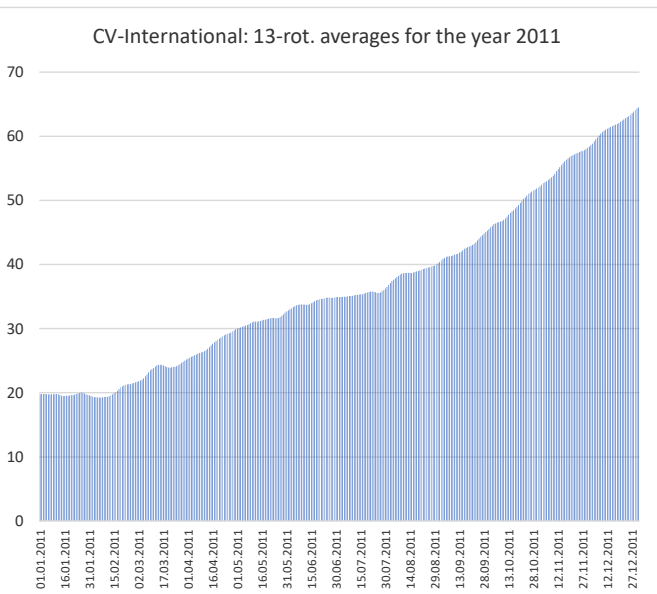
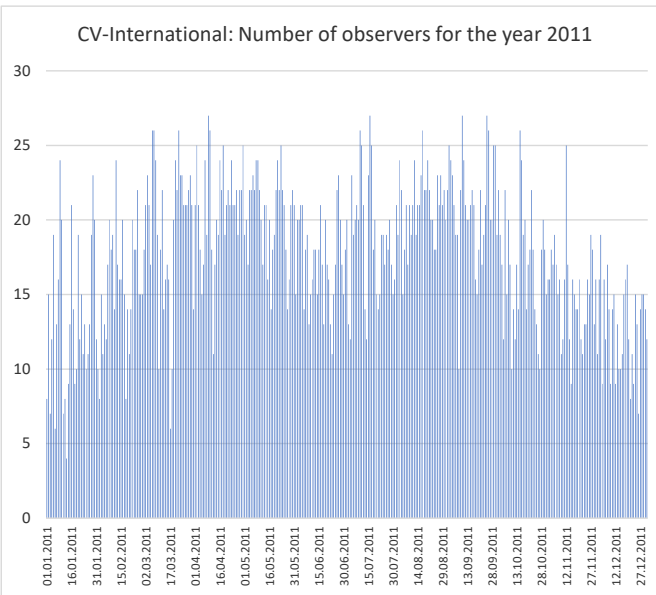
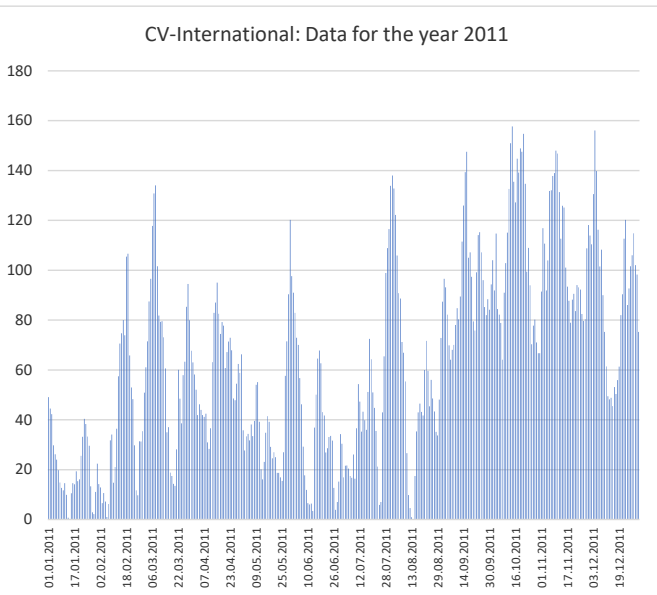
SUNSPOT DISTRIBUTION

3rd letter

	249	
X	81	32,5 %
O	151	60,6 %
I	17	6,8 %
C	0	0,0 %

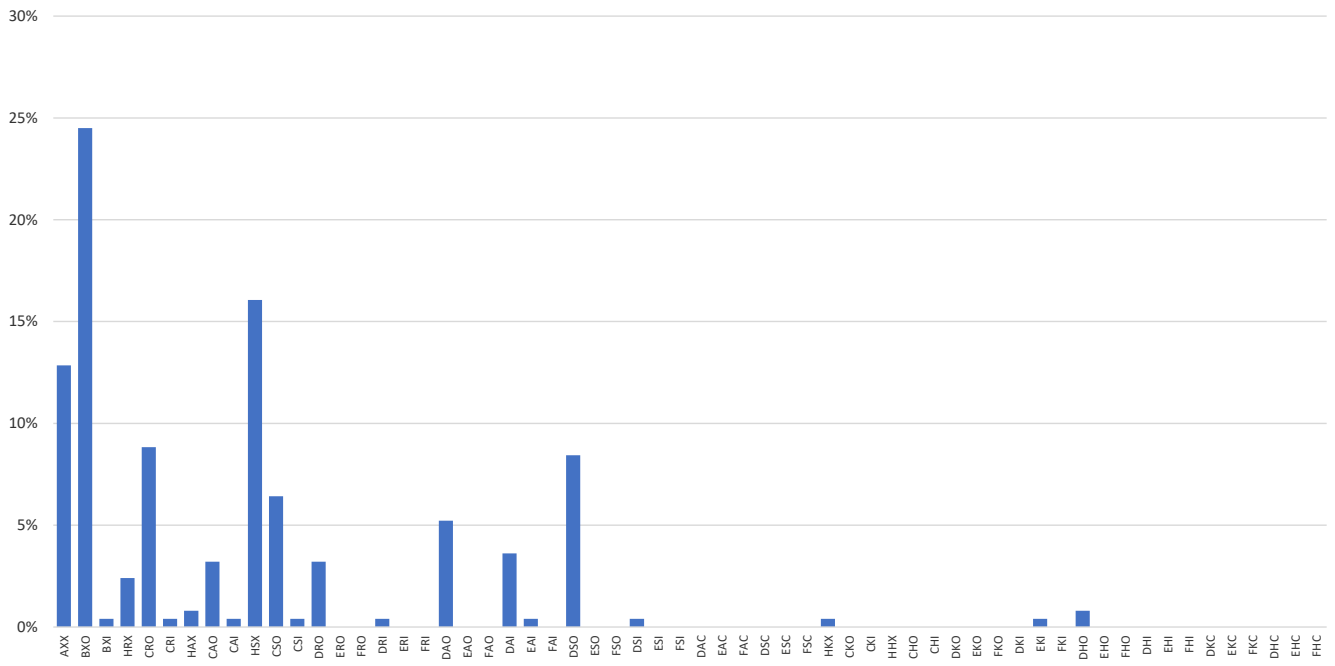
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Graphics for the year 2011

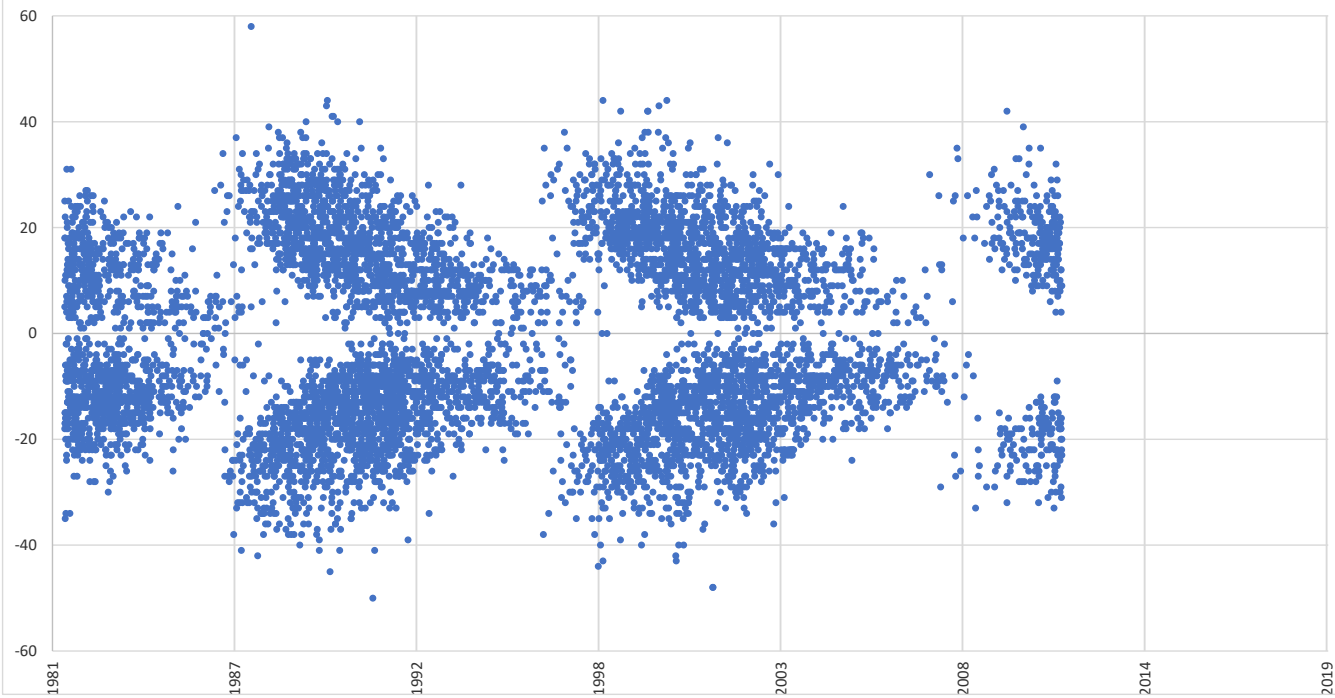


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Zürich/McIntosh-classifications denoted by NOAA/USAF for the year 2011



RGO/NOAA-USAF Sunspot Regions 1981-2011



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This AFR issued 1st April 2012

CV-Helios Network

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Magnetic Sunspot Classifications Zürich/McIntosh system
CV - Classification Values (Malde/1981) - numeric system
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