

Table: Volcanic Data (Ammann and Naveau, 2003)  
 – update available –

Year	Volcano	Lat	Lon	VEI	NHem-Ice	SHem-Ice	Dust Veils
1408	? Soufriere de Guadeloupe (14c: 1400)	16.05	61.7W	P	I,R,C	?	
1443	? Soufriere de Guadeloupe (C-14c: 1440)	16.05	61.7W	P	I,R	I,Co	
1452	Kuwa, Vanuatu	-16.8	168.5E	6	I,C,R?,Lw	I,Co,Lw	
1459	? Pele,W-Indies	14.82	61.17	?	I,G,C,R,Lw	I	
1463	? Kelut, Java	-8.0	112.3E	3	I,R	I	
?1490	? unknown	trop	?	?	I	I	
?1504	? Atitlan, Guatemala	14.58	91.2W	3?	C,R	Co?	L
1512	? Sangeang Api, Sunda	-8.18	119.1E	3			
	? Gunungapi Wetar, Banda	-6.64	126.7E	3	G?,R	I	
1522	? Santa Ana, El Salvador	13.85	89.6W	3			
	? Arenal, Costa Rica (C-14: 1525)	10.46	84.7W	4	I	I,M	
1554	? Merapi, Java	-7.54	110.4E	3	I,G?,R,A	Co?,M?	L
1568	? Savo, Salomon Islands	-9.13	159.8E	3			
	? Billy Mitchell (C-14: 1580)	-6.09	155.2E	6	I,G?	I	
1571	? unknown	trop	?	?	I,G,C	Co?	
1586	Kelut, Java	-8.0	112.3E	5?	I,G,C,R	I,Co?	L
1595	Raung, Java	-8.1	114.0E	5?			
	Ruiz, Colombia	4.9	75.3W	4	I,G,R?	I,Co,Pa	L
1600	Huynaputina, Peru	-16.6	70.85W	6?	I,G,C,R,Lw?	I,Co,Pa,Lw?	L
?*1605	Momotombo, Nicaragua	12.42	86.5W	4	I,G?,A	M	L?
1619	? unknown	trop	?	?	I,G,R?	I,Co	
1622	? Colima, Mexico	19.51	103.6W	4			
	Raoul Island, Kermadec (C-14: 1630)	-29.0	177.9W	4	I?,C,R	I,Co	
1641	Parker, Indonesia	-6.06	124.5E	6	I,G,C,R	I,Co	L
1646	Makian, Indonesia	0.32	127.4E	4	I,G,C	?	L
1660	? Teon, Banda	-6.92	129.1E	4?			
	? Guagua Pichinchia, Ecuador	-0.17	78.6W	4	I,G	I,Co?	L
1665	? Long Island, New Guinea (C-14: 1660)	-5.35	147.1E	6?	I,G,R	I,Co?	L
1674	Gamkonora, Indonesia	1.38	127.5E	5?	I?,G,C,R	Co,M?	L
1680	Tongkoko, Sulawesi	1.5	125.2E	5?	C,R?	I,Co?	L
1693	Serua, Banda	-6.3	130.0E	4?	I,G,C,R?	I,Co	L
1712	? Awu, Indonesia	3.67	125.5E	3	I,G?,C	I,Co?	L
?1721	Raoul Island, Kermadec (C-14: 1720)	-29.0	177.9E	4			
	Cerro Bravo, Colombia (T)	5.09	75.3W	4	I,G?,C,A?,R?	I	
1728	? Sangay, Ecuador	-2.03	78.3W	3	I,G,C,R	I,Co	
1731	? Raung, Java	-8.13	114.0E	3?	I,G,R	S?	L
?1737	Fuego, Guatemala	14.47	90.88W	4?	G,C	Co?	
1744	Cotopaxi, Ecuador	-0.68	78.4W	4	I,C,R?	I	L
?1749	? Taal, Philippines	14.0	120.9E	3	I?,R?	I	
1752	? Little Sunda, Indonesia (Tambora?)	-8.0(?)	118E?	?	G?,C	I,Co?	L
1760	Michoacan, Mexico	19.48	102.3W	4			
	Makian, Indonesia	0.32	127.4E	4?	I,G,R?	Co?,Le?	L
1774	? Papandajan, Indonesia	-7.32	107.7E	3			
	? Tungurahua, Ecuador	-1.47	78.4W	3	G?,C?,R?	I	L
1789	? unknown	trop	?	?	I,C	I	
1794	? San Martin, Mexico	18.57	95.2W	4?	I?,G	I	
1808	unknown	trop	?	?	I,G,C,A?,R,Lw,Da	I,S,Co,Da,Pa,Lw	L
1813	Soufriere St. Vincent, W-Indies	13.33	61.2W	4			
	Awu, Indonesia	3.67	125.5E	4?			
	Suwanose-Jima, Japan	29.5	129.7E	4	I,R	I,Da	L
1815	Tambora, Sunda	-8.25	118E	7	I,G,C,A?,R,Da,Lw	I,S,Co,Da,Pa,Lw	L
1823	Galunggung, Java	-7.25	108.1E	5	I,G?,C?,A?	Co?,Da,M	L
1826	Kelut, Java	-8.0	112.3E	4?	A?	I	L
1831	Babuyan Claro, Philippines	19.52	121.9E	4?	I,G,C,A?,R,Lw	I,S?,Co,Lw	L
1835	Coseguina, Nicaragua	12.98	87.6W	5	I,G,C,Lw	I,S?,Co,Lw	L
1861	Makian, Indonesia	0.32	127.4E	4?	I,G,R?	S,Co	L
1877	Suwanose-Jima, Japan	29.5	129.7E	4			
	Cotopaxi, Ecuador	-0.68	78.4W	4	<b>G,R</b>	I,S?	L?
1880	Fuego, Guatemala	14.47	90.9W	4?			
	Cotopaxi, Ecuador	-0.68	78.4W	3	I,C	I	
1883	Krakatoa, Sunda	-6.1	105.4E	6	I,G,C,R,Lw	I,S,Co,Lw,Bo	L,St
1890	Colima, Mexico	19.51	103.6W	4	I,G,A?,R?	I,S?,Co,Bo?	St
1902	Pele, W-Indies	14.82	61.2W	4			
	Soufriere St. Vincent, W-Indies	13.33	61.2W	4	I,G,C	I,Co	L,St
1903	Santa Maria, Guatemala	14.76	91.5W	6?	I,G,C,R	I,Co,Bo	L,St
?1911	Lolobau, SW-Pacific	-4.9	151.2E	4			
	Taal, Philippines	14.0	120.9E	4			
	Semeru, Java	-8.1	112.9E	3	I,C	I,Co?,Bo?	Ha
1917	Agrigan, Mariana	18.77	145.7E	4	I,G,A?	<b>bf?</b>	
1924	Irimote-Jima, Ryukyu	24.56	124.0E	4?	I,G,C	<b>I</b>	
1928	Paluweh, Sunda	-8.32	121.7E	3	I,G,A?,St	LF?,Bo?	St
1953	Ambrym, Vanuatu	-16.0	168.1E	4+			
	Lamington, New Guinea	-9.0	148.1E	4			
	Bagana, SW-Pacific	-6.0	155.2E	4	I,G?,A?	I,LF?,Bo?	L*
1963	Agung, Sunda	-8.34	115.5E	4	I?,C,A?	I,Co,LF,Bo	L,DH,Sa
1968	Fernandina, Galapagos	-0.37	91.5W	4	I,G,C,A,R	I?	L,Sa
1974	Fuego, Guatemala	14.47	90.9W	4	C,R?	LF?,Bo	HR,V,Sa
1982	El Chichon, Mexico	17.36	93.2W	5	I,G?,A,R,Z	LF	Th,Ho,Sa
1991	Pinatubo, Philippines	15.13	120.3E	6	A,Z	CoD,Di,Kr	Mi,Mc,Sa

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Table 1: Eruption List derived from ice cores - *Year*: Year of sulfate deposition, +/- 1 year due to different seasonality of eruptions. \*age correction of -2 or -3 years for GISP2 probable *de Silva and Zielinski* (1998); *Volcano*: potential source volcano from the Smithsonian Catalogue (*Simkin and Siebert*, 1994); *Lat*: Latitude of eruption, *trop*: tropical eruption due to sulfate deposition in both hemispheres; *VEI*: corresponding Volcanic Explosivity Index from Smithsonian Catalogue, listed for comparison, but not a criterion for the selection process. P: Plinian eruption; *NHem-Ice*: Ice core data indicating a sulfate spike in a Northern Hemisphere core. *SHem-Ice*: Ice core data indicating a sulfate spike in a Southern Hemisphere core. *Dust Veils*: Label L if a eruption is registered in Lamb's Dust Veil Index (*Lamb*, 1970), and in 19th and 20th century for observed perturbations in the lower stratosphere. L\*: *Lamb* (1970) refers to a note from Arakawa and Tsutsumi (1956) that no volcano but nuclear bomb tests in the tropical Pacific might be responsible for the veil. (Sources: A : Agassiz ice (*Fisher and Koerner*, 1994; *Zheng et al.*, 1998); Bo : *Boutron* (1980) : Pb and Zn as proxies for volcanic deposits; C : *Crowley* (2000) : Re-evaluation of Crete data by *Hammer et al.* (1980); Co : *Cole-Dai et al.* (1997a); CoD : *Cole-Dai et al.* (1997b); Da : *Dai et al.* (1991); DH : *Dyer and Hicks* (1968); Di : *Dibb and Whitlow* (1996); G : GISP2 (*Mayewski et al.*, 1993; *Zielinski et al.*, 1994; *Zielinski*, 1995); Ha : *von Hann* (1915); Ho : *Hofmann* (1987); HR : *Hofmann and Rosen* (1977); I : IVI (*Robock and Free*, 1996); Kr : *Kreutz et al.* (1999); L : *Lamb* (1970); Le : *Legrand and Delmas* (1987); LF : *Legrand and Feniet-Saigne* (1991); Lw : *Langway et al.* (1995); M : *Moore et al.* (1991); Mc : *McCormick et al.* (1995); Mi : *Minnis et al.* (1993); Pa : *Palais et al.* (1990); R : GRIP ECM and Acidity: *Clausen et al.* (1997); S : *Stenni et al.* (1999); Sa : *Sato et al.* (1993); St : *Stothers* (1996); Th : *Thomas et al.* (1983); V : *Volz* (1975); Z : *Zielinski et al.* (1997). )

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