

Statistical insights on the eruptive activity at Stromboli volcano (Italy) recorded from 1879 to 2023
Supplementary Material

Table S1

The overall number of events considered in this catalogue consists of 520 records from 1879 to June 2023. Among the 278 explosive explosions (X), 42 as paroxysmal explosions (XX) and 40 are uncertain major explosions (U), which means that they lie at the boundary between minor and major explosions. The remaining events have been classified as lava flows, further subdivided on the basis of duration and eruption type: L (lava flows lasting less than 1 day, or intra-crater lava flows having volume up to 10^3 m³), FF (overflows from the crater rim and small lava flows lasting more than 1 day, having volumes greater than 10^3 m³ and less than 10^6 m³) and FFF (flank eruptions, involving opening of eruptive fissures on the S or more, and/or lava volumes greater than 1×10^6 m³); then Pyroclastic Density Current (PDC), Tsunami (T), Crater Failure (C) and Landslide (L). In white are evidenced the explosive events; in red the effusive events; in green the instability events, either crater failure, landslides or pyroclastic tsunamis. Time is expressed in UTC, local time (LT) only when specified.

Year	Month	Day	Type	Time (UTC)	Activity	Duration	References
1879	2	4	X		Major explosion		[71]
1879	2	5	XX		Paroxysm		[71]
1879	6	8	XX		Paroxysm		[71]
1881	10	18	U		Uncertain major explosion		[71]
1882	1	30	X		Major explosion		[71]
1882	3	13	U		Uncertain major explosion		[71]
1882	4	25	U		Uncertain major explosion		[71]
1882	11	17	U		Uncertain major explosion		[71]
1882	11	17	FF		Lava flow on SdF	13 days	[55]
1882	11	18	XX		Paroxysm		[71]
1882	11	24	U		Uncertain major explosion		[71]
1883	2	8	U		Uncertain major explosion		[71]
1883	2	9	X		Major explosion		[71]
1883	3	16	XX		Paroxysm		[71]
1883	7	3	U		Uncertain major explosion		[71]
1885	6	28	U		Uncertain major explosion		[71]
1886	1	22	U		Uncertain major explosion		[71]
1887	1	31	XX		Paroxysm		[71]
1887	3	31	XX		Paroxysm		[71]
1887	11	18	XX		Paroxysm		[71]
1888	10	23	X		Major explosion		[71]

1891	6	30	F			[55]
1891	7	16	FF		4 days	[23, 55]
1891	8	31	XX	Paroxysm		[71]
1892	5	11	U	Uncertain major explosion		[71]
1893	1	30	U	Uncertain major explosion		[71]
1893	8	11	U	Uncertain major explosion		[71]
1895	3	29	X	Major explosion		[71]
1896	7	13	X	Major explosion		[71]
1897	7	17	X	Major explosion		[71]
1897	7	18	U	Uncertain major explosion		[71]
1898	8	24	U	Uncertain major explosion		[71]
1898	10	20	U	Uncertain major explosion		[71]
1898	10	25	X	Major explosion		[71]
1899	11	10	U	Uncertain major explosion		[71]
1900	4	10	X	Major explosion		[71]
1900	4		FFF		6 months	[23]
1900	5	20	X	Major explosion		[71]
1900	8	4	X	Major explosion		[71]
1900	8	22	X	Major explosion		[71]
1900	9	19	U	Uncertain major explosion		[71]
1900	10	19	X	Major explosion		[71]
1900	10	19	PDC	Hot avalanche		[88]
1901	3	8	X	Major explosion		[71]
1901	9	22	X	Major explosion		[71]
1901	12	29	X	Major explosion		[71]
1903	1	22	X	Major explosion		[71]
1903	1	1	FF	Flank eruption	9 days	[23, 55]
1903	3	3	F			[55]
1903	3	9	X	Major explosion		[71]
1903	6		F			[55]
1903	10		F			[23]
1903	11	11	U	Uncertain major explosion		[71]
1903	11	11	FF		7 days	[55]
1904	3	19	X	Major explosion		[71]
1904	8	22	U	Uncertain major explosion		[71]
1905	2	25	X	Major explosion		[71]
1905	2	25	F	Lava flow to the sea	6 hours	[23]
1905	3	15	U	Uncertain major explosion		[71]

1906	1	19	U		Uncertain major explosion		[71]
1906	7	11	U		Uncertain major explosion		[71]
1906	7	15	XX		Paroxysm		[71]
1907	1	11	X		Major explosion		[71]
1907	1	11	F		short lava flow		[55]
1907	1	27	FF		Lava flow to the sea	4 days	[23]
1907	1	31	F		short lava flow		[55]
1907	4	13	XX		Paroxysm		[71]
1907	4	27	XX		Paroxysm		[71, 55]
1907	5	14	XX		Paroxysm		[55, 71]
1907	5	20	X		Major explosion		[71]
1912	7	27	XX		Paroxysm		[71]
1912	8	7	U		Uncertain major explosion		[71]
1912	8	25	XX		Paroxysm		[55]
1914	4	18	FF		Lava flow field	3 days	[138]
1914	5	30	XX	20:45	Paroxysm		[138]
1914	6	18	F		Lava flow to SdF		[138]
1914	8	3	F				[138]
1914	8	7	FF			3 days	[138]
1914	8	24	FF			7 days	[138]
1914	9	1	FFF			1 month	[138]
1914	10	1	FFF			1 month	[138]
1914	11	1	FF			7 days	[138]
1914	12	10	FF			21 days	[138]
1915	6	11	FFF	23:40	Lava flow field to sea	~6 months	[23, 55, 138]
1915	11	13	XX	09:15	Paroxysm		[71, 138]
1915	11	13	L	13:30	Landslide		[88, 138]
1915	11	26	XX		Paroxysm		[71]
1915	12	10	X		Major explosion		[71]
1916	1	5	X	07:37	Major explosion		[71, 138]
1916	6	20	F	23:13	rheomorphic overflows?	1 day	[138]
1916	7	2	X	13:35	Major explosion		[71, 138]
1916	7	3	F	22:30		1 day	[23, 138]
1916	7	4	XX	01:00	Paroxysm	15 min	[71, 138]
1916	7	4	FFF	01:00	Lava flow to the sea	2 months	[23, 138]
1916	7	11	X	08:21	Major explosion		[71, 138]
1916	7	22	X	13:28	Major explosion		[71, 138]
1916	8	26	X	06:00	Major explosion		[71, 138]
1916	10	25	FF	21:35	Lava flow to the sea	3 days	[138]

				explosion		
1921	6	16	X		Major explosion	[55, 71]
1921	6	16	F		Lava flow after major explosion	[55]
1921	6	22	X		Major explosion	[55, 71]
1921	6	22	F		Lava flow after major explosion	[55]
1921	6	27	XX		Paroxysm	[71]
1922	8	20	U		Uncertain major explosion	[71]
1923	12	15	U		Uncertain major explosion	[71]
1929			F			[23]
1930	2	3	U		Uncertain major explosion	[71]
1930	2	3	FF			3 days [23]
1930	9	11	XX	09:52	Paroxysm	30 min [55, 71, 128]
1930	9	11	PDC		2 Hot avalanches	[55, 128, 136]
1930	9	11	T	10:19	Tsunami	[55, 128]
1930	9	11	F		Lava flow to the sea	12 hours [23, 128]
1930	10	22	XX	18:47	Paroxysm	[71, 128]
1930	12	1	F	18:00	Lava flow to the sea	1 day [23, 55, 128]
1931	4	23	XX	21:47+21:55	Paroxysm	10 min [71, 128]
1931	7	7	U	12:33	Uncertain major explosion	[71, 128]
1932	6	3	X	13:43	Major explosion	[71, 128]
1934	2	2	XX	10:10	Paroxysm	[71, 129]
1934	8	21	X	08:00:00+09:50	2 Major explosions	[71, 128]
1935	2	22	X	06:25	Major explosion	[129]
1935	2	23	X	19:40	Major explosion	[129]
1935	2	24	X	07:15	2 Major explosions	[129]
1935	2	25	F		Lava flow to the sea	1 day [129]
1935	7	21	XX		Paroxysm	20 min [129]
1935	7	21	FFF	13:10	moderate effusive activity	37 days [23, 129]
1936	1	31	XX	17:50	Paroxysm	[71, 129]
1936	1	31	F	18:30	Lava flow to the sea	[129]
1936	5	11	X	11:40	Major explosion	[71, 129]
1936	5	8	FF		overflows	7 days [129]
1936	8	22	X	11:55	Major explosion	10 min [71, 129]
1936	9	9	FFF		Lava flow field to the sea	1 month [58, 129]
1936	10	3	F		Lava flow to SdF	[129]
1936	10	7	F		Lava flow to SdF	[129]
1936	10	26	X	14:45	Major explosion	[71, 129]

1937	4	4	F		Lava flow to SdF		[130]
1937	6		FF		Lava flows to the sea		[130]
1937	7	17	F		Lava flow to SdF		[130]
1937	7	21	F		Lava flow to SdF		[130]
1937	8	25	F		Lava flows to the sea	~1 day	[130]
1937	8	29	F		Lava flow to SdF		[130]
1937	11	14	XX	07:55	Paroxysm		[71, 130]
1937	11	14	F		Lava flows to the sea	~1 day	[130]
1938	1	11	FF	08:40	Lava flow field to the sea	16 days	[23, 130]
1938	3	26	F	14:40		~1 day	[130]
1938	3	31	F			~1 day	[130]
1938	4	26	F			~1 day	[130]
1938	5	5	FFF	07:10	Lava flow field to the sea	43 days	[130]
1938	5	8	X	12:16	Major explosion		[71, 130]
1938	5	22	XX	17:45	Paroxysm		[71, 130]
1938	6	1	X	07:15	Major explosion		[71, 130]
1938	10	19	F		Lava flow to SdF		[130]
1938	10	23	F		Lava flow to SdF		[130]
1938	10	26	F		Lava flow to SdF		[130]
1938	11	5	FF		Lava flows to the sea	7 days	[130]
1938	12	1	FF		Lava flows to the sea	2 days	[130]
1938	12	11	F		Lava flows to the sea		[130]
1939	1	4	U	07:45	Uncertain major explosion		[71, 130]
1939	1	10	F		intracrater lava flows		[130]
1939	2	10	FF	16:20	Lava flows to the sea	6 days	[130]
1939	2	12	U	14:35	Uncertain major explosion		[71, 130]
1939	3	25	F	20:45	Lava flows to the sea	1 day	[130]
1939	4	9	F	17:45	Lava flows to the sea	1 day	[130]
1939	4	17	F	16:20	Lava flows to the sea	1 day	[130]
1939	4	23	FF		Lava flow to SdF	4 days	[130]
1939	5	2	FF		Lava flow to SdF	4 days	[130]
1939	5	31	FF	19:30	Lava flows to the sea	7 days	[130]
1941	8	22	XX	20:00	Paroxysm		[71, 136]
1941	8	22	FF	20:00->	2 lava flows to the sea	a few days	[136]
1943	12	3	XX	13:30	Paroxysm		[71, 136]
1943	12	3	FFF	13:30->	Lava flow field to the sea	~300 days	[23, 136]
1944	1	25	XX	09:44	Paroxysm		[71, 136]
1944	2	24	U	02:30	Uncertain major explosion		[71, 136]
1944	6	15	U	10:00	Uncertain major explosion		[71, 136]

1944	8	20	FFF	07:30->	Lava flow to SdF	2 months	[55, 136]
1944	9	12	X	14:15	Major explosion		[71, 136]
1949	6	6	FF		Lava flow to SdF	3 days	[23, 136]
1950	10	20	X	11:10	Major explosion		[71, 136]
1950	10	20	FF	11:10->	Overflow	3 days	[136]
1952	6	7	U	05:00	Uncertain major explosion		[71, 136]
1952	6	7	FF	05:00->	intermitted lava flows	15 days	[23, 136]
1954	2	1	U	12:15	Uncertain major explosion		[71, 139]
1954	2	1	FFF	12:15-13:00->	Lava flow field to the sea	40 days	[23, 138-139]
1954	12	6	F	5:10->	Lava flow to the sea	1.5 day	[138]
1955	2	28	FF		submarine lava at base of SdF	22 days	[23, 121]
1955	3	22	F		Lava flow to the sea		[121, 137]
1956	1	1	FF	18:00->	Lava flow to the sea	13 days	[23, 135]
1956	1	16	FFF		Overflows to SdF	2 months	[135]
1958	2	6	FF	06:00->	Lava flow to sea-SW	6 days	[58, 121]
1958	5	31	FF	18:00:00->	Lava flow to sea-NE	5 days	[121]
1959	5	19	XX	08:00	Paroxysm		[71, 121]
1959	7	11	XX	18:20	Paroxysm		[71, 121]
1959	8	12	F		Lava flow to the sea	1 day	[121]
1959	9	6	X	23:30	Major explosion		[71, 121]
1959	9	7	FF		Lava flow to SdF	3 days	[121]
1959	9	14	U	09:30	Uncertain major explosion		[71, 121]
9-12 April 1966			FF		Flank eruption	3 days	[23]
19 April to 13 August 1967			FFF	05:00	Lava flow field to the sea	116 days	[23, 143]
31 March to 1 April 1971			FF		Flank eruption	1 day	[23]
1971	5	1	X	13:45	Major explosion		[79]
1971	5	1	FF	13:45->	Lava flow along SdF	3 days	[79]
1972	12	5	X		Major explosion		[23, 72]
1972	12	10	X		Major explosion		[23, 72]
1973	5	10	X		Major explosion		[23, 80]
1974	9	19	X	00:10	2 Major explosions		[54, 80]
1975	11	4	U		Uncertain major explosion		[23, 72]
1975	11	5	X		Major explosion		[72]
5-24 Nov 1975			FF	15:00->	Flank eruption	19 days	[54]
1985	6	27	X		Major explosion		[84]
1985	12	6	XX	08:00	Paroxysm		[23, 56, 72]

1988	8	30	X	01:12	major explosion		[23, 72, 84, 146]
1989	3	7	X	00:51	Major explosion		[81, 84]
1989	3	20	X	02:22	Major explosion		[81, 84]
1989	3	26	X	07:27	Major explosion		[81, 84]
1989	4	3	X	18:23	Major explosion		[81, 84]
1990	4	15	X		Major explosion		[23, 72]
1990	6	18	X		Major explosion		[23, 39, 72, 84]
1990	10	4	F		overflow		[84, 86]
1992	7	20	X	01:13	Major explosion	3 min	[82–84]
1992	9	1	X	05:00? (07:00 LT)	Major explosion		[83]
1992	11	22	C		crater area collapse		[86]
1993	2	10	X		Major explosion		[39, 72, 84]
1993	5	16	F		overflow	1 day	[58, 84]
1993	5	18	FF		overflow	10 days	[58, 132–133]
1993	10	16	X	16:10	Major explosion	8 min	[39, 72, 84, 142]
1993	10	23	X		Major explosion		[132–133]
1993	10	30	X		Major explosion		[84]
1993	11	4	X		Major explosion		[84]
1994	6	4	X		Major explosion		[84]
1994			F		overflow		[84]
1995	3	5	X	18:43	Major explosion		[39, 72]
1995	5	10	X	22:41	Major explosion		[84, 141]
1996	2	16	X		Major explosion		[39, 72, 84]
1996	6	1	X	23:55 LT	Major explosion		[39, 72, 84]
1996	6	6	X		Major explosion		[39, 72, 84]
1996	8	16	F		small lava flow	1 day	[85]
1996	9	4	X	13:44	Major explosion	2.3 min	[39, 72, 84]
1998	1	16	X		Major explosion		[39, 72]
1998	8	23	X	15:26	Major explosion	6	[39, 72, 84]
1998	9	8	X	17:13	Major explosion	11	[39, 72, 84]
1998	9	18	X		Major explosion		[84]
1998	11	24	X	17:00	Major explosion	15	[39, 72, 84]
1998	12	26	X	14:55	Major explosion	9	[39, 72]
1998	12	28	X	01:42	Major explosion	18	[39, 72]
1999	3	13	X	06:22	Major explosion	12	[84]
1999	4	9	X		Major explosion		[85]
1999	8	25	X	22:56	Major explosion	10	[84]
1999	10	10	X		Major explosion		[85]
1999	11	16	X		Major explosion		[84]

2001	10	20	X	00:33	major explosion		[39, 72]
2002	1	23	X	20:54	Major explosion		[39, 72]
2002	7	24	X		Major explosion		[39, 72]
2002	11	15	F		Overflow from CC		[131]
2002	12	28	L		Landslide		[44, 87]
2002	12	28	T		Tsunami		[44, 87]
28 Dec 2002 to 22 July 2003			FFF		Flank eruption	7 months	[44]
2003	3	17	U	05:26+14:36	Uncertain Major explosion		[152]
2003	4	3	X	09:21	Major explosion		[44, 153]
2003	4	5	XX	07:13	Paroxysm		[150]
2003	4	10	X	00:15	Major explosion		[44, 154]
2004	9	16	X	04:07	Major explosion		[24]
2004	11	24	X	19:49	Major explosion		[24]
2004	12	7	X	10:08	Major explosion	poor visibility	[24]
2004	12	9	X	10:02	Major explosion		[24]
2005	1	9	X	10:32	Major explosion		[24, 145]
2005	3	23	X	22:32	Major explosion		[24]
2005	4	9	X	14:41	Major explosion		[24]
2005	5	9	X	10:37	Major explosion	4	[24, 151]
2005	5	12	X	19:26	Major explosion	3	[24, 151]
2005	6	23	X	12:38	Major explosion		[155]
2005	6	30	X	04:43+15:55	Major explosions		[24, 151]
2005	8	5	X	11:08	Major explosion		[39, 72]
2005	11	12	X	06:24?	Major explosion		[24]
2006	5	22	X	22:38	Major explosion		[24]
2006	6	16	X	19:07	Major explosion		[24]
2006	12	15	X	12:29	Major explosion	40 secs	[39, 72, 156]
27 Febr - 2 April 2007			FFF		Flank eruption	34 days	[57]
2007	3	15	XX	20:38	Paroxysm		[39, 48, 72]
2008	2	29	X	02:17	Major explosion		[39, 72, 91]
2008	7	9	X	05:35+05:40	Major explosion		[91]
2008	8	7	X	14:21	Major explosion		[157]
2008	9	7	X	07:40	Major explosion		[31, 39, 72, 91]
2008	9	13	F	00:00-07:00	Lava flow	7 h	[91]
2008	11	16	F	13:46	intracrater flow		[91]
2008	12	6	X	20:49	Major explosion		[39, 72, 91]
2008	12	17	X	13:32	Major explosion		[91]
2008	12	31	X	22:47	Major explosion		[158]

2009	5	5	FF	17:00->	intracrater flow	2 days	[91]
2009	5	17	F	16:15->18:00	small flow	1 day	[91]
2009	8	30	F	11:00->21:00	2 small flows	10 h	[91]
2009	11	8	X	12:29	Major explosion		[39, 72, 91]
2009	11	8	F	12:29->	intracrater flow	1 day	[25, 91]
2009	11	24	X	11:20	Major explosion		[39, 72, 91]
2010	1	4	X	19:12	Major explosion		[159]
2010	1	7	F	12:54->	intracrater flow	1 day	[91]
2010	1	10	X	14:48	Major explosion		[39, 72]
2010	1	10	F	14:48->	overflow		[91]
2010	1	14	X	09:18	Major explosion		[160]
2010	1	21	X	20:45	Major explosion		[39, 72, 91]
2010	3	12	X	07:57	Major explosion	10 min	[144, 161]
2010	6	25	X	06:02	Major explosion		[91]
2010	6	30	X	16:33	Major explosion		[39, 72, 91]
2010	7	11	X	19:46	Major explosion	2 pulses	[162]
2010	10	19	FF		intracrater flow	7 days	[91]
2010	11	1	F	14:00->	intracrater flow		[163]
2010	12	10	X	14:37	Major explosion		[91]
2010	12	12	F	02:00	rheomorphic intracrater flow	4 hours	[91, 164]
2010	12	19	X	09:56	Major explosion		[91]
2011	1	26	F	19:00->05:45	intracrater flows	~11 hours	[91]
2011	3	4	X	12:25	Major explosion		[91]
2011	4	8	F	16:15->00:00	intracrater flow	8 hours	[151]
2011	6	20	X	05:19	Major explosion		[91]
2011	7	5	X	02:45	Major explosion		[39, 72, 91]
2011	7	10	X	15:21	Major explosion		[39, 72, 91]
2011	7	17	X	20:45	Major explosion		[39, 72, 91]
2011	7	29	F	00:09-06:45	intracrater flow	6.5 hours	[165]
2011	8	1	F	21:00->13:00	Lava flow to SdF	16 hours	[134, 166]
2011	8	5	X	07:14	Major explosion		[39, 72, 134, 166]
2011	8	5	F	07:00	overflow	2 hours	[91]
2011	8	9	FF	7:27->	intracrater flow	3 days	[91]
2011	8	15	X	19:33	Major explosion		[91]
2011	8	16	FF	12:40->	overflow	3 days	[91]
2011	8	20	F	01:30	intracrater flow	8.5 hours	[91]
2011	8	26	F	01:00	intracrater flow	2.5 hours	[91]
2011	8	30	X	05:06	Major explosion		[91]

2012	2	15	PDC		↳ pulses+abundant fallout on the SdF		[167]
2012	2	16	X	04:17	Major explosion		[91]
2012	3	6	X	06:43	Major explosion		[72, 91]
2012	7	5	F	20:15->	rheomorphic flow from spattering	2 hours	[91]
2012	7	7	F	23:00->	rheomorphic flow from spattering	1 hour	[91]
2012	7	10	X	04:00	Major explosion		[91]
2012	7	26	X	18:31	Major explosion		[91]
2012	7	26	PDC		PDC on the SdF		[151]
2012	8	6	F	12:01->	intracrater flows		[91]
2012	11	22	X	13:17	Major explosion		[91]
2012	11	22	X	20:57	Major explosion		[91]
2012	12	18	F	12:50->	overflow	7 hours	[91]
2012	12	23	F	07:25->	overflow		[91]
2012	12	25	FF		overflow	2 days	[91]
2013	1	7	F	2:00->	overflow	17 hours	[69]
2013	1	9	F	16:25->00:00	overflow from N1	7.5 hours	[168]
2013	1	10	F	00:30->	overflow		[168]
2013	1	11	FF	06:30->	overflow from NEC	2 days	[168]
2013	1	12	FF	00:00	overflow from NEC	2 days	[168]
2013	1	12	X	11:12	Major explosion		[69]
2013	1	12	C	11:00	Crater wall collapse+PDC		[69]
2013	1	12	PDC	11:00	Crater wall collapse+PDC		[69]
2013	1	13	FF	20:00->	overflows	3 days	[69]
2013	2	7	X	20:47	Major explosion		[69]
2013	2	8	F	10:59:00->	overflow	5 hours	[169]
2013	2	8	FF	22:21->	overflow	2 days	[169]
2013	2	11	F	07:30->	overflow	1 day	[169]
2013	3	1	F	21:45	overflow	1 day	[69]
2013	4	13	F	12:55	overflow along SdF	3.5 hours	[170]
2013	4	15	X	08:40	Major explosion		[69]
2013	4	15	PDC	08:40	PDC		[69]
2013	4	17	FF	14:17	overflow along SdF	2 days	[171]
2013	4	21	F	17:40	overflow along SdF	4 hours	[171]
2013	4	26	F	22:45	overflow along SdF	~12 hours	[172]
2013	4	28	F	16:05	overflow along SdF	12 hours	[172]
2013	5	1	F	02:24->	overflow	1 day	[173]

2015	12	25	U		Uncertain major explosion		[72]
2014	1	4	X	23:06	Major explosion		[72]
2014	6	17	F	06:26->	intracrater	70 min	[177]
2014	6	22	F	13:00->	overflow along SdF	1 day	[177]
2014	6	29	F	9:49->	intracrater	1 day	[178]
2014	7	1	L	7:24, 8:25	Landslides		[179]
2014	7	1	F	00:06-03:30	intracrater+overflow along SdF	3 hours	[179]
2014	7	4	F	2:48-18:00	intracrater 2 flows	15 hours	[179]
2014	7	7	C	05:20	Crater wall collapse+PDC		[179]
2014	7	7	PDC	05:20	Crater wall collapse+PDC		[179]
2014	7	7	F	05:32->	overflow on SdF	11 hours	[179]
2014	7	9	F	14:18->	overflow on SdF	1 day	[180]
2014	7	13	F	6:19-12:00	overflow on SdF	6 hours	[181]
2014	7	15	F	07:45:00->	overflow on SdF	7 hours	[181]
2014	7	16	F	22:52->	overflow on SdF	4 hours	[181]
2014	7	17	F	16:20:00->	overflow on SdF	4 hours	[181]
2014	7	19	FF	02:30->	overflow on SdF to coast	2 days	[181]
2014	8	6	FF	12:29->	overflow on SdF		[53]
2014	8	6	L	14:02, 14:19, 14:29, 15:05, 16:01	Landslides+PDC		[53]
2014	8	6	PDC	14:02, 14:19, 14:29, 15:05, 16:01	Landslides+PDC		[53]
2014	8	7	C	03:40	Crater wall collapse+PDC		[53]
2014	8	7	PDC	03:40	Crater wall collapse+PDC		[53]
7 Aug - 2 Nov 2014			FFF		Flank eruption	3 months	[53]
2014	10	18	X	17:30	Major explosion		[151]
2014	10	23	X	04:29	Major explosion		[151]
2015	2	15	X	11:09	Major explosion		[72]
2015	7	16	X	01:03	Major explosion		[72]
2015	11	8	X	20:53	Major explosion		[182]
2016	7	23	X	12:25	Major explosion		[151]
2017	7	26	X	17:57	Major explosion		[72, 183]
2017	10	23	X	14:04	Major explosion		[72, 184]
2017	11	1	X	08:29	Major explosion		[72, 185]
2017	12	1	X	12:42	Major explosion		[72, 186]
2017	12	15	F	13:25:00->	overflow	3 hours	[187]
2018	3	7	X	12:48	Major explosion		[72, 188]
2018	3	7	PDC		PDC along the SdF		[188]

2018	4	26	PDC		PDC along the SdF		[190]
2018	8	18	X	15:08	Major explosion		[72]
2018	8	18	PDC		PDC to the coast		[191]
2018	12	6	F	15:20	Overflow/lava flow	40 min	[192]
2019	6	25	X	23:03	Major explosion		[32, 72]
2019	7	3	F	14:43	intracrater flow	2 min	[151]
2019	7	3	XX	14:45	Paroxysm		[32, 72]
2019	7	3	PDC	14:45	2 PDC along the SdF		[50]
2019	7	3	T		Small tsunami		[50]
3 July-30 August 2019			FFF	14:46	Lava flow field to the sea	58 days	[50]
2019	7	13	X	20:33	Major explosion		[32]
2019	7	15	X	19:09	Major explosion		[32]
2019	8	28	XX	10:17	Paroxysm		[32, 72]
2019	8	28	PDC	10:17	2 PDC along the SdF		[50]
2019	8	28	T		Small tsunami		[50]
2019	8	29	X	20:43+21:29	Major explosions		[32, 72]
2020	3	28	F	16:56	Overflow to the sea	4 hours	[193]
2020	3	30	FF	23:30	Overflow to the sea	2 days	[194]
2020	7	19	XX	03:03	Paroxysm		[32]
2020	8	13	X	14:50	Major explosion		[32]
2020	11	10	X	20:04	Major explosion		[32]
2020	11	16	X	09:17	Major explosion		[32]
2020	11	16	PDC	09:17	N flank blown out + PDC		[32]
2020	11	21	X	00:33	Major explosion		[32]
2020	12	6	X	05:12	Major explosion		[32]
2021	1	18	F	10:11+15:00	overflows	9 hours	[33]
2021	1	22	F	11:22	overflow	9 hours	[33]
2021	1	24	X	15:15	Major explosion		[195]
2021	1	24	F	18:56->	overflow	17 h	[33]
2021	3	1	X	01:33	Major explosion		[33]
2021	5	19	C	12:45	NE Crater failure+PDCs		[33]
2021	5	19	PDC	12:45	NE Crater failure+PDCs		[33]
19-24 May 2021			FF		Lava flows	5 days	[33]
2021	6	11	F		Lava flows		[33]
2021	6	13	F		Lava flows		[33]
2021	6	16	C	13:28:00+16:46	NE Crater failure+PDCs		[33]
2021	6	16	PDC	13:28:00+16:46	NE Crater failure+PDCs		[33]
2021	6	17	F		Lava flows		[33]
2021	6	19	F		Lava flows		[33]

2021	7	28	X	14:47	major explosion		[197]
2021	8	1	X	20:01	Major explosion		[197]
2021	9	11	X	19:09	Major explosion		[198]
2021	10	6	X	14:17	Major explosion		[199]
2021	10	25	L	00:00	Landslides	3 min	[200]
2021	11	25	FF		overflow	2 days	[201]
2022	5	13	X	14:43	Major explosion		[202]
2022	5	25	X	14:11	Major explosion		[203]
2022	6	6	L	20:21+20:29	Landslides		[204]
2022	7	25	X	02:56	Major explosion	8 min	[205–206]
2022	7	25	C	02:56	NEC blowing by ME		[206]
2022	7	25	PDC	02:56	PDC on Sdf+sea		[206]
2022	7	27	F	17:08	Lava flow	3 h	[206–207]
2022	9	25	X	02:29	Major explosion		[206, 208]
2022	9	25	F	02:30->06:00	overflow	3.5 h	[208]
2022	9	29	X	13:25	Major explosion		[209]
2022	10	3	F	09:08->16:00	overflow	7 h	[210]
2022	10	3	C	09:40	NE Crater failure+PDCs	1 h	[210]
2022	10	3	PDC	09:40	NE Crater failure+PDCs	1 h	[210]
2022	10	4	F	09:07->12:00	overflow	3 h	[210]
2022	10	7	F	22:15	Overflow	3 h	[211]
2022	10	9	FF	07:22	overflow	7 days	[210, 212–213]
2022	10	9	C	07:22	NE Crater failure+PDCs		[210]
2022	10	9	PDC	07:22	NE Crater failure+PDCs		[210]
2022	11	16	F	06:00->	spattering+NEC overflow	4 h	[213–214]
2022	12	4	C	14:28	NE Crater failure+PDCs		[215]
2022	12	4	PDC	14:28	NE Crater failure+PDCs		[215]
2022	12	4	FF	14:10->	Lava flow to the coast	4 days	[215]
2023	1	17	F	9:50->16:30	overflow	6.5 h	[216]
2023	1	24	F	14:00->16:00	overflow+PDC	2 h	[217]
2023	1	30	X	09:08	Major explosion		[218]
2023	2	16	X	17:17	Major explosion		[219]
2023	2	27	F	05:53+20:49	2 Overflows	~24 h	[220]
2023	3	8	F	05:20->	overflow	~24 h->	[221]
2023	3	9	F	17:29->	overflow	8 hours	[222]
2023	3	11	F	02:05	overflow	8 hours	[223]
2023	3	23	FF	21:40->	NEC overflow	3 days	[224]
2023	3	25	X	14:49	Major explosion		[224]
				11:03+11:04+			[224]

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