

SMOOTHED MEAN AMERICAN RELATIVE SUNSPOT NUMBERS: 1945.5-1987.0

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Abstract

Smoothed monthly mean American Sunspot Numbers are provided. The values encompass the period that began with the AAVSO program's inception in 1945 and extend through 1986.

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The smoothed monthly mean values of American Relative Sunspot Numbers that are listed in Table I were computed from final monthly means of American Relative Sunspot Numbers (Taylor 1987) according to equation (1) from Waldmeier (1961) and Taylor (1985):

$$R_{sm} = 1/24 (N_{i-6} + N_{i+6} + 2 (\sum_{-5}^{+5} N_i)), \quad (1)$$

where N is set equal to the final mean of the month under analysis, and other means are taken accordingly. Thus R_{sm} lags approximately six months behind the more recent final mean.

REFERENCES

- Taylor, P. O. 1985, *Journ. Amer. Assoc. Var. Star Obs.* 14, 28.
1987, *Journ. Amer. Assoc. Var. Star Obs.* 16, this issue.
Waldmeier, M. 1961, *The Sunspot Activity in the Years 1610-1960*, Zurich.

TABLE I
Smoothed Monthly Means

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1945	--	--	--	--	--	--	33.8	38.7	44.9	49.7	54.2	58.3
1946	63.3	70.2	77.3	82.4	87.9	95.8	102.9	108.2	113.2	119.2	128.4	137.9
1947	143.6	150.1	157.7	164.3	168.4	170.1	171.0	169.5	165.9	166.4	167.7	168.0
1948	170.3	170.6	169.3	167.4	165.3	165.4	167.6	173.6	182.6	185.2	181.9	177.9
1949	174.5	171.5	170.2	170.8	173.6	175.1	172.9	167.2	159.9	155.1	152.2	149.2
1950	144.8	140.4	133.1	124.2	115.4	107.1	100.7	95.1	88.9	83.2	79.5	77.4
1951	74.9	70.8	69.5	69.2	67.4	65.6	63.8	61.8	59.4	55.7	50.2	45.3
1952	42.4	41.6	39.0	35.3	32.7	30.9	30.0	28.8	27.4	26.7	26.1	24.9
1953	22.9	20.2	18.6	17.5	16.0	13.8	11.4	10.1	9.9	8.9	7.5	6.2
1954	5.2	4.4	3.2	2.4	2.6	3.1	4.3	6.2	7.0	7.3	8.7	10.6
1955	12.5	14.6	17.4	21.3	26.5	32.1	36.4	41.7	49.5	57.5	65.3	72.6
1956	79.9	88.8	98.7	107.2	114.4	122.1	128.5	131.1	132.3	135.9	139.8	144.4
1957	149.3	150.4	151.7	157.4	161.9	165.5	171.2	175.6	179.3	182.3	183.9	183.5
1958	183.0	186.0	187.8	184.8	179.4	174.4	172.1	171.2	169.0	166.6	164.0	162.6
1959	161.1	159.0	155.9	151.1	148.7	146.8	142.8	139.9	136.5	132.2	129.0	125.4
1960	121.9	118.0	114.6	112.0	108.5	104.4	98.0	91.0	86.3	82.1	77.3	73.2
1961	69.8	64.6	58.7	54.2	50.2	46.4	44.0	43.5	43.2	41.9	40.8	39.2
1962	36.0	33.0	31.5	31.3	31.4	30.5	29.2	27.6	25.8	24.3	23.8	23.8
1963	23.6	24.1	24.2	23.5	23.1	22.6	22.0	21.7	21.5	20.6	18.5	16.3
1964	14.8	13.4	11.4	9.2	7.6	7.2	7.6	7.7	7.6	7.6	8.1	8.8
1965	9.2	9.3	9.7	10.8	11.6	12.0	12.3	12.9	13.7	15.3	17.0	18.6
1966	21.3	24.7	27.5	30.1	33.0	36.6	42.0	48.0	54.2	58.9	62.4	65.8
1967	68.3	71.9	75.2	77.7	80.5	84.0	86.8	87.8	87.4	86.6	88.3	91.5
1968	93.5	93.9	95.9	98.4	98.9	98.1	97.1	97.2	100.1	103.8	105.1	105.1
1969	105.4	105.3	104.2	103.1	103.6	104.4	105.0	106.2	105.5	104.1	104.3	104.3
1970	105.0	106.0	106.8	107.6	108.2	108.1	106.4	103.2	99.4	96.6	92.5	87.3
1971	83.6	80.7	76.8	72.6	68.9	66.8	65.2	64.4	65.6	65.9	66.3	68.7
1972	69.9	70.1	71.3	72.4	71.8	69.0	66.4	63.6	60.1	58.4	56.6	53.3
1973	49.2	44.9	42.7	41.2	39.1	37.6	36.2	35.1	33.4	31.5	30.6	30.2
1974	31.2	32.7	32.1	32.0	32.6	32.4	31.9	30.9	29.9	28.2	25.6	23.5
1975	21.6	21.0	20.1	17.3	15.5	14.9	14.1	13.4	13.5	14.5	15.2	15.4
1976	14.3	12.1	11.1	11.6	11.4	11.2	11.9	13.0	13.2	12.4	12.4	13.6
1977	15.2	16.5	18.3	20.6	22.7	24.9	27.4	31.6	37.2	43.6	49.8	54.7
1978	58.6	61.1	65.6	72.1	77.7	83.6	91.7	98.4	102.8	105.2	106.9	110.6
1979	116.1	122.7	128.3	133.2	139.3	144.3	145.1	144.1	142.9	144.3	148.7	151.9
1980	153.0	153.6	152.7	150.7	149.2	148.7	147.8	147.0	149.1	151.6	150.9	147.0
1981	144.9	146.8	149.2	150.0	149.0	147.4	146.3	146.8	147.8	146.1	141.6	139.8
1982	138.3	133.7	128.8	123.7	119.0	116.1	114.0	108.4	99.9	94.0	92.6	92.4
1983	90.7	88.1	83.4	78.9	74.7	68.4	63.5	63.4	65.5	66.2	64.8	61.7
1984	57.8	54.0	50.7	47.6	45.3	44.2	41.9	37.6	31.9	26.9	22.8	19.8
1985	18.6	17.8	16.8	16.7	16.9	16.4	15.6	15.4	15.8	15.7	15.0	13.6
1986	12.2	11.5	11.4	11.5	11.6	11.3	11.4	10.8	10.0	11.1	12.9	14.4