

## Gujarat Indian Weather Time Scales

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**History:** I have conducted many researches on the Indian weather and proposed hundreds and thousands of Indian weather Time Scale pertaining to the all Homogeneous Regions, Meteorological Subdivisions, states and districts of Indian which can help tp forecast the weather changes in advance in 1980, Sri G. Surya Rao MLA had sent these Indian weather time scales to the chief minister of Andhra Pradesh for consideration and necessary action in 2004, some consultations were made with the planning department to implement the Indian weather time scale at the directorate of Economics & Statistics department in 2006, some correspondences were made with the environment, forest, science & Technology department for implementation of the Indian weather time scale the same scales were sent to the chief minister of Andhra Pradesh in 2003. And the same was again submitted to the chief minister of Andhra Pradesh in 2006. Many consultations were made with the commissioner for disaster Management in the years of 2008,2009 about the implementation of Indian weather time scale. In 2010, these scales were consulted with the A.P state council of science & Technology in 2008, Sri T. Subbirami Reddy, Honable Union Minister of state had recommended the Indian weather time scale to the Indian Meteorological department for implementation in the services to the country. Later consultations were made with the India meteorological department about the Indian weather time scale during the years of 2008-2008.

**Abstract:** I have conducted many extensive researches on the astronomical forces and its effects on the earth climate particularly on various regions of the India. The variations in the solar cycle affects and stimulate the earth climate. The moon affects and stimulate the ocean tides and atmosphere too. The movement of axis of the earth inclined at 23 ½ degrees from vertical to its path around the sun affects and stimulate the earth weather and leads to formation of monsoons and seasons etc. So the astronomical forces affect and stimulate the earth climate it may be more or less but it is true. These scales may be taken as a part of scientific study of astronomical forces & its effects on the earth climate.

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**Keywords:** Indian weather, astronomical forces.

### Introduction:

In the time and scale of the universe some things from astronomy to atom including living beings have been repeating once in every certain time or period. For example, the south and north magnetic poles have been shifting in every certain period. The sun spots have been repeating once in every eleven years. The lunar and solar eclipses have also been occurring once in every 18.6 years. The seasons such as winter, autumn etc. also have been repeating once in every year in the same month of the year. The periodical menses in the females repeating once in every month.

**Construction:** On the basis of the said universal facts, I have prepared a time scale with 21 blocks, each block containing certain prescribed cycle of years in which similar calendar years repeating one after another that leads similar weather conditions of those previous years to future years likely repeating every year approximately. The rainfall of the years, have been entering in the scale in percentages or as it is pertaining to month, season, annual wise of the each and every year. If we managing the scale in this manner continuously, we may assuming the weather

conditions of the anterior years on the basis of the posteriors years weather. On the basis of the principle, we can assume that a considerable, of course it may be little chance of predication for an ensuing years by study the data of earlier years.

**Studies Carried Out:** Many experiments were carried out on the Indian weather Time Scale and it was successfully proved out.

Firstly, see the Indian weather time scale. In this scale, the June, July, August and September months of the summer monsoon season were taken in a table in which the each month is also divided into three parts the Telangana, Rayalaseema and Coastal Andhra regions. The monthly wise rainfall data of the months of the regions from 1870 to till available years are taken in the form of percentages or as it is and entering in the scale pertaining to the region wise of the each and every year. If we managing the scale in this manner continuously, we may assuming the weather conditions of the anterior years on the basis of the posterior years weather.

Example for assuming the dry season or suppose to predict the rainfall situation in the summer season

of the ensuing year 2019: study the 7<sup>th</sup> cycle in which wet conditions in 10 years and dry conditions in 14 years were occurred in the month of June: wet conditions in 2 years and dry conditions in 22 years were occurred in the month of July: wet conditions in 4 years and dry conditions in 20 years were occurred in the month of August and wet conditions in 8 years and dry conditions in 16 years were occurred in the month of September. On the whole, wet conditions in 24 times and dry conditions in 72 times repeated in the summer monsoon season of the 7<sup>th</sup> cycle (As a result, there were dry conditions occurred in the 2002 year also). Therefore it is a considerable chance to predict that a dry season will be repeated in the ensuing year of 2019.

Example for assuming the wet season or suppose to predict the rainfall situation in the summer season of the ensuing year 2022: study the 10<sup>th</sup> cycle in which wet conditions in 13 years and dry conditions in 8 years were occurred in the month of June: wet conditions in 13 years and dry conditions in 8 years

were occurred in the month of July: wet conditions in 9 years and dry conditions in 12 years were occurred in the month of August and wet conditions in 19 years and dry conditions in 2 years were occurred in the month of September. On the whole, wet conditions in 54 times and dry conditions 30 times were repeated in the summer monsoon season of the 10<sup>th</sup> cycle. As a result, there were wet conditions occurred in the 2005 years also. Therefore, it is a considerable chance to predict that a wet season will be occurred in the ensuing year of 2022.

In the same manner, we can study the remaining All Indian weather time scales of all Homogeneous regions and subdivisions, states and districts of India.

#### **Conclusions:**

We can make many more modifications thus bringing many more developments in the Indian weather time scale and its all additional Indian weather time scale.

1		June				July				August				SEPTEMBER				OVERALL SEASON				REMARKS	
		T		R	C	T		R	C	T		R	C	T		R	C	T		R	C		
		T	R	C	T	R	C	T	R	C	T	R	C	T	R	C	T	R	C	T	R	C	
1992	77.18	-9.5	-54.0	-39.2	+5	-15.8	+4.70	-11.2	-10.8	-35.2	-19.1	-26	-1	-12	-6								
1964	-31.6	+21.3	-15.0	-36.6	+108	-13.4	299.5	-17.8	-11.8	+1503	+139	+95.4	+17	+16	+44								
1936	+31.7	-9.16	-13.0	-14.1	-35.3	-7.00	-12.5	-65.7	-32.3	+7.82	+21.2	-39.2	-3	-29	-5								
1908	-32.3	-62.9	+69.9	+5.8	-29.4	-50.9	-9.13	-57.2	-25.2	+10.8	+84.9	+48.4	+38	-9	-2								
1880	+21.5	+15.2	-99	-24.0	-50.2	-46	-60.7	+2.63	-99.4	+56.2	+19.7	-51	-11	-18	-30								
2	2017																						
1995	-1.01	-11.5	-36.2	-13.6	+6.5	-20.9	-46.7	-20	-23.0	-71.7	-17.3	-49.3	-33.5	-27.1	-16.3								
1978	-78.2	-7.7	+26.2	-1.17	+57.5	+6.9	+47.0	-13.1	+31.7	+169.0	+100	+8.0	+50	+37	+55								
1961	+34.0	+27.8	+70.9	-37.9	+32.9	-24.3	-8.35	-4.9	+13.3	+20.0	-49.6	-6.1	+12	+1	+30								
1939	-38.0	-20.5	-38.2	-44.6	-34.6	-42.3	-27.5	+13.9	2998	-3.95	+81.7	-13.5	-28	-12	-23								
1922	-12.3	-50.4	-90.2	-27.6	-516	-31	-36.8	-30.3	-42.0	+22.6	-1.2	-48.3	-18	-29	-15								
1905	-17.6	+8.61	-29.3	-64.4	-62.2	-72.7	+16.8	+103	-10.5	734.8	-58.1	-6.5	-5	-4	-18								
1883	+60	+23.3	-25.1	-8.24	-23.5	-55.1	+32.2	+36.4	-10.6	+85.1	-32.1	-56.6	+31	-4	-21								
3	2024																						
1996	+13.5	+29.4	+13.7	-32.4	-21.4	-17.3	+21.1	+96.6	-9.8	-4.49	+51.2	+19.3	-3.6	+83.1	+46								
1968	-330	-28.3	-38.7	-28.0	-39.4	-38.4	-82.5	-34.2	-99.4	+1.007	+55.6	-26.6	-20	-18	-39								
1940	-19.8	+24.3	-2.0	+9.24	-159	-34.0	-89.9	-33.9	-18.4	-26.2	+35.0	-21.5	-5	-5	-3								
1912	-61.1	-53.3	-74.3	+12.5	-20	-5.6	-11.8	+20.0	+15.3	-12.1	+41.4	20.3	-15	+1	+10								
1884	-38.8	-53.7	-69.4	+40.7	-43.1	-33.7	-23.1	-25.0	-15.3	+65.6	-30.9	+8.1	+12	-48	-1								
4	1999	-24.2	-25.8	-13.9	-23.5	-30.1	-48.8	-2.28	+7.8	-40.9	+25.8	-24.0	-18.4	-9.1	-20	-15.9							
1982	+5.15	+59.3	-34.4	+27.5	+0.5	-24.1	-28.5	-66.3	-40.9	+12.4	+17.0	-27.0	+1	-5	+13								
1965	-51.1	+40.2	-36.6	-44.5	-23.3	-24.2	-27.0	+2.08	-9.7	+80.8	-7.04	72.0	+10	+3	+3								
1943	+13.5	-54.8	-20.8	-31.4	-30.9	-35.8	-50.5	-9.5	+27.8	+99.1	+1.76	-14.9	-5	-20	-20								
1926	-69.7	+32.3	-298.6	-10.8	-33.5	+1.8	-19.4	-31.4	-36.5	-18.6	-36.7	-5.3	-25	-2	-1								
1909	-6.87	-45.4	-32.6	+0.71	-45.4	-22.4	-35.9	+2.06	-4.5	+1.24	+26	+4.3	-12	+44	+7								
1887	+20.1	+165	+2.4	-23.5	+5.41	-32.6	283.3	+133.1	+506	+148.0	+16	+31.9	+49	+62	+40								
1870		+11.5	-64.1	-89.5	-42.4		+50.6	-22.8		-58.1	+25.5	-29	+25	-7									
5	2000	+56.9	+75.4	+47.8	-22.9	-7.8	-34.8	+66.5	+145	+764.9	-57.0	-25.1	-57.9	+11	+39	+23							
1972	20.93	+39.5	-77.6	-42.6	-67.6	-49.6	-58.4	-85.1	+29.9	-37.2	+39.9	+446.6	-1	-24	-34								
1944	-17.7	+99.9	-0.2	-1.96	+5.6	-17.4	-31.0	+33.6	-35.4	+74.8	-1.92	-10.9	-39	+15	-2								
1916	+42.2	-36.5	-2.4	+9.79	+12	+36	-24.3	+17.9	-11.5	+92.0	+54.0	-38.4	+19	+45	+18								
1888	-18.3	-55.3	-56.2	-4.76	-53.2	-32.5	-43.6	-42.2	-57.4	-49.3	+72	-57.6	-28	-14	-39								
6	2018																						
2001	214.4	-61.8	-13.4	-6.5	-44.4	-52.0	-53.8	-22.4	-94.3	-28.4	+10.9	+15.1	-25.1	+2.1	-1.2								
1979	-18.7	-26.9	-23.0	-530	-40.4	-60.9	-50.4	-578	-64.2	+99.3	+37.8	+12.1	-8	-20	-21								
1962	-48.5	+54.0	-36.1	-24.9	-47.1	+2.5	-27.6	+6.1	-10.5	+103	+4.4	+58.9	+14	-11	+30								
1945	+17.1	-58.3	-67.7	+14.2	+112	-6.7	-2.23	+17.7	-26.6	+18.9	-15.6	+6.3	+8	+15	-1								
1923	-80.1	-11.2	-75.5	+3.97	-53.4	-57.5	-54.2	-80.7	-99.4	+73.8	+33.5	-99.3	-17	-29	-13								
1906	+95.6	+57.6	+180.6	-10.7	+18.0	-34.9	-3.33	+13.8	+10.9	+34.8	+47.4	-45.6	+10	+29	+18								
1889	-16.6	-25.8	+50.1	+2.55	+43.6	-27.4	+24.0	+28.8	-33.2	+76.8	+17.8	+45.2	+18	-34	+23								
7	2019																						
2002	-23.0	+16.5	+478	-70.2	-50.1	-69.6	+5.43	-44.2	+64.9	-58.4	-23.4	57.9	-37.1	-31.5	-35.1								
1985	+19.3	-21.8	-4.6	-15.4	-85.6	-6.8	-44.5	-18.3	-24.8	-39.2	-62.0	-44.1	-23	-20	-4								
1963	-24.0	-7.7	-36.3	-43.0	+4.5	-22.2	-25.0	+60.6	-7.2	+27.1	-35.4	-4.3	+11	+2	-3								
1946	+270	-31.6	-22.0	+5.69	-39.7	-9.8	-18.3	-16.6	-30.5	-47.4	+6.4	-16.1	-8	-20	-15								
1929	-31.6	-20.2	+46.2	-56.6	-44.5	-65.4	-39.9	-69.5	-22.5	+79.3	+58.1	-4.1	-18	-12	-3								
1907	?22	-19.7	+48.8	-42.6	-19.7	-35.1	?	-74.8	-53.6	-18.4	-1.2	-64.4	-8	-28	-19								
1890	+1.86	+84.1	+2.3	-7.57	-11.6	-39.7	-25.0	+9.21	-50.7	+78.5	+38.5	-30.7	+10	+22	-15								
1873	-13.5	-47.7	-48.2	-64.5	-53.2	-39.4	-31.5	-24.7	-16.7	+39.8	+25.6	-39.9	-27	-19	-20								

	JUNE	JUNE			JULY			AUGUST			SEPTEMBER			Dresden	C	REMARKS	
		T	R	C	T	R	C	T	R	C	T	R	C				
8	2025	+11.3	-14.8	-21.6	-7.57	+22.3	-0.9	77.85	-6.2	-28.8	-1.86	-20.1	-13.2	-8.2	8	+3.2	
	2003	+11.3	-14.8	-21.6	-21.4	-28.4	+52.9	+47.3	-54.8	+31.1	-34.3	+20.3	-43.6	-1	-5	-3	
	1986	79.92	+5.6	-19.6	-21.4	-28.4	+52.9	+47.3	-54.8	+31.1	-34.3	+20.3	-43.6	-1	-5	-3	
	1969	+6.09	+11.3	-37.4	27.99	+11.0	-5.0	-26.4	+53.5	-57.1	-76.9	-73.9	-20.6	+9	+44	-22	
	1947	-56.9	-16	-46.5	-29.3	+25.6	-3.5	-25.0	+85.6	-7.2	764.9	20.8	+28.8	+35	-3	+19	
	1930	240.5	+42.7	+39.8	-46.6	-61.0	-44.4	-41.8	-62.7	-46.7	+410	+35.1	-17.6	-17	-39	-8	
	1913	-32.1	-66.5	-13.3	+25.3	-18.9	-9.7	-48.6	-69.7	-63.8	-3.9	-3.52	-33	-18	+74	-17	
	1874	-45.9	+39.5	+7.3	-4.1	+50.6	-13.4	-43.8	-58.1	-59.8	+15	+252.0	+32.3	-2	-12	+14	
9	2004																-
	1976	-30.7	-2.6	-63.3	+77.3	-23.9	+24.8	+2.73	+83.1	+17.4	20	-54.4	-52.3	+18	2	+7	
	1948	-69.0	-48.1	-61.5	-45.8	-35.6	-26.6	-58.7	-15.6	-48.9	+66.3	-19.3	-8.1	-10	-30	-19	
	1920	-39.6	-39.5	-42.8	-40.6	-71.8	-99.4	+55.5	-36.6	-47.4	-22.7	+24.3	-35.6	66	-30	-38	
	1892	+20.1	+16.5	+2.4	-23.5	+5.41	-32.6	283.3	+133.1	+50.6	+148.0	+16	+31.9	+49	+62	+40	
10	2005																
	1983	+7.42	+17.6	+19.8	+2.92	-88.9	+7.0	+85.1	+77.8	+22.4	+127	+160	+39.6	+51	+65	+50	
	1960	-29.2	+5.97	-12.1	-39.3	+23.1	-17.2	-67.6	-88.5	-59.9	2105.2	+167	+60.4	-9	+29	+12	
	1949	-26.3	+51.6	-8.4	-24.4	+13.7	-3.1	-11.9	+29.5	+8.9	+106.1	+109.0	+61.1	+5	+50	+47	
	1927	+55.6	+25.9	+34.2	+4.10	+26.3	-23.5	-35.7	+46.0	-9.3	+7.67	+94.1	+16.4	+1	+24	+23	
	1910	+81.6	-22.2	+20	-36.6	+76.6	+2.1	-34.1	+62.9	-17.8	+76.6	+55.2	+4.8	+10	+45	+22	
	1893	+42.3	+53.4	-13.4	+10.5	+98.2	-55.1	+67.6	-35	-10.6	+15.0	-8.96	-55.6	+45	+16	+19	
	1871	-41.2	-59.5	+399.6	-44.5	+31.0	+65.6	-77.8	+6200	-99.9	+65.4	+26.6	+714	-36	-7	-18	
11	2006																
	1989	+71.8	-47.9	-20.3	+72.1	+26.5	+80.2	+2.64	-79.6	-10.5	753.3	+59.8	-99.3	+43	+49	+42	
	1967	+17.4	-25.4	-1.7	+51.5	+6.11	-0.4	-25.2	-72.2	-55	+28.3	+8	-16.7	+19	-10	+2	
	1950	-51.7	-12.2	-40.7	-33.7	-20.8	-9.4	-67.6	-7.19	-59.9	+31.5	+11.3	+2.8	+1	-5	-9	
	1933	+87.3	-76.1	-52.5	+116	-18.9	-6.9	-22.9	+80.3	-29.6	294.7	-48.4	-32.1	+11	-11	-5	
	1911	+0.78	+3.47	-22.9	-36.6	-26.4	-22.2	-28.4	-59.8	-62.5	+1.00	-22	-13.5	-20	-32	-18	
	1894	+7.8	-45.4	-8.2	+25.4	+15.3	-51.4	+14.6	-78.6	-31.4	+3.0	-17.3	-0.06	+19	+11	-7	
	1877	-43.2	+5.41	-70	-75.6	-65.4	-53.4	-58.5	-48.5	-56.3	+15.9	+7.20	+21.4	-39	-19	+21	
12	2007																
	1990	+48.6	-29.3	-9.3	-39.0	-45.2	-54.4	+49.2	-2.2	+6.1	+10	+32.3	-99.3	+11	+8	-2	
	1973	+0.31	+0.5	-33.6	-9.41	-29.8	-48.7	+42.2	+15.4	-19.9	-40.0	+10.1	-31.5	+1	-8	-21	
	1951	-17.0	-15.9	+3.1	-5.77	-7.8	+28.6	+40.5	-62.2	-28.4	+0.3	-33.6	-31.4	-10	-33	+11	
	1934	-3.04	+25.6	-4.5	+22.8	+27.0	+5.9	+0.3	-68.0	-18.8	+11.5	-62.4	-40.4	+5	-30	-1	
	1917	+43.9	+36.3	+87.7	+7.94	-38.4	-38.4	-17.2	+52.1	+3.2	+11.3	+22.0	+30	+25	+17	+38	
	1895	-17.5	-44.5	-21.4	-7.9	+27.6	-17.4	-15.4	-27.6	-4.8	-60.3	+41.3	+25.5	+45	+2	+19	
13	2008																
	1980	+66.0	-17.6	+80	-34.3	-28.4	-11.6	-99.9	?2017	-6.6	+2.48	-447	-37.1	+5	-25	+20	
	1952	-50	+34	-37.8	-59.7	-45.3	-45.0	-60.4	-42.1	-51.0	-40.1	-63.6	-53.2	-30	-41	-39	
	1924	-4.86	-58.8	-56.6	-36.1	-13.3	-45.2	-16.7	-38.6	-32.8	+105.9	+81.4	+7.4	-7	-3	+8	
	1896	-34.0	-32.3	-22.8	-18.7	-38.8	-29.3	+0.18	-21.8	-25.3	+08.2	-31.2	-16.5	-24	-32	6	
14	2009																
	1987	-31.1	-36.5	-53.8	-12.6	-6.2	-53.6	+0.63	+30	-20.9	-52.1	-18.0	-60.6	-18	-21	-33	
	1970	?75.9	-5.1	+41.5	-39.9	-2.8	-39.7	+63.4	+77.2	+9.0	+36.3	+83.0	+477.5	+25	+39	-5	
	1953	-20.3	-26.5	+0.8	-56.1	+4.1	-40.1	-35.7	-48.4	-20.4	214.6	+54.8	-10.3	+25	+10	-3	
	1931	+50	-440	+768.9	+12.3	-2.70	-24.0	+38.0	-26.8	+39.2	+14.3	-33.2	+12.8	+18	-11	-12	
	1914	?159.0	-13.6	-7.9	+11.6	-23.1	-19.7	-6.43	+42.1	-31.3	+67.9	+60.8	+44	+27	+20	+18	
	1897	-34	-42.6	-57.2	+47.5	-9.47	-48.1	-34.6	+32.1	-26.5	+42.4	+12.8	+39.4	-1	+35	-2	
	1875	-	+11.5	-64.1	-	-89.5	-47.4	+50.6	-22.8	-	+58.1	+25.5	-29	+25	-7		
15	2010																
	1993	-37.1	-45.1	-58.6	-17.1	+19.3	-36.9	-27.9	+43.4	-40.1	-2.40	+9.9	-1.8	-17.5	-12.8	-6.3	
	1971	?77.89	-31.3	-32.3	-61.3	-26.6	-57.4	-19.4	-25.4	-24.6	-14.3	-46.7	+5.1	-29	-35	-10	
	1954	-27.1	-54.6	-9.4	-30.0	+93.4	-4.8	-40.2	-17.3	-26.6	278.9	-52.8	?239.9	+24	-10	+19	
	1937	-50.8	+15.9	-89.6	+10.9	-9.48	-35.2	-16.5	+94.7	+3.2	+29.2	+10.6	+1.0	+35	+20	+3	
	1915	+99.4	-39.0	+18.1	-15.2	+58.2	-24.4	-8.40	-49.2	+24.4	-12.6	+58.3	-14.9	+10	+6	+21	
	1898	-20	-37.2	+5.3	+47.8	-30.2	-18.1	-34.6	-42.1	-51.4	+42.4	+106.4	-8.5	+18	+3	-3	
	1881	-18.9	+15.0	+41.2	-56.7	-78.3	-73.3	34.2	+75.1	-123	+41.0	+12	+10.4	-36	+5	+4	
16	2011																
	1994	-29.0	-40	-55.7	-20.0	-98.9	-9.7	+6.71	-10.8	-37.2	-71.7	-71.3	-49.3	-23.5	-34.9	-21.4	
	1977	?70.93	+39.5	-17.6	-42.6	-67.6	-49.6	-58.4	-85.1	+22.9.37.2	+39.9	+446.6	-39	-24	-34		
	1955	-49.8	-48.3	-37.6	-55.5	+17.2	-39.2	-16.5	+94.7	+3.2	+29.2	+10.6	+1.0	+35	+20	+3	
	1938	?95.6	733.3	+25	215.8	-34.1	-36.1	+25.8	+19.827.7	+89.8	+81.7	782.2	+48	+58	-45		
	1921	+44.2	-4.16	-39.8	-660	+75.5	+2	-47.2	+45.7	-30.7	+50.6	-23.2	+2.5	-1	-5	+13	
	1899	-17.2	-85.4	-57.8	-74.7	-88.4	-68.4	-38.1	-37.7	-34.1	-10	+43.5	-22.9	-43	-36	-32	
	1882	+20.1	+165	+2.4	-23.5	+5.41	-32.6	783.3	+133.1	+50.6	+148.0	+16	+31.9	+49	+62	+40	
17	2012																
	1984	-34.6	-56.1	-37.4	+0.50	+49.4	-15.2	-58.5	-84.1	-71.6	+24.6	-22	-37.8	-20	-30	-23	
	1956	?6.875	+21.8	+32.8	20.96	+809	+37.8	-30.7	-38.4	-14.3	+503.6	+38	+19.6	+24	+20	+40	
	1928	+37.3	+21.8	-56.2	-21.5	-38.5	-20.2	-27.5	-17.4	-29.7	+102	-3.44	+9.5	+9	-5	-2	
	1900	-10.9	-30.1	-47.8	+29.3	+48.5	-19.3	-38.7	-78.6	-63.6	+90.3	+53.8	+10.0	+10	-2	-12	
	1872	-44.5	-13.8	-0.2	-29.9	-17.7	-18.1	-45.0	-99.1	9.49	+44.4	+54.3	+16	-25	+4	+18	

18	June			July			August			SEPTEMBER			OVERALL SEASON			REMARKS		
	T	R	C	T	R	C	T	R	C	T	R	C	T	R	C			
2013	+42.1	+17.7	+64.5	-11.9	-16.1	-30.2	-39.0	-17.8	-93.7	+1.31	-11.6	+32.7	-9.6	+14.7	+22.6			
1991	+42.1	+17.7	+64.5	-11.9	-16.1	-30.2	-39.0	-17.8	-93.7	+1.31	-11.6	+32.7	-9.6	+14.7	+22.6			
1974	-26.6	-5.5	-14.3	-46.9	-12.2	-99.9	-22.6	-20.7	-37.2	+17.6	+10.3	+33.6	-24	+19				
1957	-16.9	+19.5	+45.3	-49.0	-12.9	-30.4	-1.91	-26.6	+21.3	+12.4	-22.4	-12.1	+8	+24				
1935	-6.87	+43.4	-45.1	+11.5	+4.16	-30.6	-31.1	+138.0	+346.3	+51.0	-11.3	-21.8	+2	+35	-24			
1918	-93.3	-45.9	-16.8	-46.1	-56.3	-62.1	-57.0	-38.2	-40.5	+1.00	+18.1	-13.2	-40	-29	-20			
1901	-21.0	-6.25	-40.7	-11.5	-69.7	-43.8	-16.3	+10.4	-42.2	-44.0	+30.1	-28.9	-19	-29	-24			
1879	-8.51	+18.8	+3.2	-27.8	+48.1	-116.5	+31.4	-10.4	-99.4	+56.7	+19.7	-51	-9	-6	-16			
19	2014																	
1997	-59.7	+7.9	-65.1	-40.2	-54.2	-37.2	-33.8	-40.7	-48.2	+10.6	+134	+109	-33.2	+14.1	+15			
1975	-15.4	-4.9	+53.8	+7.44	+48.3	-16.3	-10.9	-14.9	-28.5	+149	+31.6	+7.2	+21	+11	+20			
1958	-60.6	-19.5	-42.3	-10.1	-16.7	+22.7	-32.0	+105	-15.9	+13.0	-10.4	-12.7	+8	+10				
1941	+18.0	-47.0	+82.5	-67.5	+578	-70.2	-33.4	-48.3	-2269	+37.2	+53.6	+1.2	-32	+8	-5			
1919	+26.6	+6.66	-20.1	-41.1	+57.3	-19.7	-55.7	-80.0	-49.2	+457	+10.7	-26	-32	+2	-15			
1902	-36.6	-27.6	-47.8	-48.6	-13.6	-35.5	-12.1	-55.7	-99.4	+26.3	-13.2	+15.1	-19	-17	+4			
1885	-20.7	+19.4	-4.2	-14.1	+11.8	-31.5	-47.8	-41.8	-67.3	+38.5	-25.4	+5.5	-18	-18	-10			
20	2015																	
1998	?1.32	-529	-34.5	-21.5	-58.6	29.8	+15.4	+20.2	+5.1	+49.0	+70.6	+56	-50.9	+37	+25.3			
1981	+36.3	-0.6	-26.9	+1.12	-5.9	+10.0	+7.12	-7.6	-28.9	+105.1	+61.2	+24.6	+26	+10	+25.3			
1959	-4.76	+76.3	+18.3	-11.5	+9.27	+20.5	-34.2	-165	-30.9	-99.9	+136	-28.8	+40	+10	+12			
1942	?4.76	+42.7	-12.1	-7.78	-66.7	-47.9	+22.4	-13.1	-18.4	-44.5	-24.8	+34.2	-4	-20	-20			
1925	6.28	-47.2	+1.0	+2.38	-9.2	-10	-4.93	+19.1	+2.4	-0.54	-18.4	+386	-2	-14	+4			
1903	-25.7	-680	+22.6	+54.0	-46.8	+10.2	+34.8	+30.3	+8.0	+5304	+72	+7.0	+45	+39	+37			
1886	+60.9	+3.88	+25.1	+26.6	+69.4	-4.2	+40.6	+40.1	+55.3	-39.9	+9.04	-99.3	+24	+21	+38			
21	2016																	
1988	-14.2	-57.0	-57.4	+10.7	+77.7	+33.6	-25.9	+12.7	+19.4	+136	+33.4	+37.4	+65	+50	+41			
1966	-54.9	+67.3	-32.8	?154	+14.3	+32.3	-7.57	+0.5	+6.1	+61.3	+14.8	-27.2	+3	+20	+9			
1932	+13.2	-629	-13.1	?3.97	-24.1	-13.7	+20.1	+22.0	-36.2	+52.6	-20.32	-32.4	+1	-10	-18			
1904	+15	-33.4	-42.5	-4.6	-22.1	-51.4	-69	-83.0	-38.0	+36.9	-39.6	-41.5	-24	-55	-30			
1876	-42.2	-20.8	-33.3	-34.7	?73.6	-52.1	-31.8	-42.4	-99.9	-40.6	-71.1	-50.4	-38	-53	-19			

		21 QUARTER											
		Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2012													
1984	-100	100	-100	-100	-100	-21.07663	15.80699	47.38587	-37.61753	-71.80184	-100	-100	-100
1986	-100	90	-100	-84.61538	90.33333	-9.0583834	79.30993	16.74115	-8.15043	444.2396	-92.33333	-100	-100
1988	-100	87.5	-100	-100	100	-47.79772	2.052115	-33.37917	-6.675559	1.843318	82.72727	-100	-100
1990	-100	-100	-100	423.0769	58.11333	95.24793	48.89534	57.78618	-18.93417	-100	-100	-100	-100
1972	-100	-100	-100	84.61538	90.33333	63.13214	1.552967	-33.6158	-1.62906	94.06603	-100	-100	-75
1938	139.7692	-100	-100	-100	90	45.4323	31.70272	-51.8735	-36.42813	137.3272	-100	-100	-10
2013													
1990	-100	100	-100	-100	-100	-35.13327	26.28619	-36.19891	-73.10345	-100	92.72727	-100	-100
1974	-100	-100	-100	-100	100	-75.11909	-63.31115	-71.36473	64.45161	-5.525554	-100	1000	-100
1952	107.6923	100	61.51846	-93.30265	95	35.44205	-27.98114	36.60436	-94.35732	82.04561	-29.09311	-100	-100
1938	597.3077	87.5	-100	69.21207	-100	-29.36378	0.138658	65.28037	16.67732	-94.70036	-100	-100	-100
1918	-100	-100	-84.61538	-100	151.66667	-65.62582	-68.99812	30.38865	-86.35825	-100	-100	-100	-100
1901	38.46154	-100	-51.89615	230.7692	16.66667	-42.31643	33.31106	-44.03575	-94.92163	-59.447	-100	-100	-80
1879	-100	587.5	-100	-100	16.66667	97.61458	55.65951	23.10072	-1.260188	6.914442	-100	-100	-100
2014													
1997	476.9231	-100	69.23072	938.4615	88.31113	363.4658	43.34443	43.17635	36.48505	73.04143	-54.54545	-75	-100
1975	-100	-87.5	42.30384	-100	-100	85.91354	46.34553	17.78993	92.78997	266.8269	-100	-100	-100
1954	-100	53.84615	33.76923	-100	4.486114	-9.400998	3.334473	136.1755	182.9498	-68.18182	-100	-100	-100
1941	38.46154	1000	76.92108	-53.84615	-25	64.93659	101.80205	-59.68625	-88.99683	-82.02768	-100	-100	-100
1919	384.6154	100	-100	-15.18462	38.31113	-27.1615	-4.104271	72.70218	-56.15285	71.17051	4.545455	-100	-100
1902	107.6923	-100	-100	-100	66.65667	-31.80233	-34.88813	0.103128	82.44514	42.1659	92.72727	305	-100
1885	1.692308	-100	-100	42.30769	43.31113	-51.05383	-21.46423	16.80999	-83.0694	71.71172	86.36764	-100	-100
2015													
1998	100	100	-100	-100	-100	-3.915171	-35.12903	-35.3386	139.62118	395.3917	-50.90805	-100	-100
1981	15.39667	-100	38.46154	90.33333	-55	21.81729	4.9088486	22.31007	21.12853	76.03687	151.8182	-100	-100
1960	-100	-100	20.69773	-91.66667	-11.90965	71.52515	-11.53392	140.2508	489.86118	-54.54545	-100	-100	-100
1942	92.16168	173.75	-100	-100	43.33333	1.631171	20.88413	23.813	5.966113	-100	-100	-93	-100
1935	-100	-100	-100	-100	154.3333	153.7684	-45.56295	-76.03415	91.22384	93.53017	56.15164	-100	-100
1903	-84.61538	-87.5	92.30669	-100	55	81.9759	11.64175	38.46683	7.2899683	93.76341	-100	-100	-100
1886	-100	-100	-84.61538	-100	85	50.54823	36.43113	34.09763	-71.18683	186.61513	-100	-85	-100
2016													
1988	100	-100	100	269.23068	-100	-47.471145	68.59612	27.39147	12.03762	-26.96453	-100	-100	-100
1966	0	-100	100	92.30769	-80	-5.291191	-10.03423	26.28051	11.34296	-100	-100	-100	-100
1959	-100	-100	-84.61538	-69.23077	98.31113	-55.791119	60.67665	-58.00681	-20.40429	9.677418	-98.18182	-100	-100
1904	7.692308	133.75	384.6154	92.30769	-55	-62.993	-51.5807	-42.12441	-46.04577	79.26267	100	-70	-100
1876	-100	-100	76.92108	-69.23076	-31.66667	-62.47384	-11.28128	-0.101128	-3.69998	-100	-100	100	-100
2017													
1995	753.8452	-100	-15.39667	-61.53865	-100	-95.32953	18.96839	-51.71493	-50.81191	24.88479	-94.54545	-40	-100
1971	-100	82.5	-100	107.6923	-100	68.24958	-39.93344	1.628395	-73.56119	38.70968	242.7273	-100	-100
1953	-100	732.5	-100	-100	-81.33333	7.394008	-4.905158	-35.44173	60.94044	38.70968	-100	-100	-100
1938	-100	50	123.0769	-100	-100	29.85318	-47.59962	-1.478171	-33.11598	97.22382	-64.54545	-100	-100
1927	-36.32308	-100	-100	-100	-100	2.528848	-13.83985	-57.54555	84.11373	83.87093	-75.45455	-100	-100
1905	-500	-25	21.07692	-84.61538	-100	41.50365	70.18186	-41.68099	-54.35737	94.47605	93.18182	-100	-100
1883	576.92121	-100	130.7692	-100	338.31113	28.25143	24.40577	-37.99911	48.46395	77.41955	-100	-100	-100
2018													
2001	-100	-100	-100	15.39662	211.66667	103.1419	-21.24154	-25.81643	-97.11509	113.8248	-100	-100	-100
1979	-100	1100	-100	-100	-70	-6.787928	-61.06262	33.6198	68.71317	-45.63212	933.2223	100	-100
1951	-100	100	92.30769	30.76923	-50	62.47381	-31.198	51.94335	28.90282	-100	55.45455	-45	-100
1945	484.6154	-100	-100	-61.51846	-71.66667	36.07341	38.35103	-19.6878	133.7116	-97.23562	-100	-100	-100
1923	-100	712.5	-33.88615	84.61538	8.311133	93.34797	-36.91133	-33.04728	-52.72277	-94.93118	-100	-100	-60
1900	-57.32308	1600	-100	-100	-100	63.25938	-9.400968	-12.33793	-7.460815	-85.75348	-100	-100	-100
1881	-53.84615	82.5	-100	-100	-631.66667	14.1875	4.215197	-6.609304	-71.22252	8.347465	-100	-100	100

2019	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec				
1963	-100	-100	-61.53896	-100	-100	76.59837	36.77205	-2.853214	-29.78056	56.31316	-100	-100				
1965	-100	-100	-100	107.6923	-90	94.70881	-25.76262	-39.2231	-90.95404	407.4194	-100	-70				
1966	33.76923	-100	23.07692	88.46154	-78.33333	-46.90049	14.03217	45.75801	48.58534	-13.99404	193.0969	60				
1967	-100	225	-100	69.23077	66.66667	100.876	-24.5347	49.26091	-71.44201	-94.42026	288.1818	175				
1969	33.76923	-100	-100	423.0769	51.66667	37.17955	13.89935	46.09832	-89.78056	-83.93443	-100	425				
1970	76.597308	2412.5	84.61538	73.09652	-100	-51.14192	-5.657238	119.4912	-50.19561	-100	-100	-100				
1980	-100	-100	-100	80.36933	-100	91.30137	34.5243	24.61323	-39.24365	81.56882	91.45465	60				
1873	-100	1412.5	-100	-100	-36.66667	-34.50265	-19.66167	29.32279	-43.0698	94.42005	-100	-100				
2020																
1992	38.46154	-100	-100	-100	65.66667	26.77162	-35.45639	-8.275006	46.1482	35.69304	-75.45455	-100				
1994	-100	100	-100	-100	66.66667	17.07178	20.71547	15.24798	-18.4951	-100	96.36364	-100				
1995	-100	62.5	-15.38462	-100	-90	74.22512	63.225568	-82.81196	8.338958	-82.16259	318.5838	-100				
1998	246.1438	-47.5	-100	-100	-100	52.77325	62.5678	24.88202	-86.1487	-93.53917	-100	-100				
1999	-100	-100	-100	-100	-90	16.06852	14.19886	39.31062	92.59551	116.129	95.45455	70				
2021																
1999	-100	300	-100	-100	261.66667	36.21533	-39.73932	-84.80578	-78.55799	271.4236	-100	-100				
1982	-7.687308	-100	-100	130.7582	1105	-73.73573	-15.05824	-24.54452	-86.0815	81.81092	748.1818	405				
1985	638.4615	-100	84.61538	-84.61538	-91.66667	-95.9217	19.43982	-41.62543	85.83073	-100	81.81818	-100				
1943	-100	100	-100	76.43328	178.3333	5.053296	29.97781	-74.25232	-11.28527	316.129	90.96969	-100				
1926	369.23068	100	-100	92.30169	65.66667	-20.48124	18.03324	54.03919	141.7555	93.52917	-100	-100				
1929	92.30169	50	-100	246.1538	93.33333	31.56620	0.388242	-19.9275	-13.3385	-96.31334	-100	150				
1930	-100	62.5	-100	-100	-91.66667	40.21707	-66.22296	-81.15442	-96.17555	-90.76341	39.09091	566				
2022																
2005	-100	-100	-100	-100	58.33333	149.9184	10.53799	24.06375	197.33564	83.41314	-100	-100				
1983	-51.86615	-100	-100	884.6154	-78.11111	13.86623	20.33279	25.23204	6.583072	229.4333	-100	-100				
1940	-7.687308	-100	-100	-100	-100	16.66667	51.30306	-43.31854	-36.07613	48.51665	62.67281	-100	-70			
1949	-100	-37.5	-100	-100	-65.66667	-77.4062	-15.86899	-23.9945	43.1348	22.58265	96.36364	-100				
1957	-100	462.5	-100	-53.84615	-45	41.29002	139.1847	-39.80749	-41.37931	-28.3106	91.81818	590				
1910	-38.46154	-100	-100	92.30169	96.66667	123.65412	-22.48197	36.19111	-84.51411	6.451613	1.818182	-100				
1893	42.30269	162.5	15.38462	-61.53866	38.11111	266.3137	16.30616	-41.08501	45.20376	94.42005	241.7271	90				
1871	-100	-100	-100	-53.84615	150	-15.75785	-51.10338	15.05672	-64.76689	-100	201.8187	100				
2023																
2006	-100	-100	38.46154	-100	-100	8.310739	45.37934	40.29438	32.32722	72.81106	93.63636	-100				
1989	30.49323	-100	100	-100	-100	14.02936	-7.588487	2.284462	-47.7116	97.69585	-100	-100				
1967	-100	412.5	-92.30169	-100	-100	25.88909	14.39268	-30.89996	29.71887	85.25346	-100	-100				
1950	-100	-100	-100	-100	-100	97.63905	33.39462	-76.63302	35.92729	94.55088	-100	-100				
1933	-100	562.5	84.61538	200	583.33333	-14.68189	23.81143	31.47473	31.53663	47.58627	50.72727	275				
1911	169.23068	-100	1338.462	-100	-100	19.90712	-81.8081	-77.03679	-84.01254	-100	69.09091	-100				
1894	169.23068	-100	38.46154	-61.53867	-66.66667	96.53747	91.26123	-68.20113	29.7563	483.18403	-100	-100				
1872	92.30169	1925	-84.61538	38.46154	101.66667	-33.93348	-24.26511	-60.82159	-37.10333	367.7419	-70.90609	375				
2024																
1956	373.0769	100	-100	-100	-100	-7.423512	9.290032	-20.34408	-27.27273	23.5021	89.09091	-100				
1948	-100	0	38.46154	-100	-100	73.49103	-36.18968	-14.81609	76.41236	-51.15207	97.21273	-100				
1943	-7.687308	-100	-100	4607.697	-100	-96.32953	-22.8508	-9.006531	70.93139	-63.75115	-45.45455	-100				
1912																
1884																
2025																
2003	-53.84615	8062.5	-100	-100	-100	-100	76.59837	36.77205	-2.853214	-29.78056	96.31336	-100	-100			
1986	-100	-100	-15.38462	-100	-46.66667	-56.44372	-63.77712	-53.8794	-98.4326	-98.15668	-83.81818	-100				
1969	-100	-75	-100	-100	-100	-29.63848	-29.75832	-25.67049	9.529781	-100	54.54545	75				
1947	-7.687308	-100	-100	-4607.697	-100	-96.32953	-22.8508	-9.006531	70.93139	61.75115	-45.45455	-100				
1930	130.7692	100	-100	-100	-90	45.43213	11.30272	51.8735	-36.402633	137.3277	-100	-100				
1913	-100	100	-84.61538	-100	-26.06667	212.398	12.20086	-29.25404	-7.460815	98.15668	98.18382	-100				
1891	207.6823	100	84.61538	-100	-90	-66.3969	-48.91847	-41.11376	-11.7331	-76.4877	-100	-100				
1874	92.30169	-100	-100	-100	-46.66667	36.45023	6.239601	-8.733523	-43.69636	-100	-100	-100				

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Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec			
2009														
1983	-100	65.5	-100	-100	-31.666667	-40.231307	-55.220995	-41.154447	-15.175555	-76.968553	-100	-100	-100	
1990	92.30769	0	-92.10969	-68.23507	-14.666667	97.336705	-31.54552	38.776311	35.109373	-25.80626	-66.31184	-100	-100	
1993	1001.528	-100	-100	-52.30769	-100	7.346946	-38.90728	87.651856	-35.09404	98.61751	-100	-100	-100	
1994	-100	-75	-100	-52.30769	-80	-82.05146	-12.06323	25.24483	-50.15624	334.5622	-33.72333	0		
1995	-100	139.5	-100	-100	0	90.45137	-20.82664	55.956425	-41.88084	62.697801	-33.72333	100		
1997	-76.92308	-100	-100	-26.92308	-100	59.889445	-18.66338	7.631988	13.54232	-12.4424	-100	-100		
1998	-100	2982.5	-99.33309	243.3039	76.666667	-5.731311	20.469662	-63.59574	125.0815	-85.75346	-100	-100	-100	
2007														
2010														
1993	302	812.5	-76.93308	-100	-100	-39.98369	53.54564	-78.163171	-39.45543	47.45544	-68.18182	-100		
1971	100	-100	-100	89.61538	23.33333	36.67316	-78.03219	-31.24785	16.11285	-72.35023	-100	-100		
1959	100	287.5	284.6154	-100	-100	21.18507	13.47354	-23.23823	363.6364	21.11982	-92.72727	75		
1957	-100	638.5	92.30769	-100	-100	100.7281	67.77931	-90.82159	94.23159	-80.55745	-100	-75		
1915	246.1538	55	500	-53.84615	-61.33333	2.884812	-65.33555	-73.66793	24.16928	347.0046	95.45455	-100		
1896	-100	2625	-100	-100	25	23.14633	16.61113	60.68938	-1.813182	100	94.54545	230		
1881	-100	100	-38.46154	-53.84615	25	-47.39712	40.72657	6.772087	-10.242111	53.45623	97.23773	100		
2008														
2000	-100	-100	-100	-100	845	-50.12626	-15.00277	-59.62611	31.85958	98.61751	-100	95		
1972	-100	300	-100	-100	801.33333	36.44343	54.38159	-39.05133	90.50561	98.61751	-100	100		
1944	69.73077	-100	400	31.33333	31.33333	7.445182	75.45757	71.99912	65.33329	-16.75576	100	100		
1946	-100	100	92.30769	-100	-4.666667	-14.35563	90.08319	51.7891	28.90282	96.68903	95.45455	-100		
1888	53.84615	512.5	-100	-100	-100	-24.14356	-41.9462	2.442701	-46.61442	95.39171	159.0125	-100		
2003	53.84615	350	84.41538	-100	88.33333	-30.42434	24.4315	13.89117	36.61492	-100	-60.90939	100		
1992	-100	512.5	-100	-100	318.3333	-31.81213	-86.94953	74.69921	12.41379	20.12305	-18.18140	90		
1973	107.68213	0	-100	-100	66.666667	-3.012445	-20.84748	70.01939	11.78683	65.15662	-100	75		
1951	-100	-100	-18.46154	-100	98.33333	-52.01458	-32.72324	-40.00502	56.551472	60.01949	50	100		
1934	-100	-100	7.692358	-100	-100	38.667212	23.33224	17.36679	-52.3511	96.11336	52.72727	100		
1917	23.47812	1162.5	-100	333.2862	1966.6667	26.26327	17.11212	22.72259	120.6777	102.42424	100	-100		
1896	-100	100	69.73077	53.84615	-100	6.85156	-18.46552	-25.12091	60.01505	41.42465	-100	-100		
1878	-100	-100	15.38462	-100	-100	2.207381	76.93124	32.26195	77.55486	0	-100	-100		
2011														
1994	1010.609	87.5	-100	-76.93308	-45	123.8989	22.03412	11.657147	107.3981	97.69585	94.54545	-100		
1977	574.9231	67.5	-100	53.84615	225	89.72268	47.58735	-41.15442	-16.30721	-100	53.61636	-100		
1955	-100	100	66.50308	-18.46154	-61.33333	18.0261	-71.06267	36.40426	91.34796	120.7373	-100	-100		
1938	-100	-75	-100	-100	111.33333	139.584	-11.11203	-56.73506	41.20947	6.912842	-100	95		
1921	76.50308	-100	-100	-100	-100	-32.42533	33.35592	-31.34472	341.6993	97.235602	-100	95		
1895	-100	-100	-100	-100	-100	51.666667	39.11485	96.50582	-96.52889	49.15361	94.47005	-100	95	
1882	15.38462	-75	-100	-100	-100	48.94944	61.33888	-69.02716	9.905956	-100	95.45455	100		
2004	-100	-100	-100	-100	118.30333	43.83998	-11.48087	38.60413	-24.16208	16.12503	-100	95		
1974	146.1538	-100	-100	-100	-100	107.0347	12.17415	16.81478	-27.52351	-100	540.9099	-100		
1948	1092.356	-100	-100	-100	58.33333	-49.51956	-51.36698	67.2335	-65.57994	35.03304	213.7722	-100		
1930	2838.462	125	-100	-12.30309	1058.333	53.09525	29.11814	-41.65521	32.00627	-100	-100	-100		
1893	92.30968	37.5	-100	-100	-95	-19.29559	1.833083	18.01304	181.511	23.96313	90	90		
2008	-100	12.5	-100	100	-100	-23.97716	-16.13389	18.67246	26.89254	96.31336	95.36364	10		
1980	-100	37.5	-100	-100	-100	321.2072	-28.30736	-4.315814	-36.39498	-100	63.63636	829		
1957	-100	-100	100	-100	-100	31.40294	42.47889	-50.36532	94.16998	96.31336	-100	-100		
1934	15.38462	47.5	-100	-100	73.31333	-29.18271	-18.93945	-29.66055	26.9815	-18.43318	-100	-70		
1894	169.2308	-100	34.46154	69.73077	66.61667	93.57623	63.26121	64.20213	29.2163	480.1841	-100	-100	-10	