

# *Annual Final Report*

## *AFR*

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Year number 20

AFR for the year 2000

ISSN 2535-3799

2000

### **CV-Helios Network Annual Final Report for 2000**

In the year 2000, Solar Cycle no. 23

The Average CV was: 139,1 and the Average 6-rot. Smoothed CV was: 137,4

The Average CV-USAF was: 124,8

giving an Estimated STDEV of: 9,2

CV-Helios Network observed on 366 days

CV-Helios Network had a total of 6067 observations in 2000

CV-Helios Network have received 425 observation entries in the year 2000

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

This Annual Final Report contain results from 48 CV-observers

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

CV-Helios Network 01. April 2001



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Kjell Inge Malde  
Director



## CV-Helios Network Annual Final Report for 2000

Collated results CV for the year 2000												
CV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	49,71	65,00	187,79	193,17	137,86	113,73	162,76	108,55	135,09	141,05	169,08	116,27
2	71,07	72,50	184,00	225,90	112,65	119,00	174,17	95,94	122,31	180,12	162,41	118,85
3	75,33	97,38	169,50	220,90	91,52	127,05	158,38	92,53	94,79	190,32	165,47	107,39
4	88,80	114,22	185,70	233,08	31,09	127,76	130,80	115,56	106,93	197,64	136,63	96,18
5	82,44	115,05	152,25	159,79	14,79	159,35	124,70	119,30	118,53	176,63	176,68	69,62
6	88,67	120,71	187,33	119,58	24,88	143,54	116,75	146,67	115,63	135,22	158,75	50,50
7	85,27	133,08	197,44	91,73	24,33	137,70	158,92	157,59	109,92	108,57	137,63	67,54
8	74,82	122,50	229,91	91,35	36,83	147,18	201,64	159,75	100,28	77,06	139,60	47,70
9	91,60	118,14	157,33	87,09	69,29	131,58	208,00	142,00	64,65	58,00	133,44	52,16
10	75,56	104,07	159,25	108,24	99,90	125,81	241,38	174,20	40,21	66,00	130,10	53,57
11	97,00	102,60	171,44	122,14	143,16	164,12	255,21	163,89	4,35	85,00	96,43	60,30
12	132,19	100,60	161,07	120,00	169,44	181,96	246,00	149,00	17,36	131,33	87,73	92,00
13	149,08	112,11	164,00	133,94	210,16	228,42	231,93	148,19	31,33	139,42	80,47	100,08
14	135,00	109,95	151,56	132,20	213,59	235,79	192,14	153,00	70,63	97,09	114,64	133,14
15	152,33	99,13	121,13	117,89	240,63	212,63	147,19	141,11	102,71	82,10	99,54	155,40
16	164,75	128,47	132,00	100,73	214,81	178,46	186,00	136,56	97,62	92,42	98,47	137,00
17	130,70	103,82	135,09	101,94	197,57	160,86	239,75	126,50	147,06	95,32	108,31	137,33
18	112,09	81,63	156,53	105,38	196,07	166,87	280,93	145,73	147,81	75,82	126,44	133,45
19	132,08	80,38	191,94	112,71	224,72	138,38	285,44	118,37	149,45	73,06	128,26	145,07
20	112,38	99,50	197,31	156,32	239,73	155,88	276,73	99,00	140,56	83,28	143,60	166,70
21	119,83	105,11	232,47	221,35	213,14	146,81	288,11	85,78	149,82	78,71	140,20	130,00
22	110,25	123,24	247,83	220,58	211,32	162,82	252,42	75,38	148,94	76,91	163,87	111,76
23	64,94	123,74	260,96	226,68	193,00	166,47	210,95	83,52	147,67	84,77	141,24	110,27
24	79,60	132,78	253,82	240,44	161,65	142,47	211,62	80,45	156,61	79,44	153,00	107,83
25	85,19	224,93	216,87	203,74	164,05	165,18	192,31	93,81	174,82	81,09	112,43	104,33
26	86,88	233,61	188,75	178,76	155,52	166,13	148,33	95,16	175,63	82,50	112,88	111,50
27	73,67	233,92	199,21	158,18	124,86	208,22	147,31	107,65	156,33	83,57	118,69	143,67
28	83,82	236,24	166,10	154,88	123,15	173,06	133,71	140,24	165,31	143,00	186,50	154,91
29	50,25	229,40	169,56	151,43	124,76	173,33	147,00	146,86	166,11	137,35	147,31	142,27
30	43,00		153,58	135,94	90,56	193,50	121,76	140,87	156,45	139,30	155,86	137,07
31	70,13		167,17		66,63		114,05	153,94		145,70		126,43
<b>137,92</b>	<b>95,76</b>	<b>128,41</b>	<b>182,22</b>	<b>154,20</b>	<b>139,41</b>	<b>161,80</b>	<b>193,11</b>	<b>125,71</b>	<b>117,16</b>	<b>110,25</b>	<b>134,19</b>	<b>110,33</b>

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Collated results Observers for the year 2000												
Obsrvrs.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	7	11	14	18	22	22	17	20	22	22	12	11
2	14	10	13	21	17	21	24	18	16	17	17	20
3	9	13	14	21	23	21	16	15	14	19	15	18
4	10	9	23	13	23	21	10	18	15	11	16	11
5	18	21	16	14	24	20	10	20	17	16	22	13
6	12	21	12	19	25	13	16	18	16	18	12	10
7	11	13	9	26	24	20	13	17	13	14	8	13
8	17	10	11	20	23	28	11	20	18	17	15	10
9	10	14	12	23	24	24	13	21	20	14	18	19
10	9	15	16	21	20	21	13	15	29	15	20	14
11	11	15	9	14	19	17	14	18	20	18	21	10
12	16	25	14	15	18	23	17	15	22	15	15	2
13	12	18	8	17	25	26	14	21	9	19	15	12
14	12	19	9	15	29	19	14	23	16	22	11	7
15	12	15	16	19	30	16	21	18	21	20	13	10
16	12	17	16	22	27	24	12	18	13	19	17	11
17	10	17	11	17	21	22	8	24	17	19	13	12
18	11	8	15	16	15	23	15	15	16	11	16	11
19	12	16	18	17	18	21	16	19	20	16	19	15
20	8	14	16	22	22	26	15	25	16	18	10	10
21	12	19	19	26	21	21	19	18	17	21	10	21
22	12	21	24	26	19	22	19	21	18	22	15	17
23	17	19	24	19	20	19	19	27	21	26	17	22
24	15	9	17	16	20	17	13	22	23	18	12	12
25	16	15	15	23	21	17	13	21	17	11	14	6
26	8	23	20	21	23	16	15	25	19	12	17	8
27	12	24	14	17	22	18	13	23	21	7	13	9
28	11	17	10	17	13	16	14	17	16	14	6	11
29	8	10	9	23	17	12	14	22	18	20	13	15
30	14		12	18	18	14	17	15	22	10	14	14
31	8		12		19		22	17		10		21
<b>16,58</b>	<b>11,81</b>	<b>15,79</b>	<b>14,45</b>	<b>19,20</b>	<b>21,35</b>	<b>20,00</b>	<b>15,06</b>	<b>19,55</b>	<b>18,07</b>	<b>16,48</b>	<b>14,53</b>	<b>12,74</b>

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Collated results CV-USAF for the year 2000												
USAF-CV	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	35,22	49,21	178,31	184,41	123,18	97,65	150,33	92,28	120,21	126,61	157,34	100,30
2	54,96	56,33	174,04	222,08	96,52	103,15	163,00	79,42	106,63	169,67	149,94	102,99
3	59,05	80,87	157,80	216,27	74,97	111,63	145,49	75,99	78,25	181,18	153,32	91,09
4	72,26	98,16	175,95	230,45	19,38	112,39	115,62	99,55	90,62	189,50	121,85	79,66
5	65,98	99,02	138,78	147,05	7,23	146,57	109,15	103,47	102,66	165,75	165,82	53,57
6	72,13	104,95	177,80	103,76	14,50	129,30	100,80	132,69	99,62	120,35	145,91	35,92
7	68,76	118,05	189,28	75,18	14,09	123,01	146,10	144,63	93,70	92,31	122,93	51,60
8	58,56	106,83	226,75	74,80	24,09	133,25	194,07	147,01	83,81	60,72	125,05	33,44
9	75,05	102,25	144,35	70,56	53,27	116,46	201,36	127,64	48,89	42,71	118,44	37,41
10	59,27	87,68	146,46	91,96	83,42	110,32	240,20	163,04	26,94	50,15	114,88	38,68
11	80,48	86,18	159,96	106,45	128,89	151,83	256,54	151,58	1,16	68,49	79,91	44,83
12	117,10	84,14	148,46	104,20	157,74	171,74	245,64	135,23	8,99	116,19	71,20	75,45
13	135,32	95,97	151,70	118,98	203,85	225,02	229,11	134,35	19,58	124,86	64,04	83,61
14	120,11	93,73	138,02	117,12	207,80	233,63	183,25	139,60	54,54	80,58	98,59	118,12
15	138,87	82,65	105,38	101,99	239,32	206,69	133,26	126,68	86,29	65,64	83,06	142,23
16	152,53	113,14	116,90	84,27	209,22	167,81	176,29	121,78	81,11	75,87	81,97	122,25
17	115,52	87,43	120,21	85,50	189,43	148,23	238,28	111,05	133,12	78,78	92,03	122,61
18	95,95	65,17	143,47	89,02	187,71	154,88	287,29	131,68	133,94	59,52	110,99	118,46
19	116,99	63,95	183,02	96,58	220,70	123,74	292,72	102,49	135,72	56,87	112,92	130,96
20	96,24	83,02	189,13	143,23	238,25	142,76	282,24	82,51	126,09	66,79	129,37	154,69
21	104,03	88,74	229,75	216,78	207,29	132,85	295,94	69,26	136,13	62,33	125,70	114,77
22	94,04	107,61	247,80	215,89	205,18	150,39	253,23	59,10	135,17	60,58	151,55	95,61
23	49,16	108,13	263,37	222,99	184,22	154,44	204,76	67,03	133,78	68,26	126,81	94,06
24	63,19	117,73	254,89	239,09	149,10	128,15	205,53	64,03	143,55	63,04	139,60	91,54
25	68,68	220,95	211,59	196,47	151,75	153,00	183,44	77,27	163,74	64,65	96,30	87,95
26	70,35	231,08	179,40	168,15	142,36	154,05	134,51	78,63	164,64	66,03	96,77	95,33
27	57,45	231,44	191,30	145,27	109,32	201,62	133,39	91,36	143,25	67,08	102,83	129,44
28	67,33	234,15	154,02	141,66	107,52	161,77	118,73	125,73	153,15	128,72	176,86	141,69
29	35,70	226,16	157,86	137,89	109,22	162,07	133,06	132,91	154,04	122,63	133,39	127,93
30	29,33		140,24	121,12	74,01	184,79	106,05	126,42	143,38	124,73	142,73	122,33
31	54,06		155,21		50,75		97,98	140,63		131,64		110,98
<b>125,08</b>	<b>80,12</b>	<b>114,64</b>	<b>172,62</b>	<b>142,31</b>	<b>128,53</b>	<b>149,77</b>	<b>185,72</b>	<b>110,81</b>	<b>103,42</b>	<b>95,23</b>	<b>119,74</b>	<b>95,15</b>

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Collated results STDEV for the year 2000												
std. Dev.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	10,25	11,16	6,70	6,19	10,38	11,37	8,79	11,50	10,52	10,21	8,31	11,30
2	11,39	11,44	7,04	2,70	11,40	11,21	7,89	11,69	11,09	7,39	8,82	11,21
3	11,51	11,67	8,27	3,28	11,70	10,90	9,11	11,70	11,69	6,46	8,59	11,53
4	11,70	11,36	6,89	1,86	8,28	10,87	10,73	11,32	11,54	5,75	10,45	11,68
5	11,64	11,33	9,53	9,01	5,35	9,04	11,00	11,20	11,22	7,69	7,68	11,34
6	11,70	11,15	6,74	11,19	7,34	10,07	11,28	9,88	11,32	10,52	9,08	10,31
7	11,68	10,62	5,77	11,70	7,25	10,39	9,07	9,16	11,47	11,50	10,39	11,27
8	11,50	11,08	2,23	11,70	9,01	9,85	5,35	9,01	11,65	11,55	10,29	10,08
9	11,70	11,24	9,18	11,69	11,33	10,70	4,69	10,15	11,15	10,81	10,61	10,43
10	11,52	11,59	9,05	11,51	11,65	10,95	0,84	7,89	9,38	11,21	10,76	10,53
11	11,68	11,61	8,12	11,09	10,09	8,69	0,94	8,71	2,26	11,67	11,68	10,94
12	10,67	11,64	8,92	11,17	8,28	7,23	0,26	9,74	5,92	10,71	11,69	11,70
13	9,73	11,42	8,70	10,58	4,46	2,41	1,99	9,79	8,31	10,30	11,62	11,65
14	10,53	11,47	9,57	10,67	4,09	1,53	6,29	9,48	11,38	11,68	11,35	10,62
15	9,52	11,66	11,13	11,24	0,93	4,20	9,85	10,20	11,61	11,64	11,65	9,32
16	8,64	10,84	10,68	11,64	3,96	7,53	6,86	10,45	11,67	11,70	11,67	10,43
17	10,74	11,59	10,52	11,62	5,76	8,93	1,04	10,92	9,86	11,69	11,51	10,41
18	11,42	11,63	9,24	11,57	5,91	8,48	4,49	9,94	9,81	11,52	10,92	10,61
19	10,67	11,61	6,31	11,40	2,84	10,35	5,15	11,23	9,71	11,45	10,85	9,98
20	11,41	11,65	5,79	9,25	1,04	9,28	3,89	11,66	10,24	11,66	10,06	8,49
21	11,18	11,57	1,93	3,23	4,14	9,87	5,54	11,68	9,68	11,59	10,26	10,77
22	11,46	11,05	0,02	3,32	4,34	8,79	0,57	11,51	9,74	11,55	8,71	11,42
23	11,16	11,03	1,70	2,61	6,21	8,51	4,38	11,66	9,82	11,67	10,20	11,46
24	11,60	10,64	0,76	0,95	8,87	10,13	4,31	11,62	9,23	11,60	9,48	11,52
25	11,67	2,82	3,73	5,14	8,69	8,61	6,27	11,70	7,84	11,63	11,41	11,59
26	11,69	1,79	6,61	7,51	9,31	8,54	9,78	11,69	7,77	11,65	11,39	11,43
27	11,47	1,75	5,60	9,12	10,99	4,67	9,84	11,52	9,25	11,66	11,22	10,06
28	11,66	1,47	8,54	9,35	11,06	7,99	10,59	10,25	8,60	10,10	6,82	9,35
29	10,29	2,29	8,27	9,58	10,99	7,96	9,86	9,87	8,54	10,41	9,84	10,14
30	9,66		9,44	10,48	11,70	6,16	11,11	10,22	9,24	10,30	9,28	10,42
31	11,36		8,46		11,23		11,36	9,41		9,94		10,92
<b>9,21</b>	<b>11,06</b>	<b>9,73</b>	<b>6,95</b>	<b>8,41</b>	<b>7,70</b>	<b>8,51</b>	<b>6,55</b>	<b>10,54</b>	<b>9,72</b>	<b>10,62</b>	<b>10,22</b>	<b>10,74</b>

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Collated results CV 6 rot. averages for the year 2000												
CV-6 rot.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	114,06	110,61	115,59	133,34	132,54	138,60	148,28	166,39	157,59	150,04	141,80	138,15
2	113,86	110,41	116,30	133,97	132,30	138,43	148,65	166,37	156,82	149,79	141,50	137,98
3	113,65	110,30	117,07	134,65	131,93	138,23	148,89	166,29	155,81	149,61	141,33	137,64
4	113,43	110,34	117,93	135,41	131,13	138,09	149,01	166,25	154,91	149,43	141,18	137,21
5	113,02	110,20	118,60	135,52	130,38	138,17	149,38	166,22	154,31	149,04	141,26	136,77
6	112,66	110,12	119,54	135,20	129,85	138,21	149,60	166,30	153,87	148,62	141,28	136,07
7	112,12	110,08	120,57	134,80	129,35	138,37	150,05	165,89	153,32	148,20	141,35	135,47
8	111,42	109,99	121,82	134,36	128,90	138,47	150,75	165,44	152,92	147,70	141,45	134,49
9	110,78	109,79	122,53	134,00	128,62	138,63	151,57	164,88	152,28	147,11	141,51	133,75
10	110,15	109,40	123,27	133,58	128,61	138,69	152,53	164,50	151,59	146,59	141,75	133,02
11	109,76	109,24	124,13	133,20	129,01	139,28	153,78	164,10	150,60	146,28	141,93	132,21
12	109,54	109,27	124,87	132,82	129,43	140,05	155,02	163,87	149,53	146,24	141,77	131,78
13	109,41	109,49	125,51	132,70	130,18	141,14	156,01	163,65	148,34	146,40	141,54	131,32
14	109,08	109,85	126,14	132,89	130,92	142,14	156,78	163,55	147,42	146,44	141,46	131,17
15	108,98	110,08	126,54	133,06	131,85	142,98	157,24	163,28	146,63	146,75	141,29	131,32
16	109,08	110,61	126,82	133,00	132,80	143,52	157,78	163,18	146,25	147,22	140,92	131,39
17	109,15	111,00	126,96	132,95	133,63	144,00	158,54	162,81	146,42	147,65	140,70	131,52
18	109,20	111,13	127,05	132,95	134,31	144,48	159,55	162,49	146,76	147,96	140,63	131,36
19	109,41	111,19	127,49	132,77	135,20	144,80	160,56	161,81	147,11	148,19	140,52	131,02
20	109,62	111,44	128,08	132,71	136,17	145,30	161,44	161,46	147,44	148,27	140,59	130,77
21	110,05	111,67	128,83	133,01	136,75	145,63	162,44	161,01	147,69	148,14	140,68	130,09
22	110,45	111,97	129,69	133,16	137,35	146,17	163,26	160,43	147,86	147,74	140,68	129,21
23	110,54	112,12	130,56	133,32	137,85	146,59	163,92	159,95	148,02	147,22	140,43	128,39
24	110,66	112,11	131,27	133,71	138,26	146,65	164,58	159,44	148,16	146,42	139,97	127,63
25	110,74	112,65	131,65	133,98	138,69	146,75	165,14	159,09	148,42	145,62	139,22	127,09
26	110,89	113,20	131,84	134,05	139,08	146,94	165,36	158,93	148,77	144,65	138,61	126,88
27	110,99	113,83	132,23	133,74	139,44	147,28	165,59	158,78	149,11	143,85	138,24	126,62
28	111,21	114,36	132,44	133,45	139,62	147,33	165,80	158,82	149,50	143,52	138,40	126,10
29	111,21	115,04	132,63	133,11	139,54	147,59	165,91	158,76	149,87	143,16	138,28	125,26
30	111,09		132,80	132,82	139,24	148,09	166,02	158,44	150,14	142,64	138,39	124,35
31	110,96		133,03		138,80		166,22	158,18		142,07		123,43
<b>137,38</b>	<b>110,88</b>	<b>111,09</b>	<b>125,93</b>	<b>133,61</b>	<b>133,93</b>	<b>142,69</b>	<b>157,73</b>	<b>162,60</b>	<b>150,25</b>	<b>146,86</b>	<b>140,62</b>	<b>131,27</b>



CV-Helios Network Annual Final Report for 2000

Table with columns: Reg., Date, Lat., Long., Rot., Class. Sub-headers: NOAA Regions year 2000 (477 regions) and 477 regions. Rows contain station data for years 1958, 1959, 1960, 1965, 1966, and 1967.



### CV-Helios Network Annual Final Report for 2000

184	8998	13.05.00	-14	341	1963	CSO
185	8999	14.05.00	21	333	1963	BXO
186	9000	14.05.00	10	26	1962	BXO
187	9001	14.05.00	16	45	1962	AXX
188	9002	15.05.00	18	311	1963	HHX
189	9003	15.05.00	-18	53	1962	BXO
190	9004	16.05.00	10	313	1963	BXO
191	9005	17.05.00	-20	30	1962	AXX
192	9006	18.05.00	26	76	1962	BXO
193	9007	18.05.00	-42	336	1963	BXO
194	9008	18.05.00	-31	298	1963	AXX
195	9009	19.05.00	-15	266	1963	HSX
196	9010	19.05.00	16	260	1963	ESO
197	9011	20.05.00	19	252	1963	HSX
198	9012	20.05.00	-29	345	1963	BXO
199	9013	21.05.00	-06	09	1963	BXO
200	9014	21.05.00	-43	287	1963	AXX
201	9015	25.05.00	13	263	1963	BXO
202	9016	25.05.00	26	209	1963	HRX
203	9017	25.05.00	-14	179	1963	HSX
204	9018	27.05.00	-20	240	1963	BXO
205	9019	27.05.00	-34	267	1963	BXO
206	9020	28.05.00	03	210	1963	BXO
207	9021	29.05.00	03	186	1963	BXO
208	9022	29.05.00	-22	137	1963	BXO
209	9023	30.05.00	-03	201	1963	CRO
210	9024	30.05.00	-14	134	1963	AXX
211	9025	01.06.00	15	227	1963	AXX
212	9026	02.06.00	19	75	1963	DKO
213	9027	02.06.00	20	146	1963	BXO
214	9028	02.06.00	08	123	1963	BXO
215	9029	04.06.00	18	193	1963	BXO
216	9030	04.06.00	11	66	1963	BXO
217	9031	05.06.00	-31	150	1963	DSO
218	9032	06.06.00	-18	56	1963	BXO
219	9033	06.06.00	24	20	1963	HAX
220	9034	07.06.00	-10	16	1963	HSX
221	9035	09.06.00	-17	43	1963	BXO
222	9036	09.06.00	-23	345	1964	HSX
223	9037	11.06.00	18	339	1964	HSX
224	9038	12.06.00	15	46	1963	CAO
225	9039	12.06.00	07	27	1963	DSO
226	9040	12.06.00	19	304	1964	HSX
227	9041	12.06.00	17	28	1963	BXO
228	9042	13.06.00	21	288	1964	HSX
229	9043	14.06.00	26	347	1964	CRO
230	9044	14.06.00	-24	18	1963	BXO
231	9045	15.06.00	-15	318	1964	BXO
232	9046	15.06.00	15	255	1964	HSX
233	9047	16.06.00	-32	294	1964	BXO
234	9048	17.06.00	07	324	1964	AXX
235	9049	17.06.00	-40	246	1964	BXO
236	9050	18.06.00	-13	292	1964	CRO
237	9051	18.06.00	16	237	1964	HRX
238	9052	19.06.00	-29	295	1964	BXO
239	9053	20.06.00	04	224	1964	BXO
240	9054	21.06.00	09	194	1964	CSO
241	9055	22.06.00	19	174	1964	HSX
242	9056	22.06.00	-15	176	1964	HSX
243	9057	23.06.00	14	159	1964	HSX
244	9058	24.06.00	-14	233	1964	CRO
245	9059	24.06.00	14	188	1964	BXO
246	9060	25.06.00	-34	146	1964	AXX
247	9061	25.06.00	-15	133	1964	HSX
248	9062	26.06.00	-19	119	1964	DSO
249	9063	27.06.00	24	137	1964	CRO
250	9064	28.06.00	-20	232	1964	DRO
251	9065	30.06.00	20	64	1964	HSX
252	9066	30.06.00	10	64	1964	CAO
253	9067	30.06.00	-22	66	1964	HAX
254	9068	02.07.00	-19	49	1964	DSO
255	9069	02.07.00	-13	42	1964	HSX
256	9070	03.07.00	19	27	1964	HAX
257	9071	06.07.00	22	83	1964	BXO
258	9072	06.07.00	15	44	1964	AXX
259	9073	06.07.00	-21	16	1964	BXO
260	9074	06.07.00	10	356	1965	AXX
261	9075	07.07.00	06	341	1965	BXO
262	9076	07.07.00	-24	336	1965	HSX
263	9077	08.07.00	18	320	1965	DSO
264	9078	08.07.00	-13	318	1965	CAO
265	9079	10.07.00	-29	301	1965	HSX
266	9080	10.07.00	26	286	1965	HSX
267	9081	12.07.00	02	271	1965	DSO
268	9082	12.07.00	-12	301	1965	AXX
269	9083	12.07.00	-18	01	1965	BXO
270	9084	13.07.00	20	291	1965	CRO

454	9268	14.12.00	-16	19	1970	HSX
455	9269	14.12.00	14	33	1970	CSO
456	9270	14.12.00	-10	84	1970	BXO
457	9271	15.12.00	-20	109	1970	BXO
458	9272	15.12.00	12	62	1970	CAO
459	9273	16.12.00	20	00	1971	DAO
460	9275	17.12.00	20	86	1970	CAO
461	9276	18.12.00	-14	113	1970	DAO
462	9277	18.12.00	16	104	1970	HSX
463	9278	18.12.00	09	334	1971	HRX
464	9279	19.12.00	-11	326	1971	HAX
465	9280	20.12.00	10	303	1971	DAO
466	9281	21.12.00	07	323	1971	CRO
467	9282	22.12.00	19	280	1971	HAX
468	9283	23.12.00	-15	256	1971	HAX
469	9284	24.12.00	05	329	1971	CSO
470	9285	25.12.00	06	250	1971	CRO
471	9286	25.12.00	30	356	1971	CRO
472	9287	26.12.00	-16	236	1971	DRO
473	9288	27.12.00	-21	257	1971	DRO
474	9289	27.12.00	-07	202	1971	DSO
475	9290	28.12.00	30	238	1971	CSO
476	9291	30.12.00	-13	209	1971	CSO
477	9292	31.12.00	25	167	1971	HSX
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### CV-Helios Network Annual Final Report for 2000

#### ZÜRICH/McINTOSH-CLASSIFICATIONS DISTRIBUTION for the year 2000

A	B	C	D	E	F	H
AXX	BXO	CRO	DRO	ERO	FRO	HRX
13,2 %	26,4 %	8,2 %	1,3 %			5,2 %
	BXI	CRI	DRI	ERI	FRI	HAX
						2,9 %
	CAO	DAO	EAO	FAO	HSX	
	4,2 %	4,0 %	0,4 %			16,6 %
	CAI	DAI	EAI	FAI	HKX	
		0,2 %				0,4 %
	CSO	DSO	ESO	FSO	HHX	
	8,6 %	6,5 %	0,8 %			0,2 %
	CSI	DSI	ESI	FSI		
	CKO	DAC	EAC	FAC		
	CKI	DSC	ESC	FSC		
	CHO	DKO	EKO	FKO		
		0,2 %	0,2 %			
	CHI	DKI	EKI	FKI		
			0,2 %			
		DHO	EHO	FHO		
		0,2 %				
		DHI	EHI	FHI		
		DKC	EKC	FKC		
		DHC	EHC	FHC		

#### SUNSPOT CLASS

1st letter

<b>477</b>		
A	<b>63</b>	13,2 %
B	<b>126</b>	26,4 %
C	<b>100</b>	21,0 %
D	<b>59</b>	12,4 %
E	<b>8</b>	1,7 %
F	<b>0</b>	0,0 %
H	<b>121</b>	25,4 %

#### MAIN SUNSPOT TYPE

2nd letter

<b>477</b>		
X	<b>189</b>	39,6 %
R	<b>70</b>	14,7 %
A	<b>56</b>	11,7 %
S	<b>155</b>	32,5 %
K	<b>5</b>	1,0 %
H	<b>2</b>	0,4 %

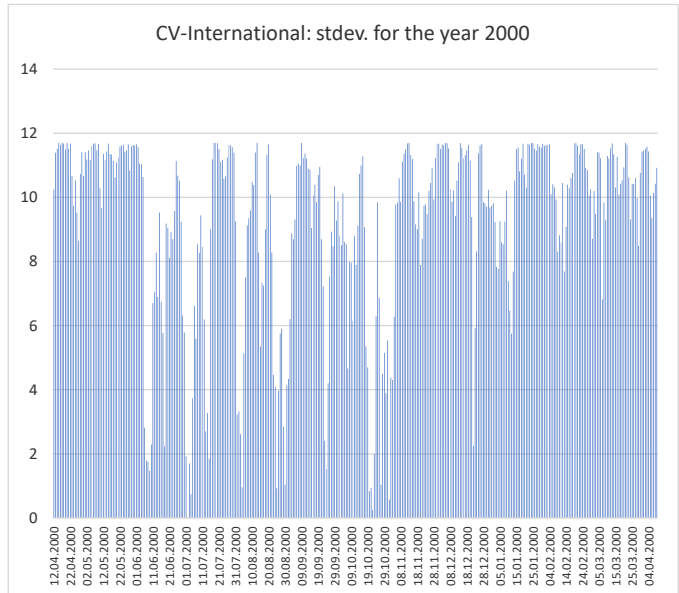
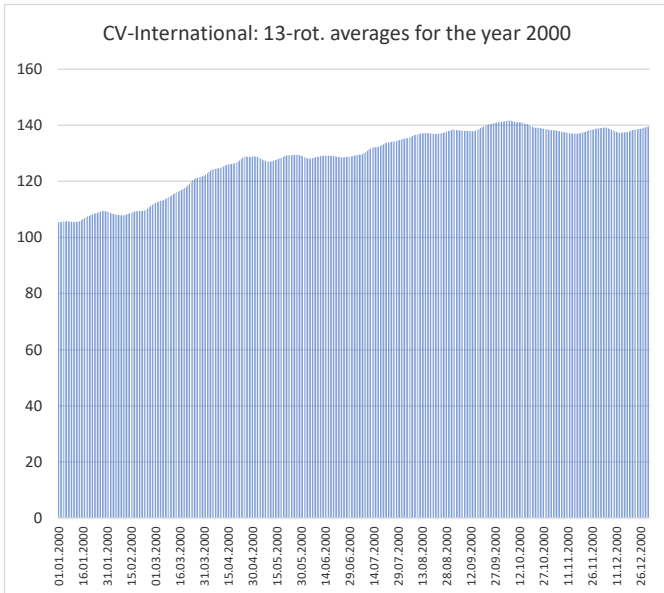
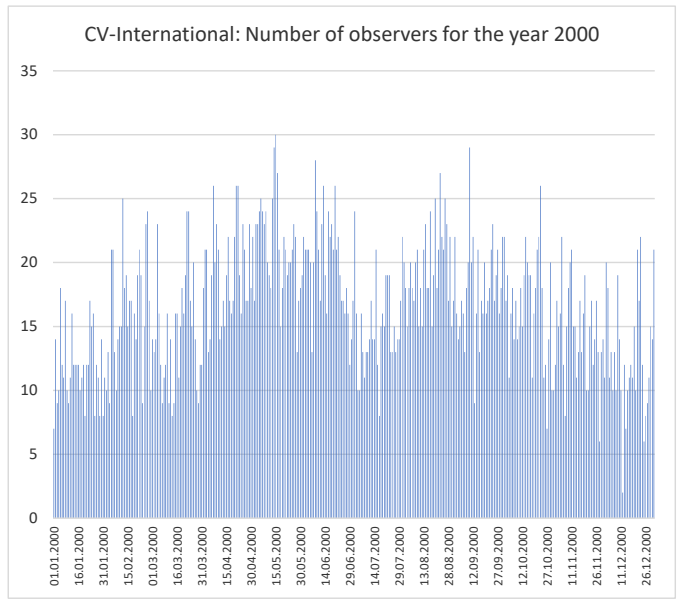
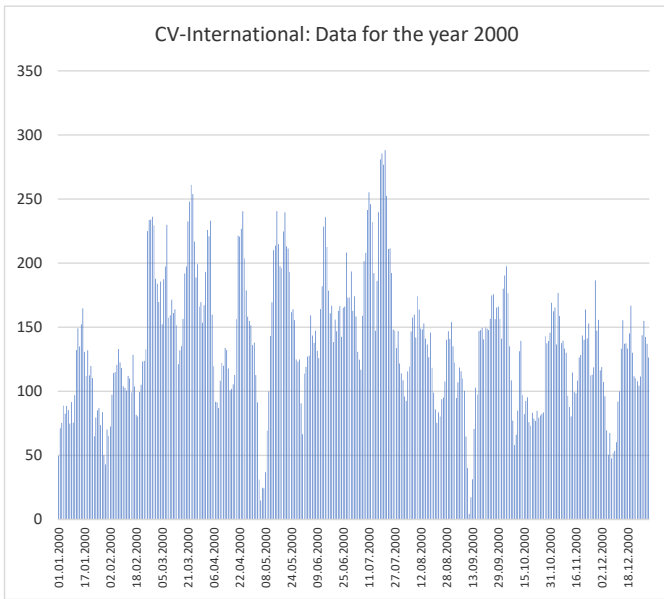
#### SUNSPOT DISTRIBUTION

3rd letter

<b>477</b>		
X	<b>184</b>	38,6 %
O	<b>291</b>	61,0 %
I	<b>2</b>	0,4 %
C	<b>0</b>	0,0 %

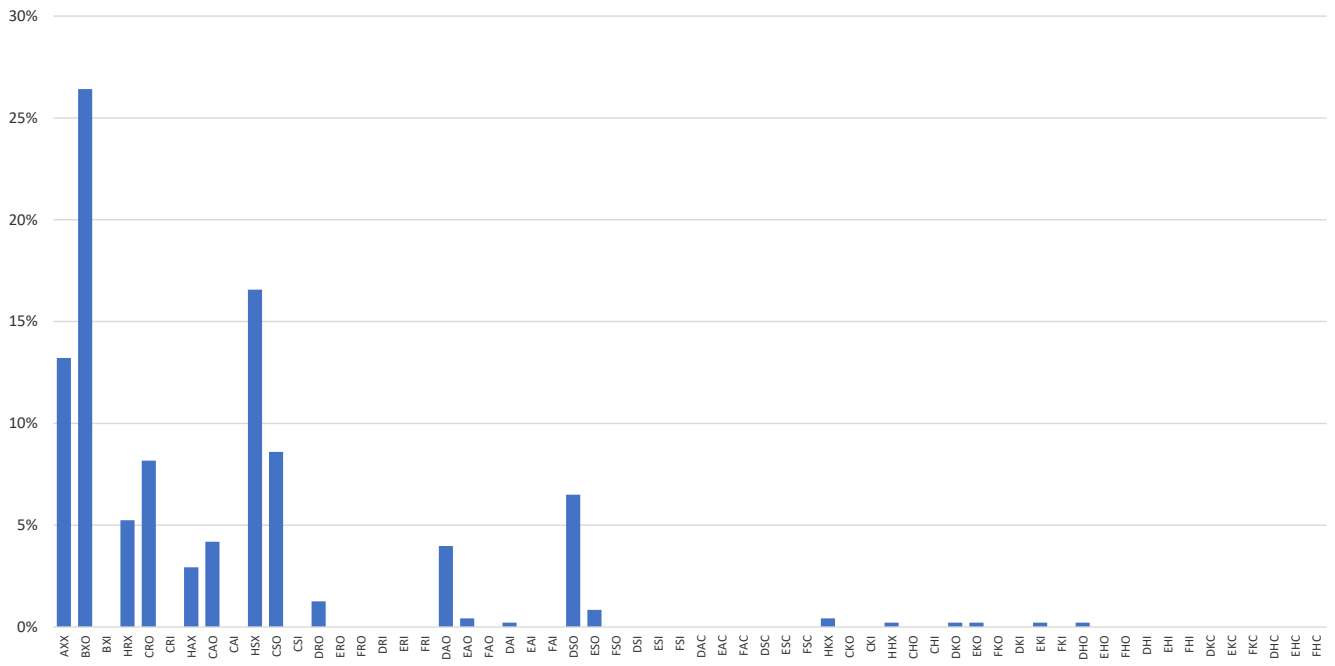
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## Graphics for the year 2000

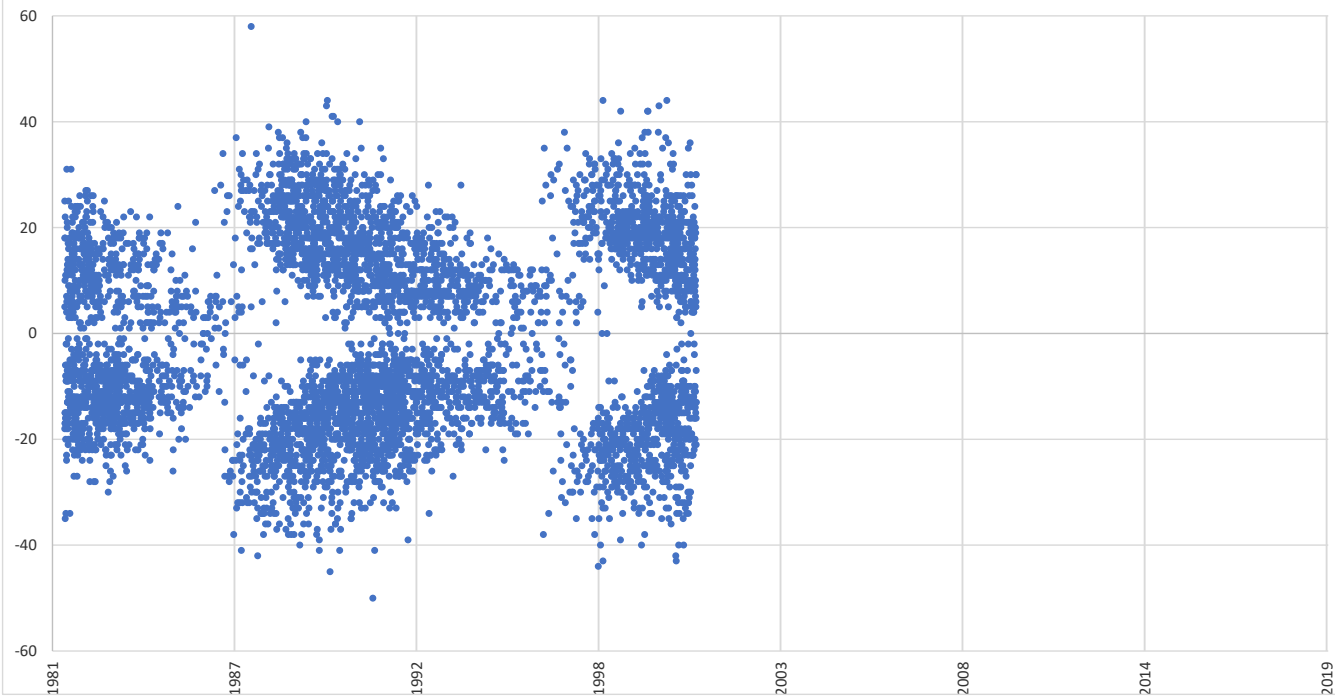


### CV-Helios Network Annual Final Report for 2000

Zürich/McIntosh-classifications denoted by NOAA/USAF for the year 2000



RGO/NOAA-USAF Sunspot Regions 1981-2000



## CV-Helios Network Annual Final Report for 2000

**CV-Helios Network - over 19 years in solar amateur astronomy service!**

There are now 2910 entries registered  
containing 43318 CV-observations!

**This AFR issued 1st April 2001**

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Worldwide Amateur Solar Observing Network  
Magnetic Sunspot Classifications Zürich/McIntosh system  
CV - Classification Values (Malde/1981) - numeric system  
Serving Amateur Solar Astronomy since 1981

Last updated/Editorial close: 08.04.2018 16:49 UTC