

The X17 flare of Sept. 7, 2005, is marked in red. This list is based in part on "Large Solar Flares Since 1976" compiled by [IPS Radio & Space Services](#).

 Ranking Day/Month/Year X-Ray Class

1	04/11/03	X28
2	02/04/01	X20.0
2	16/08/89	X20.0
3	28/10/03	X17.2
4	07/09/05	X17
5	06/03/89	X15.0
5	11/07/78	X15.0
6	15/04/01	X14.4
7	24/04/84	X13.0
7	19/10/89	X13.0
8	15/12/82	X12.9
9	06/06/82	X12.0
9	01/06/91	X12.0
9	04/06/91	X12.0
9	06/06/91	X12.0
9	11/06/91	X12.0
9	15/06/91	X12.0
10	17/12/82	X10.1
10	20/05/84	X10.1
11	29/10/03	X10
11	25/01/91	X10.0
11	09/06/91	X10.0
12	09/07/82	X 9.8
12	29/09/89	X 9.8
13	22/03/91	X 9.4
13	06/11/97	X 9.4
14	24/05/90	X 9.3
15	06/11/80	X 9.0
15	02/11/92	X 9.0
15	03/10/24	X 9.0

See: **Top 30 Solar Flares of Solar Cycle 25** <https://solarham.com/top10.htm>

SOLAR CYCLE 25 TOP SOLAR FLARE LIST (M5+)

SOLAR CYCLE 24 TOP SOLAR FLARE LIST

<https://solarham.com/top10.txt>

SOLAR CYCLE 25 TOP SOLAR FLARE LIST (M5+) 170 flares; X0+ 74 flares

Compiled by SolarHam.com (Updated 12/30/2024)

CLASS	DATE	YEAR	SUNSPOT	PEAK TIME
-----	-----	----	-----	-----
X9.0 -	October 3	2024	3842	@ 12:18 UTC
X8.7 -	May 14	2024	3664	@ 16:51 UTC
X7.1 -	October 1	2024	3842	@ 22:20 UTC
X6.3 -	February 22	2024	3590	@ 22:34 UTC
X5.8 -	May 11	2024	3664	@ 01:23 UTC
X5.0 -	December 31	2023	3536	@ 13:14 UTC
X4.5 -	September 14	2024	3825	@ 15:29 UTC
X4.5 -	May 6	2024	3663	@ 06:35 UTC
X3.9 -	May 10	2024	3664	@ 06:54 UTC
X3.4 -	May 15	2024	3664	@ 08:37 UTC

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X3.3 - October 24      2024  3869  @ 03:57 UTC
X3.3 - February 9     2024  3575  @ 21:55 UTC
X2.9 - May 15         2024  3685  @ 14:38 UTC
X2.9 - May 27         2024  3697  @ 07:08 UTC
X2.8 - December 14   2023  3514  @ 17:02 UTC
X2.5 - February 16   2024  3576  @ 06:53 UTC
X2.3 - November 6    2024  3883  @ 13:50 UTC
X2.2 - December 8    2024  3912  @ 09:06 UTC
X2.2 - May 9          2024  3664  @ 09:13 UTC
X2.2 - February 17   2023  3229  @ 20:16 UTC  2

X2.2 - April 20      2022  2992  @ 03:57 UTC
X2.1 - October 7     2024  3842  @ 19:13 UTC
X2.0 - October 31   2024  3878  @ 21:20 UTC
X2.0 - March 3       2023  3234  @ 17:52 UTC
X1.9 - July 16      2024  3738  @ 13:26 UTC
X1.9 - January 9     2023  3184  @ 18:50 UTC
X1.9 - February 21  2024  3590  @ 23:07 UTC
X1.8 - October 26   2024  3873  @ 07:19 UTC
X1.8 - October 9    2024  3848  @ 01:55 UTC
X1.7 - August 5     2024  3767  @ 13:40 UTC  3

X1.7 - May 14        2024  3664  @ 02:09 UTC
X1.7 - February 22  2024  3590  @ 06:32 UTC
X1.6 - December 30  2024  3936  @ 04:14 UTC
X1.6 - May 3         2024  3663  @ 02:22 UTC
X1.6 - August 5     2023  3386  @ 22:20 UTC
X1.5 - July 29      2024  3766  @ 02:37 UTC
X1.5 - June 10     2024  3697  @ 11:08 UTC
X1.5 - May 11       2024  3664  @ 11:44 UTC
X1.5 - August 7     2023  3386  @ 20:46 UTC
X1.5 - May 10       2022  3006  @ 13:55 UTC  4

X1.5 - July 3       2021  2838  @ 14:29 UTC
X1.4 - May 29       2024  3697  @ 14:37 UTC
X1.4 - October 9    2024  3842  @ 15:47 UTC
X1.4 - June 1       2024  3697  @ 08:48 UTC
X1.3 - September 12 2024  3825  @ 09:43 UTC
X1.3 - August 8     2024  3777  @ 19:35 UTC
X1.3 - May 5        2024  3663  @ 06:01 UTC
X1.3 - March 30     2022  2975  @ 17:37 UTC
X1.2 - Jul 14       2024  3738  @ 02:34 UTC
X1.2 - May 14       2024  3664  @ 12:55 UTC  5

X1.2 - May 5        2024  3663  @ 11:54 UTC
X1.2 - March 29     2023  3256  @ 02:33 UTC
X1.2 - January 6    2023  3182  @ 00:57 UTC
X1.1 - December 29  2024  39xx  @ 07:17 UTC
X1.1 - August 14    2024  3784  @ 06:37 UTC
X1.1 - August 5     2024  3780  @ 15:27 UTC
X1.1 - May 31       2024  3697  @ 22:03 UTC
X1.1 - May 9        2024  3664  @ 17:43 UTC
X1.1 - March 28     2024  3615  @ 20:56 UTC
X1.1 - March 23     2024  3614  @ 01:33 UTC  6

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X1.1 - February 11	2023	3217	@ 15:48 UTC	
X1.1 - June 20	2023	3341	@ 17:09 UTC	
X1.1 - April 17	2022	2994	@ 03:34 UTC	
X1.1 - April 30	2022	2994	@ 13:47 UTC	
X1.1 - May 3	2022	(Limb)	@ 13:25 UTC	
X1.0 - June 1	2024	3697	@ 18:36 UTC	
X1.0 - May 8	2024	3664	@ 21:40 UTC	
X1.0 - May 8	2024	3664	@ 05:09 UTC	
X1.0 - July 2	2023	3354	@ 23:14 UTC	
X1.0 - January 10	2022	3186	@ 22:47 UTC	7
X1.0 - October 2	2022	3110	@ 20:25 UTC	
X1.0 - October 28	2021	2887	@ 15:35 UTC	
X1.0 - May 8	2024	3663	@ 01:41 UTC	
X1.0 - May 12	2024	3664	@ 16:26 UTC	74
M9.9 - July 28	2024	3766	@ 01:57 UTC	
M9.8 - November 28	2023	3500	@ 19:50 UTC	
M9.7 - June 8	2024	3697	@ 01:49 UTC	
M9.6 - May 16	2023	(Limb)	@ 16:43 UTC	
M9.6 - April 21	2022	2993	@ 01:59 UTC	
M9.6 - March 31	2022	2975	@ 18:35 UTC	8
M9.5 - April 30	2024	3654	@ 23:46 UTC	
M9.4 - November 25	2024	(Limb)	@ 07:42 UTC	
M9.4 - November 10	2024	3889	@ 12:04 UTC	
M9.4 - October 31	2024	3878	@ 21:54 UTC	
M9.4 - July 30	2024	3772	@ 19:37 UTC	
M9.4 - March 30	2024	3615	@ 21:16 UTC	
M9.3 - June 23	2024	3723	@ 13:01 UTC	
M9.1 - May 4	2024	3663	@ 23:48 UTC	
M9.1 - May 4	2024	3663	@ 06:19 UTC	
M9.0 - December 23	2024	3932	@ 11:12 UTC	9
M9.0 - February 10	2024	3576	@ 23:07 UTC	
M8.9 - May 20	2023	3311	@ 12:35 UTC	
M8.8 - May 11	2024	3664	@ 15:25 UTC	
M8.7 - September 21	2023	3435	@ 12:54 UTC	
M8.7 - October 2	2022	3110	@ 02:21 UTC	
M8.6 - May 8	2024	3664	@ 12:04 UTC	
M8.6 - February 28	2023	3234	@ 17:50 UTC	
M8.6 - August 29	2022	3088	@ 11:07 UTC	
M8.5 - November 6	2024	3887	@ 08:50 UTC	
M8.2 - August 1	2024	3768	@ 07:09 UTC	10
M8.2 - September 20	2023	3435	@ 14:19 UTC	
M8.2 - May 7	2024	3663	@ 16:30 UTC	
M7.9 - May 8	2024	3664	@ 17:53 UTC	
M7.9 - September 16	2022	3098	@ 09:49 UTC	
M7.7 - December 29	2024	3939	@ 17:08 UTC	
M7.7 - October 9	2024	3842	@ 23:12 UTC	
M7.7 - July 31	2024	3768	@ 06:46 UTC	
M7.7 - July 28	2024	3762	@ 10:42 UTC	
M7.6 - September 30	2024	3842	@ 23:59 UTC	
M7.5 - May 5	2024	3663	@ 10:00 UTC	11

M7.4 - March 20	2024	3615	@ 07:36 UTC	
M7.4 - March 10	2024	3599	@ 12:13 UTC	
M7.3 - August 3	2024	3775	@ 18:39 UTC	
M7.3 - June 1	2024	3697	@ 19:40 UTC	
M7.3 - April 20	2022	2992	@ 01:36 UTC	
M7.2 - October 30	2024	3878	@ 20:53 UTC	
M7.2 - May 17	2024	3685	@ 21:08 UTC	
M7.2 - May 3	2023	3293	@ 10:45 UTC	
M7.2 - August 26	2022	3089	@ 12:14 UTC	
M7.1 - May 8	2024	3664	@ 06:53 UTC	12
M7.1 - May 1	2023	3288	@ 13:09 UTC	
M6.9 - December 15	2023	3514	@ 07:34 UTC	
M6.8 - September 12	2024	3811	@ 14:43 UTC	
M6.7 - December 11	2024	3912	@ 15:49 UTC	
M6.7 - October 3	2024	3843	@ 20:28 UTC	
M6.7 - March 18	2024	3615	@ 19:19 UTC	
M6.7 - August 28	2022	3088	@ 16:19 UTC	
M6.6 - May 13	2024	3664	@ 09:44 UTC	
M6.5 - October 19	2024	3854	@ 06:56 UTC	
M6.5 - May 9	2023	3296	@ 03:54 UTC	13
M6.5 - May 20	2023	3311	@ 07:32 UTC	
M6.4 - December 10	2024	3922	@ 06:48 UTC	
M6.4 - Jul 29	2024	3772	@ 19:57 UTC	
M6.3 - February 25	2023	3229	@ 19:43 UTC	
M6.3 - February 7	2023	3213	@ 23:07 UTC	
M6.3 - August 1	2024	3773	@ 01:50 UTC	
M6.3 - December 14	2022	3165	@ 14:42 UTC	
M6.2 - September 16	2022	3098	@ 15:59 UTC	
M6.1 - August 5	2024	3780	@ 05:23 UTC	
M6.1 - June 6	2024	3697	@ 15:06 UTC	14
M6.0 - July 31	2024	3772	@ 13:05 UTC	
M6.0 - January 15	2022	3191	@ 03:42 UTC	
M5.8 - December 14	2023	3514	@ 07:44 UTC	
M5.8 - March 6	2023	3243	@ 02:28 UTC	
M5.8 - October 1	2022	3110	@ 20:10 UTC	
M5.7 - December 15	2022	3165	@ 22:40 UTC	
M5.7 - May 29	2024	3691	@ 18:41 UTC	
M5.7 - May 4	2022	3004	@ 08:59 UTC	
M5.6 - January 11	2022	3184	@ 01:56 UTC	
M5.6 - May 19	2022	3017	@ 07:19 UTC	15
M5.5 - November 4	2024	3883	@ 15:38 UTC	
M5.5 - September 1	2024	(Limb)	@ 13:21 UTC	
M5.5 - January 20	2022	2929	@ 06:01 UTC	
M5.4 - August 3	2024	(Limb)	@ 19:30 UTC	
M5.3 - November 6	2024	(Limb)	@ 14:38 UTC	
M5.3 - August 10	2024	3780	@ 02:37 UTC	
M5.3 - July 31	2024	3768	@ 18:37 UTC	
M5.3 - August 26	2022	3089	@ 12:31 UTC	
M5.3 - May 4	2022	(Limb)	@ 00:19 UTC	
M5.2 - March 4	2023	3234	@ 15:57 UTC	16

M5.2 -	November 7	2022	3141	@ 00:11	UTC	
M5.1 -	August 23	2024	3800	@ 20:12	UTC	
M5.1 -	August 21	2024	3796	@ 22:08	UTC	
M5.1 -	January 10	2022	3186	@ 00:16	UTC	
M5.1 -	May 7	2024	3663	@ 06:16	UTC	
M5.0 -	December 30	2024	3936	@ 16:54	UTC	
M5.0 -	September 12	2024	3811	@ 00:12	UTC	
M5.0 -	August 7	2024	3777	@ 18:54	UTC	
M5.0 -	March 5	2023	3243	@ 21:36	UTC	
M5.0 -	August 16	2022	3078	@ 07:58	UTC	17

SOLAR CYCLE 24 TOP SOLAR FLARE LIST (M5+) 84 flares ; X0+ 49 flares

CLASS	DATE	YEAR	SUNSPOT	PEAK TIME		
-----	-----	----	-----	-----		
X9.3 -	September 6	2017	(2673)	@ 12:02	UTC	
X8.2 -	September 10	2017	(2673)	@ 16:06	UTC	
X6.9 -	August 9	2011	(1263)	@ 08:08	UTC	
X5.4 -	March 7	2012	(1429)	@ 00:24	UTC	
X4.9 -	February 25	2014	(1990)	@ 00:49	UTC	
X3.3 -	November 5	2013	(1890)	@ 22:12	UTC	
X3.2 -	May 14	2013	(1748)	@ 01:17	UTC	
X3.1 -	October 24	2014	(2192)	@ 21:40	UTC	
X2.8 -	May 13	2013	(1748)	@ 16:09	UTC	
X2.7 -	May 5	2015	(2339)	@ 22:11	UTC	

X2.3 -	October 29	2013	(1875)	@ 21:54	UTC	
X2.2 -	September 6	2017	(2673)	@ 09:10	UTC	
X2.2 -	March 11	2015	(2297)	@ 16:22	UTC	
X2.2 -	June 10	2014	(2087)	@ 11:42	UTC	
X2.2 -	February 15	2011	(1158)	@ 01:56	UTC	
X2.1 -	October 25	2013	(1882)	@ 15:03	UTC	
X2.1 -	September 6	2011	(1283)	@ 01:50	UTC	
X2.0 -	October 27	2014	(2192)	@ 14:47	UTC	
X2.0 -	October 26	2014	(2192)	@ 10:56	UTC	
X1.9 -	November 3	2011	(1339)	@ 20:27	UTC	2
X1.9 -	September 24	2011	(1302)	@ 09:40	UTC	
X1.8 -	December 20	2014	(2242)	@ 00:27	UTC	
X1.8 -	September 6	2011	(1283)			
X1.8 -	October 23	2012	(1598)			
X1.7 -	October 25	2013	(1882)			
X1.7 -	May 13	2013	(1748)			
X1.7 -	January 27	2012	(1402)			
X1.6 -	November 7	2014	(2205)	@ 17:26	UTC	
X1.6 -	October 22	2014	(2192)	@ 14:28	UTC	
X1.6 -	September 10	2014	(2158)	@ 17:45	UTC	3

X1.5 - June 10	2014	(2087)	@ 12:52 UTC	
X1.5 - March 9	2011	(1166)		
X1.4 - July 12	2012	(1520)		
X1.4 - September 22	2011	(1302)		
X1.3 - April 25	2014	(2035)	@ 00:27 UTC	
X1.3 - September 7	2017	(2673)	@ 14:26 UTC	
X1.3 - March 7	2012	(1429)		
X1.2 - January 7	2014	(1943)	@ 18:32 UTC	
X1.2 - May 15	2013	(1748)		
X1.1 - October 19	2014	(2192)	@ 05:03 UTC	4
X1.1 - November 10	2013	(1890)	@ 05:14 UTC	
X1.1 - November 8	2013	(1890)	@ 04:26 UTC	
X1.1 - July 6	2012	(1515)		
X1.1 - March 4	2012	(1429)		
X1.0 - October 25	2014	(2192)	@ 17:08 UTC	
X1.0 - June 11	2014	(2087)	@ 09:06 UTC	
X1.0 - March 29	2014	(2017)	@ 17:48 UTC	
X1.0 - November 19	2013	(1893)	@ 10:26 UTC	
X1.0 - October 28	2013	(1875)		49
M9.9 - January 1	2014	(1936)	@ 18:52 UTC	5
M9.3 - March 12	2014	(1996)	@ 22:34 UTC	
M9.3 - October 24	2013	(1877)		
M9.3 - August 4	2011	(1261)		
M9.3 - July 30	2011	(1260)		
M9.2 - March 7	2015	(2297)	@ 22:22 UTC	
M9.0 - October 20	2012	(1598)		
M8.7 - December 17	2014	(2242)	@ 04:55 UTC	
M8.7 - October 22	2014	(2192)	@ 01:59 UTC	
M8.7 - January 23	2012	(1402)		
M8.4 - March 10	2012	(1429)		6
M8.3 - February 6	2010	(1045)		
M8.2 - March 3	2015	(2290)	@ 01:35 UTC	
M8.1 - September 8	2017	(2673)	@ 07:49 UTC	
M7.9 - June 25	2015	(2371)	@ 08:16 UTC	
M7.9 - November 5	2014	(2105)	@ 09:47 UTC	
M7.9 - March 13	2012	(1429)		
M7.7 - July 19	2012	(1520)		
M7.6 - September 28	2015	(2422)	@ 14:58 UTC	
M7.3 - September 7	2017	(2673)	@ 10:15 UTC	
M7.3 - October 2	2014	(2173)	@ 19:01 UTC	7
M7.3 - April 18	2014	(2036)	@ 13:03 UTC	
M7.2 - January 7	2014	(1944)	@ 10:13 UTC	
M7.1 - October 26	2014	(2192)	@ 00:34 UTC	
M6.9 - December 18	2014	(2241)	@ 21:58 UTC	
M6.7 - April 18	2016	(2529)	@ 00:29 UTC	
M6.6 - February 13	2011	(1158)		
M6.5 - June 22	2015	(2371)	@ 18:23 UTC	
M6.5 - July 8	2014	(2113)	@ 16:20 UTC	
M6.5 - April 2	2014	(2027)	@ 14:05 UTC	
M6.5 - April 11	2013	(1719)		8
M6.4 - December 31	2013	(1936)	@ 21:58 UTC	
M6.3 - November 1	2013	(1884)		
M6.1 - December 4	2014	(2222)	@ 18:25 UTC	
M6.1 - July 28	2012	(1532)		

SOLAR CYCLE 23 TOP SOLAR FLARE LIST

CLASS	DATE	YEAR	SUNSPOT	PEAK TIME
-----	-----	----	-----	-----
X28+ -	November 4	2003	0486 @	19:53 UTC
X20 -	April 2	2001	9393 @	21:50 UTC
X17 -	October 28	2003	0486 @	11:10 UTC
X17 -	September 7	2005	0808 @	17:40 UTC
X14 -	April 15	2001	9415 @	13:50 UTC
X10 -	October 29	2003	0486 @	20:49 UTC
X9.4 -	November 6	1997	8100 @	11:56 UTC