

sources: GHCN 1880-11/2009 + SST: 1880-11/1981 HadISST1
12/1981-11/2009 Reynolds v2
using elimination of outliers and homogeneity adjustment
Notes: 1950 DJF = Dec 1949 - Feb 1950 ; ***** = missing

Year													AnnMean		DJF	MAM	JJA	SON	Year
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N					
1880	-22	-22	-23	-25	-30	-39	-21	-18	-20	-27	-29	-21	-25	*****	*****	-26	-26	-26	1880
1881	-27	-23	-1	-6	-4	-33	-10	-13	-30	-29	-34	-25	-20	-19	-24	-4	-19	-31	1881
1882	-6	7	-8	-28	-22	-29	-27	-16	-24	-35	-29	-48	-22	-20	-8	-19	-24	-29	1882
1883	-39	-35	-17	-17	-24	-9	-10	-18	-30	-30	-29	-23	-24	-26	-41	-20	-12	-30	1883
1884	-21	-16	-31	-37	-31	-36	-27	-26	-33	-33	-34	-32	-30	-29	-20	-33	-29	-33	1884
1885	-60	-31	-19	-35	-36	-41	-24	-27	-26	-25	-26	-12	-30	-32	-41	-30	-31	-26	1885
1886	-42	-39	-33	-16	-16	-29	-2	-18	-21	-34	-24	-27	-25	-24	-31	-22	-16	-26	1886
1887	-62	-52	-37	-39	-25	-24	-8	-29	-26	-43	-38	-37	-35	-34	-47	-34	-20	-36	1887
1888	-37	-46	-46	-35	-25	-25	-22	-26	-21	-13	-3	-21	-27	-28	-40	-35	-24	-12	1888
1889	-11	8	-3	-2	-5	-11	-17	-22	-22	-29	-34	-31	-15	-14	-8	-3	-17	-28	1889
1890	-47	-43	-31	-33	-44	-35	-29	-33	-37	-25	-51	-34	-37	-37	-40	-36	-32	-38	1890
1891	-45	-53	-17	-31	-20	-22	-25	-22	-19	-25	-40	-11	-27	-29	-44	-23	-23	-28	1891
1892	-39	-9	-33	-45	-30	-21	-33	-29	-20	-33	-41	-47	-32	-29	-19	-36	-27	-31	1892
1893	-85	-53	-16	-31	-36	-26	-11	-23	-24	-16	-21	-34	-31	-32	-62	-28	-20	-20	1893
1894	-48	-33	-21	-39	-32	-41	-20	-25	-38	-29	-38	-29	-33	-33	-38	-31	-29	-35	1894
1895	-54	-52	-32	-29	-29	-24	-19	-20	-13	-17	-12	-21	-27	-28	-45	-30	-21	-14	1895
1896	-22	-17	-30	-37	-15	-12	-10	-14	-11	0	-14	-13	-16	-17	-20	-27	-12	-8	1896
1897	-19	-15	-19	-5	1	-13	-2	-7	-14	-17	-20	-11	-12	-12	-16	-8	-7	-17	1897
1898	8	-23	-48	-24	-34	-19	-17	-15	-20	-32	-38	-25	-24	-23	-9	-35	-17	-30	1898
1899	-23	-39	-28	-21	-18	-22	-13	-11	-12	-5	15	-27	-17	-17	-29	-22	-15	-1	1899
1900	-34	2	-3	-11	-6	-6	-11	-11	-7	-2	-14	-10	-9	-11	-19	-6	-9	-7	1900
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
1901	-20	-2	2	0	-12	-13	-17	-18	-24	-24	-24	-27	-15	-13	-10	-4	-16	-24	1901
1902	-15	1	-23	-28	-31	-29	-17	-28	-29	-32	-42	-46	-27	-25	-14	-27	-25	-34	1902
1903	-23	5	-13	-38	-34	-43	-28	-39	-44	-43	-31	-41	-31	-31	-21	-28	-36	-39	1903
1904	-49	-45	-29	-41	-38	-36	-33	-31	-41	-30	-11	-20	-34	-35	-45	-36	-34	-27	1904
1905	-30	-50	-17	-31	-26	-25	-19	-18	-19	-28	-8	-20	-24	-24	-33	-25	-21	-18	1905
1906	-29	-30	-21	-4	-21	-13	-21	-10	-24	-15	-36	-12	-20	-20	-26	-16	-15	-25	1906
1907	-44	-45	-25	-42	-49	-40	-36	-38	-29	-26	-43	-43	-38	-36	-34	-39	-38	-33	1907
1908	-41	-24	-47	-40	-32	-27	-22	-34	-23	-33	-42	-39	-34	-34	-36	-40	-28	-33	1908
1909	-57	-36	-45	-45	-39	-36	-33	-24	-24	-23	-21	-41	-35	-35	-44	-43	-31	-23	1909
1910	-28	-31	-33	-29	-33	-35	-21	-26	-30	-33	-41	-55	-33	-32	-33	-32	-28	-34	1910
1911	-52	-46	-48	-48	-40	-36	-25	-29	-24	-20	-14	-19	-33	-36	-51	-45	-30	-19	1911
1912	-23	-17	-35	-21	-23	-22	-39	-52	-49	-53	-35	-35	-34	-32	-20	-26	-38	-45	1912
1913	-38	-36	-36	-35	-40	-44	-34	-29	-31	-33	-20	-4	-32	-34	-37	-37	-36	-28	1913
1914	-6	-12	-21	-27	-18	-20	-16	-13	-18	0	-16	-15	-15	-14	-7	-22	-16	-11	1914
1915	-19	-6	-13	1	1	2	-1	-13	-6	-21	-10	-21	-9	-8	-13	-4	-4	-12	1915
1916	-15	-17	-33	-26	-33	-35	-28	-22	-30	-22	-40	-66	-31	-27	-18	-31	-28	-31	1916
1917	-44	-53	-48	-40	-54	-37	-17	-23	-18	-38	-32	-71	-40	-39	-55	-47	-26	-30	1917
1918	-49	-42	-28	-43	-44	-30	-29	-36	-23	-9	-20	-32	-32	-35	-54	-38	-32	-17	1918
1919	-19	-21	-20	-11	-17	-15	-17	-15	-11	-18	-47	-35	-20	-20	-24	-16	-16	-25	1919
1920	-12	-20	1	-10	-10	-16	-20	-16	-19	-26	-29	-46	-19	-18	-22	-6	-18	-25	1920
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
1921	0	-17	-12	-12	-17	-10	2	-23	-18	-8	-17	-18	-13	-15	-21	-14	-10	-14	1921
1922	-30	-37	-18	-23	-29	-22	-15	-25	-29	-25	-17	-18	-24	-24	-29	-23	-21	-24	1922
1923	-23	-27	-24	-33	-33	-22	-24	-29	-26	-6	4	-1	-20	-22	-23	-30	-25	-9	1923
1924	-24	-26	-10	-29	-20	-19	-17	-20	-22	-23	-13	-32	-21	-19	-17	-20	-19	-20	1924
1925	-28	-26	-18	-16	-23	-26	-20	-12	-16	-19	-1	16	-16	-20	-28	-19	-19	-12	1925
1926	21	11	21	-5	-12	-13	-8	1	-5	-3	-6	-21	-1	2	16	1	-6	-5	1926
1927	-19	-4	-30	-22	-18	-14	-4	-14	-7	3	-1	-29	-13	-13	-15	-23	-11	-1	1927
1928	5	0	-17	-23	-24	-26	-10	-14	-9	-9	-1	-7	-11	-13	-8	-21	-17	-6	1928
1929	-31	-42	-22	-30	-31	-29	-24	-23	-19	-6	0	-40	-25	-22	-26	-28	-25	-8	1929
1930	-14	-13	-1	-16	-16	-14	-6	-2	-10	-6	19	0	-7	-10	-22	-11	-7	1	1930
1931	0	-18	0	-12	-8	7	13	4	-7	6	0	2	-1	-1	-6	-6	8	-1	1931
1932	18	-11	-9	-1	-8	-17	-8	-9	3	4	-14	-14	-6	-4	3	-6	-11	-3	1932
1933	-20	-18	-16	-14	-16	-16	-6	-11	-18	-14	-26	-39	-18	-16	-17	-15	-11	-19	1933
1934	-16	3	-25	-24	-3	-6	-1	-4	-13	-2	9	3	-7	-10	-17	-17	-4	-2	1934
1935	-25	25	-2	-26	-21	-13	-9	-11	-14	1	-22	-12	-11	-9	1	-16	-11	-12	1935
1936	-19	-27	-14	-9	-8	-4	13	2	0	6	7	11	-3	-5	-19	-10	4	4	1936

1937	5	22	-5	-6	3	6	11	9	19	16	20	-1	8	9	13	-3	9	18	1937
1938	16	11	25	22	7	-2	8	8	14	22	16	-10	11	12	9	18	4	17	1938
1939	2	0	-13	-5	0	3	7	-1	1	-4	6	38	3	-1	-3	-6	3	1	1939
1940	-17	1	5	12	5	5	20	-2	8	1	7	12	5	7	7	8	8	6	1940
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
1941	10	22	5	15	10	8	13	2	-12	21	12	22	10	10	14	10	8	7	1941
1942	21	-8	0	0	9	5	2	-1	2	2	3	6	3	5	12	3	2	2	1942
1943	-12	13	-6	9	17	3	16	6	6	23	19	26	10	8	2	7	8	16	1943
1944	37	26	22	12	20	12	20	16	28	24	15	13	20	21	30	18	16	22	1944
1945	16	12	14	19	-3	1	4	15	0	8	6	-9	7	9	14	10	7	5	1945
1946	13	9	-3	7	-6	-14	-2	-19	-3	-4	-4	-27	-4	-3	5	-1	-11	-3	1946
1947	-4	-1	14	5	-3	-7	-2	-3	-7	12	12	-10	0	-1	-11	5	-4	6	1947
1948	13	-8	-8	-4	5	5	-9	-8	-8	1	-5	-20	-4	-3	-2	-2	-4	-4	1948
1949	15	-15	-4	-10	-8	-20	-9	-5	-5	-1	-6	-11	-7	-7	-7	-7	-11	-4	1949
1950	-24	-26	-2	-18	-14	-5	-8	-18	-11	-16	-30	-10	-15	-15	-20	-11	-10	-19	1950
1951	-32	-39	-17	-9	2	-4	-1	11	9	14	3	18	-4	-6	-27	-8	2	9	1951
1952	14	13	-8	6	0	4	8	10	8	-3	-13	-4	3	5	15	-1	7	-3	1952
1953	10	18	16	19	8	5	6	10	10	10	1	16	11	9	8	15	7	7	1953
1954	-18	-4	-8	-10	-16	-12	-21	-17	-13	-3	12	-11	-10	-8	-2	-11	-17	-1	1954
1955	19	-13	-29	-16	-18	-12	-6	11	-7	1	-22	-29	-10	-9	-2	-21	-3	-9	1955
1956	-15	-24	-22	-21	-22	-13	-8	-25	-14	-20	-16	-7	-17	-19	-22	-22	-15	-17	1956
1957	-6	3	3	10	12	15	1	12	8	3	12	17	7	6	-3	8	9	8	1957
1958	41	23	14	4	7	-9	8	-2	-3	4	5	4	8	9	27	8	-1	2	1958
1959	11	11	22	15	10	7	7	1	-8	-3	-8	3	6	6	9	16	5	-6	1959
1960	1	18	-32	-13	-7	-3	0	6	5	6	-10	20	-1	-2	7	-17	1	0	1960
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
1961	5	21	10	11	22	13	1	3	8	7	5	-15	8	10	15	14	6	7	1961
1962	5	18	13	11	-10	7	-3	-5	2	1	8	0	4	3	3	5	0	4	1962
1963	1	19	-13	-7	-2	6	14	26	25	8	14	3	8	8	7	-7	16	16	1963
1964	-5	-8	-27	-33	-28	-2	-5	-24	-37	-30	-19	-30	-21	-18	-3	-29	-10	-29	1964
1965	-10	-18	-10	-19	-6	-12	-21	-6	-16	-6	-7	-6	-11	-13	-19	-12	-13	-10	1965
1966	-17	-1	11	-11	-7	-1	11	-5	1	-15	0	-4	-3	-3	-8	-3	2	-5	1966
1967	-7	-23	8	-2	11	-6	6	1	0	10	-2	-1	0	-1	-11	6	0	3	1967
1968	-22	-13	24	-4	-9	0	-7	-5	-14	13	-3	-12	-4	-3	-12	4	-4	-1	1968
1969	-7	-8	-2	20	13	11	-4	0	9	14	16	30	8	4	-9	10	3	13	1969
1970	10	23	9	4	-5	-2	-1	-12	14	3	4	-12	3	6	21	3	-5	7	1970
1971	-2	-20	-21	-10	-11	-21	-11	-2	-2	-4	-7	-10	-10	-10	-11	-14	-11	-4	1971
1972	-25	-20	-2	0	-2	6	0	20	4	4	-2	18	0	-2	-19	-2	9	2	1972
1973	26	28	25	24	22	16	10	1	6	13	4	-8	14	16	24	24	9	8	1973
1974	-14	-26	-5	-12	-4	-5	-1	11	-9	-7	-10	-11	-8	-8	-16	-7	1	-9	1974
1975	1	1	11	-3	18	-3	-5	-21	-7	-10	-16	-21	-4	-4	-3	9	-10	-11	1975
1976	-8	-11	-27	-16	-29	-14	-13	-19	-11	-29	-10	0	-16	-17	-13	-24	-15	-17	1976
1977	10	15	14	19	29	23	19	17	-5	-5	13	1	13	12	8	21	20	1	1977
1978	3	8	12	9	1	-9	4	-21	5	-3	7	1	1	2	4	7	-8	3	1978
1979	6	-18	8	11	-6	4	-7	9	19	18	19	39	9	5	-4	5	2	19	1979
1980	21	28	22	24	27	10	18	13	13	8	22	10	18	20	29	24	14	14	1980
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
1981	47	36	44	23	15	20	30	35	12	6	18	29	26	25	31	27	29	12	1981
1982	1	7	-11	-1	13	-1	12	-6	1	2	4	35	5	4	12	0	2	2	1982
1983	44	36	36	27	31	17	13	30	34	10	23	11	26	28	38	31	20	23	1983
1984	23	7	21	3	29	-5	14	13	18	4	-5	-15	9	11	14	18	7	6	1984
1985	15	-12	11	5	6	11	-6	12	7	4	-2	7	5	3	-4	7	6	3	1985
1986	20	38	25	18	14	6	6	11	1	6	1	6	13	13	22	19	8	3	1986
1987	25	38	14	19	17	30	38	15	30	26	23	43	26	23	23	17	28	26	1987
1988	51	35	46	35	38	39	27	29	30	29	-2	19	31	33	43	40	31	19	1988
1989	3	29	27	16	4	6	29	27	32	26	8	27	19	19	17	16	21	22	1989
1990	32	28	66	48	37	31	47	28	17	39	42	37	38	37	29	50	35	33	1990
1991	34	45	29	45	30	50	49	38	39	21	19	24	35	36	39	35	46	26	1991
1992	39	36	37	14	20	16	2	1	-10	-3	-10	12	13	14	33	23	6	-8	1992
1993	27	28	28	16	17	11	12	3	0	15	3	5	14	14	23	20	9	6	1993
1994	24	-5	19	28	16	33	22	18	30	38	34	24	23	22	8	21	24	34	1994
1995	42	71	42	40	8	35	49	37	23	44	37	24	38	38	45	30	40	35	1995
1996	26	45	33	25	19	17	36	43	25	16	34	31	29	29	32	26	32	25	1996
1997	26	30	46	32	31	50	26	36	39	50	55	53	40	38	29	37	37	48	1997
1998	52	80	55	55	62	68	69	63	42	40	43	50	56	57	61	57	67	42	1998
1999	40	59	26	25	20	34	31	28	28	31	29	33	32	33	50	24	31	29	1999
2000	17	52	46	52	28	35	33	37	31	17	25	22	33	34	34	42	35	24	2000

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year
2001	39	40	54	40	50	46	51	46	48	43	66	51	48	45	33	48	48	52	2001
2002	71	71	85	56	56	46	56	45	49	48	50	36	56	57	65	65	49	49	2002
2003	65	50	49	48	51	38	49	63	60	66	49	68	55	52	50	50	50	58	2003
2004	51	67	59	51	36	32	21	43	48	58	65	51	48	50	62	49	32	57	2004
2005	69	58	71	63	55	59	56	56	68	72	63	61	63	62	59	63	57	68	2005
2006	45	57	58	45	42	53	41	60	55	59	64	70	54	53	54	48	51	59	2006
2007	87	62	61	66	57	51	53	54	49	53	46	39	57	59	73	61	53	50	2007
2008	15	26	65	42	40	35	52	35	52	54	57	47	43	43	27	49	41	54	2008
2009	53	44	47	48	54	63	64	53	67	64	68*****	*****	56	48	50	60	66	2009	
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	J-D	D-N	DJF	MAM	JJA	SON	Year

Divide by 100 to get changes in degrees Celsius (deg-C).

Multiply that result by 1.8(=9/5) to get changes in degrees Fahrenheit (deg-F).

Best estimate for absolute global mean for 1951-1980 is 14.0 deg-C or 57.2 deg-F, so add that to the temperature change if you want to use an absolute scale (this note applies to global annual means only, J-D and D-N !)

Example -- Table Value : 40
 change : 0.40 deg-C or 0.72 deg-F
 abs. scale if global annual mean : 14.40 deg-C or 57.92 deg-F