BALTIMORE, MARYLAND

TOP-10 PRECIPITATION EXTREMES FOR SPECIFIED PERIODS

(measurements in inches)

Period of Record: 1/1/1871-Present

MAXIMUM CALENDAR-DAY PRECIPITATION

RANK	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ALL DAYS		RANK
	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	
1	3.22	1/3/1944	3.48	2/6/1896	3.51	3/9/1881	3.74	4/26/1889	3.28	5/8/1960	4.47	6/28/1885	5.85	7/8/1952	7.62	8/23/1933	6.02	9/30/2010	5.51	10/29/2012	3.39	11/21/1952	3.36	12/18/1977	**7.62**	**8/23/1933**	1
2	2.84	1/12/1915	3.26	2/11/1983	2.71	3/4/1889	3.58	4/26/1889	2.46	5/28/1968	3.94	6/2/1915	4.79	7/21/2018	6.30	8/12/2014	5.97	9/24/1912	4.38	10/10/1922	3.11	11/16/1926	3.08	12/13/1909	**6.30**	**8/12/2014**	2
3	2.77	1/1/1948	2.61	2/24/2016	2.61	3/10/2011	3.39	4/17/1910	2.40	5/23/1989	3.84	6/22/1972	4.45	7/27/2004	4.91	8/12/1955	5.02	9/16/1999	4.37	10/8/2005	2.82	11/24/1877	2.88	12/29/1901	**6.02**	**9/30/2010**	3
4	2.62	1/9/2024	2.60	2/11/1886	2.56	3/23/2005	3.06	4/30/2014	2.29	5/26/2009	3.65	6/23/1941	4.26	7/20/1956	4.04	8/27/1971	5.00	9/27/1985	3.66	10/11/2013	2.79	11/3/1947	2.85	12/10/1878	**5.97**	**9/24/1912**	4
5	2.51	1/7/1996	2.30	2/22/2003	2.48	3/2/1994	3.06	4/30/1947	2.28	5/13/2025	3.19	6/29/1963	4.07	7/24/2018	3.82	8/13/1873	4.76	9/6/1895	3.39	10/2/1929	2.74	11/30/2020	2.73	12/13/1996	**5.85**	**7/8/1952**	5
6	2.50	1/1/1932	2.15	2/22/1971	2.45	3/13/1993	2.95	4/16/1929	2.23	5/24/1930	3.11	6/27/2015	3.99	7/22/1906	3.59	8/27/2011	4.39	9/5/1979	3.30	10/17/1932	2.74	11/13/1937	2.49	12/24/1986	**5.51**	**10/29/2012**	6
7	2.45	1/14/1968	2.13	2/21/1902	2.36	3/23/1991	2.74	4/26/1939	2.22	5/25/1952	2.98	6/22/1886	3.90	7/12/1903	3.59	8/13/1955	4.18	9/16/1976	3.18	10/26/1943	2.72	11/6/1963	2.47	12/17/1888	**5.02**	**9/16/1999**	7
8	2.42	1/2/1925	2.01	2/16/2003	2.31	3/13/2010	2.52	4/15/2007	2.20	5/12/2008	2.75	6/25/2006	3.75	7/11/1884	3.51	8/12/2020	4.13	9/1/2021	2.78	10/5/1902	2.65	11/8/1996	2.38	12/7/2011	**5.00**	**9/27/1985**	8
9	2.34	1/6/1905	1.81	2/20/1924	2.31	3/26/1978	2.50	4/29/1875	2.20	5/20/1889	2.68	6/12/1911	3.71	7/20/1880	3.41	8/8/1953	4.00	9/6/1891	2.74	10/4/1962	2.44	11/7/1997	2.37	12/31/1975	**4.91**	**8/12/1955**	9
10	2.11	1/3/1914	1.80	2/1/2008	2.24	3/25/1876	2.44	4/8/1935	2.16	5/8/1873	2.66	6/11/1880	3.65	7/31/1889	3.36	8/26/2012	3.96	9/1/1952	2.74	10/4/1877	2.39	11/17/1935	2.24	12/15/2018	**4.79**	**7/21/2018**	10

MAXIMUM 24-HOUR PRECIPITATION

RANK	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ALL DAYS		RANK
	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	
1	3.73	1/4/1944	^3.48	2/6/1896	^3.51	3/9/1881	3.99	4/26/1937	3.65	5/12/2008	5.23	6/22/1972	5.86	7/9/1952	! 8.35	8/13/1955	6.07	9/25/1912	5.98	10/8/2005	4.19	11/13/1937	3.39	12/19/1977	**! 8.35**	**8/13/1955**	1
2	3.27	1/13/1915	^3.26	2/11/1983	3.18	3/20/1958	3.76	4/30/2014	3.64	5/9/1960	^4.47	6/28/1885	^5.85	7/8/1952	^7.62	8/23/1933	6.04	9/27/1985	5.70	10/30/2012	3.43	11/22/1952	^3.36	12/18/1977	**^7.62**	**8/23/1933**	2
3	^3.22	1/3/1944	2.62	2/24/2016	*^2.71*	3/4/1889	^3.74	4/26/1937	^3.28	5/8/1960	4.40	6/28/1953	^4.79	7/21/2018	6.31	8/12/2014	^6.02	9/30/2010	^5.51	10/29/2012	^3.39	11/21/1952	3.16	12/13/1909	**6.31**	**8/12/2014**	3
4	2.96	1/2/1948	^2.61	2/24/2016	2.64	3/3/1994	3.69	4/18/1910	3.25	5/7/1935	3.97	6/3/1915	^4.45	7/27/2004	^6.30	8/12/2014	^5.97	9/24/1912	5.30	10/10/1922	3.34	11/16/1926	^3.08	12/13/1909	**^6.30**	**8/12/2014**	4
5	^2.84	1/12/1915	^2.60	2/11/1886	2.63	3/10/2011	^3.58	4/26/1889	2.99	5/8/1886	^3.94	6/2/1915	^4.26	7/20/1956	^4.91	8/12/1955	5.26	9/16/1999	^4.38	10/10/1922	^3.11	11/16/1926	^2.88	12/29/1901	**6.07**	**9/25/1912**	5
6	^2.77	1/1/1948	2.55	2/22/2003	^2.61	3/10/2011	^3.39	4/17/1910	2.79	5/14/2025	^3.84	6/22/1972	^4.07	7/24/2018	4.69	8/28/2011	5.08	9/15/1904	^4.37	10/8/2005	3.07	11/7/1963	^2.85	12/10/1878	**6.04**	**9/27/1985**	6
7	2.72	1/8/1996	2.54	2/20/1924	2.60	3/28/1932	3.33	4/16/1929	2.69	5/28/1968	^3.65	6/23/1941	4.04	7/17/2018	4.36	8/14/1873	^5.02	9/16/1999	*4.16*	*10/26/1943*	2.85	11/24/1877	2.78	12/14/1996	**6.02**	**9/30/2010**	7
8	^2.62	1/9/2024	2.50	2/6/2010	^2.56	3/23/2005	3.21	4/28/1928	2.60	5/26/2009	3.35	6/30/1963	4.02	7/31/1889	4.33	8/27/1971	^5.00	9/27/1985	*4.16*	*10/2/1929*	2.83	11/17/1920	^2.73	12/13/1996	**5.98**	**10/8/2005**	8
9	2.57	1/30/1939	^2.30	2/22/2003	2.53	3/26/1978	^3.06	*4/30/2014*	^2.46	5/28/1968	3.23	6/14/1947	4.01	7/23/1906	^4.04	8/27/1971	4.92	9/16/1976	4.10	10/11/2013	^2.82	11/24/1877	2.56	12/18/1888	**^5.97**	**9/24/1912**	9
10	2.54	1/14/1968	2.28	2/17/2003	2.51	3/29/1984	^3.06	*4/30/1947*	2.44	5/25/1952	^3.19	6/29/1963	^3.99	7/13/1903	3.89	8/12/1928	^4.76	9/6/1895	4.09	10/27/2007	^2.79	11/3/1947	2.54	12/5/1993	**5.86**	**7/9/1952**	10

MAXIMUM 2-DAY PRECIPITATION

RANK	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ALL DAYS/MONTHS		RANK
	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	
1	3.94	1/4/1944	3.56	2/6/1896	3.68	3/10/1881	5.82	4/26/1889	3.75	5/9/1960	6.03	6/22/1972	6.01	7/9/1952	8.50	8/13/1955	6.58	9/24/1912	6.65	10/8/2005	5.69	11/21/1952	3.73	12/19/1977	**8.50**	**8/13/1955**	1
2	3.41	1/13/1915	3.48	2/7/1896	3.63	3/9/1881	4.45	4/18/1910	3.69	5/12/2008	4.47	6/29/1885	5.85	7/8/1952	8.35	8/23/1933	6.19	9/25/1912	6.43	10/30/2012	4.19	11/13/1937	3.36	12/18/1977	**8.35**	**8/23/1933**	2
3	3.33	1/8/1996	3.26	2/12/1983	3.60	3/4/1889	4.35	4/26/1937	3.35	5/8/1886	4.43	6/23/1972	5.49	7/24/2018	7.62	8/24/1933	6.09	9/30/2010	6.01	10/11/2013	3.56	11/16/1926	3.23	12/11/1992	**7.62**	**8/24/1933**	3
4	3.22	1/3/1944	3.21	2/24/2016	3.43	3/20/1958	4.30	4/30/2014	3.30	5/7/1935	4.03	6/3/1915	5.29	7/22/2018	6.31	8/12/2014	6.04	9/27/1985	5.75	10/29/2012	3.46	11/22/1952	3.21	12/30/1901	**6.65**	**10/8/2005**	4
5	3.07	1/2/1948	3.20	2/12/1886	3.29	3/13/2010	4.22	4/27/1937	3.28	5/8/1960	3.94	6/2/1915	5.02	7/28/2004	6.30	8/13/2014	6.02	9/30/2010	5.30	10/10/1922	3.34	11/7/1963	3.16	12/13/1909	**6.58**	**9/24/1912**	5
6	3.00	1/12/1915	3.05	2/25/1979	3.09	3/12/1878	3.89	4/27/1889	3.25	5/28/1968	3.65	6/23/1941	4.79	7/21/2018	5.27	8/14/1955	5.80	9/16/1999	4.42	10/2/1929	3.19	11/25/1877	3.11	12/11/1878	**6.43**	**10/30/2012**	6
7	2.80	1/30/1939	*2.62*	*2/25/2016*	2.98	3/3/1994	3.85	4/27/1952	2.96	5/16/2018	3.58	6/26/2006	4.63	7/14/1975	4.95	8/12/1955	5.31	9/5/1935	4.38	10/11/1922	3.11	11/17/1926	3.08	12/14/1909	**6.31**	**8/12/2014**	7
8	2.79	1/4/1914	*2.62*	*2/20/1924*	2.78	3/5/1889	3.77	4/16/1929	2.94	5/14/2025	3.53	6/3/1963	4.52	7/27/2004	4.79	8/13/1873	5.29	9/26/1902	4.37	10/9/2005	3.06	11/24/1877	2.96	12/29/1901	**6.30**	**8/13/2014**	8
9	2.62	1/9/2024	2.60	2/11/1886	2.77	3/27/1978	3.40	4/9/1935	2.86	5/16/1983	3.39	6/8/1947	4.46	7/25/2018	4.69	8/28/2011	5.24	9/7/2011	4.36	10/26/1943	2.95	11/6/1963	2.93	12/16/2018	**6.19**	**9/25/1912**	9
10	2.60	1/23/1935	2.59	2/22/2003	2.73	3/16/2007	3.39	4/17/1910	2.61	5/26/2009	*3.28*	*6/25/2006, 6/20/1983*	4.30	7/12/1903	4.40	8/14/1873	5.08	9/15/1904	4.12	10/27/2007	2.86	11/8/1997	2.92	12/10/1878	**6.09**	**9/30/2010**	10

MAXIMUM 3-DAY PRECIPITATION

RANK	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		ALL DAYS/MONTHS		RANK
	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	Amount	End Date	
1	4.41	1/5/1944	3.69	2/6/1896	3.80	3/10/1881	6.13	4/27/1889	4.14	5/8/1886	6.62	6/23/1972	6.71	7/23/2018	10.98	8/23/1933	6.80	9/25/1912	6.72	10/8/2005	5.98	11/21/1952	3.95	12/20/1977	**10.98**	**8/23/1933**	1
2	3.94	1/4/1944	3.56	2/7/1896	3.68	3/11/1881	5.82	4/26/1889	3.96	5/12/2008	6.22	6/22/1972	6.01	7/9/1952	10.18	8/14/1955	6.68	9/8/2011	6.67	10/30/2012	5.76	11/22/1952	3.73	12/19/1977	**10.18**	**8/14/1955**	2
3	3.63	1/9/1996	3.50	2/8/1896	3.67	3/5/1889	5.17	4/27/1952	3.75	5/9/1960	4.75	6/27/2006	5.99	7/24/2018	8.54	8/13/1955	6.67	9/7/2011	6.65	10/9/2005	4.19	11/14/1937	3.36	12/18/1977	**8.54**	**8/13/1955**	3
4	3.57	1/13/1915	3.42	2/26/1979	3.64	3/4/1889	4.96	4/19/1910	3.74	5/17/2018	4.56	6/24/1972	5.88	7/25/2018	8.35	8/24/1933	6.58	9/24/1912	6.43	10/31/2012	3.80	11/18/1926	3.33	12/29/1901	**8.35**	**8/24/1933**	4
5	3.41	1/14/1915	3.40	2/25/1979	3.63	3/9/1881	4.83	4/27/1937	3.69	5/13/2008	4.47	6/28/1885	5.85	7/8/1952	7.62	8/25/1933	6.20	9/26/1912	6.42	10/12/2013	3.57	11/7/1963	3.31	12/12/1992	**7.62**	**8/25/1933**	5
6	3.33	1/8/1996	3.38	2/13/1886	3.61	3/14/2010	4.62	4/30/2014	3.61	5/11/2008	4.11	6/26/2006	5.29	7/22/2018	6.31	8/12/2014	6.12	9/30/2010	6.08	10/11/2013	3.56	11/16/1926	3.29	12/30/1901	**6.80**	**9/25/1912**	6
7	3.22	1/3/1944	3.26	2/12/1983	3.50	3/21/1958	4.45	4/18/1910	3.37	*5/29/1968*	4.03	6/3/1915	5.09	7/28/2004	6.30	8/14/2014	6.04	9/27/1985	5.75	10/29/2012	3.50	11/26/1877	3.23	12/11/1992	**6.72**	**10/8/2005**	7
8	3.07	1/3/1948	3.22	2/25/2016	3.43	3/20/1958	4.35	4/26/1937	3.37	*5/7/1935*	3.89	6/10/1951	5.02	7/29/2004	5.78	8/15/1955	5.92	9/5/1935	5.35	10/10/1922	3.46	11/23/1952	3.21	12/31/1901	**6.71**	**7/23/2018**	8
9	3.00	1/12/1915	3.21	2/24/2016	3.29	3/13/2010	4.22	4/28/1937	3.35	5/9/1886	3.87	6/3/1979	4.98	7/15/1975	5.37	8/14/1873	5.80	9/16/1999	5.30	10/11/1922	3.43	11/25/1877	3.18	12/11/1878	**6.68**	**9/8/2011**	9
10	2.84	1/5/1914	3.20	2/12/1886	3.14	3/3/1994	*3.92*	*4/28/1952, 4/28/1889*	3.30	5/8/1935	3.68	6/8/1947	4.92	7/19/1945	4.97	8/12/1955	5.68	9/6/1935	4.65	10/16/1942	3.35	11/8/1963	3.16	12/13/1909	**6.67**	***10/30/2012, 9/7/2011***	10

Data through 2/28/2026, Updated 3/1/2026

DATA SOURCE:
1) NOAA, NCEI, "Local Climatological Data, Baltimore," 1915-2024: https://www.ncdc.noaa.gov/IPS/lcd/lcd.html
https://www.ncdc.noaa.gov/cdo-web/datatools/lcd
2) NOAA, NCEI, "Climatological Data, Maryland/Delaware," 1891-2024: https://www.ncdc.noaa.gov/IPS/cd/cd.html
3) SC ACIS database: https://scacis.rcc-acis.org/
4) NOAA, NCEI, "Hourly Precipitation, Baltimore," 8/1955: https://www.ncdc.noaa.gov/IPS/hpd/hpd.html
5) NOAA, NWS-Sterling (Baltimore/Washington) Website: https://w2.weather.gov/climate/index.php?wfo=lwx
6) Maryland Weather Service, Vol. 1 - Climate Features of Maryland, pp. 527-536, Baltimore, The Johns Hopkins Press, 1899, to Harvard College Library, January 11, 1900:
Maryland Weather Service - Google Books

DATA NOTES:
1) *Italicized values* are ties, with the most recent date at the higher rank.
2) ^ Calendar-day amount that equals or supersedes other 24-hour amounts.
3) * Calendar-Day value for which a possible larger 24-hour amount cannot currently be determined.
4) ! The 8/1955 Local Climatological Data pub. for Baltimore AP shows the 24-hr record is 7.82", occurring 8/12-13/1955. However, when hourly precipitation is calculated, 8.35" fell starting 8/12/1955 with the hour ending at 8:00 A.M., ending 8/13/1955 with the hour ending at 7:00 A.M., the maximum event amount for a 24-hour period, which occurred during Hurricane Connie. Later Local Annual CD's do show the 8.35" amount (including the LCD Annual Summary 2014).
5) Ending on 9/30/2010, a 2-day total of 6.09" occurred (0.07" on 9/29 and 6.02" on 9/30), hence two dates of 9/30/2010 are shown in the September data, the single day with 6.02" on 9/30 superseding many other 2-day totals.
6) The 2-day total of 6.04" ending on 10/1/2010 includes 6.02" on 9/30/2010 and 0.02" on 10/1/2010. Because this event crosses months, this 6.04" total is not included in the monthly lists of 2-Day totals for September, October, nor the "All Days/Months" columns but the 6.02" is for September.
7) The "3.58" amount on Calendar-day 4/26/1889 cannot be determined for a larger 24-hour amount, which might include part of the 2.24" on 4/25/1889 or part of the 0.31" on 4/27/1889 but could not supersede the 3.69" ending 4/18/1910 according to the Baltimore LCD Annual Summary of 1916 as that was the subsequent 24-hour maximum at that point in time.
8) Where a duplicate 2-day amount from the same event occurs when only a single day of precipitation was observed, only the first date is provided in the table, above.
9) After official weather records for Baltimore were moved from the downtown Custom House to the airport on 7/23/1950, several Custom House daily and monthly 2-day totals superseded all extreme totals at both the airport and downtown locations but are not included in the above table. Note, these are the most extreme and there could be other totals that also supersede other Top-10 table amounts:

a) **Calendar-Day Totals:**
i) 3.98" fell at the Custom House on 12/18/1977.
ii) 3.89" fell at the Custom House on 5/25/1952.

b) **2-Day Totals:**
i) 4.26" fell at the Custom House ending on 3/20/1958.
ii) 4.15" fell at the Custom House ending on 5/25/1952.
iii) 4.41" fell at the Custom House ending on 12/19/1977.

c) Though not part of these tables, the Custom House recorded a 1-hour rain total of 3.40" on 6/28/1953 at some point between 6:00 PM-7:00 PM and a total of 4.40" within 1.5 hours at some point between 5:00 PM-7:00 PM.

STATION LOCATIONS	PERIODS OF RECORD
South & Water Streets (SW Corner) - Fireman's Insurance Bldg	12/23/1870 - 12/31/1888
Holliday & E Baltimore Streets (SW Corner) - Neal Office Bldg	1/1/1889 - 5/31/1891
W Monument St & Linden Ave (NW Corner) - Johns Hopkins University Physics Lab	6/1/1891 - 9/6/1895
N Calvert & E Fayette Streets (SW Corner) - Equitable Building	9/7/1895 - 7/31/1896
532 N Howard Street - Johns Hopkins University Treasurer's Bldg	8/1/1896 - 12/31/1907
S Gay & Water Streets - Custom House	1/1/1908 - 7/22/1950
Baltimore-Washington (Friendship) International Thurgood Marshall Airport	7/23/1950 - Present

STATION DATA SOURCE:
1) NOAA, NCDC, "Local Climatological Data, Baltimore, MD Friendship Int'l AP," 1955;
2) NOAA, NCDC, "Local Climatological Data, Baltimore, MD Custom House," 1949 & 1964;
3) NOAA, NCDC, "2012 Local Climatological Data, Annual Summary, Baltimore, MD, KBWI."

STATION NOTES:
1) 8" rain gauge through entire period.
2) Additionally, a tipping bucket rain gauge added 6/13/1897.

BALTIMORE, MARYLAND

MAXIMUM PRECIPITATION BY CALENDAR DAY

(Amounts in Inches)

Period of record: 1/1/1871-Present

DAY OF MONTH	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		DAY OF MONTH
	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	Amount	Year	
1	2.77	1948	1.80	2008	**1.17**	1954	1.32	1931	1.53	1976	2.50	2015	3.18	1987	2.75	1913	4.13	2021	2.23	1915	1.76	1932	1.84	1974	1
2	2.42	1925	1.40	1897	2.48	1994	1.63	2005	1.17	1949	3.94	1915	3.47	1889	3.00	1944	1.85	1951	3.39	1929	1.42	1966	1.40	1927	2
3	**3.22**	1944	1.34	2014	1.67	1997	1.83	1901	1.39	1934	2.28	1963	2.33	1978	3.35	1885	1.78	1973	1.40	1927	2.79	1947	1.43	1967	3
4	1.90	1886	1.65	1998	2.71	1889	1.04	1920	1.32	1921	2.18	2020	2.30	1981	2.74	1911	1.86	1935	2.74	1962	1.82	2004	1.69	1950	4
5	1.82	1949	1.04	1924	1.62	1965	1.72	1941	1.67	1989	2.28	1957	1.65	1895	1.74	1888	4.39	1979	2.78	1902	1.41	1986	2.22	1945	5
6	2.34	1905	**3.48**	1896	1.90	1932	1.91	1924	2.02	1935	1.43	2005	1.54	2017	2.75	1901	4.76	1895	1.59	1932	2.72	1963	1.64	1936	6
7	2.51	1996	1.64	1965	1.49	1967	**0.93**	1899	1.63	1967	2.42	1947	2.62	1905	2.21	1886	3.84	1934	2.28	2005	2.44	1997	2.38	2011	7
8	1.51	1884	1.46	1890	1.88	1995	2.44	1935	**3.28**	1960	2.38	1955	**5.85**	1952	3.41	1953	1.44	2011	4.37	2005	2.65	1996	1.56	1972	8
9	2.62	2024	1.64	1885	**3.51**	1881	1.94	1906	1.85	2008	2.06	1881	**1.36**	2022	1.95	1969	2.23	2018	1.94	1992	1.35	1962	1.41	2009	9
10	**1.01**	1895	1.65	1881	2.61	2011	1.27	1894	1.15	1919	2.33	1951	2.29	1942	1.62	1897	3.72	1968	4.38	1922	1.71	1990	2.85	1878	10
11	2.06	1922	3.26	1983	2.10	1936	1.64	1919	1.49	2008	2.66	1880	3.75	1884	1.66	1928	3.42	1971	3.66	2013	1.91	2020	1.72	1992	11
12	2.84	1915	1.32	1985	1.90	1968	1.48	1933	2.20	2008	2.68	1911	3.90	1903	6.30	2014	3.42	1960	1.98	1927	1.82	1925	1.44	1983	12
13	1.18	1978	1.77	2014	2.45	1993	1.97	2020	2.28	2025	1.60	1982	3.45	1975	3.82	1873	3.15	1944	**1.06**	1901	2.74	1937	3.08	1909	13
14	2.45	1968	1.22	1890	1.82	1940	1.83	1970	**0.91**	1938	2.14	1947	1.95	2025	2.34	1929	3.82	1966	2.51	1955	1.92	1940	1.48	1879	14
15	1.06	1998	1.06	1958	1.60	1912	2.52	2007	1.83	1892	**1.17**	1880	2.20	1875	1.64	2016	3.20	1904	1.33	1942	2.12	1914	2.24	2018	15
16	1.36	1945	2.01	2003	2.14	2007	2.95	1929	1.96	2003	1.96	2011	2.79	2005	2.20	1968	5.02	1999	1.65	2002	3.11	1926	1.99	1974	16
17	1.25	1978	1.15	1982	1.29	1968	3.39	1910	1.14	1985	2.01	1900	3.35	2018	2.64	1928	3.94	1876	3.30	1932	2.39	1935	2.47	1888	17
18	1.08	1980	1.60	1887	1.60	1983	1.60	1924	1.54	2015	2.10	1878	3.07	1907	1.72	2011	2.22	2018	1.88	1996	**0.84**	1886	**3.36**	1977	18
19	1.29	1936	1.76	1927	2.15	1958	1.46	1943	1.53	1892	1.50	2014	1.54	1945	2.23	1939	1.90	1894	2.58	1966	1.63	1932	1.58	1936	19
20	1.34	1979	1.81	1924	1.83	2003	2.24	1940	2.20	1889	2.45	1962	4.26	1956	2.75	1997	1.75	1966	2.69	1873	2.30	1952	1.60	1957	20
21	1.53	1902	2.13	1902	1.77	2000	1.41	1918	2.05	1909	2.19	1972	4.79	2018	2.63	1933	**1.25**	1979	2.39	1961	**3.39**	1952	1.27	1905	21
22	1.75	1987	2.30	2003	1.45	1950	1.54	1972	1.86	1942	3.84	1972	3.99	1906	2.08	1931	2.62	1994	2.04	1956	1.26	2006	1.73	1881	22
23	1.82	1998	1.56	1998	2.56	2005	1.11	1907	2.40	1989	3.65	1941	2.42	2008	**7.62**	1933	3.19	2011	2.71	1890	1.79	1875	2.01	2015	23
24	1.74	1896	2.61	2016	1.55	2021	1.18	1910	2.23	1930	1.36	1920	4.07	2018	**1.56**	1967	5.97	1912	1.43	1926	2.82	1877	2.49	1986	24
25	1.83	1978	1.52	1874	2.24	1876	2.24	1889	2.22	1952	2.75	2006	2.00	1978	3.05	1911	2.47	1992	2.22	1872	2.02	1964	1.41	1945	25
26	1.82	2011	1.36	1962	2.31	1978	**3.74**	1937	2.29	2009	1.23	1883	1.83	1944	3.36	2012	3.29	1902	3.18	1943	1.61	2013	1.31	1943	26
27	1.03	1976	**0.83**	1958	1.60	1919	2.30	1928	1.50	1909	3.11	2015	4.45	2004	4.04	1971	5.00	1985	1.99	2003	1.99	1944	1.62	2023	27
28	2.02	1922	1.27	1939	1.83	2005	2.50	1875	2.46	1968	**4.47**	1885	2.58	2017	2.60	1989	1.82	1907	1.92	1972	1.50	1948	**1.25**	1967	28
29	1.31	1939	1.64	2012	2.05