

1823-1903cat.xls

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/01/1790						kilauea				6.4	int	VII-VIII	The natives say that in the days of Kamehameha, 80 shocks were felt in one day, some of them so hard as to throw down houses. This was soon followed by an eruption of the volcano which destroyed some lives and did much damage. . . .	Martin, 1979, p. 71; minimum magnitude of largest event estimated from intensity
8/31/1821	19:00					west hawaii				5.3	int	V	. . . at 7 pm we had a very smart shock of an earth quake. . . . [p. 8]	Young, 1801 [Note: Young was living in west Hawaii; journal page labeled 1821, but day/date do not agree with perpetual calendar. If day is accepted, then date is Aug. 31, 1821.]; intensity interpreted from "smart" as used in Lyman diary
6/01/1823	22:00					kl sf		~7	W&K	7.0	w&k	IX (S&C)	Graben on Kilauea's lower SW rift formed two months before Ellis visit on July 31; felt at Kaimu (Puna) where it formed a crack one foot wide; seawater entered a freshwater well; stone wall, 4 ft thick, 6 ft high, thrown down; no mention of tsunami	Wyss and Koyanagi, 1992, App. 3, p. 57; Ellis/1825; Stover and Coffmann, 1993
7/10/1823													Eruption on Kilauea's southwest rift zone (Great Crack) described as occurring three weeks before Ellis' visit. [Note: this possibly dates the end of the eruption. The beginning might have been close to the time of the large earthquake]	Ellis, 1825
1/6/1825	23:30					kona?				6.2	int	VII	a heavy shock at Kaawaloa, preceded by rumbling; motion so rapid that it woke us from sleep and shook us violently; standing persons thrown suddenly to the earth, lying persons tossed from side to side; acc by landslides from Kealakekua pali	Ely, 1825, p. 686-687; stationed at Kaawaloa, now Kealakekua Bay
1/7/1825	2:00					kona?				4.5	int	IV-V	At the hours of 2 and 3 the same night two others were experienced much lighter than the one before described. The vibrations of the earth were from the North east to the south west terminating suddenly like the motion of a carriage slipping on a pavement.	Ely, 1825, p. 686-687; aftershocks? Intensity assumed strong enough to waken people
1/7/1825	3:00					kona?				4.5	int	IV-V	do	do
9/6/1825	11:59					maui?				5.9	int	VI	. . . there was a shock of an earthquake perceived here [Lahaina, Maui] which though not considerable was nonetheless sufficient to alarm the people . . . Not reported elsewhere on Maui. [no time given]	Richards, 1825; stationed at Lahaina, Maui
1/9/1826	6:00					south hawaii?				5.3	int	V	. . . a little before sunrise, we had a considerable smart shock of an earthquake. I first perceived by the trembling or shaking of things in the house and was soon followed by a shock that made crockery rattle considerable. The whole duration was perhaps 8 or 10 seconds.	Goodrich, 1826; stationed at Hilo, Hawaii
11/5/1827	1:59					hawaii				5.3	int	V	Last night we were awakened from our quiet slumbers by the shock of an earthquake. It was much lighter than what is often expressed in this island though it shook our house very sensibly [time assumed]	Ely, 1825, p. 686

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/12/1829	11:59					south hawaii?				5.3	int	V	. . . We were somewhat alarmed by the sudden convulsion of the earth, the rushing [of] our house over us, & the rattling of the crockery, a slight shock of an earthquake, which we occasionally experience at this place. They are so common here & so slight that they are not much thought of by the natives: it continues by a few seconds quite severe to many that we have experienced here before. [no time given]	Goodrich, 1829 [letter to Jeremiah Ewarts dated Apr. 12, 1829 from J. Goodrich's journal at Byron's Bay (Hilo, HI)]
8/26/1829	10:00					south hawaii?				3.8	int	IV	. . . A slight shock of earthquake on the 26 [assume Aug.], 10 am.	Goodrich, 1829 [letter to Jeremiah Ewarts dated Sept. 25, 1829 from J. Goodrich's journal at Byron's Bay (Hilo, HI)]; we assume from comment above that Goodrich reports only intensity IV or larger events
9/24/1829	11:59					south hawaii?				3.8	int	IV	. . . Another earthquake occurred on the 24th. [no time given]	Goodrich, 1829 [letter to Jeremiah Ewarts dated Oct. 2, 1829 from J. Goodrich's journal at Byron's Bay (Hilo, HI)]; do
11/22/1829	14:00					south hawaii				5.3	int	V-VI (Kilauea); IV (Hilo)	. . . On the 22nd 2 o'clock pm another shock of an earthquake, & as I afterwards was informed that Mr. Anderson & Green were down at the bottom of the crater [Kilauea], & that many rocks & stones were precipitated from the walls at the sides of the crater. . . ; . . . we felt a slight shock of an earthquake which rattled the stones down the mountain. . .	Goodrich, 1829 [letter to Jeremiah Ewarts dated Dec. 8, 1829, from J. Goodrich's journal at Byron's Bay (Hilo, HI)]; Green, 1829 [Journal entry dated Dec. 22, 1829-note discrepancy of date with Goodrich's journal entry for what is presumed to be the same event]; high intensity at Kilauea suggests high intensity at Hilo by analogy with modern events
6/5/1830	20:00					maui?						III	Slight shock of an earthquake in the evening.	Green, 1830 [Journal entry dated June 5, 1830 from Lahaina, Maui]
1/10/1832	11:00					kl sf				5.6	int	V-VI? (Hilo)	. . . Tuesday noon and evening [Jan 10] were the two severest shocks. The evening was harder than at noon [see below]. . . ; . . . one strong shock, accompanied by an eruption lighting the heavens . . . ; . . . Next day [Jan. 10] at 11 O.C. A.M. a smart shock of an earthquake . . .	Dibble, 1832 [letter to Samuel Ruggles from Hilo?, HI dated Jan. 14, 1832]; 1839; Green, 1832 [letter to Levi Chamberlain from Byron's Bay (Hilo, HI) dated Jan. 7, 1832]; 1833
1/10/1832	18:00					kl sf				6.2	int	VII (Puna); VI (Hilo)	. . . I was then in Hilo, the nearest station to the volcano of Kilauea. In the after-part of the day we experienced several earthquakes, and about six o'clock we felt a shock so severe as induced us to leave our house for the night. The trembling, heaving, rocking, and undulating movements of the convulsed earth, produced sensations that are altogether indescribable. The foundations underneath us seemed to be uncertain and treacherous. But, to add immeasurably to the awe and grandeur, the whole heavens, in the direction of the volcano, were intensely lighted. . . ; see also bib	Dibble, 1839

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1/10/1832	18:00					do				6.2	do	do	. . . just at dark, another, which for duration seemed like all that I had ever felt united in one. Then it was, I doubt not, that the eruption took place. . . ; . . . We have heard since the earthquakes of one or more rents made in the earth in the district of Puna about one days walk distant from this place. An enclosure of stones in which hogs were kept was leveled with the ground and a house fell in the neighborhood.; see also bib	Green, 1832; Dibble, 1832 [letter to Samuel Ruggles from Hilo?, HI dated Jan. 14, 1832]; Tomlinson, 1833; see entry for 11/12/1834
1/10/1832	18:00					do				6.2			Eruption at Kilauea's summit on Byron's ledge; . . . It seemed like billow upon billow of flaming fire rolling through the whole arch of heaven. Though at the distance of 40 miles, the light was sufficient to convert night into day. The heavens on fire above us, and the earth treacherous beneath our feet, was a scene too awful and majestic to be enjoyed. . . .	Dibble, 1839
1/10/1832						kl cal 0-5?				3.8	int	IV	. . . We have been shaken over the pit, over a lake of fire. During the day and evening of Tuesday last [Jan. 10, at Hilo] we experienced six earthquakes and several since . . . ; Within several miles of the volcano the earth broken into deep chasms; within a half mile of the crater the earth had sunk about 18 in, and from there to the crater's edge the ground was so rent into chasms as to be almost impassable	Dibble, 1832 [letter to Samuel Ruggles from Hilo?, HI dated Jan. 14, 1832]; Dibble, 1839, p. 49-52 [earthquake swarm implies possible east rift intrusion; cracking and subsidence of Kilauea caldera implies sub-caldera shock]
6/20/1832													Mauna Loa summit eruption	Goodrich, 1833; Gower, 1886
6/21/1832						ml mok?				4.5	int	IV-V?	Quake felt in Kona. We hear of the breaking out of a new volcano near the center of the island, this was followed by a shock of earthquake	Makua Laiana, Doyle page 39. 7/9/1832 [date of earthquake guessed as the day following the eruption]
6/30/1833	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes:2 slight shocks during the month [first entry in Lyman Diary]; . . . We have felt no earthquakes during the last year except two shocks, both slight . . .	Wyss and others, 1992, p. 8; Tomlinson, 1833 [letter to Mrs. Hale from Hilo, HI dated Aug. 8, 1833]; intensities labeled "Cox" and expressed as decimal numbers are those estimated by Doak Cox from published descriptions, used here by permission
10/03/1833	21:59					south hawaii?				5.9	int	6.0 (Hilo-Cox); VI (Hilo-quite heavy)	Lyman notes:2 shocks in the night, one of them quite heavy; October 3, 1833. . . Last night two shocks of earthquake were felt at this station [Hilo], one was quite heavy. [time assumed]	Wyss and others, 1992, p. 8; Martin, 1979, p. 58; see entry for 11/12/1834
10/13/1833	15:00					kl sf?				5.3	int	5.0 (Hilo-Cox)	Lyman notes: one at 3 o'clock pm rather heavy. Motion up and down; a shock at 3 o'clock pm, motion quick, up and down	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
2/19/1834	18:00					kl sf?				5.9	int	VI (Hilo); 5.5 (Hilo-Cox); V (W&K; S&C)	Lyman notes: a shock so heavy, at 6 pm, as to throw down stone walls, throw cream off the milk, and upset small jars, etc.; at 6 pm there was a slight shaking of the earth, which was almost instantaneously followed by a shock so heavy as to upset some things in the house, throw the cream off from milk standing in pans, and throw water out of a pitcher standing in a wash-bowl.	[Table 4 of W&K lists an earthquake on 9/19 at 1800, citing the text as a reference--could not find, probably a misprinted repeat of the 2/19/34 event]; Wyss and others, 1992, p. 8; Lyman, 1859, p. 264; PCA, 05/02/1868, p. 3 also mentions this as an event comparable to 1868. [We assign this event to Kilauea's south flank because of the close intervals between phases of the shaking felt at Hilo]; see entry for 11/12/1834

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2/19/1834	18:00					do				5.9	do	do	Lyman notes: . . . at the dinner table tonight, we experienced a severe shock of earthquake. . . we [first] heard a rustling among the thatch . . . instantly followed by a heavy shaking, which lasted some seconds and abated [soon followed] by a more powerful shaking. Everything . . . in commotion around us, and our little cottage shook so terribly that I, fearful it would be down on our heads, sprang from my chair and ran out of doors and husband followed. I looked . . . toward the houses of Mr. Dibble and Goodrich to see if they were standing, for it appeared to me that they could not stand the shock. Things standing on the bureau were upset but nothing was precipitated to the ground. The walls of Mr. Dibble's house were somewhat injured. Mr. Goodrich's sustained no injury though it is a two story building with a cellar under the whole of it. All the cream was thrown out of the pans of milk standing in their cellar. The undulations were from north to south and lasted some seconds and were rather gentle at first. . . ."	Martin, 1979, p. 64
2/19/1834	21:00					south hawaii?						III	Lyman notes: About 9 in the evening there was another slight shock; at 9 o'clock in the evening there was again a shaking of the earth which lasted only a few seconds	[aftershock?]; Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
5/14/1834	14:30					south hawaii?				5.6	int	6.0 (Hilo-Cox); V-VI	Lyman notes: a heavy shock between 2 and 3 PM	Wyss and others, 1992, p. 8
8/3/1834	4:00					hawaii deep?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: One at near four AM so heavy as to awaken nearly everyone; felt in Waimea 2 or 3 hours before light (the same time as shock felt in Hilo), heaviest since station was occupied.; one shock felt in Kailua [prob. 4 a.m.]	[Table 4 of W&K lists quake on 8/3 at 4 am (listed this way in Lyman, 1859) and 8/31 at 12:04 am--only one quake on 8/31 at 4 am listed in Wyss and others, 1992, p. 8]; Wyss and others, 1992, p. 8; Martin, 1979, p. 71; see entry for 11/12/1834
8/3/1834	18:59					north hawaii?				5.3	int	V?	. . . a heavier one in the evening, total of eight for the day. [time assumed]	Martin, 1979, p. 71; see entry for 11/12/1834
11/12/1834													[p. 1733] . . . So dreadful have been the shocks [his underline] to which the land has been subjected during the last two years, that it is a matter of surmise that our congregations have not all been shaken to pieces! . . .	Green, 1834 [Letter to Rev. R. Anderson, dated Wailuku, Maui, November 12, 1834]
3/23/1835	9:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at nine A.M.	Wyss and others, 1992, p. 8
3/26/1835	18:15					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: Three successive shocks at six and a quarter P.M.; Three shocks following each other in quick succession at 25 minutes past 6 o'clock am [note time discrepancy-original accepted]	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
7/21/1835	12:01					south hawaii?				4.5	int	4.5 (Hilo-Cox); III	Lyman notes: three shocks during the day [time assumed]	Wyss and others, 1992, p. 8; Cox intensity is the total for three quakes
7/21/1835	12:01					do				4.5		III	do [time assumed]	do
7/21/1835	12:01					do				4.5		III	do [time assumed]	do
9/06/1835	2:30					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock at 2 or 3 am	Wyss and others, 1992, p. 8

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1/31/1837	11:59					south hawaii?						III	Two earthquakes at Hilo in January [1837; no date or time given]. [no time given]	Damon, 1950, p. 90
6/20/1837	18:40					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 2 minutes before 7 PM [misprint? Lyman, 1859 gives time as 20 min before 7 PM]	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
1/19/1838	0:15					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock after 12 o'clock midnight [Lyman, 1859 gives date as 1/12/1838]	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
1/29/1838	22:00					south hawaii??				5.9	int	6.0 (Hilo-Cox)	Lyman notes: Three shocks in quick succession near 10 P.M. The two first heavy, the last slight; Three shocks in pretty quick succession a little past 10 o'clock pm	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
7/09/1838	8:30					south hawaii??						3.0 (Hilo-Cox)	Lyman notes: a slight shock between 8&9 A.M.	Wyss and others, 1992, p. 8
10/16/1838	11:59					south hawaii??						III-IV; 2.5 (Hilo-Cox)	Lyman notes: a slight jar [a jar merely] accompanied with a noise resembling the discharge of a distant cannon [no time given]	Wyss and others, 1992, p. 8; Lyman, 1859, p. 264
11/05/1838	9:59					kl ler?				4.5	int	4.5 (Hilo-Cox); III	Lyman notes: three shocks during the day, one in the am, two in the PM [time assumed]	Wyss and others, 1992, p. 8; Cox intensity is the total for three quakes
11/05/1838	14:59					kl ler?						III	Lyman notes: three shocks during the day, one in the am, two in the PM [time assumed]	Wyss and others, 1992, p. 8; do
11/05/1838	14:59					do						III	Lyman notes: three shocks during the day, one in the am, two in the PM [time assumed]	Wyss and others, 1992, p. 8; do
11/06/1838	9:57					kl ler?				3.8	int	IV	Lyman notes: a shock a few minutes before 10 am	Wyss and others, 1992, p. 8
11/06/1838	23:45					kl sf?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 1/4 before 12 M	[Lyman, 1859 gives time as midnight]; Wyss and others, 1992, p. 8
11/07/1838	3:00					kl sf?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: another at 3 A.M.	[Lyman, 1859 gives time as twenty past 3 am]; Wyss and others, 1992, p. 8
11/07/1838	4:00					kl sf?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: another about 4 A.M.	Wyss and others, 1992, p. 8
11/08/1838	23:59					kl ler?						III	Lyman notes: several shocks during the day and twelve distinct ones during the night;	[suggests east rift intrusion leading to south flank release on 12/12/1838; this may explain why the eruption two years later, in April 1840, was nearly aseismic]; Lyman, 1859; Wyss and others, 1992, p. 8
11/13/1838	23:59					kl ler?						III	Lyman notes: From the 8th to the 13th there were several shocks each day	[suggests east rift intrusion leading to south flank release on 12/12/1838; this may explain why the eruption two years later, in April 1840, was nearly aseismic]; Lyman, 1859; Wyss and others, 1992, p. 8

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11/17/1838						kl sf?				5.9	int	VI	Damon notes: Hilo, Nov. 17, 1838-- . . .P.S. We have had perhaps a hundred shocks of earthquakes during last week and the first of this week.; Jarves notes: At Hilo, in November, 1838, during the space of eight days, from forty to fifty shocks occurred. Twelve distinct ones were counted in one night. For two days and nights, the earth was in a state of continual agitation, the plants and flowers trembling like frightened animals. In some cases the motion was perpendicular, like that of a ship pitching, and attended by nosies and sensations similar to those produced by heavy waves striking against her sides, and some degree of nausea was felt. In others, the motion was lateral, easy, and undulating, unaccompanied by any sounds; Cheever notes: Forty or fifty shocks over eight days [Nov. 5-12] and twelve in one night [Nov. 8]	Damon, 1950, p. 164; Jarves, 1843; Cheever, 1871, p. 346 [quoting Rev. Mr. Lyman]; maximum intensity estimated
11/26/1838													. . . The earthquakes are ceased and almost forgotten. . .	Lyman, 1838
11/30/1838	23:59					kl ler?							Lyman notes: frequently during the whole month [November], none of them so heavy as to cause much alarm; none heavy, some accompanied by a rumbling sound, others by a noise like the rushing of water from a ship; one quite heavy, no date or time given; an earthquake in November 1838 was felt in Kona [check date] [suggests east rift intrusion leading to south flank release on 12/12/1838; this may explain why the eruption two years later, in April 1840, was nearly aseismic];	Wyss and others, 1992, p. 8; Lyman, 1859; Jarves, 1843
12/4/1838	11:59					kl sf?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a slight shock, but decided and distinct; a distinct though not heavy shock [time assumed]	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34 [date misprinted as 1839]; Lyman, 1859, p. 265
12/7/1838	23:59					kl ler?						III	Lyman notes: there were several shocks each day during the first week of Dec., none of them so heavy as to cause much alarm	Wyss and others, 1992, p. 8
12/9/1838	11:20					kl ler?						3.0 (Hilo-Cox)	Lyman notes: a slight shock; one shock at 40 minutes before 12 at noon	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34 [date misprinted as 1839]; Lyman, 1859, p. 265
12/10/1838	4:00					kl ler?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 4 AM; one shock	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34 [date misprinted as 1839]; Lyman, 1859

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12/12/1838	13:00					kl sf				6.1	int	6.5 (Hilo-Cox); VI (W&K; S&C-Hilo)	Lyman notes: A tremendous [severe] shock at one o'clock P.M. The doors and windows rattled and was difficult to walk (around) across the room. The little plants shook and trembled and a person walking near the house has to brace himself to keep his position. Stone walls were thrown down and the plastering in the house cracked [but no other damage done]; earthquakes frequent since 5 November; a severe shock on the 12th, terrifying the natives and throwing me off balance; two years ago a great rent was made in the ground [near site of 1840 eruption], and all the springs in the vicinity dried up	Wyss and others, 1992, p. 8; Lyman, 1859, p. 265; Martin, 1979, p. 103; Jarves, 1840
12/12/1838	13:00					do				6.1	do	do	. . . You are aware that we have earthquakes on this island The last time T. was in Puna [Dec. 1838] we experienced a shock which tore off plastering from our house, threw down stone walls, spilled milk out of pans, and water out of pails &c. We live in a twostory weak-framed house . . .	Coan, 1839 [letter from F. Coan to Maria C. Robinson from Hilo, HI dated Mar. 12, 1839]
12/12/1838	11:59					kl sf?						III	Lyman notes: a slight shock [time asumed]	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34 [date misprinted as 1839]
2/18/1839	11:59					south hawaii?						III	Lyman notes: a slight shock [time asumed]	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34
3/18/1839	11:59					hawaii				6.1	int	VI-VII (Hilo?)	Lyman notes: severe, felt at Maui [time asumed]	Wilkes, 1845 [quoting D.B. Lyman]; Wyss and others, 1992, p. 34
4/07/1839	12:00					south hawaii?				5.3	int	5.0 (Hilo-Cox)	Lyman notes: a pretty smart shock felt at noon [midday]	Wyss and others, 1992, p. 8; Lyman, 1859, p. 265
2/01/1840	13:30					south hawaii?				6.1	int	6.5 (Hilo-Cox); V (S&C)	Lyman notes: A severe shock at 1 1/2 P.M.	Wyss and others, 1992, p. 8
5/05/1840	16:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 4 PM	Wyss and others, 1992, p. 8
5/30/1840													Kilauea east rift eruption, summit to east cape. Jarves notes: It is singular that an eruption of this magnitude should occur without the slightest shock of an earthquake, at least none was noticed if any happened, which proves that this was the effect of no sudden, violent action, but one of long and gradual preparation; Coan notes: earthquake swarm felt in Puna, not Hilo; Wilkes notes: He cites native accounts regarding eight lava breakouts and 3 days of earthquakes before the eruption in Puna and the absence of earthquakes felt in Hilo	Jarves, 1840; Coan, 1841; Wilkes, 1845; for a more complete description of earthquakes accompanying the eruption, see Coan (1840) entry for June 3. 1840
6/1/1840													Coan notes: eruption on June 1 began in an old crater [Alae], progressing 2 mi downrift [north side of Kane Nui o Hamo], thence to another wooded crater [Napau]	Coan, 1841
6/3/1840													Coan notes: [the eruption progressed] finally another 6-8 mi closer to the coast, where it broke out as an overwhelming flood, reaching the sea on June 3	Coan, 1841

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6/3/1840						do						III (Puna); I (Hilo)	During the early part of the eruption slight & repeated shocks of earthquake were felt for several successive days near the scene of action. These shocks were not noticed at Hilo	Coan, 1840
9/30/1840	22:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 10 PM [day in September not specified]	Wyss and others, 1992, p. 8
10/14/1840	20:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock between 8&9 PM	Wyss and others, 1992, p. 8
12/18/1840	5:00					south hawaii?				5.3	int	5.0 (Hilo-Cox); V (W&K)	Lyman notes: Two smart shocks about five A.M. waking us from sound sleep.	Wyss and others, 1992, p. 8
3/11/1841	12:45					kona?				6.1	int	VI-VII (Kona); IV (Hilo); 3.0 (Hilo-Cox)	Lyman notes: Two shocks one at 1/4 before one o'clock, and the other at 20 minutes before two P.M. Motion up and down. - gently and easy; Forbes note: Today at a little past noon had a very severe shock of an earthquake, so severe that we all instinctively left the house fearing the result; earthquake March 1841 felt in Kona; On the 11th inst. two earthquakes were felt at Kailua, Hawaii--the first shock occurred 15 minutes before 10 o'clock [1 o'clock?], P.M. The second about half an hour later. Rev. Mr. Thurston states that they were the strongest that he has ever felt there. At Kealakekua much rock was thrown down from the pali	Wyss and others, 1992, p. 8; Forbes, 1841, p. 93 [Forbes entry of March 12, 1841 from Kaawaloa, Kona] [Forbes or Lyman date one day off?]; Jarves, 1843; Anonymous, 1841; analogy with May, 1952 Kona earthquake allows Hilo intensity to be IV
3/11/1841	12:45					do				6.1	do	do	Cheever notes: The first time I felt a shock at these islands, it was in the house about noon, at Kohala; and I could not help going to the door after such a commotion, to see if there were no signs of sympathy with the laboring earth and the other elements. . . . and the throe had passed like an evil thought, which will sometimes dart across the mind and you are glad to have it go as quick as it came.	Cheever, 1871, p. 340, 343; date guessed from time and location/intensity
3/11/1841	13:40					kona?				5.7	int	3.0 (Hilo-Cox)	Lyman notes: two shocks; . . . the other at 20 minutes before two p.m.; motion up and down, gentle and easy; Forbes note: In a short time afterward followed 3 others, at short intervals.	Wyss and others, 1992, p. 8; Anonymous, 1841; Forbes, 1841, p. 93 [Forbes entry of March 12, 1841 from Kaawaloa, Kona] (Forbes or Lyman date one day off?); aftershock; magnitude adjusted down from mainshock
3/11/1841	14:00					kona?				3.8	int	IV (Kona)	do	Forbes, 1841, p. 93
3/11/1841	14:30					kona?				3.8	int	IV (Kona)	do	Forbes, 1841, p. 93
4/05/1841	13:30					south hawaii?				5.3	int	V; 3.0 (Hilo-Cox)	Lyman notes: A smart shock at 1 1/2 P.M. undulations North and South; I was sitting in my room alone when I felt the premonitory shock. I arose and stepped to the verandah where the children were playing when there was such a violent shaking as to arrest them in their play and excite their fears. . . .	Wyss and others, 1992, p. 8; Martin, 1979, p. 108

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/07/1841	23:45					kl sf?				6.5	k&w	VII (Hilo-W&K); VI (S&C); 6.9 (Hilo-Cox)	Lyman notes: The most severe shock we ever felt at 11 3/4 PM. Seams were opened in the plastering in every room in the house, and the whitewash scattered a foot or two from the walls. Every soul in the house was awaked and it seemed as if the house was really coming down on us. Milk was thrown out of pans and water out of a pail only half full. A little before one A.M. and again at two there were slight jars; stone walls thrown down, plastering cracked and chimney also. Milk thrown out of pans and water from a pail half full; Jarves notes: [at Hilo] In April, 1841, several more powerful shocks were experienced at the same place; one of which was quite severe. The houses were violently shaken, and had they not been constructed of yielding materials, would have been prostrated. The plastering was shattered, crockery were destroyed, milk thrown from pans, stone walls cast down, and other damage done. ; not reported felt at Kona or Oahu [see bib for detail]	Wyss and others, 1992, p. 8-9; Lyman, 1859, p. 265; Jarves, 1843; location inferred from Hilo high intensity and lack of reports from Honolulu or Kona, where intensities of VI or VII in Kona (as for an earthquake west of Kilauea's south flank) would have been noted; magnitude assigned by analogy with intensity map for the earthquake of March 30, 1954 (W&K)
4/07/1841	23:45					do	do	do	do	6.5	do	do	On the night of the 8th inst. we experienced a severe shock of earthquake and so much was I affected by it, I could not record it for several days and have not been able till last evening to write anyone about it. . . We felt the shock not far from 12. It was more severe than any former one. We arose and looked about the house and saw its effects on the plastering, milk etc. and retired. About 1 a.m. there was a jar and we sprang up expecting a heavy shock to follow but were disappointed, but our feelings had become too much excited to allow of our sleeping. We therefore dressed and sat up the remainder of the night, and never shall I forget how intensely I watched for the morning. . . I then raised the curtain of the children's bed and also of the crib, placing the latter near the door and kept myself in a situation to flee. . . Our plastering and chimney are cracked and some stone walls thrown down. It has been remarked by the natives that it was the most severe shock they ever felt. . .	Martin, 1979, p. 108-109 [gives date of mainshock as 4/8; aftershocks would be 4/9]
4/07/1841	23:45					do	do	do	do	6.5	do	do	Cheever notes: One of the two shocks experienced at Hilo was in the night, when I was awakened by its jar, but the mind took no cognizance of it till it was passed. Its suddenness was like that of lightning . . .	Cheever, 1871, p. 343; date guessed from time/intensity
4/08/1841	0:55					kl sf?						II-III	Lyman notes: a slight jar; a trembling of the earth	[aftershock?]; Wyss and others, 1992, p. 9; Lyman, 1859, p. 265; Martin, 1979, p. 108-109
4/08/1841	2:00					kl sf?						II-III	Lyman notes: a slight jar; at two there was another jar	[aftershock?]; Wyss and others, 1992, p. 9; Lyman, 1859, p. 265; Martin, 1979, p. 108-109
5/18/1841	0:30					oahu?				5.3	int	V	On Monday night last, between 12 and 1 o'clock [May 18 A.M.], a shock was experienced here of sufficient violence to shake a house and awake its inmates.	Anonymous, 1841

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/28/1841	19:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight [not heavy] shock at 7 1/2 P.M.	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265
6/26/1841	21:59					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock in the night [time assumed]	Wyss and others, 1992, p. 9
7/03/1841	5:30					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock between 5 and 6 am	Wyss and others, 1992, p. 9
9/30/1841	23:59					south hawaii?				5.3	int	V; 4.5 (Hilo-Cox)	Lyman notes: one shock; time forgotten (no date given); a smart shock in the night [no time or date]	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265
11/28/1841	21:59					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock in the night [time assumed]	Wyss and others, 1992, p. 9
2/14/1842	5:00					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock at five AM	Wyss and others, 1992, p. 9
8/15/1842	21:59					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock in the night [time assumed]	Wyss and others, 1992, p. 9
8/31/1842	21:30					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: A shock at half past nine evening; not heavy	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265
11/09/1842	21:59					south hawaii?				5.3	int	V (W&K); 5.0 (Hilo-Cox)	Lyman notes: a shock in the night so heavy as to awaken us [time assumed]	Wyss and others, 1992, p. 9
1/09/1843													Mauna Loa summit (5 days) and north flank eruption (90 days)	Andrews, 1843; Coan, 1843
3/6/1843	20:00					mauna loa				4.5	int	IV-V	. . . The same evening [Mar. 6], after light, a smart shock of earthquake, which lasted 30 seconds . . .	Coan, 1843 [letter to Rev. R. Anderson dated Apr. 12, 1843 from T. Coan's letters from Byron's Bay (Hilo, HI)]
3/08/1843	19:00					mauna loa?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: A shock at seven P.M.	Wyss and others, 1992, p. 9
3/12/1843	20:00					mauna loa				3.8	int	IV	On the eve of the 12 camped near the stream of new lava in full view of the new crater. At sunset we discovered a splendid comet in the west; and while gazing upon it, the earth began to rattle to & fro beneath our feet. We had a severe shake of earthquake the first I have felt--	Paris, 1843
4/27/1843	21:59					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a shock in the night [time asumed]	Wyss and others, 1992, p. 9
7/31/1843	23:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: two during the month-one in the night and the other in daytime	Wyss and others, 1992, p. 9
9/17/1843	18:45					ml wf?				3.5	int	III-IV	While at our house up country on Sat. pm the 17th at 15m before 7 o'clock we had a smart shock of an earthquake. But here [Kailua] only 4 or 5 miles distant it was not felt. I have a curiosity to know if it was felt at other places. Did you feel it?	Andrews, 1843
12/15/1843	10:00					south hawaii?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: a shock at 10 AM	Wyss and others, 1992, p. 9
2/18/1844	18:30					kl sf?				6.1	int	6.5 (Hilo-Cox); VI (Puna); V (W&K; S&C)	Lyman notes: A severe shock at 6 1/2 P.M.	Wyss and others, 1992, p. 9

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/18/1844	18:30					do				6.1	do	do	Cheever notes: Another shock was more prolonged while we were at the supper-table. First, there was a premonitory jarring of the house, like as I had felt three times before; then a violent jerk, as if the house were heavily knocked in one corner, and the blow transmitted to the other until there was a recoil. Native houses were seen through the window to pitch and reel. Mr. Coan, who was absent on a tour [probably in Puna], and sitting at the time under some trees, said that they moved to and fro, and the leaves rustled as from the blow of a woodsman's ax. His little son insisted upon it, at first, that he felt something warm strike through him, but became convinced at length, that it was only the natural glow of excitement and alarm, which not boys only, but boys' parents too, and else is subject to when they hear the coarse rumble, and feel the fearful vibration of an earthquake. (p. 343).	Cheever, 1871
9/01/1844	7:57					south hawaii?				5.6	int	V-VI; 6.0 (Hilo-Cox)	Lyman notes: a heavy shock a little before 8 AM; between 7 and 8 am	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265
6/13/1845	6:30					hilea?				5.0	k&w	V	June 13, 1845--This morning at half past 6 o'clock we had the longest continued & perhaps the scariest earthquake we have ever felt. The house continued to shake or roll as if on a kind of cesaw [see-saw] rolling & turning from North to South which continued nearly a minute perhaps quite.	Paris, 1845; stationed at Waiohinu, Hawaii; region/magnitude assigned by analogy to earthquake of August 20, 1924 (W&K)
12/21/1845	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock in the night [time assumed]	Wyss and others, 1992, p. 9
2/14/1846	7:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 7 AM	Wyss and others, 1992, p. 9
6/15/1846	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: moderate shock in the night [time assumed]	Wyss and others, 1992, p. 9
6/24/1846	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: moderate shock in the night [time assumed]	Wyss and others, 1992, p. 9
3/29/1847	9:30					south hawaii?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: a shock between 9 & 10 A.M.	Wyss and others, 1992, p. 9
10/14/1847	15:00					south hawaii?				5.6	int	V-VI; 6.0 (Hilo-Cox)	Lyman notes: a heavy shock about 3 PM	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265, [date given as 10/4]
2/28/1848	17:00					south hawaii?				5.6	int	V-VI; 6.0 (Hilo-Cox)	Lyman notes: a heavy shock at 5 PM (date missing)	Wyss and others, 1992, p. 9
4/19/1848	20:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shocks at 8 PM	Wyss and others, 1992, p. 9
7/09/1848	4:15					south hawaii?				6.1	int	6.5 (Hilo-Cox); V S&C)	(Lyman notes: A severe protracted shock at a quarter past four morning	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265 [time given as 4:45 am]
12/05/1848	20:15					south hawaii?						III	Lyman notes: A slight shock at 8 1/4 P.M.	Wyss and others, 1992, p. 9; Lyman, 1859, p. 265 [time given as 8:15 am]
5/25/1849													Mauna Loa summit eruption [date approx., before May 30]; [Kilauea's activity] was followed by the breaking out of a new volcano on the top of Mauna Loa, the light of which can be seen from the hills near this station [Waiohinu].	Kinney, 1849 [letter to Rufus Anderson dated May 30, 1849 from H. Kinney (continuation dated Jun. 1) at Waiohinu, HI]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/30/1849	21:59					hilea?				5.3	int	V	Last night [May 30-Jun. 1] there was a shock of a earthquake which shook the house considerably. [time assumed]	Kinney, 1849 [letter to Rufus Anderson dated May 30, 1849 from H. Kinney (continuation dated Jun. 1) at Waiohinu, HI]
7/15/1849	4:05					hilea?				6.2	k&w	VII (Kau); VI (Kona); V (Hilo)	During his [Dr. Wetmore's] absence [June-August] we had quite a severe earthquake, severe I mean for this region. It did no injury but threw down a stone wall at Kau, which was strongly laid, and at Kealakekua rocked a stone church so much that it is feared it will fall down. It occurred a little past 4 in the morning while I was lying awake and rocked my bed at a rather uncomfortable rate. . . . It was supposed to last 10 or 12 seconds. slight shocks are common here but they seldom have one so heavy as this.	Wetmore, 1849 [Letter from L. Wetmore to Fanny dated Hilo, HI, Aug. 31, 1849]; date approximate; region/magnitude estimated from isoseismal map
12/31/1849	23:59												Lyman notes: [no earthquakes reported during 1849]	Lyman, 1859, p. 266
12/31/1850	23:59												During December 1850 . . . the occasional throe of an earthquake indicates that all subterranean action has not ceased. [following draining of lava from Kilauea's summit in spring, 1849?]	Wood, 1917, p. 113 [quoting letter from Titus Coan]
12/31/1850	23:59					do							Lyman notes: only two shocks during the year; times not remembered]	Wyss and others, 1992, p. 9
3/04/1851	0:05					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock a little past [after] midnight	Wyss and others, 1992, p. 9; Lyman, 1859, p. 266 [date given as 5/4]
5/11/1851	2:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Slight shock at 2 in the morning	Wyss and others, 1992, p. 9
7/14/1851	10:20					south hawaii?				5.3	int	V-VI	Lyman notes: a heavy shock	Perrey, 1860; Lyman, 1859, p. 266 [omitted from Wyss and others, 1992]
8/7/1851													Mauna Loa summit eruption; begin Aug. 7 or 8, over in 3-4 or 12 days, according to different accounts	Anonymous, 1851; Coan, 1852
8/21/1851	5:59					south hawaii?						III-IV	Lyman notes: a moderate shock towards morning [time assumed]	Perrey, 1860; Lyman, 1859, p. 266 [omitted from Wyss and others, 1992]
2/17/1852	3:30												Mauna Loa summit eruption. Coan notes: Began at 3:30 AM, over within 24 hours; Dana notes: Dana remarks on the quietness of the outbreak in 1852, unaccompanied by earthquakes perceptible at the base of the mountain	Coan, 1852; Dana, 1852
2/20/1852													Mauna Loa NE rift eruption begins; lasts for 20 days	Coan, 1852
3/31/1852	16:15					kaoiki??				6.2	int	VII; 6.5 (Hilo-Cox)	Lyman notes: A very severe shock 4 1/4 P.M.; Warshauer notes: 1852 eruption accompanied by earthquake shocks and detonations that shook the great island from summit to sea	Wyss and others, 1992, p. 9; Lyman, 1859, p. 266 [time given as 1:15 PM]; PCA, 11/20/1880, p. 2
10/19/1852	4:45					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 4 3/4 A.M.	Wyss and others, 1992, p. 9
3/02/1853	5:00					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 5 A.M.	Wyss and others, 1992, p. 9; Lyman, 1859, p. 266 [time given as 5 PM]
3/08/1853	11:59					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: a smart shock-time forgotten; a slight shock [time assumed]	Wyss and others, 1992, p. 9; Lyman, 1859, p. 266
3/11/1853	4:30					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 4 1/2 A.M.	Wyss and others, 1992, p. 9
3/15/1854	11:59					kona?						II-III	Two days since we had a slight shake of earthquake. [time assumed]	Paris, 1854 [Letter to Armstrong dated Kaawaloa, March, 17, 1854]
3/16/1854	22:00					kona?						II-III	Last night we had another about 10 o'clock.	do

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/17/1854	7:00					kona?				3.8	int	IV	This morning a third about daylight. The last was the most powerful	do
8/26/1854	16:00					south hawaii??				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 4 P.M.	Wyss and others, 1992, p. 9
10/29/1854	20:00					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 8 1/2 P.M., the vibrations continuing several seconds; premonitory distinct	Wyss and others, 1992, p. 9; Lyman, 1859, p. 266
3/18/1855	20:30					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: a smart shock; the vibrations continuing several seconds	Wyss and others, 1992, p. 9
5/24/1855	9:00					south hawaii?				5.3	int	5.0 (Hilo-Cox)	Lyman notes: A protracted & tolerably smart shock at 9 o'clock A.M.	Wyss and others, 1992, p. 9
6/30/1855	16:30					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 4 1/2 P.M. [date in June omitted]	Wyss and others, 1992, p. 9
8/03/1855	20:30					south hawaii?				5.3	int	5.0 (Hilo-Cox)	Lyman notes: A tolerably smart shock at 8 1/2 P.M., motion up and down	Wyss and others, 1992, p. 9
8/11/1855													Eruption of Mauna Loa on Aug. 11; August 11, 1855. A new volcano in Mauna Loa; The eruption began on the evening of August 11 in Mokuaweoweo and was on the northeast rift by Aug. 14; Dana remarks on the absence of a seismic prelude to the eruption	Coan, 1856; Martin, 1979, p. 136; Anonymous, 1855; Dana, 1856
9/17/1855	8:00					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 8 A.M.; a shock	Wyss and others, 1992, p. 10; Lyman, 1859, p. 266
11/02/1855	7:00					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 7 A.M.	Wyss and others, 1992, p. 10
1/08/1856	4:00					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: A smart shock at 4 A.M.	Wyss and others, 1992, p. 10
8/18/1856	1:00					mauna loa				5.3	int	V	Warshauer notes: On the night of the 18th of August an earthquake occurred in Kona, so severe as to wake the inhabitants from sleep.	PCA, 9/11/1856, p. 3
11/04/1856													Mauna Loa NE rift eruption ends	not noted in PCA
7/08/1857	5:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 5 1/2 A.M.	Wyss and others, 1992, p. 10; not noted in PCA [inc. correspondence from Hilo dated Jul. 17 in the Jul. 30 issue]
7/30/1857	1:00					south hawaii?				6.1	int	6.5 (Hilo-Cox); VI-VII; V (S&C)	Lyman notes: A severe shock at one in the morning, motion undulating; Warshauer notes: A few minutes past one o'clock this morning, the people of Hilo and of the surrounding districts were suddenly aroused from their usually quiet slumber by a very heavy quake of the earth which lasted for several seconds and was felt more severely than any we have had on this side of the island for a number of years past: during my residence on the island of nearly five years, I have not experienced its equal. No damage however was done though it created a little fright to those who had not previously experienced the effects of a heavy shock. The undulation of the earth was from west to east. . . .	Wyss and others, 1992, p. 10; PCA, 8/13/1857, p. 2
8/30/1857	13:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 1 1/2 P.M.	Wyss and others, 1992, p. 10; not noted in PCA
9/09/1857	9:00					kl sf?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: A [short] smart shock at 9 A.M.	Wyss and others, 1992, p. 10; Lyman, 1859, p. 266; not noted in PCA
3/31/1858	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock-time forgotten (no date given)	Wyss and others, 1992, p. 10

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/30/1858	23:59					south hawaii?				5.6	int	V-VI; 6.0 (Hilo-Cox)	Lyman notes: a protracted and rather heavy shock (no date or time given)	Wyss and others, 1992, p. 10; not noted in PCA
6/08/1858	3:00					south hawaii?				3.5	int	3.5 (Hilo-Cox)	Lyman notes: A slight shock at 3 A.M.	Wyss and others, 1992, p. 10; Lyman, 1859, p. 266 [time given as 3 PM]; not noted in PCA
7/05/1858	2:00					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a smart jar before morning; a smart shock or jar	Wyss and others, 1992, p. 10; Lyman, 1859, p. 266; not noted in PCA
7/25/1858	11:59					maui east				3.8	int	IV (Hana); III (Oahu)	felt in Honolulu; Warshauer notes: . . . quite a smart shock of an earthquake was experienced in the districts of Hana and Koolau, East Maui. Dishes clattered, and furniture sensibly vibrated. It was not noticed in other parts of Maui, nor at Kohala. [no time given]	Perrey, 1861; PCA, 8/5/1858, p. 2
1/23/1859	16:00												Eruption began at the summit on January 23 and died quickly. The summit activity was followed on January 24 by breakout lower down and flow to the northwest; Warshauer notes: eruption began at 4 pm on Sunday the 23rd; We cannot learn that this eruption was accompanied by earthquakes or any premonition or disturbance in the volcanic elements.	[Mauna Loa north flank eruption begins] Lyman, H.J., 1859; PCA, 1/27/1859, p.2; PCA, 2/3/1859, p. 2
3/17/1859													Warshauer notes: The 1859 lava was still flowing. We have not felt the earthquake for some days past. Previously we had a little shake or two almost every day, and two or three that were quite severe.	PCA, 3/31/1859, p. 2 [A correspondent from Kona, dated 3/17]
7/06/1859	14:59					south hawaii?				3.5	int	3.5 (Hilo-Cox)	Lyman notes: a slight shock in PM [time assumed]	Wyss and others, 1992, p. 10; not noted in PCA
7/16/1859	23:00					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: a smart shock at 11 PM	Wyss and others, 1992, p. 10; not noted in PCA
11/21/1859	2:25					alenuihaha?				5.9	k&w	VI (Kawaihae, Waimea); IV (Honolulu); 3.8 (Cox-Honolulu); 5.5 (Cox-Hilo); V (S&C-Hilo)	Lyman notes: A smart shock at 3 A.M. The trembling continued unusually long after the shock; Cox notes: Int 3.8 in Honolulu; felt Maui; severe in Kawaihae; Warshauer notes: felt by several on Oahu as a severe shock, sensation of being taken by the shoulders and shaken, persons awakened; felt very sensibly at Lahaina and Kawaihae (strongest in years); The shock was felt here [Waimea] about three o'clock on the morning of Monday, the 1st of November [other reports place it on Nov. 21], and lasted about 10 seconds. It was preceded by a heavy rumbling sound, like distant thunder, which lasted about the same length of time.	Wyss and others, 1992, p. 10 [time given as 3 am]; Cox, 1986; PCA, 11/24/1859, p. 2; PCA, 12/01/1859, p. 2; PCA, 12/15/1859, p. 2 [date given as 11/1]; region/magnitude estimated from isoseismal map; analogy to earthquake of 3/19/1926 (W&K)
11/21/1859	2:55					alenuihaha?				5.3	int	VI? (Waimea)	Warshauer notes: Nor was that all: about a half an hour after we felt another, not quite so severe, but it made the tree tops tremble. As there was no wind, we could hear the leaves shake over the house. The bed on which I slept shook like a man with the fever and ague. [no felt confirmation from elsewhere; local to Waimea?]	aftershock?; PCA, 12/15/1859, p. 2 [date given as 11/1]
11/24/1859													Mauna Loa north flank eruption ends	
2/14/1860	15:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at half past three P.M.	Wyss and others, 1992, p. 10; not noted in PCA

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
6/01/1860						south hawaii?				5.6	int	V-VI	Warshauer notes: On the 1st of June, at 3 o'clock A.M., we had a quite severe shock of an earthquake [at Hilo]. It awoke persons out of a sound sleep, and lasted about two minutes.	Perrey, 1867; PCA, 6/14/1860, p. 2
6/08/1860	3:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 3 A.M.	Wyss and others, 1992, p. 10; not noted in PCA
7/18/1860	16:00					south hawaii?				6.1	int	6.5 (Hilo-Cox); V (W&K; S&C)	Lyman notes: A severe shock at 4 P.M.	Wyss and others, 1992, p. 10; not noted in PCA
7/20/1860	21:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 9 PM	Wyss and others, 1992, p. 10; not noted in PCA
7/26/1860	18:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 6 PM	Wyss and others, 1992, p. 10; not noted in PCA
9/26/1860	11:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock about 11 AM	Wyss and others, 1992, p. 10; not noted in PCA
11/17/1860	10:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 10 1/2 A.M.	Wyss and others, 1992, p. 10; not noted in PCA
3/12/1861	10:00					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: a smart shock at 10 AM	Wyss and others, 1992, p. 10; not noted in PCA
6/01/1861	20:30					south hawaii?				6.1	int	6.5 (Hilo-Cox); V (W&K; S&C)	Lyman notes: Quite a severe shock at 8 1/2 P.M.; Warshauer notes: From Hawaii, we hear that three earthquakes have recently occurred on that island	Wyss and others, 1992, p. 10; PCA, 6/13/1861, p. 2
8/09/1861	19:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 7 1/2 P.M.	Wyss and others, 1992, p. 10
12/05/1861	11:49					molokai?				5.9	int	VI (S&C; Hon, Lahaina); V (W&K Hon and Maui); 5.0 (Cox-Hon)	Cox notes: felt Oahu and Maui but not Hawaii; awakened 'all hands' on Maui; probably Molokai-Lanai vic.; Warshauer notes: heavy eq on Oahu, 2 distinct shocks, felt with fright sitting/standing/walking, houses shaken, plaster fell; ink spilled at Lahaina; first quake lifted buildings/houses up and down, followed by e-w motion, shook windows/glassware/crockery as if under bombardment	Cox, 1986 [See his evaluation of the entire earthquake sequence]; Perrey, 1864; PCA, 12/12/1861; Polynesian, 12/07/61
12/15/1861	4:40					maui?				5.6	int	V-VI	A correspondent writing from Ulupalakua, E. Maui, says: There was a heavy shock of an earthquake here on Sunday morning December 15, at 20 minutes before 5 o'clock. it awoke all hands. [It was described as more intense than the shake of the previous Thursday].	Cox, 1986; PCA, 12/26/1861, p. 2
12/15/1861	19:21					molokai?				5.6	int	V-VI (Hon); V (Hon-W&K); 4.8 (Hon-Cox)	Cox notes (felt Oahu but not Maui; probably Molokai-Lanai vic.); Warshauer notes: On Sunday evening last, at about 21 minutes past seven o'clock, another severe shock was felt all over this island (Oahu). It consisted of ten or twelve very regular vibrations from East to West, felt equally by those sitting or walking. It was accompanied by a noise more distant than that which accompanied the shock of the 12th. Some persons felt an electric sensation in the knees. . . . some persons standing at the harbor-master's office, observed the fishes suddenly flying on the surface toward the sea . . . The schooners lying by the wharves were also set to rocking; water bubbled in harbor	Cox, 1986; PCA, 12/26/1861, p. 2; Polynesian, 12/28/1861
12/29/1861	21:59					south hawaii?				3.8	int	IV	Warshauer notes: The earthquake was felt on Hawaii on Sunday night [12/29-30/1861], but the heaviest shocks were noticed on the following morning, which were unusually severe, even for that island, where they are of frequent occurrence. [time assumed]	PCA, 1/2/1862, p. 2

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/30/1861	9:59					south hawaii?				5.6	int	V-VI	Warshauer notes: The earthquake was felt on Hawaii on Sunday night [12/29-30/1861], but the heaviest shocks were noticed on the following morning, which were unusually severe, even for that island, where they are of frequent occurrence. [time assumed]	PCA, 1/2/1862, p. 2
1/29/1862	5:00					north hawaii??				5.3	int	V (Hilo; Maui)	Perrey notes: an earthquake occurred around January 29, 1862, lasting more than 5 seconds; Warshauer notes: [letter from Hawaii] On the morning of the 29th January (one letter says the 29th another the 30th,) a few minutes after 5 o'clock, a very severe shock was felt--so heavy as to wake up all who were asleep, and set doors, windows, lamps, crockery, &c., into an unusual nervous state. One correspondent, writing from Maui, says: . . . , the supply of earthquakes is fully up to demand. A fine sample was offered at 5 A.M. this morning, and there was a lively time among the spectators for about 20 seconds, which was met with a corresponding briskness among the lamps and crockery. . . . Another correspondent writing from Makawao, (Jan. 30,) says: At 5 o'clock this morning, we were pretty thoroughly shaken up by an earthquake. I had risen and was striking a light, so that I fully realized the movement . . .	Perrey, 1864; PCA, 2/6/1862, p. 2
1/29/1862	5:00					do			do	5.3	do	do	Warshauer notes: several severe shocks of earthquake felt on the Kona side of Hawaii during the past month	PCA, 1/30/1862, p. 2
2/07/1862	16:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 4 P.M.	Wyss and others, 1992, p. 10; not noted in PCA
4/27/1862	23:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at a quarter to 12 midnight.	Wyss and others, 1992, p. 10; not noted in PCA
10/09/1862	15:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 3 PM	Wyss and others, 1992, p. 10; not noted in PCA
10/09/1862	18:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 6 PM	Wyss and others, 1992, p. 10; not noted in PCA
4/13/1863	10:15					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 10 1/4 A.M.	Wyss and others, 1992, p. 10; not noted in PCA
5/06/1863	15:30					south hawaii?				5.9	int	6.0 (Hilo-Cox)	Lyman notes: Two heavy shocks at 3 1/2 P.M.	Wyss and others, 1992, p. 10; not noted in PCA
6/01/1863													extensive eruption in N. side of Kilauea crater in May or June; [A flow] broke out on the floor of the crater along the 'black ledge,' below the sulphur bank. The new lava stream runs thence north-easterly, crossing the path, and then goes around to the vicinity of the sulphur banks located on the opposite side of the crater from the summit house. . . .	VHR, v. 1, O.H. Gulick entry dated 2/2/1865; PCA, 7/2/1863, p. 2
9/06/1863													Crack opened in N. bank of Kilauea crater, varying from 6 to 8 ft in length, some miles in length; first noticed on Sept. 6, 1863	VHR, v. 1, O.H. Gulick entry dated 2/2/1865; not noted in PCA
11/26/1863	3:30					south hawaii?				5.9	int	6.0 (Hilo-Cox)	Lyman notes: A heavy shock at 3 1/2 A.M.; Warshauer notes: An unusually severe shock of occurred at Hilo, about 4 o'clock on the morning of the 26th--the heaviest that has been experienced there for many years.	Wyss and others, 1992, p. 10; PCA, 12/3/1863
2/15/1864	12:30					south hawaii?						III	Lyman notes: One shock at 12 1/2 noon	Wyss and others, 1992, p. 10; not noted in PCA

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/14/1864	16:00					south hawaii?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: A shock at 4 P.M.	Wyss and others, 1992, p. 10; not noted in PCA
3/03/1865	0:45					west hawaii deep?	40.0			6.5	k&w	VII (Kona); VI-VII (Pahala); V-VI (Maui); V-VI (Hilo); 6.0 (Hilo-Cox); V (Hon)	<p>Warshauer notes: On Friday morning, March 3rd, about fifteen minutes before one o'clock, a very severe shock of an earthquake was felt [on Oahu], many being waked out of a sound sleep by it. It appears to have been accompanied by a noise like that of persons tramping heavily over the floor. The frame dwelling we occupy was shaken very sensibly. It continued an unusually long period, and the motion was heaving up and down, rather than sideways as it generally is; The earthquake noticed in our last issue, was felt on Maui, more distinctly than on this island. Many of the people were waked up by it. On Hawaii it was very severe. Mr. Paris writes, under the date of March 8--On Thursday night, the 2nd inst. about half past 12 o'clock, we had the hardest shake of earthquake I have experienced in 25 years [at Kaawaloa]. The plastering of our house is much damaged, and a great deal of stone wall in this region damaged.</p>	PCA, 3/4/1865, p. 2, 3/11/1865, p. 2; region/magnitude assigned from isoseismal map; possible analog to earthquake of April 22, 1951, but at different epicenter
3/03/1865	0:45					do				6.5	do	do	<p>Warshauer notes: At 1 A.M. Friday, March 3, we were awakened from sleep by the most severe earthquake that we have ever experienced. The shock was accompanied by a heavy rumbling sound, which with the violent rattling of every door and window in the house, startled from their slumber twenty-four out of twenty-six inmates of our house. The first and most violent shock seemed to continue with a quick rumbling motion for half a minute after we were fairly awake. A few minutes later two slight shocks were noticed. A band-box which fell from a shelf, was the only article which was displaced in our house . . . A few persons ran out of their houses . . . The dogs of the village set of a most vigorous barking . . . The shock . . . was felt in Kona . . .</p>	PCA, 3/18/1865 [letter from missionary Gulick at Waiohinu dated Mar. 6, 1865]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/03/1865	0:45					do				6.5	do	do	Warshauer notes cont.: [a native living in Keaiwa describes] the most violent earthquake he has ever experienced. He was up when [they] heard a loud report [followed by] slight shocks of the earthquake which increased in severity every shock for a minute or so, then passed off as it came, with slight shocks. [Dur 3 or 4 min], shock after shock shaking the house as if it would tear it from its foundation. Windows and doors rattling, and bottles falling. . . . great convulsions and noises in the earth right under our house. . . . After the hard shocks, it passed off gradually. Shortly after, . . . a report as if something had come bounding up against the side of the mountain . . . till it reached us as another shock, but it did not continue very long. . . as many as five more slight shocks before morning! Our stone walls are tumbled down in six different places. Doors . . . shut as tight as could be, were opened; and the safe door . . . was unfastened . . . All over the house we find things thrown down and tipped over. . .	PCA, 3/18/1865 [Gulick, 1863--report from missionary Gulick at Waiohinu]
3/03/1865	7:00					do					do	do	Lyman notes: A heavy shock at 7 A.M.; VHR-no entry for this date [assume same quake as above but time given is that of documentation]	Wyss and others, 1992, p. 10
7/17/1865	4:00					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: two shocks at 4 AM; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
8/26/1865	21:15					south hawaii?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: A shock at 9 1/4 P.M.; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
9/14/1865	21:15					south hawaii?				3.8	int	IV; 4.5 (Hilo-Cox)	Lyman notes: A shock at 9 1/4 P.M.; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
12/11/1865	1:30					south hawaii?				5.3	int	V; 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 1 1/2 A.M.; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
12/25/1865	20:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 8 PM; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
12/30/1865													Mauna Loa summit eruption begins. Lyman notes: An eruption discovered on Mauna Loa [Dec. 29]; An eruption began in Mokuaweoweo on December 30, 1865, and was still continuing on February 27, 1866; not noted in VHR	Wyss and others, 1992, p. 10; Coan, 1866
4/28/1866													Mauna Loa summit eruption ends; An eruption in Mokuaweoweo was first noticed from Hilo about the end of December 1865, and continued 4 months	Coan, 1867
8/04/1866	11:00					south hawaii?						III	Lyman notes: Two slight shocks at 11 o'clock A.M.; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
10/01/1866	20:00					south hawaii?				3.8	int	IV	Lyman notes: a protracted but not heavy shock at 8 o'clock PM; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
10/19/1867	11:40					south hawaii?						III	Lyman notes: A slight shock at 20 min to 12 [AM assumed]; VHR-no entry for this date	Wyss and others, 1992, p. 10; not in PCA or HG
10/30/1867	17:30					south hawaii?				5.6	int	V-VI	Lyman notes: A heavy shock at 5 1/2 P.M.; VHR-no entry for this date	Wyss and others, 1992, p. 11; not in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/07/1867	2:00					south hawaii?				5.3	int	V	Lyman notes: a smart shock at 2 AM; VHR-no entry for this date	Wyss and others, 1992, p. 11; not in PCA or HG
12/29/1867	23:45					kaoiki??				3.6	int	III	Lyman notes: At 11 3/4 P.M. a slight shock which was felt in Kau; not mentioned in VHR entry for this date	Wyss and others, 1992, p. 11; not in PCA or HG; magnitude assigned as < 4 by analogy with modern kaoiki earthquakes
1/17/1868	11:59					hilea?						3.0; L	VHR-no entry for this date; Williamson tabulates one light earthquake felt at Kona in January [see entry of 3/28/68 for the Williamson scale of intensities; time assumed]	Perrey, 1873; Williamson, 1869
2/02/1868	0:00					hilea?				3.8	int	4.0; M	Lyman notes: a shock in the night [Feb. 1-2]; VHR-no entry for this date; Williamson tabulates one moderate earthquake felt at Kona in February [assume same date as Lyman entry]	Wyss and others, 1992, p. 11; Williamson, 1869; not in PCA or HG
3/08/1868	11:59					hilea?				5.3	int	V (Kona)	Warshauer notes: On Monday the 8th ult., a hard shake of earthquake passed through the Kona district, and caused the residents to believe that the volcano was preparing for another exhibition of pyrotechnics. [no time given]	PCA, 4/1/1868, p. 3
3/27/1868	5:45					hilea?							Mauna Loa summit eruption begins. Eruption at Mauna Loa summit began at 6:00 a.m. on March 27, and was over by 8:00 p.m. Fuming, but no glow, was seen advancing down the southwest rift zone until the 29th; Warshauer notes: Eruption was first seen on Thursday night [03/26--this is the earliest report of the summit eruption], seemingly near the 1859 vent; lasts one day; Williamson reports smoke at 5:45 am	Lyman, 1868; PCA, 4/1/1868, p. 3; HG, 4/8/1868, p. 2
3/27/1868	20:00					ml swr						III (kau)	Warshauer notes: See entry for 3/30/1868, 23:59; . . . We have had over three hundred shocks of earthquake since Friday night [Mar. 27], some of which were terrible. . . ; [letter dated 29 March] At about 8 o'clock Friday evening we felt a slight shock of an earthquake [assume kau]. . . Since [then] we have had no less than three hundred! . . . ; The earthquakes commence on Friday night [Mar. 27]; some say we had thirty or more shocks [that night]	HG, 4/8/1868, p. 2 [lead article; letter from Kau dated Mar. 29, 1868]; PCA, 4/11/1868, p. 3 [letter from Kau]; [The felt earthquakes began in Kau more than twelve hours after the eruption began, and before being felt in Kona or Hilo. Probably, these accompanied down-rift migration of magma, as indicated above in the statement reporting migrating fume. Presumably, all of the quakes reported by Williamson (see below) were also felt in Kau]
3/28/1868	10:15					ml swr				3.8	int	4.0; M	Warshauer notes: [lead article] The earthquakes which commenced on Saturday [Mar. 28] were felt simultaneously in Kona, Kau and Hilo. At the latter place there were 30 shocks from Saturday [3/28] to Monday [3/30]; [Williamson letter datelined Kona, HI March 31] . . . After two or three delicate hints [slight earthquakes] we were first startled by a distinct shock of earthquake, which occurred at 10:15 am [Mar. 28]. From that time up to the time of sending this letter, we have had 123 distinct shakes, some being more violent than others. . . .	HG, 4/8/1868, p. 2 [list of earthquakes on 3/28-31/1868, from Rev. C.G. Williamson]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/28/1868	13:00					ml swr						III-V (kau)	Warshauer notes: Saturday morning [Mar. 28] I awoke about daylight [in Kau], and up to 1 pm I counted ninety-seven earthquakes; none were very severe, but their frequency frightened us.	PCA, 4/11/1868, p. 3 [letter from Kau dated 3/29/1868]
3/28/1868	13:15					ml swr				3.8	int	4.0; M		HG, 4/8/1868, p. 2 [list of earthquakes on 3/28-31/1868, from Rev. C.G. Williamson]
3/28/1868	13:22					hilea				6.1	int	6.5; VH	no mention of earthquakes in VHR; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; felt-Volcano [Fornander speaks of the event at 1:28 (below) as being the first heavy shock, implying that some previous events were felt at Volcano]	HG, 4/8/1868, p. 2 [list of earthquakes on 3/28-31/1868, from Rev. C.G. Williamson]; Fornander, 1868
3/28/1868	13:28	19	6	155	39	hilea			7.0	W&K	7.0	w&k	IX (W&K); VIII (S&C); 7.5; VVH Lyman notes: Felt a shock of earthquake quite severe at 1 4/5 P.M. [the preceding one not felt in Hilo?]; . . . Saturday [3/28] is a day ever to be remembered here: in . . . less than half a day, there were 51 decisive shocks, one of which was the strongest shock that the oldest inhabitant has experienced. [It threw] down a portion of Kealakekua Pali, and overturning stone walls in certain places. This occurred at 1:28 pm; [footnote] This lasted for some time, causing everything to rock backward and forward; . . . masses of rocks thrown off the pali at the bay, buildings seriously strained so as to alarm their inmates. Some stone buildings rendered unsafe. Cisterns of Kona plantation were cracked so as to be unfit for service . . . . Waiohinu, Kau seems more seriously shaken than Kona. . . . News via Hilo from there to Tuesday, 31st ult., says the earth has opened, and the people are going to a safer distance. . . . Stone house of Captain Brown [Kahuku] destroyed, mission parsonage chimney thrown down, and stone church walls cracked. . . .	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2 [Williamson letter dated March 31; text and footnote to table]; do [letter following Williamson--first lines, including date, missing--reference is to events on 3/28-29]; Wyss and Koyanagi, 1992; Intensity map in W&K
3/28/1868	13:28	do	do	do	do	do						do	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; We have been most thoroughly shaken up for the past two days, and still continue shaking [with over three hundred shocks of earthquake since Friday night [Mar. 27], some of which were terrible. . . . Walls were thrown down and houses moved from their foundations; the earth moved up and down so that walking was a difficult thing to accomplish, Capt. Brown's stone house at Kahuku is down. Mr Pogue's chimney was thrown down. The stream of water has increased one half . . .	HG, 4/8/1868, p. 2 [letter from kau dated March 29]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/28/1868	13:28	do	do	do	do	do		do	do	7.0	do	do	Warshauer notes: . . . While at dinner [we assume this time as the most likely to fit other observations] we had a heavy shock--crockery jingled and the house creaked like a ship in a storm. I left the table . . . and we had a fearful shock. [I ran out of the house] while vases, books, boxes, lamps and dishes were falling about us. When we got out, walls were falling down with a thundering noise, and the air was filled with dust, the earth still quivering. In less than twenty-four hours we had over two hundred shocks. . . ; The most severe shock took place at a quarter of 2 o'clock yesterday afternoon [Mar. 28]. The earth moved like a troubled sea, and the wonder is that more damage was not done; We have had shocks ever since Saturday last, 28th March	PCA, 4/11/1868, p. 3 [a correspondent, writing from Kau; letter from Kau, dated 3/29/1868; letter from Hilo dated 4/3/1868]
3/28/1868	13:28	do	do	do	do	do		do	do	7.0	do	do	[at Volcano House] At 1:28 pm, (my watch), . . . the first heavy shock occurred, making me sway to and fro as if I had lost my footing, on a vessel's deck, rolling in a rough sea. [I saw the effects of] . . . the tumbling down of a portion of the southern wall of Kilauea crater] near the road to Kau; The first shock [1:28 pm] was felt throughout Kau, Puna and Hilo. At Keaouhou, the ground shook continually all the afternoon on Saturday [March 28]. In Kau, the shock seemed to have been stronger the more southward you went. At Waiohinu it shook down walls, and cracked the stone church from top to bottom. At Kahuku, Capt. Brown's place, the dwelling house, cattle pens, stone walls, etc., were thrown flat on the ground--fortunately no one was hurt . . .	HG, 4/29/1868, p. 4 [Fornander, 1868]
3/28/1868	13:51					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2; locations are assigned to hilea as aftershocks of the M7 event, but these are mixed in with earthquakes associated with continuing intrusion down the Mauna Loa southwest rift zone
3/28/1868	14:15					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	14:17					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	14:32					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	14:50					hilea						3.0; L	[footnote to Williamson table] from 2:50 PM until 4 PM, the ground was incessantly rocking, being occasionally relieved by a more decisive shake, which I have noticed	HG, 4/8/1868, p. 2
3/28/1868	14:57					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:04					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:16					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:18					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:20					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:26					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	15:27					hilea						3.0; L	do	HG, 4/8/1868, p. 2

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/28/1868	15:30					hilea				5.6	int	V-VI (hilo); 5.5; H	Lyman notes: Another hard one at 3 o'clock [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; continous shaking at Keauhou on Saturday afternoon [3/28]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2; Fornander, 1868
3/28/1868	15:36					hilea						3.0; L	continous shaking at Keauhou on Saturday afternoon [3/28]	HG, 4/8/1868, p. 2
3/28/1868	15:50					hilea						3.0; L	do	HG, 4/8/1868, p. 2
3/28/1868	16:00					hilea				5.6	int	5.5; H	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [footnote to Williamson table] from 2:50 PM until 4 PM, the ground was incessantly rocking, being occasionally relieved by a more decisive shake, which I have noticed; Continuous shaking at Keauhou on Saturday afternoon [3/28]	HG, 4/8/1868, p. 2; Fornander, 1868
3/28/1868	16:02					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	16:10					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	16:15					hilea				6.1	int	6.5; VH	felt by Lyman in Hilo; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; Continous shaking at Keauhou on Saturday afternoon [3/28]	Fuchs (1886); HG, 4/8/1868, p. 2; Fornander, 1868
3/28/1868	16:30					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	16:35					hilea				3.8	int	4.0; M	Continous shaking at Keauhou on Saturday afternoon [3/28]	HG, 4/8/1868, p. 2; Fornander, 1868
3/28/1868	16:37					hilea				3.8	int	4.0; M	do	do
3/28/1868	16:39					hilea				3.8	int	4.0; M	do	do
3/28/1868	16:50					hilea				3.8	int	4.0; M	do	do
3/28/1868	17:00					hilea				3.8	int	4.0; M	do	do
3/28/1868	17:05					hilea				3.8	int	4.0; M	do	do
3/28/1868	17:08					hilea				5.6	int	5.5; H	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	do
3/28/1868	17:40					hilea				3.8	int	4.0; M	do	do
3/28/1868	18:00					hilea				5.9	int	V (Kilauea summit, Hilo); 5.5; H	Lyman notes: another [hard one assumed] at 6; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [at Volcano House] At 5:55 pm, another smart shock occurred, longer in duration, but not so violent as the first one; Continous shaking at Keauhou on Saturday afternoon [3/28]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]
3/28/1868	18:37					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/28/1868	18:40					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/28/1868	18:48					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/28/1868	19:05					hilea				4.5	int	4.0; M; III (Hilo)	Lyman notes: another at 7 PM [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/28/1868	19:20					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/28/1868	19:48					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	20:07					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/28/1868	20:45					hilea				4.5	int	IV-V (kona); 3.0; L	[footnote to Williamson table] distinctive character, vertical motion rather than horizontal and during its continuance presented the idea of an attempt being made to lift the house from underneath	HG, 4/8/1868, p. 2

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/28/1868	21:04					hilea				5.0	int	4.8; MH	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	HG, 4/8/1868, p. 2
3/28/1868	21:14					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/28/1868	21:27					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	21:35					hilea				5.0	int	4.8; MH	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	HG, 4/8/1868, p. 2
3/28/1868	21:39					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	21:50					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	22:02					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	22:17					hilea				5.6	int	5.5; H	Lyman notes: another at 10 PM [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/28/1868	22:22					hilea						3.0; L		HG, 4/8/1868, p. 2
3/28/1868	22:27					hilea						3.0; L	[footnote in Williamson table] At this time retired and slept until Sunday am; shocks continue at same frequency, as reported by others	HG, 4/8/1868, p. 2
3/28/1868	23:59					hilea							A correspondent traveling around the south coast reports that at Kilauea frequent shocks during the day [Mar.28]; At Keauhou, the ground shook continually all the afternoon on Saturday [March 28]	HG, 4/15/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]
3/28/1868													Williamson scale of intensity: VL-very light; L-light; M-moderate; MH-moderately heavy; H-heavy; VH-very heavy; VVH-very heavy; felt-Kona. Cox assigns Williamson's intensities to the M-M scale as follows: VL-2.0; L-3.0; M-4.0; MH-4.8; H-5.5; VH-6.5; VVH-7.5]	In the intensity column, roman numerals represent M-M intensities, followed by the Cox and Williamson intensities. Intensities not identified as to place are from Williamson's record at Kealakekua, Kona; times are Williamson times, to which 20 minutes should be added from March 27 through April 4 to agree with Honolulu Astronomical time (Cox, unpub)
3/29/1868	1:10					hilea				6.1	int	6.5; VH; V-VI (Hilo)	Lyman notes: A hard shock in the night which waked us all from sleep. This was at one o'clock A.M.; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; awoke at 1:10 am, very heavy shock, with continuous trembling of the ground for 1 min, ending with moderate shock at 1:11, felt-Kona, Hilo	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/29/1868	1:11					hilea				3.8	int	4.0; M	do; slept again, missing several light shocks	do
3/29/1868	3:21					hilea				5.6	int	5.5; H	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [see comment and entry for 3/30/1868, 23:59] woke up again; felt-Kona, Hilo	HG, 4/8/1868, p. 2
3/29/1868	3:30					hilea						3.0; L	felt-Kona	HG, 4/8/1868, p. 2
3/29/1868	4:00					hilea				5.6	int	5.5; H	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [see comment and entry for 3/30/1868, 23:59] felt-Kona, Hilo	HG, 4/8/1868, p. 2
3/29/1868	5:00					hilea				5.6	int	5.5; H	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [see comment and entry for 3/30/1868, 23:59] felt-Kona, Hilo	HG, 4/8/1868, p. 2
3/29/1868	5:02					hilea						3.0; L	felt-Kona	HG, 4/8/1868, p. 2
3/29/1868	5:36					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes: Then a slight shock at six [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; [see comment and entry for 3/30/1868, 23:59; lasted about 30 sec]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/29/1868	5:45					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	6:08					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	6:30					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	6:45					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	6:57					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	7:03					hilea				3.8	int	4.0; M	long and moderate	HG, 4/8/1868, p. 2
3/29/1868	7:30					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	7:32					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	7:33					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	7:35					hilea				4.5	int	IV-V (kona); 4.5 (Hilo); 4.0; M	Lyman notes: a jar at 8 [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/29/1868	7:40					hilea				4.5	int	IV-V (kona); 4.5 (Hilo); 4.0; M	Lyman notes: another [jar] at a short time after [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/29/1868	7:53					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	8:03					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	8:06					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	8:10					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/29/1868	8:30					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	8:39					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	8:48					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	9:02					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	9:15					hilea				3.8	int	4.0; M; III (hilo)	Lyman notes: another at ten [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/29/1868	9:22					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	9:58					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	10:13					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	11:23					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	11:37					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	11:44					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	12:12					kl sf?				5.3	int	V (Hilo, Kilauea summit); III-IV (kona); 4.0; M	Lyman notes: another a smart shock at twelve M.[Noon?], motion undulatory [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; On Sunday, the 29th, another smart shock was felt at the Volcano House, at about 12 o'clock, noon. No special damage done there	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]
3/29/1868	12:22					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	12:25					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	13:09					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes: At one P.M. an easy shake [assume time to agree with nearest strong Kona shake]; felt-Kona, Kau and Hilo [see entry for 3/28 10:15]	Wyss and others, 1992, p. 11; HG, 4/8/1868, p. 2
3/29/1868	13:21					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	13:30					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	13:40					hilea						3.0; L		HG, 4/8/1868, p. 2

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/29/1868	13:46					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	15:00					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	15:09					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	15:11					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	16:32					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/29/1868	16:52					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	19:08					hilea						3.0; L		HG, 4/8/1868, p. 2
3/29/1868	19:51					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/29/1868	20:45					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/29/1868	21:00					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/29/1868	23:59												Sunday 29th--Shakes frequent but slight [at Kilauea]; one of them very peculiar in its motion--commencing from nw to se, shook a moment and then shifted to ne by sw. north lake quite active. Shocks appear to have been stronger at Keauhou, on the beach, than they were at the volcano.	HG, 4/15/1868, p. 2
3/30/1868	1:00					hilea				6.1	int	6.5; VH; V (Hilo)	felt-Kona, Kau and Hilo [see entry for 3/28 10:15]; On the 30th and 31st, and April 1st, a number of shocks were felt at Hilo, some of them sufficiently powerful to awaken persons from sleep, causing furniture, etc. to rattle.	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	1:30					hilea						3.0; L		HG, 4/8/1868, p. 2
3/30/1868	6:11					hilea				3.8	int	4.0; M	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	7:18					hilea				3.8	int	4.0; M	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	14:20					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/30/1868	19:12					hilea				3.8	int	4.0; M	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	20:18					hilea				3.8	int	4.0; M	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	20:45					hilea				3.8	int	4.0; M	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2
3/30/1868	20:56					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/30/1868	21:01					hilea						2.0; VL		HG, 4/8/1868, p. 2
3/30/1868	21:28					hilea						3.0; L		HG, 4/8/1868, p. 2
3/30/1868	23:35					hilea				5.6	int	5.5; H; V (Hilo)	felt-Kona, Kau and Hilo [see entries for 3/28 10:15 and 3/30 01:00]	HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 2

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/30/1868	23:59												The earthquakes which commenced on Saturday [Mar. 28] were felt simultaneously in Kona, Kau and Hilo. At [Hilo] 30 shocks from 3/28 to 3/30; On the 30th and 31st, and April 1st, a number of shocks were felt at Hilo, some of them sufficiently powerful to awaken persons from sleep, causing furniture, etc. to rattle; During the whole of Monday, Tuesday and Wednesday [3/30, 3/31, 4/1], no shaking of the earth was felt in that portion of Puna where I traveled [Kalapana to Makuu], though the earth had been in constant trembling, with intermittent shocks, more or less sharp at Hilo, and on a line south and southwest from there to Kilauea, and through Kau	HG, 4/8/1868, p. 2 [lead article]; HG, 4/15/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]; [26 out of 30 earthquakes reported felt in Hilo from 3/28-30 are accounted for by assuming Kona quakes of intensity M-H or higher were felt in Hilo, and adding Lyman events to these. Implies that 4 quakes registering moderate in Kona were also felt in Hilo]
3/31/1868	1:58					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/31/1868	3:30					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/31/1868	3:43					hilea						3.0; L		HG, 4/8/1868, p. 2
3/31/1868	3:50					hilea						3.0; L		HG, 4/8/1868, p. 2
3/31/1868	4:20					hilea						3.0; L		HG, 4/8/1868, p. 2
3/31/1868	5:07					hilea						3.0; L		HG, 4/8/1868, p. 2
3/31/1868	5:22					hilea				5.6	int	5.5; H; V (Hilo)	felt-Kona and Hilo [see entry for 3/30 01:00]	HG, 4/8/1868, p. 2
3/31/1868	9:20					hilea						3.0; L		HG, 4/8/1868, p. 2
3/31/1868	16:43					hilea				3.8	int	4.0; M		HG, 4/8/1868, p. 2
3/31/1868	23:59												During the whole of Monday, Tuesday and Wednesday [3/30, 3/31, 4/1], no shaking of the earth was felt in that portion of Puna where I traveled [Kalapana to Makuu], though the earth had been in constant trembling, with intermittent shocks, more or less sharp at Hilo, and on a line south and southwest from there to Kilauea, and through Kau	HG, 4/29/1868, p. 4 [Fornander, 1868]; absence of shaking in Puna is consistent with lack of rupture of Kilauea's south flank at the time of the M7 earthquake on 3/28
4/01/1868	0:00					hilea				5.3	int	IV-V (Hilo)	Lyman notes: see entry for 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]	Wyss and others, 1992, p. 11; no entry for Kona--Williamson asleep?
4/01/1868	1:00					hilea				5.3	int	IV-V (Hilo)	Lyman notes: see entry for 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]	Wyss and others, 1992, p. 11; no entry for Kona--Williamson asleep?
4/01/1868	1:45					hilea				5.6	int	5.5; H; V (Hilo)	Lyman notes: see entry for 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]; Warshauer notes: Tuesday night, from about ten [3/31] till two in the morning [4/1], the shaking was almost incessant [at Keaiwa, Kau], and then subsided [lack of events felt elsewhere, except for 1:45 am, suggests intense, local, Mauna Loa southwest rift or hilea swarm]	HG, 4/15/1868, p. 3 [Williamson, 1868b]; PCA, 4/18/1868, p. 3 [Lyman, 1868c]
4/01/1868	3:00					hilea				5.3	int	IV-V (Hilo)	Lyman notes: see entry for 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]	Wyss and others, 1992, p. 11; no entry for Kona--Williamson asleep?
4/01/1868	4:00					hilea				5.3	int	IV-V (Hilo)	Lyman notes: see entry for 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]	Wyss and others, 1992, p. 11; no entry for Kona--Williamson asleep?
4/01/1868	5:40					hilea				5.6	int	5.5; H; V (Hilo)	Lyman notes: see entry for 6 am; Wednesday morning (April 1st,) about sunrise, there was a hard shake; felt-Kona, Hilo, Kau	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]; PCA, 4/18/1868, p. 3 [Lyman, 1868c]

## 1823-1903cat.xls

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/01/1868	6:00					hilea						3.0; L	Lyman notes: There were six shocks between the hours of eleven last night and six this morning. Have felt two during the day and a jar this evening; see note for 4/1 20:00	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	17:00					hilea				5.3	int	V-VI (Kau); III-IV (Hilo)	Lyman notes: see entry for 4/01 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]; Warshauer notes: . . . and again about five pm [on Apr. 1] there was a severe and protracted shaking with a great deal of swaying to and fro of the earth [at Lyman's home in Kau]	Wyss and others, 1992, p. 11; PCA, 4/18/1868, p. 3 [Lyman, 1868c]
4/01/1868	20:00												[Curious gap in seismicity between 6 am and 8 pm on April 1 --no explanation in Williamson's notes]	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	20:15					hilea				4.5	int	4.0; M	Lyman notes: see entry for 4/01 6 am; felt-Kona and Hilo [see entry for 3/30 01:00]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	20:30					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	21:21					hilea				5.0	int	4.8; MH		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	22:25					hilea				5.9	int	5.5; H; V (Hilo)	Lyman notes: a jar [see entry for 4/01 6 am]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	22:53					hilea				3.8	int	4.0; M; III (Hilo)	accompanied with the sound of an explosion; Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:00					hilea				5.6	int	5.5; H; III (Hilo)	accompanied with the sound of an explosion; Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:08					hilea				6.1	int	6.5; VH; V-VI (Hilo)	accompanied with the sound of an explosion; Lyman notes: see entry for 9:40 am, Apr. 2: rocked the bed considerably	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]; Wyss and others, 1992
4/01/1868	23:10					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:12					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:14					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:16					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:18					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:19					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:26					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:29					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:30					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:31					hilea				5.6	int	5.5; H; III (Hilo)	[Williamson footnote] from 11:31 to 11:50 continual explosions, followed by shocks of moderate severity; Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:50					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes: see entry for 9:40 am, Apr. 2	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/01/1868	23:51					hilea				3.8	int	4.0; M; III (Hilo)	[Williamson footnote] from 11:51 to 12:00 M continual explosions, followed by shocks of moderate severity; Lyman notes [see note for 9:40 am, Apr. 2]: felt-Kona, Hilo	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/01/1868	23:59					hilea							Warshauer notes: On the 30th and 31st, and April 1st, a number of shocks were felt at Hilo, some of them sufficiently powerful to awaken persons from sleep, causing furniture, etc. to rattle; During the whole of Monday, Tuesday and Wednesday [3/30-4/1], no shaking of the earth was felt in that portion of Puna where I traveled [Kalapana to Makuu], though the earth had been in constant trembling, with intermittent shocks, more or less sharp at Hilo, and on a line south and southwest from there to Kilauea, and through Kau	HG, 4/15/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/02/1868	0:06					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:18					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:20					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes [see note for 9:40 am, Apr. 2]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:35					hilea				5.6	int	5.5; H; III (Hilo)	Lyman notes [see note for 9:40 am, Apr. 2]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:37					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:40					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:43					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes [see note for 9:40 am, Apr. 2]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	0:53					hilea				3.8	int	4.0; M; III (Hilo)	Lyman notes [see note for 9:40 am, Apr. 2]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	1:00					hilea							[Williamson footnote] At 1 am a heavy rain came on and I experienced no shock until morning	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	9:40					hilea						3.0; L	Lyman notes: There were twelve shocks counted during the night. -most of them easy, one however rocked the bed considerably	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	14:45					hilea						3.0; L	felt-Kona	HG, 4/15/1868, p. 3 [Williamson, 1868b]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/02/1868	16:00	19	12	155	30	hilea		7.9	W&K	7.9	w&k	XII (W&K); X (S&C)	At four o'clock that afternoon [Apr. 2] there was such an awful rocking and heaving of the earth as we never felt before. . . a series of shocks following each other in quick succession the third of which drove us from the house. After a cessation of only one or two minutes, the fourth came, in which violent undulations, rotary, and most all other motions were combined or followed each other in quick succession. (At one moment the surface of the earth seemed to move like the surface of the ocean and the large trees to sway hither and thither-like ships masts in a storm. The few stone buildings in the place were ruined. The chimneys of cook and dwelling houses were thrown down. Clocks, mirrors and crockery, not firmly secured, were thrown down and broken. Cellar walls and underpinning were much damaged. Stone walls were generally prostrated, even the foundation stones being generally removed from their original position, and it was not easy to tell in which direction from the wall the larger portion of the stones had fallen.	Wyss and others, 1992, p. 11
4/02/1868	16:00	19	12	155	30	do		do	do	7.9	do	do	The best chimney stacks of the Hilo Sugar Mills were thrown down while some of the old cracked chimneys supposed all most ready to fall were little affected. The shocks were considerably more severe here than they were at the crater of Kilauea thirty miles from here, but less severe than they were in Kau from Kapapala to Kahuku. Then slight jars were felt almost constantly for a few minutes after which the earth commenced rocking again fearfully. This continued but a short time and was followed by a tidal wave. After the fearful shaking subsided slight jars were felt almost constantly for about five minutes when the earth commenced rocking again fearfully, but it was of short duration. The wonder was that any building was left standing; terrific shock [Williamson time 3:40 PM]	Wyss and others, 1992, p. 11 cont.; HG, 4/15/1868, p. 3 [Williamson, 1868b]; Wyss and Koyanagi, 1992; Intensity map and damage reports in W&K; additional damage/fatality reports in bib

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/02/1868	16:00	do	do	do	do	do		do	do	7.9	do	do	Waiohinu (Kau)-total destruction; Kohala-dur 30 s, landslides, both inland and at the coast; no damage to buildings; Hamakua-several shocks acc by landslides into the sea; Lahaina (Maui)-furniture moved, pictures shook, dur 90 s; Oahu-distinct, dur 30 m, clocks stopped; light, lateral and quick, not noticed by all; Hilo-panic, difficult to stand, chimneys/stone walls down, crockery destroyed, houses damaged/destroyed; kona-trees swayed, houses damaged/down, landslides, some stone walls down, windows/doors rattle; Volcano-landslides, cracks in road; Volcano House undamagedpuna-no damage at coast, shocks light; stone walls down, houses intact, landslides [For details of damage and fatalities from earthquake, mudslide and tsunami, see bib]	PCA, 4/4/1868, p. 3; HG, 4/8/1868, p. 2; PCA, 4/11/1868, p. 3 [Anonymous, 1868]; HG, 4/15/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]; PCA, 8/8/1868, p. 3; [Times are discrepant. Lyman time is 4 pm; Williamson time is 3:40 pm. Times in spreadsheet for Williamson events are not corrected; Flitner's astronomical clock in Honolulu stopped at 3:54 pm--local hawaii time equivalent would be 3:51 pm]
4/02/1868	16:15					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	16:25					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	17:09					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	17:30												Eruption in Kilauea Iki. Fire seen between 5 and 6 PM; crater floor covered 6-10 PM Apr. 4 [sic-4/2]; portions of e wall Kilauea crater thrown down by the earthquake of Apr. 4 [sic-4/2]; 2/3 of crater floor to W and NW sunk 300 ft; deep chasm about 1/3 mi long near NW corner	HG, 4/29/1868, p. 4 [Fornander, 1868]; VHR, v. 1, William Hillebrand entry dated 4/18/1868;
4/02/1868	17:45					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	17:48					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	17:50					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	17:57					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	18:27					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	18:32					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	18:40					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	20:07					hilea				5.0	int	4.8; MH		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	21:45					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	22:06					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	23:03					hilea				5.0	int	4.8; MH		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/02/1868	23:59					hilea							Possible Kilauea east rift zone eruption/intrusion. Warshauer notes: [following the earthquake on Apr. 2] Kilauea was very active, nearly the whole floor of the crater being in active motion. Natives report that the lava of Kilauea was receding very fast, and that the line of craters east and south from Kilauea, farther down the slope, were smoking; At 12 n [Apr. 4], left for the Puna and Kau coast in the schooner Odd Fellow. Fire in the hills at Kapoho. Could not tell whether it was a lava flow or not; During Thursday night . . . frequent shocks [at Hilo]--and some pretty sharp--and a constant trembling of the earth	PCA, 4/11/1868, p. 3; HG, 4/15/1868, p. 2 [correspondent traveling the south coast by boat]; HG, 4/29/1868, p. 4 [Fornander, 1868]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/02/1868													Draining of Kilauea's summit lava lake: Kilauea crater begins to drain following earthquake. By 4/4 lava confined to south lake. Ccompletely drained by 4/5	Hillebrand, 1868
4/03/1868	0:24					hilea				5.0	int	4.8; MH		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	1:05					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	1:25					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	1:45					hilea				6.2	int	6.5; VH; VI (Hilo)	Lyman notes: drove us from the house [time assumed; see entry for 4/3 23:59]	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	2:33					hilea				5.6	int	5.5; H		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	3:15					hilea				5.3	int	VI (kau)	[report from lanai?] Again on Friday the 3rd inst., at about 3:15 am, we felt another earthquake. It awoke every islander . . . from their slumbers. The earth waves seemed to lift us up and toss us, as they rolled from east to west, keeping us moving and anxious for a period of about three minutes. [This is a very confusing report datelined Lanai, mixing language that suggests the reporter is on Lanai, with references to the King's party anchored at Honuapo. The description is probably from that place (i.e., kau). The time doesn't fit any time recorded by Lyman or Williamson. The nearest correlative event would be 90 minutes earlier (see above)]	HG, 4/22/1868, p. 3
4/03/1868	5:45					hilea				5.6	int	V (Hilo); 5.5; H	Lyman notes: see entry for 4/3 23:59	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	6:05					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	7:44					hilea			3.8	int		4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	8:32					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	11:02					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	16:20					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	17:43					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	18:02					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	18:15					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	19:06					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	19:35					hilea							explosions without shocks	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	19:47					hilea							explosions without shocks	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	19:53					hilea						3.0; L	vertical; felt-Kona	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	20:25					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	20:33					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	21:25					hilea				5.6	int	5.5; H; V (Hilo)	Lyman notes: see entry for 4/3 23:59	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	23:53					hilea				5.6	int	5.5; H; V (Hilo)	Lyman notes: see entry for 4/3 23:59	Wyss and others, 1992, p. 11; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/03/1868	23:59					hilea							Lyman notes: frequent jars by day and by night, some of them so hard as to drive us from the house [This observation is not consistent with the Kona record; these are probably Kilauea shocks]; During . . . Friday and Friday night, frequent shocks [at Hilo]--and some pretty sharp--and a constant trembling of the earth	Wyss and others, 1992, p. 11; HG, 4/29/1868, p. 4 [Forlander, 1868]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/04/1868	0:07					west hawaii deep??				5.9	int	6.5; VH	Between twelve and one o'clock this morning [April 4] three distinct shocks were also felt, said to be the heaviest ever experienced in Honolulu	PCA, 4/4/1868, p. 3; HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	0:12					west hawaii deep??	40.0			6.1	int	6.5; VH	Between twelve and one o'clock this morning [April 4] three distinct shocks were also felt, said to be the heaviest ever experienced in Honolulu; [Kawaihae] experienced the same shocks which were felt that night on Maui and Oahu. They were so violent that the stone store and dwelling on the beach was abandoned by Mr. Conway; There were two earthquakes at [Lahaina] last night, the first occurred at nineteen minutes past twelve o'clock, and the other twenty-three minutes to one o'clock. The first lasted about thirty seconds, and the other a little longer. They were both more violent than the one on Thursday (the latter more particularly so,) and were attended with the same rumbling sound, my house was shaken violently; The shocks and vibrations experienced some days ago at Honolulu [4/2 at 4pm, between 12 and 1 am 4/4], were felt at Lahaina more severely, without, however, causing any damage; . . . another Friday night, at 19 minutes past 12 . . . Each succeeding shock was heavier than its predecessor	PCA, 4/4/1868, p. 3; HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 5/6/1868, p. 4
4/04/1868	0:30					west hawaii deep??	40.0	≥6.5	W&K;	5; 6.4	w&k; k&w	VII (W&K; S&C); 7.5; VVH	Warshauer notes: and On Friday night we [Honolulu] were visited again severe at 12:30, with another very shock. the vibration was very perceptible, windows and doors rattled, and many were awakened from their sleep; The shocks and vibrations experienced some days ago at Honolulu [4/2 at 4pm, between 12 and 1 am 4/4], were felt at Lahaina more severely, without, however, causing any damage; . . and shortly afterwards, about 23 minutes to 1, a third shock took place. Each succeeding shock was heavier than its predecessor [location closer to Maui than Hilea?]	Wyss and Koyanagi, 1992; PCA, 4/4/1868, p. 3; HG, 4/8/1868, p. 2; HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 5/6/1868, p. 4; Intensity map in W&K; Wood (1914) determines that this series of quakes is deep and northwest of Hawaii island; location assigned from new isoseismal map
4/04/1868	0:45					west hawaii deep??				5.6	int	5.5; H		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	4:40					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	5:55					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	6:33					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	7:14					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	9:30					kl sf?				5.3	int	V (Hilo)	Warshauer notes: A severe shock, but very short, at Hilo between 9 and 10 am. No particular damage done	HG, 4/15/1868, p. 2
4/04/1868	10:16					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	14:01					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	14:09					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	17:55					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/04/1868	20:51					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/04/1868	23:59					hilea							On Saturday [Apr. 4], the shocks [at Hilo] decreased in frequency, but the trembling continued all day [seems inconsistent with Lyman entry for 4/5 23:59]; On Saturday morning the crater of Kilauea had fallen at least 500 feet below its former level, with no lava visible	HG, 4/29/1868, p. 4 [Fornander, 1868]
4/05/1868	15:35					hilea						3.0; L	[Williamson footnote] three additional shocks between Saturday [Apr. 4] and Sunday [Apr. 5]-I did not get the time	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/05/1868	15:55					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/05/1868	18:44					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/05/1868	19:25					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/05/1868	19:30					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/05/1868	20:11					hilea						2.0; VL		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/05/1868	23:59					hilea							Lyman notes: the shocks so frequent we have ceased to count them [This observation is not consistent with the Kona record; these are probably Kilauea shocks]	Wyss and others, 1992, p. 11
4/06/1868	9:45					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	13:59					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	14:24					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/06/1868	14:53					hilea				5.6	int	5.5; H		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/06/1868	16:09					ml swr						3.0; L	[renewal of earthquake swarm on Mauna Loa's southwest rift, preceding outbreak on April ??]	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:10					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:15					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:17					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:18					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:21					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:24					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	16:33					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	18:00					ml swr						2.0; VL		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	18:10					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	19:29					ml swr							an explosion, no movement	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	19:54					ml swr						2.0; VL		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	20:50					ml swr							explosion and shake [eruption of ash?-see entry for 4/7 0:00]	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	20:54					ml swr							do	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	21:47					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/06/1868	21:58					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/07/1868	0:00												Warshauer notes: During Monday night [April 6-7], prior to the eruption, the ground throughout the district was covered with a coating of fine sand and light pumice stone, of a light yellowish color. Where this shower of sand and pumice stone came is as yet unknown, but probably from some vent hole near the crater; Tuesday, April 7th.--The deck [of a ship anchored at Kaalualu] covered this morning with very fine ashes	PCA, 4/18/1868, p. 3 [Whitney, 1868]; HG, 4/15/1868, p. 2
4/07/1868	1:00					ml swr						3.0; L	felt-Kona	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	1:15					ml swr						3.0; L	felt-Kona	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	2:10					hilea				5.6	int	5.5; H; V (Hilo)	Last night, between 12 o'clock and daylight, several right smart shocks were felt here [Hilo]. I was awakened four times by the shocks and the rattling of things in and about the house; felt-Kona, Hilo	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	3:55					hilea				5.3	int	V (Hilo); 4.0; M	do	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	4:00					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	4:08					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	4:20					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	4:40					hilea				5.3	int	V (Hilo); 4.0; M	do entry of 4/7 2:10	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	5:00					hilea				5.6	int	5.5; H; V (Hilo)	do entry of 4/7 2:10	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	5:45					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	6:00					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	6:05					ml swr							The rift eruption began in the morning of April 7 from a crater about ten miles up the mountain; [eruption placed at break in earthquake swarm, confirmed below]; April 7. . . . At 6 o'clock, am, as I and others were standing near the Wailuku bridge, looking up at Mauna Loa, a heavy, dense, dark column of smoke, deeply tinged with red at its base, rose from near the top of the mountain, apparently from the southern side of Mokuaweoweo. . . .	PCA, 4/18/1868, p. 3 [Whitney, 1868c]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	11:16					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	11:33					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	12:00					hilea				5.0	int	4.8; MH; IV (Hilo)	see entry of 4/7 14:18	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	12:06					hilea				5.0	int	4.8; MH; IV (Hilo)	see entry of 4/7 14:18	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	12:09					hilea				5.0	int	4.8; MH; IV (Hilo)	see entry of 4/7 14:18	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	12:13					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	12:20					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	12:55					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/07/1868	13:02					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	13:50					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	13:57					hilea				5.0	int	4.8; MH; IV (Hilo)	see entry of 4/7 14:18	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	14:00					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	14:18					hilea				5.6	int	5.5; H; V (Hilo)	Several shocks have been felt this afternoon [Hilo, Apr. 7]; one at about 2:15, was quite sharp . . .	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/07/1868	14:54					ml swr						3.0; L	with explosion	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:08					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:11					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:12					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:17					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:20					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:32					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	15:41					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	16:00					ml swr				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	16:07					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	16:08					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	16:20					hilea				5.0	int	4.8; MH; IV (Hilo)	see entry of 4/7 14:18	HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	16:32					ml swr						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	17:00												Mauna Loa lower southwest rift eruption begins. Capt. Brown reports the Mauna Loa flank eruption as beginning about 5 pm on April 7	HG, 4/15/1868, p. 3 [Williamson, 1868b]; PCA, 4/15/1868, p.3 [Whitney, 1868]
4/07/1868	19:25					hilea				5.6	int	5.5; H		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	20:21					hilea				3.8	int	4.0; M		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	22:33					hilea						3.0; L		HG, 4/15/1868, p. 3 [Williamson, 1868b]
4/07/1868	23:05					hilea				5.6	int	5.5; H	April 8.--Last night at 11:10 pm, [at Hilo] we had another very smart shock. . . . No damage done, however, but for several minutes after the shock, the earth was trembling incessantly	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/08/1868	5:30					hilea				5.6	int	5.5; H; M	[earthquake given two intensities, one at the end of Williamson's second list, the other begins the third--higher intensity chosen]	HG, 4/15/1868, p. 3 [Williamson, 1868b]; HG, 4/29/68, p. 2 [Williamson, 1868c]
4/08/1868	8:25					hilea						3.0; L	accompanied with a rushing sound	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/08/1868	11:00					kl sf?				5.3	int	V (Hilo)	Lyman notes: two smart shocks at eleven AM, and several slight ones during the day	Wyss and others, 1992, p. 11; not in PCA or HG
4/08/1868	12:12					hilea				4.5	int	4.0; M; III (Hilo)	long and distinct motion	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/08/1868	14:59												Eruption on Kilauea's southwest rift zone: Warshauer notes: Thursday morning [Apr. 9], from Olaa, saw an enormous column of smoke, which the natives, judging by their landmarks, said must come from Kilauea, from an eruption on the pahoehoe near Kapapala. . . . A Portugese, who left Kapapala Wednesday [Apr. 8] reports that the ground opened in several places between Kapapala and the Aa-moku, from which volumes of smoke were seen issuing. [previous afternoon assumed] [time assumed]	HG, 4/15/1868, p. 2; HG, 4/29/1868, p. 4 [Fornander, 1868]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/08/1868	17:41					hilea				4.5	int	4.0; M; III (Hilo)	long and distinct motion	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/08/1868	21:03					hilea				3.8	int	IV (kona)	distinct movement of the earth	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/09/1868	2:30					hilea				5.3	int	V (hilo)	Lyman notes: All slept well last night for the first time since the 2nd instant, only one shake felt during the night - occasional shakes felt during the day; Warshauer notes: a few slight undulations, but no distinct shock; April 9.-- . . . [at Hilo] there was a rather smart shock about 2:30 this morning	Wyss and others, 1992, p. 11; HG, 4/29/1868, p. 2 [Williamson, 1868c]; HG, 4/29/1868, p. 4 [Fornander, 1868]
4/10/1868	6:02					hilea				5.6	int	5.5; H; V (Hilo)	Lyman notes: A quiet night but was waked by a shock this morning; Hilo is still being shaken, a hard shock occurring on Friday morning [Apr. 10]	Wyss and others, 1992, p. 11; HG, 4/29/1868, p. 2 [Williamson, 1868c]; HG, 4/15/1868, p. 2
4/10/1868	6:40					hilea						3.0; L		HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/11/1868	5:40					hilea				5.0	int	4.8	a moderately smart shock [Williamson narrative--no letter designation of intensity]	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/11/1868	23:00					south hawaii?				4.5	int	IV-V	Lyman notes; A shaking at 11 o'clock in the night	Wyss and others, 1992, p. 11
4/12/1868	6:57					hilea				3.8	int	IV (kona)	two successive shakes [Williamson narrative--no letter designation of intensity]	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/12/1868	21:55					south hawaii?				3.8	int	4.0; M	a moderate shock	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/12/1868													Mauna Loa southwest rift eruption ends	Wyss and others, 1992, p. 11
4/13/1868	6:00					south hawaii?				3.5	int	III-IV	Lyman notes: a moderate shock at daylight	Wyss and others, 1992, p. 11
4/13/1868	9:00					south hawaii?				3.5	int	III-IV	Lyman notes: another at nine A.M.	Wyss and others, 1992, p. 11
4/13/1868	21:53					hilea				3.8	int	IV (Kona)	a distinct rumble in the earth	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/14/1868	6:44					hilea				4.5	int	IV (Hilo, Kohala); 4.0; M	see entry for 4/14 23:59	PCA, 4/18/1868, p. 2; HG, 4/22/1868, p. 3; HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/14/1868	17:14					hilea				4.5	int	IV (Hilo, Kohala); 4.0; M	see entry for 4/14 23:59	PCA, 4/18/1868, p. 2; HG, 4/22/1868, p. 3; HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/14/1868	23:59												Warshauer notes: . . . the earth was still shaking at Hilo on the 14th inst. A letter from Kohala, under date of the 14th, says; 'For a week past our island has been quiet, but today again we are agitated by frequent earthquakes. . . . In Kohala, strong shakes were felt on the 14th and so also at Hilo	PCA, 4/18/1868, p. 2; HG, 4/22/1868, p. 3
4/15/1868	5:00					south hawaii?				4.5	int	IV-V (Hilo)	Lyman notes: one shake at 5 AM	Wyss and others, 1992, p. 11; not in PCA or HG
4/15/1868	20:05					hilea				4.5	int	4.8; MH; IV (Hilo)	Lyman notes: another in the evening; Williamson notes: moderately heavy shock	Wyss and others, 1992, p. 11; HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/18/1868	22:50					hilea				3.8	int	4.0; M	a moderate shock	HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/18/1868													main crater floor drained of all lava as of 4/18; Williamson notes: visited the flow on the 16th and 17th, thus no earthquake report for these days	VHR, v. 1, William Hillebrand entry dated 4/18/1868; HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/19/1868	12:00					hilea				3.8	int	4.0; M		HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/19/1868	20:00					south hawaii?				5.3	int	V (Hilo)	Lyman notes: a smart shake about 8 in the evening	Wyss and others, 1992, p. 11; not in PCA or HG
4/19/1868													Lava reappears in Kilauea crater; reports from Kau indicate eruption over two days ago [date wrong?]	VHR, v. 1, William Hillebrand entry dated 4/18/1868
4/20/1868	20:45					hilea						3.0; L		HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/21/1868	6:30					hilea						3.0; L		HG, 4/29/1868, p. 2 [Williamson, 1868c]
4/21/1868	7:58					hilea				5.0	int	4.8; MH		HG, 4/29/1868, p. 2 [Williamson, 1868c]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/29/1868	0:00					kaoiiki?				5.6	int	V-VI (Hilo, Kapapala)	Experienced shocks of earthquake at Kahuku and Keaina [sic-Lyman home at Keaiwa], but more severe at Kapapala [4/29-30/1868]; Lyman notes: A smart shock about midnight that drove us from our beds	VHR, v. 1, Alfred W Carter entry dated 4/30/1868; Wyss and others, 1992, p. 12; not in PCA or HG
4/30/1868	6:15					kohala?		~6	W&K	5.5	k&w	VI (kohala); V (Kilauea summit); IV (Maui, Hilo), III (Honolulu); VI (W&K)	This morning some of us [going to Kilauea crater from Volcano House] experienced quite an earthquake, and during the night a loud report as of a cannon, but much louder . . . ; Lyman notes: A shake at five in the morning . . . [time assumed to be wrong]; Warshauer notes: several very light shocks have been felt here [Honolulu] during the past week, particularly on Thursday [April 30] morning about six o'clock. On Maui a shock was felt about the same hour. . . . The same shock was very severe at Kohala, occurring at 6:15; There was a smart shock of earthquake felt in Kohala on Thursday [3/30], also the same day, a slight vibration here in Honolulu.	VHR, v. 1, Alfred W Carter party entry dated 5/1/1868; Wyss and others, 1992, p. 12; Wyss and Koyanagi, 1992; PCA, 5/2/1868, p. 3; HG, 5/6/1868, p. 2 [Hillebrand, 1868]; Intensity map in W&K; location refined from new isoseismal map; magnitude derived from area of intensity V
4/30/1868	23:59					south hawaii?						III	Lyman notes: . . . and two during the day [4/30]	Wyss and others, 1992, p. 12
5/05/1868	23:59					south hawaii?						III	Lyman notes: the earth is again unquiet, slight shocks occurring frequently	Wyss and others, 1992, p. 12; not in PCA or HG
5/06/1868	23:59					south hawaii?				4.5	int	IV-V; III	Lyman notes: a shock in the night and two today	Wyss and others, 1992, p. 12; not in PCA or HG
5/09/1868	21:00					south hawaii?				5.3	int	V; 4.0; M?	Lyman notes [5/10]: Two smart shocks last evening at nine o'clock; Williamson tabulates four moderate and one light shake felt in Kona in May	Wyss and others, 1992, p. 12; Williamson, 1869; not in PCA or HG
5/11/1868	6:00					south hawaii?				3.8	int	IV	Lyman notes: A shake at dawn of day	Wyss and others, 1992, p. 12; not in PCA or HG
5/11/1868	9:00					south hawaii?				3.8	int	IV	Lyman notes: another very distinct at nine A.M.	Wyss and others, 1992, p. 12; not in PCA or HG
5/15/1868	5:45					south hawaii?				5.3	int	V; 4.0; M?	Lyman notes: Three smart shakes in quick succession at a quarter to six A.M.; Williamson tabulates four moderate and one light shake felt in Kona in May	Wyss and others, 1992, p. 12; Williamson, 1869; not in PCA or HG
5/16/1868	0:05					south hawaii?				3.8	int	IV	Lyman notes: Two slight shocks about midnight	Wyss and others, 1992, p. 12; not in PCA or HG
5/16/1868	8:00					south hawaii?						III	Lyman notes: another at eight this forenoon	Wyss and others, 1992, p. 12; not in PCA or HG
5/17/1868	20:20					south hawaii?				5.3	int	V; 3.0; L?	Lyman notes: A smart shock at twenty minutes past eight P.M.; Williamson tabulates four moderate and one light shake felt in Kona in May	Wyss and others, 1992, p. 12; Williamson, 1869; not in PCA or HG
5/18/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: a shock in the night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
5/19/1868	13:00					south hawaii?						III	Lyman notes: A shake about one P.M.	Wyss and others, 1992, p. 12; not in PCA or HG
5/21/1868	9:00					south hawaii?						III	Lyman notes: a shake at 9 AM	Wyss and others, 1992, p. 12; not in PCA or HG
5/22/1868	7:00					south hawaii?						III	Lyman notes: a shake at 7 AM	Wyss and others, 1992, p. 12; not in PCA or HG
5/22/1868	23:00					south hawaii?				3.5	int	III-IV	Lyman notes: A moderate shake at 11 last night	Wyss and others, 1992, p. 12; not in PCA or HG
5/24/1868	0:00					kl sf?				6.2	int	VII (W&K); V (S&C); 4.0; M	Lyman notes: A severe shake about midnight last night; Williamson tabulates four moderate and one light shake felt in Kona in May	[Stover and Coffman, 1993 give date as 5/25]; Wyss and others, 1992, p. 12; Williamson, 1869; not in PCA or HG
5/25/1868						south hawaii?						III	Lyman notes: two easy shakes in the night	Wyss and others, 1992, p. 12; not in PCA or HG
5/26/1868	6:00					south hawaii?				3.5	int	III-IV	Lyman notes: A moderate shake at six A.M	Wyss and others, 1992, p. 12; not in PCA or HG
5/26/1868	7:40					kl sf?				5.9	int	VI; 4.0; M	Lyman notes: another quite hard at twenty minutes to eight; Williamson tabulates four moderate and one light shake felt in Kona in May	Wyss and others, 1992, p. 12; Williamson, 1869; not in PCA or HG
5/26/1868	19:00					kl sf?				4.5	int	IV-V	Lyman notes: another at seven P.M	Wyss and others, 1992, p. 12; not in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/27/1868	5:00					kl sf?				3.8	int	IV	Lyman notes: A shake at five A.M.	Wyss and others, 1992, p. 12; not in PCA or HG
5/27/1868	11:00					south hawaii?				3.5	int	III-IV	The bosom of the mighty earth shook and quaked and was riven with a horrid noise [accompanied by increase in activity on Kilauea crater floor]; Lyman notes: another at 11 AM	VHR, v. 1, John Macintosh entry dated 5/27/1868; Wyss and others, 1992, p. 12; not in PCA or HG
5/28/1868	0:00					south hawaii?				4.5	int	IV-V	Lyman notes: A protracted trembling of the earth at midnight	Wyss and others, 1992, p. 12
5/28/1868	5:00					south hawaii?				4.5	int	IV-V	Lyman notes: a protracted trembling of the earth before morning	Wyss and others, 1992, p. 12
5/29/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: one shake in the night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
6/03/1868	16:00					south hawaii?						III	Lyman notes: a shake at 4 PM	Wyss and others, 1992, p. 12; not in PCA or HG
6/04/1868	12:01					south hawaii?						III	Lyman notes: one shock during the day [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
6/05/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: one shock in the night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
6/06/1868	9:00					south hawaii?				3.8	int	IV	Lyman notes: a shake at 9 AM, which was soon followed by another	Wyss and others, 1992, p. 12; not in PCA or HG
6/07/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: one shake last night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
6/08/1868	23:00					south hawaii?				3.8	int	IV	Lyman notes [Jun. 9]: A shake at 11 last night	Wyss and others, 1992, p. 12; not in PCA or HG
6/09/1868	4:00					south hawaii?				4.5	int	IV-V	Lyman notes [Jun. 9]: another at 4 this morning	Wyss and others, 1992, p. 12; not in PCA or HG
6/10/1868	7:15					south hawaii?				5.3	int	V	Lyman notes: A smart shock preceded by a decided premonitory shock at a quarter past seven A.M. (P.M.?)	Wyss and others, 1992, p. 12; not in PCA or HG
6/15/1868	23:59												Warshauer notes: A correspondent in Kau writes, under the date of June 15th: ' . . . We have an occasional shake. At Kapapala, which appears to be over the center of volcanic activity, the shocks average about four a day. . . .	PCA, 6/20/1868, p. 3
6/16/1868	14:00					south hawaii?						III	Lyman notes: a shake at 2 PM	Wyss and others, 1992, p. 12; not in PCA or HG
6/30/1868	23:59												Williamson absent from Hawaii in June, which explains gap in his newspaper reports	Williamson, 1869; not in PCA or HG
7/07/1868	23:59												Lyman notes: There have been several shocks of late which I have not recorded	Wyss and others, 1992, p. 12; not in PCA or HG
7/08/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: a shake in the night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
7/11/1868	23:00					south hawaii?				3.8	int	IV	Lyman notes: a shake at 11 PM	Wyss and others, 1992, p. 12; not in PCA or HG
7/12/1868	8:00					south hawaii?				5.3	int	V	Lyman notes: a smart shock at 8 AM which caused all at the table to give a sudden spring forward	Wyss and others, 1992, p. 12; not in PCA or HG
7/16/1868	6:00					south hawaii?				3.8	int	IV (Hilo); 3.0; L	felt at Hilo [see comment for 7/23 23:40]	HG, 10/7/1868, p. 3 [Williamson, 1868d]; Martin, 1979, p. 151
7/16/1868	8:50					south hawaii?						3.0; L		HG, 10/7/1868, p. 3 [Williamson, 1868d]
7/20/1868	5:00					south hawaii?				4.5	int	IV-V	Lyman notes: a shake at 5 AM	Wyss and others, 1992, p. 12; Martin, 1979, p. 151
7/21/1868	22:15					south hawaii?				5.6	int	V (Hilo); 5.5; H	felt at Hilo [see comment for 7/23 23:40]; Williamson date off?--intensity fits well with event at 22:40 July 23 (see below)	HG, 10/7/1868, p. 3 [Williamson, 1868d]; Martin, 1979, p. 151
7/22/1868	14:00					south hawaii?						III	Lyman notes: a shake at 2 PM	Wyss and others, 1992, p. 12; Martin, 1979, p. 151
7/23/1868	20:00					south hawaii?						III	Lyman notes: a shake at 8 PM	Wyss and others, 1992, p. 12; Martin, 1979, p. 151

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/23/1868	22:40					south hawaii?				5.9	int	VI (kau); V-VI (Hilo); V (S&C)	Lyman notes: A decided shake at twenty minutes to eleven last night, which drove us from our beds; We have had several shakes during the week and three of them no mean ones either; Warshauer notes: On the evening of July 23d, two smart shocks were felt in various sections of the island, and also at sea. It occurred about ten o'clock in the evening. The schooner Kale Lae and the Kona Packet were at the time off the Kau coast, when the shock was distinctly felt, especially by the natives on board, who at once declared it an earthquake, as it felt as if the vessel had been stopped.	[Stover and Coffman, 1993 give date as 7/24]; Wyss and others, 1992, p. 12; Martin, 1979, p. 151; PCA, 8/8/1868, p. 3
7/27/1868	11:00					west hawaii?				3.8	int	4.0; M		HG, 10/7/1868, p. 3 [Williamson, 1868d]
7/29/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: two shakes last night [time assumed]	Wyss and others, 1992, p. 12; not in PCA or HG
7/30/1868	21:59					west hawaii?						3.0; L	Williamson notes: light shakes felt in Kona during the nights of July 30 and 31 [time assumed]	HG, 10/7/1868, p. 3 [Williamson, 1868d]
7/31/1868	21:59					south hawaii?				4.5	int	IV-V (Hilo); 3.0; L	Lyman notes: two shakes last night; Williamson notes: light shakes felt in Kona during the nights of July 30 and 31 [time assumed]	Wyss and others, 1992, p. 12; HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/05/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: one shake in the night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
8/07/1868	19:25					west hawaii?						3.0; L	Lyman notes: felt-Kona	HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/07/1868	22:00					south hawaii?				5.3	int	V (Hilo); 3.0; L	Lyman notes: A smart shake at ten last night; Williamson notes: a light shake felt in Kona at 9:55 PM	Wyss and others, 1992, p. 12; HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/1/1868	21:00					west hawaii?						3.0; L		HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/10/1868	10:40					south hawaii?				5.3	int	V	Lyman notes: A smart shake twenty minutes to eleven A.M	Wyss and others, 1992, p. 13
8/10/1868	14:00					south hawaii?						III	Lyman notes: another at two P.M.	Wyss and others, 1992, p. 13
8/11/1868	17:00					south hawaii?						III	Lyman notes: a shake at 5 PM	Wyss and others, 1992, p. 13
8/12/1868	20:00					south hawaii?						III	Lyman notes: a shake at 8 PM	Wyss and others, 1992, p. 13
8/13/1868	23:59					south hawaii							. . . Earthquakes still continue [at Hilo], generally very slight, sometimes we have 2 or 3 in 24 hours. . . . At Kapapala . . . they are quite violent, hard enough to throw down stone walls. . . .	Wetmore, 1868 [Letter from Lucy Wetmore to her ister, dated Aug. 13, 1868]; not in PCA or HG
8/14/1868	1:40					south hawaii?				5.3	int	V (Hilo); 3.0; L?	Lyman notes [Aug. 15]: It is reported that there were three shocks yesterday, and two during the night during the kai mimiki, but I did not feel them; Williamson notes: a shock early in the morning, did not get the time; seldom a night we do not feel earthquakes; a shock Sat. 1:40 a.m. that waked us out of a sound sleep.	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3 [Williamson, 1868d]; Martin, 1979, p. 152; Williamson, 1869
8/17/1868	21:59					south hawaii?				4.5	int	IV-V	Lyman notes: one slight shake last night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
8/20/1868	8:00					south hawaii?				5.3	int	V	Lyman notes: A smart shake at 8 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG
8/20/1868	8:10					south hawaii?				3.8	int	IV	Lyman notes: followed by another in about ten minutes	Wyss and others, 1992, p. 13; not in PCA or HG
8/20/1868	13:00					south hawaii?						III	Lyman notes: another at 1 P.M.	Wyss and others, 1992, p. 13; not in PCA or HG
8/20/1868	15:25					west hawaii?						3.0; L		HG, 10/7/1868, p. 3 [Williamson, 1868d]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
8/21/1868	13:25					south hawaii?				3.8	int	IV (Hilo); 3.0; L	Lyman notes: two shocks during the day	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/22/1868	23:20					west hawaii?						3.0; L		HG, 10/7/1868, p. 3 [Williamson, 1868d]
8/23/1868						south hawaii?				4.5	int	IV-V	Lyman notes: three shakes during last night	Wyss and others, 1992, p. 13; not in PCA or HG
8/25/1868	15:40					south hawaii?				4.5	int	IV-V	Lyman notes: A decided shake at 20 min to 4 P.M.	Wyss and others, 1992, p. 13; not in PCA or HG
8/26/1868	9:00					south hawaii?						III	Lyman notes: a shake at 9 AM	Wyss and others, 1992, p. 13; not in PCA or HG
8/29/1868	5:00					south hawaii?				4.5	int	IV-V	Lyman notes: a shake at 5 AM	Wyss and others, 1992, p. 13; not in PCA or HG
8/29/1868	8:00					south hawaii?						III	Lyman notes: another at eight A.M	Wyss and others, 1992, p. 13; not in PCA or HG
8/29/1868	15:00					south hawaii?						III	Lyman notes: another at three P.M.	Wyss and others, 1992, p. 13; not in PCA or HG
9/05/1868	13:00					south hawaii?						III	Lyman notes: a shake about one PM	Wyss and others, 1992, p. 13; not in PCA or HG
9/05/1868	22:30					south hawaii?						III	Lyman notes: A shake about half past ten last night	Wyss and others, 1992, p. 13; not in PCA or HG
9/06/1868	15:40					south hawaii?				5.6	int	V-VI (Hilo); 3.0; L (Waimea)	Lyman notes: A hard shake at half three P.M.; Williamson notes: felt at Waimea, also in Kona [assume Lyman entry for 8/7 refers to previous day]	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3 [Williamson, 1868d]; not in PCA or HG
9/08/1868	5:59					south hawaii?				4.5	int	IV-V	Lyman notes: a shake near morning [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
9/11/1868	10:00					south hawaii?				4.5	int	IV-V	Lyman notes: A decided shake (preceded by a distinct premonitory shock) at 10 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG
9/12/1868	18:53					south hawaii?				4.5	int	IV-V	Lyman notes [Sept. 13]: a decided shake at eight last evening; Williamson notes: 6:53 PM-felt in Hilo [Lyman time off?]	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/13/1868	14:00					south hawaii?						III	Lyman notes [Sept. 13]: another at two this afternoon; Williamson notes: felt in Hilo	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/13/1868	21:59					south hawaii?				3.8	int	IV	Williamson notes: another shock during the night [time assumed]	
9/15/1868	21:59					kaoiki??				4.0	int	IV-V	Williamson notes: felt-Kapapala during the night [time assumed]	HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/16/1868	3:03					kaoiki??				4.0	int	IV-V	felt-Kapapala	HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/16/1868	4:45					kaoiki??				4.0	int	IV-V	felt-Kapapala	HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/16/1868	7:45					kaoiki??						III	felt-Kapapala	HG, 10/7/1868, p. 3 [Williamson, 1868d]
9/17/1868	4:30					kaoiki??				4.5	int	V (kapapala); 4.0; M	felt-Kapapala, sharp shock between 4 and 5 am [should be moderate from tabulation in Williamson, 1869]	HG, 10/7/1868, p. 3 [Williamson, 1868d]; Williamson, 1869
9/18/1868	8:30					south hawaii?						III	Lyman notes: A slight shake at half past 8 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG
9/21/1868	21:59					south hawaii?						III	Lyman notes: two slight shakes in the night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
9/22/1868	6:00					south hawaii?				5.3	int	V	Lyman notes: One sudden decided jar at 6 A.M; Warshauer notes: At Hilo, on the 22nd ult., the atmosphere was loaded with smoke, and frequent slight shocks of earthquakes were felt. . . .	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3
9/22/1868	14:00					south hawaii?				3.8	int	IV	Lyman notes: another at two P.M.; Warshauer notes: At Hilo, on the 22nd ult., the atmosphere was loaded with smoke, and frequent slight shocks of earthquakes were felt. . . .	Wyss and others, 1992, p. 13; HG, 10/7/1868, p. 3
9/25/1868	21:59					south hawaii?				3.8	int	IV	Lyman notes: a moderate shock in the night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
9/26/1868													Lyman absent from 9/26 through 10/9	Wyss and others, 1992, p. 13; not in PCA or HG
9/28/1868	15:40					south hawaii?				5.0	int	4.8; MH	felt-Kona	HG, 10/7/1868, p. 3 [Williamson, 1868d]; not in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/29/1868	20:45					south hawaii?				5.5	int	4.8; MH	Two sharp shocks were felt at Waimea on the 29th and 30th of September. That on the 29th occurred at 9 pm, and was accompanied with a peculiar whizzing, rushing sound over head. This sound was heard in various quarters, and from all we can gather very much resembled that caused by an aerolite. The same earthquake was distinctly felt in Kona and other parts of Hawaii	HG, 10/7/1868, p. 3 [Williamson, 1868d]; PCA, 10/10/1868, p. 3
9/30/1868	17:06					west hawaii?				5.6	k&w	V-VI (Kawaihae); IV-V (Waimea); 5.5; H	Warshauer notes: Two sharp shocks were felt at Waimea on the 29th and 30th of September; On Thursday last [10/1--we guess date should be Wednesday 9/30 to match other reports], there was a smart shock of earthquake at Kawaihae, Hawaii, that started everybody out of their houses	HG, 10/7/1868, p. 3 [Williamson, 1868d]; HG, 10/7/1868, p. 3; region/magnitude assigned from isoseismal map
10/18/1868	11:59					south hawaii?				3.8	int	III (Kilauea summit); 3.0; L	There was an earthquake on the 18th of October--another earthquake on the [no date given] of October; assume light from Williamson's 1869 tabulation of three light shocks in October [no time given]	VHR, v. 1, L. Kaina entry dated 10/22/1868; Williamson, 1869; not in PCA or HG
10/20/1868	5:00					south hawaii?				5.3	int	V (Hilo); 4.0; M	Lyman notes: a smart shake at 5 AM preceded by a premonitory shock; Warshauer notes: Williamson tabulates one moderate shake in October	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
10/25/1868	23:57					south hawaii?				3.8	int	IV (Hilo); 3.0; L	Lyman notes: a shake a little before midnight; assume light from Williamson's 1869 tabulation of three light shocks in October	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
10/30/1868	20:00					south hawaii?				3.8	int	III-IV (Hilo); 3.0; L	Lyman notes: a shake at 8 PM; assume light from Williamson's 1869 tabulation of three light shocks in October	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
11/02/1868	8:00					south hawaii?						III	Lyman notes: a slight shake at 8 AM	Wyss and others, 1992, p. 13; not in PCA or HG
11/02/1868	13:00					south hawaii?				5.6	int	V-VI	Lyman notes: another hard shake preceded by slight one at 1 PM	Wyss and others, 1992, p. 13; not in PCA or HG
11/02/1868	23:59					south hawaii?							Warshauer notes: A letter from Hilo, dated the 2d, reports that . . . no earthquakes are felt at Hilo [obviously in error], and only an occasional one in Kau	PCA, 11/7/1868, p. 3
11/08/1868	21:59					south hawaii?				3.8	int	IV	Lyman notes: a shake in the night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
11/10/1868	22:00					south hawaii?				5.3	int	V	Lyman notes: quite a shake at 10 PM	Wyss and others, 1992, p. 13; not in PCA or HG
11/15/1868	21:59					south hawaii?				3.8	int	IV	Lyman notes: a shake in the night [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
11/16/1868	22:00					kl sf?				5.9	int	VI; V (S&C); 4.0; M	Lyman notes: A severe and protracted shake which drove us from our beds, to the verandah at 10 P.M.; Williamson tabulates one moderate shock in November	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
11/17/1868	14:45					south hawaii?						III	Lyman notes: A shake at 2 1/4 P.M.	Wyss and others, 1992, p. 13; not in PCA or HG
11/17/1868	23:00					south hawaii?				3.8	int	IV	Lyman notes [Nov. 18]: A slight shake in the night	Wyss and others, 1992, p. 13; not in PCA or HG
11/18/1868	12:01					south hawaii?						III	Lyman notes: and another today [time assumed]	Wyss and others, 1992, p. 13; not in PCA or HG
11/22/1868	5:00					south hawaii?				5.3	int	V	Lyman notes: two smart shakes at 5 AM	Wyss and others, 1992, p. 13; not in PCA or HG
11/23/1868	22:45					south hawaii?						III	Lyman notes: A shake at fifteen minutes to 11 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG
11/28/1868	8:30					south hawaii?				5.6	int	V-VI	Lyman notes: A hard shake at half past 8 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG
11/29/1868	5:00					south hawaii?				3.8	int	IV	Lyman notes: A shake at 5 A.M.	Wyss and others, 1992, p. 13; not in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/29/1868	12:30					south hawaii?						III	Lyman notes: another at half past 12 PM	Wyss and others, 1992, p. 13; not in PCA or HG
12/11/1868	2:00					south hawaii?				5.6	int	V (Hilo); 5.5; H	Lyman notes: a smart shake about 2 AM; Williamson tabulates one heavy and three moderate shakes in December	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
12/25/1868						south hawaii?				5.3	int	V (Hilo); 4.0; M	Lyman notes: a smart shake at 5 AM; Williamson tabulates one heavy and three moderate shakes in December	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
12/28/1868	17:30					south hawaii?				4.0	int	4.0; M; III	Lyman notes: A slight shake at 5 1/2 P.M.; Williamson tabulates one heavy and three moderate shakes in December	Wyss and others, 1992, p. 13; Williamson, 1869; not in PCA or HG
1/08/1869	13:00					south hawaii?						III	Lyman notes: a shake at 1 PM	Wyss and others, 1992, p. 14; not in PCA or HG
1/18/1869	9:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock a quarter to 10 A.M.	Wyss and others, 1992, p. 14; not in PCA or HG
1/20/1869	17:30					oahu?				4.5	int	IV-V; 2.8 (Hon); 3.0 (Kaneohe)	Cox notes: felt with greater intensity at Kaneohe than Honolulu, possible damage at Kaalaea, not felt on other islands; Another [earthquake] startled our citizens [Honolulu] on Wednesday [Jan. 20] afternoon at half past five o'clock. In the valley and near the harbor it was not so distinctly felt as on a line between the two points. From Kaalaea, on the windward side of the island, we learn that it was quite severe, so much that it was feared that the sugar works were injured, but after careful inspection everything was found in order; The shock felt at Kaalaea, on this island [Oahu], on the 19th [sic-20th], was not remarked on Hawaii	Cox, 1986, p. 60; PCA, 1/23/1869; PCA, 1/30/1869; no evidence for an earlier earthquake on Oahu
1/23/1869	14:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A Moderate shake at 2 P.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
1/23/1869	5:30												Mauna Loa summit eruption. Warshauer notes: From Kona we learn that the terminal crater, Mokuaweoweo, on Mauna Loa, is very active. Saturday last, 23d inst., early risers in Kona and Kau witnessed several jets of red hot lava thrown high into the air, from four to five hundred feet. The first fire was seen half an hour before sunrise, and it could be seen until the daylight and smoke about the top of the mountain rendered it indistinct	PCA, 1/30/1869, p. 2
1/29/1869	23:59					oahu?						III	Slight shocks of earthquake were felt during the week [No dates or times specified]	PCA, 1/30/1869; aftershocks?
1/30/1869	10:00					south hawaii?						2.8 (Hilo-Cox)	Lyman notes: A protracted undulatory motion at 10 A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
1/30/1869	20:30					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden shake at 8 1/2 P.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
1/31/1869	5:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 5 A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
1/31/1869	14:00					south hawaii?				3.8	int	IV; 5.5 (Hilo-Cox)	Lyman notes: another in the afternoon about 2 o'clock	Wyss and others, 1992, p. 14; not found in PCA or HG
2/02/1869	6:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: Moderate up and down shaking of some seconds about 6 1/2 A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
2/02/1869	14:00					south hawaii?						III; 4.0 (Hilo-Cox)	Lyman notes: a shake	Wyss and others, 1992, p. 14; not found in PCA or HG
2/04/1869	0:05					south hawaii?				5.3	int	5.2 (Hilo-Cox); IV-V (W&K)	Lyman notes: a short decided up and down shake after midnight	Wyss and others, 1992, p. 14; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/11/1869	21:59					south hawaii?				5.6	int	V (W&K); 6.0 (Hilo-Cox)	Lyman notes: a smart shake in the night which waked all the sleepers [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG
2/18/1869	0:00					hilea?				6.0	int	VI (W&K); 6.5 (Hilo-Cox)	Lyman notes: a protracted trembling at 12 M succeeded by a violent shaking which caused some of us to fly out of the house; the hardest we have had since Aug.; Warshauer notes: On the 19th inst. [sic-18th?], the Hilo people experienced two shocks of earthquake, sufficiently severe to cause some little alarm. We cannot learn of any damage sustained	Wyss and others, 1992, p. 14; PCA, 2/27/1869, p. 3
2/18/1869	0:15					kilauea?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: At fifteen minutes past twelve, there was a sudden smart bump followed by quite a smart shaking; Warshauer notes: see above	do
2/19/1869	0:29					south hawaii?				5.3	int	V (S&C); 4.0 (Hilo-Cox)	Lyman notes: a moderate shake sometime after midnight [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG
2/20/1869	8:15					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 8 1/4 A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
2/21/1869	1:40					south hawaii?				5.9	int	6.5 (Hilo-Cox); V (W&K; S&C)	Lyman notes: we were roused from our slumbers by a violent shaking which continued for some seconds, then there was a cessation of a few seconds followed by a short shake that alarmed us a good deal	[Stover and Coffman, 1993 give date as 2/22]; Wyss and others, 1992, p. 14; not found in PCA or HG
2/22/1869	4:45					south hawaii?				5.6	int	V-VI (W&K); 5.5 (Hilo-Cox)	Lyman notes: This morning at a quarter to five there was a repetition of the same but not quite so hard as the night before	Wyss and others, 1992, p. 14; not found in PCA or HG
3/09/1869	8:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 8AM	Wyss and others, 1992, p. 14; not found in PCA or HG
3/16/1869	3:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 3 AM	Wyss and others, 1992, p. 14; not found in PCA or HG
3/18/1869	21:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shakes in the night [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG
3/24/1869	8:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock at 8 AM	Wyss and others, 1992, p. 14; not found in PCA or HG
4/14/1869	11:00					south hawaii?				5.3	int	V; 5.5 (Hilo-Cox); IV (W&K)	Lyman notes: a slight trembling of a few seconds was succeeded by a sudden hard jerk which made the whole house creak. This was at 11 A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
4/19/1869	0:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart short shake at midnight last night	Wyss and others, 1992, p. 14; not found in PCA or HG
4/21/1869	19:40					south hawaii?				5.9	int	VI (W&K); 6.0 (Hilo-Cox)	Lyman notes: two hard shocks at twenty minutes to 8 P.M. which drove us out	[date given as April 12, but out of order]; Wyss and others, 1992, p. 14; not found in PCA or HG
4/24/1869	0:55					south hawaii?				5.9	int	VI (W&K); 6.0 (Hilo-Cox)	Lyman notes: In five minutes after there was another similar shake, which drove us from our bed	Wyss and others, 1992, p. 14; not found in PCA or HG
4/24/1869	0:50					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 10 minutes to 1 o'clock A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
5/10/1869	10:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock between 10 and 11 am	Wyss and others, 1992, p. 14; not found in PCA or HG
5/11/1869	8:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shake at 8 o'clock A.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
5/20/1869	6:45					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: At a quarter to 7 A.M. There was one of those sudden sharp bumps which startles everyone, and this was followed by a smart shake which caused the house to tremble for several seconds	Wyss and others, 1992, p. 14; not found in PCA or HG
5/20/1869	13:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: At half past one P.M. there were two slight shocks	Wyss and others, 1992, p. 14; not found in PCA or HG
5/24/1869	21:59					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden but not hard shake in the night [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/29/1869	16:15					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at a quarter past four P.M.	Wyss and others, 1992, p. 14; not found in PCA or HG
5/30/1869	5:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock towards morning	Wyss and others, 1992, p. 14; not found in PCA or HG
6/05/1869	23:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at about 11 o'clock last night	Wyss and others, 1992, p. 14; not found in PCA or HG
6/09/1869	0:00					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: A shake in the night at 12	Wyss and others, 1992, p. 14; not found in PCA or HG
6/22/1869	15:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock at 3 PM	Wyss and others, 1992, p. 14; not found in PCA or HG
6/23/1869	21:59					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: A shake in the night [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG
7/08/1869	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock in the night [time assumed]	Wyss and others, 1992, p. 14; not found in PCA or HG
8/01/1869	0:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: Last night (about midnight) there was a smart shock of earthquake preceded by a premonitory shock which waked us all	Wyss and others, 1992, p. 15; not found in PCA or HG
8/12/1869	21:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 9 1/2 last night	Wyss and others, 1992, p. 15; not found in PCA or HG
8/14/1869						south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shock in the night	Wyss and others, 1992, p. 15; not found in PCA or HG
8/15/1869	4:00					hilea?				5.3	int	V (S&C); 5.7 (Hilo-Cox)	Lyman notes: A shock at 4 this morning which resembled very strikingly the beginning of the one of the 2nd of April. '68	Wyss and others, 1992, p. 15; not found in PCA or HG
8/17/1869	11:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shock at 11 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
8/19/1869	17:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock at 5 PM	Wyss and others, 1992, p. 15; not found in PCA or HG
9/02/1869	3:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 3 1/2 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
9/12/1869						kl cal 0-5?				3.8	int	IV	Yesterday there were two shocks of earthquake, and last night five. Two of them toward daybreak were solid fellows with a jar like starting heavy machinery; Wood notes: earthquakes in mid-September	VHR, v. 1, Geo. Jones entry dated 9/13/1869; not found in PCA or HG; Wood, 1917 chart 1, p. 117
9/30/1869	23:59					kl cal 0-5							As of September 16 no more shocks	do
10/07/1869	14:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A distinct shock at 2 P.M.; it is said that there have been several slight shocks during the month [Sept.? 1869] but I have not felt them	Wyss and others, 1992, p. 15; not found in PCA or HG
10/21/1869	23:00					south hawaii?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: A smart shock at 11 P.M. last night. Undulations sharp and distinct N. & S.	Wyss and others, 1992, p. 15; not found in PCA or HG
12/06/1869	14:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock at 2 P.M.; it is said that there was also a shock in the night [Dec. 5?]	Wyss and others, 1992, p. 15; not found in PCA or HG
12/07/1869	5:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A distinct shock at 5 1/2 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
12/28/1869	20:00					south hawaii?				5.4	int	5.2 (Hilo-Cox)	Lyman notes: a decided shock at 8 PM	Wyss and others, 1992, p. 15; not found in PCA or HG
1/03/1870	23:40					mauna loa?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: Two distinct shocks at 20 minutes to 12 last night.	Wyss and others, 1992, p. 15; not found in PCA or HG
1/03/1870	12:00												Mauna Loa summit eruption begins; Lyman notes: There was smoke seen on the summit of Mauna Loa at noon today & this evening there is a column of smoke rising half way down the mountain, the North Kona side. We see no light.; Dana notes: slight shocks of earthquakes, 1-3 per day, in December 1869	[Mokuaweoweo was active intermittently between this date and February 13/1876; longest continuous period was from about 4/20/1873 to 10/20/1874]; Wyss and others, 1992, p. 15; Dana, 1888a
1/07/1870	19:30					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: A decided shock at 7 1/2 P.M. preceded by a trembling	Wyss and others, 1992, p. 15; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/13/1870	7:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 7 AM	Wyss and others, 1992, p. 15; not found in PCA or HG
1/29/1870	23:59												A correspondent writes us from Hawaii that several very severe shocks of earthquake have been felt lately . . . The summit of Mauna Loa has been very smoky, which gives rise to the supposition that the fires in the summit crater are again active	PCA, 1/29/1870, p. 3
2/26/1870	19:40					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A sudden smart shake at 20 minutes to 8 P.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
3/12/1870	23:59												. . . The crater of Kilauea he [Capt. Gelett] found unusually active, the old 'South Lake' having filled and overflowed with streams of lava a mile in extent. . . This, taken in connection with the late renewed activity in the summit crater [Mokuaweoweo], and the frequent earthquakes, indicates that the volcano on Hawaii is preparing for a new eruption. . .	PCA, 3/12/1870, p. 3
3/14/1870	14:40					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shake at 20 minutes to 3 P.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
3/21/1870	20:30					south hawaii?				6.2	int	VII (W&K); 6.0 (Hilo-Cox); V (S&C)	Lyman notes: A protracted & quite severe shock at 8 1/2 P.M.; Warshauer notes: [an earthquake] some three weeks ago [from 4/13] was the most severe that has been felt since the Earthquake times of two years ago; felt in Hilo, Kau	Wyss and others, 1992, p. 15; PCA, 4/13/1870, p. 3
3/26/1870	3:45					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at a quarter to 4 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
3/26/1870						south hawaii?						III; 4.0 (Hilo-Cox)	Lyman notes: another hours later	Wyss and others, 1992, p. 15; not found in PCA or HG
4/07/1870	14:10					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: three shocks within 40 minutes between 2 and 3 PM	Wyss and others, 1992, p. 15; not found in PCA or HG
4/07/1870	14:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	do	Wyss and others, 1992, p. 15; not found in PCA or HG
4/07/1870	14:50					south hawaii?				3.8	int	4.0 (Hilo-Cox)	do	Wyss and others, 1992, p. 15; not found in PCA or HG
4/13/1870	4:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a moderate shake at 4 AM	Wyss and others, 1992, p. 15; not found in PCA or HG
4/13/1870	23:59												. . . Several severe shocks of earthquake have been felt in the districts of Hilo and Kau during the past few weeks, one of some three weeks ago was the most severe that has been felt since the Earthquake times of two years ago	PCA, 4/13/1870, p. 3
5/02/1870	4:15					south hawaii?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: A smart shock at 4 1/4 this morning	Wyss and others, 1992, p. 15; not found in PCA or HG
5/06/1870	5:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 5 AM	Wyss and others, 1992, p. 15; not found in PCA or HG
5/31/1870	15:40					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock at 20 minutes to 4 P.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
6/10/1870	16:00					south hawaii?				3.5	int	3.5 (Hilo-Cox)	Lyman notes: It is said there was one about 4 P.M. on the 10th inst.	Wyss and others, 1992, p. 15; not found in PCA or HG
6/12/1870	9:10					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 10 minutes past 9 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
6/13/1870	3:00					south hawaii?				5.4	int	5.2 (Hilo-Cox)	Lyman notes: A protracted shaking (not severe) at 3 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
6/22/1870	21:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 9 PM	Wyss and others, 1992, p. 15; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/09/1870	10:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 15 m. to 11 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
7/13/1870	18:40					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 20 m. to 7 P.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
7/21/1870	2:30					south hawaii?				5.3	int	V; 2.8 (Hilo-Cox)	Lyman notes: a protracted trembling between 2 and 3 am	Wyss and others, 1992, p. 15; not found in PCA or HG
7/25/1870	4:00					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shake at 4 AM	Wyss and others, 1992, p. 15; not found in PCA or HG
8/01/1870	9:00					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a jar at 9 AM	Wyss and others, 1992, p. 15; not found in PCA or HG
8/07/1870	3:00					molokai						IV	Warshauer notes: At three o'clock on Sunday morning last [Aug. 7], a slight shock of Earthquake was felt here [Honolulu]. . But few people felt the shock at three o'clock, though we are assured by several parties who were awake that a slight one occurred at that time	HG, 8/10/1870, p. 3
8/07/1870	4:13					molokai		≥6	W&K	6.4	k&w	VI (W&K); 5.2 (Hilo-Cox); V (S&C)	Lyman notes: The most protracted shaking at 4 A.M. that we ever felt with the exception of the great earthquake. It was not severe however; no entry in VHR on this date; . . . and again at ten minutes past four a quite severe shock startled nearly all the people of the town from their slumbers. This last shock was the most severe that has been felt here for many years . : A severe shock of earthquake was felt in this city [Honolulu] and all over this island, at thirteen minutes past 4 o'clock Sunday morning, August 7th. It woke us from asound sleep; others, however, were not disturbed. On Molokai it was more severe, and shook crockery from shelves, rattled doors and windows. At Waimea on Hawaii, it was the heaviest shock felt since April, 1868	Wyss and others, 1992, p. 15; Wyss and Koyanagi, 1992; HG, 8/10/1870, p. 3; PCA, 8/13/1870, p. 3; Intensity map in W&K; region/magnitude assigned from new isoseismal map
9/01/1870	21:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock in the night [time assumed]	Wyss and others, 1992, p. 15; not found in PCA or HG
9/28/1870	4:00					kl cal 05-10?				4.2	int	V	Halemaumau partial draining: a heavy earthquake, at daylight the [active] cones had disappeared, and in their places were three fiery lakes; a severe earthquake, lake sunk and became three distinct lakes; a strong earthquake that really shook down	VHR, v. 1, W.H. Rogers entry dated 10/6/1870; Frances Johnson entry dated 10/5/1870; L. Kaina entry of 10/28/1870; not found in PCA or HG
10/01/1870						kl cal 0-5?							earthquakes in late September-early October coincident with very low Kilauea lava lake level	Wood, 1917 chart 1, p. 117; not found in PCA or HG
10/30/1870	5:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at a quarter to 6 A.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
10/30/1870	19:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Another between 7 & 8 P.M.	Wyss and others, 1992, p. 15; not found in PCA or HG
11/05/1870	7:40					kl sf?				4.5	int	V (Kilauea summit); 3.0 (Hilo-Cox)	Akana says that shocks of earthquakes are becoming frequent, some of them strong enough to throw down articles in his cook room; Lyman notes: Two slight shocks at 20 m. to 8 A.M.	VHR, v. 1, J. Kavanaugh entry dated 11/7/1870; Wyss and others, 1992, p. 15; not found in PCA or HG; location interpreted as near-summit south flank associated with small intrusion and caldera-rift swarm of small events
11/20/1870	4:00					kl sf?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: At 4 o'clock A.M. there was a smart shock, which was succeeded in a few seconds by a heavy shaking which reminded one of the shaking of a horse	Wyss and others, 1992, p. 16; not found in PCA or HG
11/24/1870	21:00					kl sf?				5.0	int	4.8 (Hilo-Cox)	Lyman notes: a sudden heavy jar at 9 PM	Wyss and others, 1992, p. 16; not found in PCA or HG
11/28/1870	16:00					kl sf?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock at 4 PM	Wyss and others, 1992, p. 16; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/01/1870						kl cal 0-5?							frequent earthquakes in late November-early December; no VHR entries during this time	Wood, 1917 chart 1, p. 117
12/02/1870	11:00					kl sf?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock at 11 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
12/07/1870	11:59					north hawaii?				3.8	int	IV	. . . we learn that a rather smart earthquake shock was felt at Waimea, Hawaii, on Wednesday last [Dec. 7] [no time given]	PCA, 12/10/1870, p. 3
12/09/1870	16:00					kl sf?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock at 4 PM	Wyss and others, 1992, p. 16; not found in PCA or HG
12/11/1870	0:45					kl sf??				5.6	int	V-VI (W&K); 5.5 (Hilo-Cox)	Lyman notes: A hard shake at a quarter to 1 A.M.; another slight one in December not recorded	Wyss and others, 1992, p. 16; not found in PCA or HG
1/13/1871	12:15					maui?				3.8	k&w	IV (maui, molokai); III (Hon, Kona)	Warshauer notes: Yesterday, a little after 12 o'clock, the weight of Flitner's astronomical clock [in Honolulu] was observed to vibrate sensibly, the direction being from N.E. to S.W. The movement of the earth, if there was one, was so slight as not to be noticed so far as we have heard; In our issue of the 14th inst., we mentioned the fact that on the previous day (Friday) the weight of the astronomical clock in this city was observed to vibrate sensibly, between the hours of 12 and 1 o'clock, the motion being from N.E. to S.W. By passengers . . . from Kona, Hawaii, we learn that quite a number of light earth tremors had been experienced of late, and one was noted on Friday, the 13th--the precise hour not however being remembered; felt-Kona?	PCA, 1/14/1871, p. 3; PCA, 1/21/1871, p. 3; intensity at Maui, Molokai presumed by analogy with earthquakes of August 7, 1870 and February 19, 1871 (W&K)
2/08/1871	22:30					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shaking at half past 10 P.M. preceded by a slight jar	Wyss and others, 1992, p. 16; not found in PCA or HG
2/12/1871	0:00					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shake about 12 M	Wyss and others, 1992, p. 16; not found in PCA or HG
2/15/1871	19:40					south hawaii?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: A protracted shake at 20 min. to 8 P.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
2/17/1871	19:11					north hawaii?						III	felt-kawaihae, not felt on oahu	HG, 3/1/1871, p. 2
2/18/1871	5:00					north hawaii?				3.8	int	IV	felt-kawaihae, not felt on oahu	HG, 3/1/1871, p. 2
2/19/1871	22:15	21	0	156	12	lanai				6.8; 7.0		W&K; Cox, 1985, 1986	Lyman notes: A shake which lasted 2 min. at 10:15 P.M. A part of the time it was quite hard & yet nothing was displaced in the house. The length of it was what alarmed us.; Alexander notes: strongest ever felt on Oahu; damage report given for all islands; dur 2 min [PCA, 2/25]; kauai-severest ever, no damage; molokai-stone walls, houses down, earth opened; kau/n kona-strongly felt, few stone walls down; maui-houses cracked, earth opened; [HG, 3/1]; lanai-difficult to stand, strongest ever, palis down, earth opened, stone wall down; kawaihae-stone walls down; waimea-less severe; hilo-passably strong, no alarm; kailua-severe; [HG, 3/8]; kau-mild but unusually long; see bib for additional damage reports	Cox, 1985; Cox, 1986, p. 25-26 [Cox time 22:11; summarizes magnitude, intensity and damage]; Wyss and others, 1992, p. 16; Alexander/1871; Wyss and Koyanagi, 1992; Bishop, 1871; Treadway, 1871; HG, 2/22/1871, p. 3; PCA, 2/25,1871, p. 3; HG, 3/1/1871, p. 2; HG, 3/8/1871, p. 3; PCA, 3/11/1871, p. 3; intensity map in W&K; erroneous date given of 3/19 given in United States Earthquakes (S&C)
2/19/1871	22:47					lanai						III (Maui)	[times corrected-mainshock felt at 10:08 pm] aftershock, felt (slight)-maui	HG, 3/1/1871, p. 2

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/19/1871	23:37					lanai						III (Maui)	[times corrected-mainshock felt at 10:08 pm] aftershock, felt-maui	HG, 3/1/1871, p. 2
2/20/1871	21:00					lanai				3.8	int	III; 2.0 (Hon-Cox)	felt downtown Honolulu and Punahou; not felt at Lahaina	[aftershock]; Cox, 1985, 1986; HG, 3/1/1871, p. 2
2/22/1871	0:00					lanai				5.3	int	V	decidedly felt-lahaina	[aftershock]; HG, 3/1/1871, p. 2
2/23/1871	16:00					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden jar at 4 PM	Wyss and others, 1992, p. 16; not found in PCA or HG
2/24/1871	21:05					lanai				3.8	int	III; 2.0 (Hon-Cox)	felt downtown Honolulu and Punahou	[aftershock]; Cox, 1985, 1986
3/03/1871	23:45					lanai				4.5	int	III; 2.2 (Hon-Cox)	felt downtown Honolulu and Punahou; slight on oahu, more strongly on Molokai, where slight shocks have been frequent since February 19	[aftershock]; Cox, 1985, 1986; PCA, 3/11/1871, p. 3
3/04/1871	4:30					south hawaii?				4.5	int	4.3 (Hilo-Cox)	Lyman notes: a sudden jar between 4 and 5 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
3/06/1871	21:59					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes:2 shakes in the night [time assumed]	Wyss and others, 1992, p. 16; not found in PCA or HG
3/08/1871	11:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock at 11 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
3/15/1871	21:55					lanai				4.5	int	IV	Warshauer notes: A little before ten o'clock on Wednesday evening [Mar. 15], a sensible shock of earthquake was felt by several persons in town. The vibration was sufficient in one case to cause a feeling of nausea, and set a hanging lamp to swinging	[aftershock]; PCA, 3/18/1871, p. 3
4/01/1871													Kilauea lake level falling for past months-no earthquakes mentioned-lava not visible from April through July	Wood, 1917 chart 1, p. 117
4/09/1871	7:40					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: A sudden jar at 20 min. to 8 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
4/14/1871	0:00					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden bump at 12 M	Wyss and others, 1992, p. 16; not found in PCA or HG
5/14/1871	11:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock [no time given]	Wyss and others, 1992, p. 16; not found in PCA or HG
5/17/1871	21:00					south hawaii?						III	Lyman notes: a light shock at 9 PM	Wyss and others, 1992, p. 16; not found in PCA or HG
6/12/1871	7:50					hilea?				5.9	int	VI (Kau); 4.0 (Hilo-Cox)	Lyman notes: A moderate shaking of a few seconds at 10 min. to 8 A.M.; . . . There was a severe shock of earthquake felt throughout Kau on the 12th of June	Wyss and others, 1992, p. 16; HG, 7/15/1871, p. 3
6/19/1871	5:45					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at a quarter to 6 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
6/20/1871	1:00					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: A shake at 1 o'clock A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
6/23/1871	11:59					kl sf?				5.9	int	VI (Kilauea summit); 6.0 (Hilo-Cox); V (W&K)	Lyman notes: a smart decided shake that woke us all from sleep; Warshauer notes: Reports received from Hilo state that several shocks of earthquake were felt on the 23d ult., one of which in the vicinity of the Volcano House was quite severe, and that the crater is very active [no time given]	Wyss and others, 1992, p. 16; HG, 7/5/1871, p. 3; Lyman date assumed one day later to fit newspaper report; assume that several shocks refer to ongoing east rift intrusion
7/11/1871	4:00					south hawaii?				4.5	int	IV-V	Lyman notes: A protracted trembling at 4 A.M. but not hard; There have been several slight earthquakes of late	Wyss and others, 1992, p. 16; not found in PCA or HG
8/10/1871													Resumption of eruption in Mokuaweoweo; lasted for 20 days (8/30/1871); on the evening of the 10th . . . a great fire to be seen in the Mono Loa [sic] crater	VHR, v. 1, Richard Lindau entry dated 8/10/1871
8/12/1871	14:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: A shock at 2 P.M.; no mention in VHR in entry for this date	Wyss and others, 1992, p. 16; not found in PCA or HG
9/02/1871	7:15					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: A shock at 7 1/4 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/11/1871	11:00					south hawaii?				5.6	int	V-VI (W&K); 5.5 (Hilo-Cox)	Lyman notes: a hard shock at 11 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
9/13/1871	12:15					kl sf?				5.9	k&w	6.5 (Hilo-Cox); VI (W&K); V (Kilauea summit); III-IV (Kailua, Waimea); VII (S&C)	A slight shock of earthquake which gave the [Kilauea crater floor] a sensible sense of depression, and gave a general rattling to the cliffs on all sides and sent down streams of stones; Lyman notes: Severe shock at 12 1/4 M. from S. - N. walls thrown down; Warshauer notes: Hilo and its vicinity was visited by a short but severe shake on Wednesday the 12th inst. [sic-13th], at about half an hour after noon. The shock. . . lasted some twenty seconds. The wave of motion was from SW to NE, and was felt quite distinctly, not to say severely, at Onomea. In town, a quantity of stone-wall was frostrated [sic-prostrated?] . . . , small article, vases, bottle &c., were tipped over, and at Kaiwiki, persons at work out doors were made quite seasick, and though owing to the shortness of time that the motion continued, its effects were not so violent, still it was equal in intensity to the last 'great shake' [Apr. 2 1868]; We hear that slight shocks were felt at Kailua and Waimea, Hawaii, last week.	VHR, v. 1, M.A. Chamberlain entry dated 9/13/1871; Wyss and others, 1992, p. 16; PCA, 9/23/1871, p. 3; region/magnitude assigned from isoseismal map; analogy to earthquake of September 21, 1979 (W&K)
9/13/1871	12:15					do				5.9	do	do	Warshauer notes: We learn from Hilo that on Wednesday, the 13th inst., a severe shock of earthquake was felt in that district. Although very short, lasting only a few seconds, it was the most severe that has been felt since the shock of 1868. Considerable damage was done to stone walls, and some damage in the way of crockery breaking, was done in almost every house in Hilo. . . the wall around the Court House,--which, by the way, is a very substantial one and in every respect adapted to the purpose for which it was built--was entirely unharmed. In fact, a correspondent writes, 'The wall will stand a very heavy shock.' . . . ; Small shocks are common, but on the 13th inst., at noon [persons were sent out of their houses and into the street]. On the 13th, occurred the heaviest shake since the big one [Apr. 2, 1868]. . . .	PCA, 9/27, 30/1871
9/25/1871	3:03					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: two smart shakes, only 2 or 3 seconds apart, a few minutes after 3 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
9/27/1871	19:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A distinct jar at about 7 P.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
10/02/1871	5:00					south hawaii?				3.8	int	IV; 3.8 (Hilo-Cox)	Lyman notes: a distinct jar about 5 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
10/12/1871	19:15					south hawaii?				3.8	int	3.8 (Hilo-Cox)	Lyman notes: A distinct jar at about 7 1/4 P.M.	Wyss and others, 1992, p. 16; not found in PCA or HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
10/20/1871	23:59												Warshauer notes: [Letter dated 10/20/1871] Thunder, lightning, rain and earthquakes, ushered in the present month . . . Kilauea has resumed activity and her pot is boiling. . . . Mokuaweoweo also is arousing from her slumbers, and in the upper sky the reflection from her fire has been observed many nights past. . . .	PCA, 10/28/1871, p. 3
10/31/1871	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: one or two slight shocks during the last half of October	Wyss and others, 1992, p. 16; not found in PCA or HG
11/02/1871	19:20					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight but protracted shake at about 7:20 P.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
1/06/1872	15:30					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a slight premonitory followed by a smart but not hard shake at 3:30 P.M.; Warshauer notes: From advices from Hilo we learn that on Saturday the 6th inst., a severe shock of earthquake was felt at that place, which, however, did no damage	Wyss and others, 1992, p. 16; HG, 1/17/1872, p. 3
1/06/1872	8:00					south hawaii?						III	Lyman notes: A slight shock at about 8 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
1/08/1872	20:30					oahu?				3.5	int	III-IV	A slight shock of earthquake was noticed [in Honolulu] on Monday evening last [Jan. 8], at about half-past eight o'clock. A hanging lamp, and a watch-chain, suspended clear from a hook, were seen to vibrate sensibly. The motion was from south to north, and lasted about ten seconds	PCA, 1/13/1872, p. 3
2/05/1872	17:45					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 5.45 P.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
2/24/1872	11:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 11 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
3/01/1872	9:20					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shake at 9.20 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
3/04/1872	6:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shake at 6 1/2 A.M.	Wyss and others, 1992, p. 16; not found in PCA or HG
3/06/1872	4:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock at 4 AM	Wyss and others, 1992, p. 16; not found in PCA or HG
4/13/1872	15:00											III	Lyman notes: a slight shock at 3 PM	Wyss and others, 1992, p. 16; not found in PCA or HG
4/22/1872	18:00					south hawaii?				6.1	int	6.5 (Hilo-Cox); VI (W&K); V (S&C)	Lyman notes: three distinct shocks, which shook the house fearfully at 6 P.M. the motion of the earth was very perceptible to those standing out of doors; no entry in VHR on this day, or in entries on April 24 and 26; Warshauer notes: . . . a smart shock of earthquake was felt there [Hilo], on the afternoon of the 22d inst. [a decided shake at half-past 4, that caused persons outdoors to jump] . . . ; [foreshock?, or wrong time?]; On Monday, 22d ult., at 6 o'clock pm, a very severe shock of earthquake was felt at Hilo. It was so severe that the inhabitants . . . generally rushed out of their houses, amid a general rattle of crockery and furniture. There were three distinct shocks felt at short intervals, each succeeding one being stronger than the last. Save the breaking of a little crockery, the levelling a few stone walls and the caving in of the banks of some of the water runs, no damage was done	[Stover and Coffman, 1993 give date as April 21, 16:30]; Wyss and others, 1992, p. 17]; PCA, 4/27/1872, p. 3; HG, 5/1/1872, p. 3
4/23/1872	2:30					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: A shock at 2 1/2 A.M.	Wyss and others, 1992, p. 17; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/29/1872	21:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock in the night [time assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
5/02/1872	19:30					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: A sudden shake not hard at 7 1/2 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
5/02/1872	0:45					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: Two gentle shakes at a quarter to 1 A.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
7/08/1872	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake in the night; no mention in VHR in entry on this date [time assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
7/11/1872	21:59					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shock last night, time not known [time assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
7/15/1872	19:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: two distinct shocks at 7 1/2 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
8/13/1872	18:59												Mauna Loa summit eruption begins-nearly continuous from this date until about 11/22/1875; Warshauer notes: On the evening of the 13th inst., the people of Hilo and other portions of Hawaii were startled by the sudden appearance of an eruption at the summit of Mauna Loa, the locality of the volcano Mokuaweoweo. . . ; Mauna Loa began to erupt on the night of August 10, 1872 [date in error?], in Mokuaweoweo. On August 17, the eruption was still continuing [time assumed]	PCA, 8/17/1872, p. 3; HG, 8/21/1872, p. 3; Coan, 1872
8/17/1872	5:00					mauna loa?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: one shock at 5 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
8/18/1872	1:00					mauna loa?				5.6	k&w	VI? (Kau); IV? (Kailua); 5.5 (Hilo-Cox); V (W&K)	Lyman notes: a smart shock preceded by a decided premonitory shock at 1 o'clock A.M.; felt-hilo, kau and kona--see below	Wyss and others, 1992, p. 17; not found in PCA or HG; intensities assigned by analogy with earthquake of January 21, 1982 (W&K)
8/19/1872	22:00					mauna loa?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 10 PM	Wyss and others, 1992, p. 17; not found in PCA or HG
8/21/1872	23:59												Warshauer notes: Some severe shocks of earthquake . . . have been felt in Kona, Kau and Hilo recently	HG, 8/21/1872, p. 3
9/09/1872	23:59												Warshauer notes: Nowhere during our week's stay on Hawaii [Sept. 2-9] did we experience an earthquake . . .	PCA, 9/25/1872, p. 2
10/13/1872	18:00					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: a decided jerking shake at 6 PM	Wyss and others, 1992, p. 17; not found in PCA or HG
10/19/1872													Warshauer notes: Pause in Mauna Loa summit eruption	PCA, 10/19/1872
11/30/1872	14:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a light shake around 2 PM; no mention in VHR entry on this date	Wyss and others, 1992, p. 17; not found in PCA or HG
12/07/1872													Warshauer notes: resumption of Mauna Loa summit eruption; eruption over by Dec. 11	PCA, 12/7/1872; 1/11/18/1873
1/22/1873	20:00					kl sf?						3.0 (Hilo-Cox)	Lyman notes: A sudden, slight shock at about 8 o'clock P.M.; no mention in VHR entry of 1/23/1873 [arrived from Hilo in morning]	Wyss and others, 1992, p. 17; not found in PCA or HG
1/23/1873	9:45					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shock at 9 3/4 A.M.; no mention in VHR entry of 1/23/1873 [arrived from Hilo in morning]	Wyss and others, 1992, p. 17; not found in PCA or HG
1/23/1873	16:40					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Two shocks at 20 min. to 5 P.M.; no mention in VHR entry of 1/23/1873 [arrived from Hilo in morning]	Wyss and others, 1992, p. 17; not found in PCA or HG
2/08/1873	23:15					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 11 1/4 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/11/1873	5:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: a slight shock at 5 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
2/14/1873	2:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: a slight shock at 2 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
3/29/1873	6:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 6 AM; no mention in VHR entry on this date	Wyss and others, 1992, p. 17; not found in PCA or HG
4/24/1873	21:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: Two distinct, but not hard shocks about 9 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
5/28/1873	18:00					kaoiiki?				3.8	int	IV	A slight earthquake was experienced about 6 P.M. at Mr. Reed's Ranch [Kapapala], May 28th	VHR, v. 2, Rev. A.F. White and Mrs. C.T. White entry dated 5/29/1873
6/05/1873	7:30					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shock at 7 1/2 A.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
6/05/1873	8:30					south hawaii?				5.3	int	5.5 (Hilo-Cox)	Lyman notes: another between 8 & 9 A.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
7/10/1873	11:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shock at 11 A.M.; no mention in VHR entry on this date	Wyss and others, 1992, p. 17; not found in PCA or HG
7/10/1873	20:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: another at 8 P.M., the latter slight; no mention in VHR entry on this date	Wyss and others, 1992, p. 17; not found in PCA or HG
7/29/1873	6:00					south hawaii?				4.5	int	IV-V (kau); 3.0 (Hilo-Cox)	Lyman notes: a slight shock at 6 AM; Warshauer notes: . . . several smart shocks were experienced [at Kau] on the 29th ult.	Wyss and others, 1992, p. 17; PCA, 8/9/1873, p. 3
8/13/1873	23:59					south hawaii?							Warshauer notes: A correspondent at Hilo writes that there have been several shocks of earthquake there, and though none were really alarming, they were the heaviest felt for months. . . .	HG, 8/13/1873, p. 3
8/28/1873	17:00					south hawaii?				3.5	int	III-IV; 4.6 (Hilo-Cox)	Lyman notes: a shock at 5 PM; it is said there have been several slight shocks during the month	Wyss and others, 1992, p. 17; not found in PCA or HG
8/30/1873	15:30					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: a decided shock at 3 1/2 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
9/03/1873	3:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock at 3 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
9/05/1873	16:30					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: two smart shocks at 4 1/2 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
9/30/1873	8:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock at 8 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
10/04/1873	21:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock in the night [time assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
11/03/1873	11:59					north hawaii?				5.3	int	V (kona); III (maui)	Warshauer notes: Four distinct earthquake shocks were on Monday, November 3d, felt by those residing on Haleakala, Maui. In Kona, Hawaii, on the same day, or rather night, a heavy shock was felt [no times given]	HG, 11/12/1873, p. 3
11/13/1873	6:00					south hawaii?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: a decided shake st 6 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
12/13/1873	9:00					south hawaii?						2.8 (Hilo-Cox)	Lyman notes: a long tremulous motion at 9 AM	Wyss and others, 1992, p. 17; not found in PCA or HG
1/01/1874	16:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 4 PM	Wyss and others, 1992, p. 17; not found in PCA or HG
1/11/1874	23:00					mauna loa?				5.3	int	V	Warshauer notes: The summit crater of Mokuaweoweo was in most brilliant action on Sunday night last [Jan. 11], and the display was accompanied with a severe earthquake at 11 pm, which, however, produced no damage	HG, 1/14/1874, p. 3
1/15/1874	5:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 5 AM	Wyss and others, 1992, p. 17; not found in PCA or HG

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/06/1874	21:59					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shock in the night [time assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
2/12/1874	20:15					east hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shock at 8 1/4 P.M.; Warshauer notes: Quite a severe earthquake shock was felt at Hilo on the night of Feb. 12th. No damage was done; the shocks [that] occurred at Hilo on the evening of the 12th, were felt in Hamakua. There were two shocks felt there	Wyss and others, 1992, p. 17; HG, 2/18/1874, p. 3; HG, 2/25/1874, p. 3
3/04/1874						south hawaii?				3.5	int	3.5 (Hilo-Cox)	Lyman notes: it is said there were two shakes in the night	Wyss and others, 1992, p. 17; not found in PCA or HG
3/28/1874	21:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a real smart shake at 9 PM; not mentioned [Kapapala] in VHR entry of 3/30/1874	Wyss and others, 1992, p. 17; not found in PCA or HG
4/10/1874	4:30					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a real smart shake at 4 1/2 A.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
4/27/1874	19:20					south hawaii?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: a protracted shake at 7:20 P.M.	Wyss and others, 1992, p. 17; not found in PCA or HG
4/30/1874	5:15					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: two smart shakes at 5 1/4 [AM/PM not specified; am assumed]	Wyss and others, 1992, p. 17; not found in PCA or HG
5/14/1874	9:00					east hawaii?				5.9	int	VI	Warshauer notes: A severe shock, or series of shocks, was felt at Hilo about 9 am on the 14th instant. Along the coast, from Hilo to Waimea it is reported to have been the heaviest shake experienced for a long time. Simultaneously with this earthquake, the crater of Kilauea has become more brilliant and active	HG, 5/27/1874, p. 3
5/15/1874	11:45					east hawaii?				5.9	int	6.1 (Hilo-Cox); VII (W&K); V (S&C)	Lyman notes: a severe shake at 11 3/4 A.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
6/29/1874	16:00					south hawaii?				5.6	int	V-VI (W&K); 5.5 (Hilo-Cox)	Lyman notes: a hard shake at 4 PM	Wyss and others, 1992, p. 18; not found in PCA or HG
6/30/1874	23:59					south hawaii?							Lyman notes: two quite smart shakes; [dates and times not given; two phases of 6/29 event?]	Wyss and others, 1992, p. 18; not found in PCA or HG
7/01/1874													earthquakes in early July; Kilauea lake level high	Wood, 1917 chart 1, p. 117
7/10/1874	19:30					kl cal 0-5?						III	At 7:30 this evening, two sharp, quick shocks of earthquake were felt here--an interval of about three minutes between them	VHR, v. 2, G. entry dated 7/10/1874
8/29/1874	23:59												Warshauer notes: A correspondent at Kona says they have had only three light shocks of earthquake lately.	HG, 8/29/1874, p. 3
10/02/1874	23:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shake at 11 PM	Wyss and others, 1992, p. 18; not found in PCA or HG
10/10/1874	10:45					south hawaii?						2.5 (Hilo-Cox)	Lyman notes: a gentle undulating motion at a quarter to 11 A.M.; no mention in VHR entry on this date [possibly en route Volcano-Hilo]	Wyss and others, 1992, p. 18; not found in PCA or HG
11/09/1874	16:00					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: a shake at 4 PM, not severe; no mention in VHR entry on this date [possibly en route Volcano-Hilo]	Wyss and others, 1992, p. 18; not found in PCA or HG
12/05/1874	16:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at about 4 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/29/1874	4:30					oahu?				3.8	int	IV (Hon)	Warshauer notes: There were two very perceptible tremors experienced in this city [Honolulu] early on Tuesday morning last [Dec. 29, 1874], something over an hour apart, the first and heaviest one being about half past four. In both instances, a rushing sound,--as of a high wind through a forest--preceded the shocks, which made window-sash rattle [apparently not reported in Hilo]	PCA, 1/2/1875, p. 3
12/29/1874	6:00					north hawaii?				5.9	k&w	V-VI (maui); 5.7 (Cox-Hilo); V (S&C; W&K-Hilo); IV (W&K-Hon)	Lyman notes: A protracted and somewhat severe shock at 6 o'clock A.M. There were really three distinct shocks, but the trembling between them did not cease and continued some seconds after the last shock. This shock was felt on Oahu; no mention in VHR entry on this date; Warshauer notes: . . . a rushing sound,--as of a high wind through a forest--preceded the shocks, which made window-sash rattle; The earthquake which we noticed as having been felt here [Honolulu] on Tuesday morning, Dec. 29, was also felt at Hilo, where, Mr. Coan writes, it was the severest shock that has occurred for many months. It was also quite severe on Maui; strong at Hilo, dur 2-3 min; At 6 o'clock on the morning of Tuesday, the earth began to tremble for a few seconds with starts and a jerking motion, in an instant it seemed as if everything was coming to pieces. this lasted for 10 or 15 seconds, when it slowed down gradually. [Total duration] was perhaps two minutes. People here say it was equal to the one of 1868, though not of so long duration. . . .	Wyss and others, 1992, p. 18; Wyss and Koyanagi, 1992; PCA, 1/2/1875, p. 3; HG, 1/6/1875, p. 3; PCA, 1/23/1875, p. 3; PCA, 1/29/1875, p. 3; Intensity map in W&K [time given as 4:30 am]; region/magnitude assigned from new isoseismal map; analogy with Honomu earthquake of April 26, 1973 (W&K), but of smaller magnitude
1/10/1875	5:00					ml mok?				3.8	int	IV (kau)	Renewed eruption of Mauna Loa's summit. Lyman notes [Jan. 11]: A Eruption on Mauna Loa discovered yesterday morning quite early; Warshauer notes: I open this letter to say that brilliant action commenced in the summit crater of Mokuaweoweo before daylight yesterday morning the 10th. . . The summit chimney or crater of Mokuaweoweo had been closed for about eight weeks, during the latter part of which time the earthquake shocks had been increasing in strength and frequency; The summit crater of Mokuaweoweo . . . broke out active again on [just before sunrise] last Sunday morning, the 10th instant. . . . At Kau a sharp shock of earthquake immediately preceded the outbreak [felt-hilo see Coan above]	Wyss and others, 1992, p. 18; HG, 1/20/1875, p. 3 [Coan, 1875]; PCA, 1/23/1875, p. 3
1/28/1875	12:00					west hawaii?				3.8	int	III	Warshauer notes: From Hilo--We had a shock of earthquake at noon on the 28th January. It was rather pleasant than otherwise--a rolling motion with the rough edges taken off	PCA, 2/6/1875

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/30/1875	0:15					west hawaii?				5.6	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 12:15 M. preceded some 12 seconds by a sudden bump & followed by several seconds of trembling. No noise save -what was made by the shaking of the house; Warshauer notes: Another heavy earthquake shock on Saturday last [Jan. 30]	Wyss and others, 1992, p. 18; HG, 2/3/1875, p. 3; not found in PCA
2/05/1875	20:40					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: Two moderate shocks, with 6 or 8 sec intervening, at 20 min. to 9 P.M. No noise accompanying it	Wyss and others, 1992, p. 18; not found in PCA or HG
2/11/1875	21:00					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden jar, not hard, at 9 PM	Wyss and others, 1992, p. 18; not found in PCA or HG
3/01/1875	8:57					south hawaii?						III	Lyman notes: a slight shock a little before 9 A.M. motion undulating N and S	Wyss and others, 1992, p. 18; not found in PCA or HG
4/17/1875													Warshauer notes: Mokuaweoweo not active; once in a while we have a shake of earthquake [in Kau], but very light	PCA, 4/17/1875, p. 3
4/20/1875	23:45					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: a slight undulatory motion lasting a few seconds	Wyss and others, 1992, p. 18; not found in PCA or HG
5/20/1875	13:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shocks at 1 1/2 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
5/21/1875	17:15					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shocks at 5 1/4 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
5/25/1875	21:59					south hawaii?							Lyman notes: a slight shake in the night [time assumed]	Wyss and others, 1992, p. 18; not found in PCA or HG
6/06/1875	1:40					south hawaii?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: a smart shake at 20 min. to 2 A.M. preceded by a premonitory shock that waked us from a sound sleep	Wyss and others, 1992, p. 18; not found in PCA or HG
8/7/1875	16:30					kl cal 0-5?						III	Two earthquake shocks were felt here today: one at 4:30 p.m. and on at 6:45 p.m. Motion north to south	VHR, v. 2, C.E. Gilman entry dated 8/7/1875
8/7/1875	18:45					kl cal 0-5?						III	do.	do
8/11/1875													Warshauer notes: renewed activity at Mauna Loa's summit, over by Aug. 14	PCA, 8/14/1875, p. 3, 8/21/1875, p. 3
8/12/1875	21:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a gentle shake at 9 1/2 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
8/13/1875	20:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a protracted but gentle shaking at about 8 o'clock P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
11/18/1875	20:30					south hawaii?						III	Lyman notes: a gentle shake at 8 1/2 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
11/23/1875	11:30					kaoiiki?				5.9	k&w	VI (kapapala, kona, hilo); V (W&K; S&C); 5.5 (Hilo-Cox)	Lyman notes: a protracted and hard shaking at 11 1/2 A.M. The children of the foreign school ran out; At 11:15 a.m. there was quite a hard earthquake shock felt in Kau, Kona and Hilo [that] threw down several fathoms of good stone wall on Mr. Reed's ranch at Kapapala; also stopped our horses on the road, for the moment, by the motion of the earth; Warshauer notes: By a letter from South Kona, dated on the 23d ult., we learn that a severe shock of earthquake was felt on that day, the heaviest experienced there for years	Wyss and others, 1992, p. 18; VHR, v. 2, F.L. Lyman entry dated 11/22/1875 and 12/3/1875; PCA, 12/4/1875, p. 3; region could be kaoiki if deeper than 11 km, by analogy with modern events
11/23/1875	12:30					kaoiiki?						3.0 (Hilo-Cox)	Lyman notes: At 12 1/2 there was a slight shake; not mentioned in VHR entry on this date	[aftershock]; Wyss and others, 1992, p. 18
11/23/1875	19:00					kaoiiki?						3.0 (Hilo-Cox)	. . . and another of two shocks, nearly as hard, at 7 p.m.; Lyman notes: at about 7 P.M. another	[aftershock]; VHR, v. 2, F.L. Lyman entry dated 11/22/1875 and 12/3/1875; Wyss and others, 1992, p. 18

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/01/1876	16:45					kl cal 0-5?						III	sharp earthquake in early January; at 4:45 we were saluted with a short, sharp shock of earthquake, which Mr. Gilman says is unusual. Still another shock at 9:45 p.m.	Wood, 1917 chart 1, p. 117; VHR, v. 2, A. McF. Davis entry dated 1/1/1876
1/01/1876	21:45					kl cal 0-5?						III	do	do
1/08/1876	10:00					kl cal 0-5				3.8	int	IV	Halfway across the first lava bed experienced a slight shock of earthquake (according to the guide). [time estimated; after 9:20 a.m.]	VHR, v. 2, Chas. Lancaster entry dated 1/8/1876
2/13/1876	21:59												Mauna Loa summit eruption. Lyman notes: An eruption was discovered on Mauna Loa Sab. eve & the Eruption ceased in about 2 weeks; Warshauer notes: summit crater broke out Monday night last [Feb. 14] [time assumed]	[end of intermittent eruptions in Mokuaweoweo; see note for 1/3/1870]; Wyss and others, 1992, p. 18; PCA, 2/19/1876
3/29/1876	15:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 3 1/2 P.M.	Wyss and others, 1992, p. 18; not found in PCA or HG
3/30/1876	4:00					kaoiiki?				5.3	int	V-VI (W&K); 5.5 (Hilo-Cox)	Lyman notes: a protracted and quite hard shake at about 4 A.M.; Warshauer notes: . . . two very severe shocks of earthquake occurred at Kau, Hawaii, on the 30th of March, about midnight [Lyman or newspaper time wrong?], and again on the 1st of April, sufficiently severe to open doors. . . .	Wyss and others, 1992, p. 18; HG, 4/19/1876, p. 3
4/01/1876	11:59					hilea?				5.3	int	V	Warshauer notes: . . . two very severe shocks of earthquake occurred at Kau, Hawaii, on the 30th of March, about midnight, and again on the 1st of April, sufficiently severe to open doors. . . . [no time given]	HG, 4/19/1876, p. 3
4/11/1876													Mauna Loa summit eruption resumes. Lyman notes: light seen on Mauna Loa	Wyss and others, 1992, p. 18; not found in PCA or HG
5/03/1876	21:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shake at 9 PM	Wyss and others, 1992, p. 18; not found in PCA or HG
6/27/1876	4:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 4 AM	Wyss and others, 1992, p. 19; not found in PCA or HG
7/17/1876	6:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 6 AM	Wyss and others, 1992, p. 19; not found in PCA or HG
9/05/1876	9:40					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 9:40 A.M.	Wyss and others, 1992, p. 19; not found in PCA or HG
10/23/1876	5:00					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: a sudden jar at about 5 A.M.	Wyss and others, 1992, p. 19; not found in PCA or HG
10/26/1876	2:00					oahu?				3.8	int	IV	Warshauer notes: We were not awake at 2 o'clock last Thursday morning [Oct. 26], but it is reported that there was a smart shock of earthquake [on oahu?] at that time	PCA, 10/28/1876, p. 3
11/01/1876	4:30					south hawaii?				5.3	int	V (W&K); 5.3 (Hilo-Cox)	Lyman notes: a moderately smart shock between 4 & 5 A.M.	Wyss and others, 1992, p. 19; not found in PCA or HG
2/14/1877	21:00												Mauna Loa summit eruption. Lyman notes: An eruption seen on the mountain at 9 P.M. In two days it was extinct, but it broke out lower down the mountain & reached the sea in a few days, about 3 miles from Kaawaloa; Warshauer notes: The eruption in Mokuaweoweo was first sighted from Hilo on the night of February 14; The summit eruption lasted only six hours; There was a very faint light from Mokuaweoweo on the 14th of February, while the whole blaze that produced such a fine effect was from the side of the mountain toward south Kona	Wyss and others, 1992, p. 19; PCA, 2/24/1877, p. 3; HG, 2/28/1877, p. 3; PCA, 3/31/1877

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/15/1877	21:00												Warshauer notes: . . . I could see that it [the light at Mauna Loa's summit] gradually moved down through the night, and that a heavy cloud of smoke rose on the succeeding afternoon from near the foot of the mountain--I should judge--and the upper edge of the great Kona forest. In the evening, i.e., twenty-four hours after the eruption, there were several slight shocks of earthquake, and my theory is that that was the time when the flow went underground, perhaps ten miles from the summit	PCA, 3/31/1877, p. 3
2/23/1877	18:00					kona?				5.3	int	V (kona); IV-V (W&K); 5.2 (Hilo-Cox)	Lyman notes: a decided shock at 6 PM; bib notes: A severe earthquake shock was felt, by those living at Kaawaloa and Keei during the night of eruption, which must have preceded the outbreak. It was quite severe, but no damage is reported; a severe shock of earthquake had been felt [in kona] on the night of the 23d	[precursor to 1877 submarine eruption]; Wyss and others, 1992, p. 19; PCA, 2/24/1877, p. 3; PCA, 3/3/1877
2/24/1877	3:00												Eruption in Kealakekua Bay. Warshauer notes: The natives report that the eruption was first observed in the sea, at three o'clock on the morning of the 24th, about a mile from shore, and it appeared like innumerable red, blue and green lights . . . The volcano appears to consist of a submarine rupture, running in a straight line out to sea, steam and lava rising as far out as one mile from the point [Keei (Palemano) Point]. . . The course of this land and submarine rent is about W.N.W. by E.S.E.	HG, 2/28/1877, p. 3
2/24/1877													Whitney notes: fracture traced inland 3 mi; Dana notes: new fissures opened up between summit and Kealakekua Bay; eq felt in fissured area, not at Kealakekua [wrong?--see above]; Warshauer notes: new crack several miles long from Keei inland	Whitney, 1877; Dana, 1888a, p. 29; PCA, 3/3/1877, p. 3; see bib
2/26/1877													Mauna Loa eruption in Kealakekua Bay, over by 2/26	PCA, 3/10/1877, p. 3
4/28/1877	5:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a distinct but not hard shake at 5 1/2 A.M.	Wyss and others, 1992, p. 19; not found in PCA or HG
5/04/1877	14:45					kl cal 05-10?				4.5	int	V (kilauea summit); III-IV (hilo); IV (kau)	bib notes: . . . On Friday the 4th inst., several severe shocks of earthquake were felt at the volcano house (and also at Hilo at the same time); at 2:45 pm, several pretty severe earthquake shocks were felt at the Volcano House . . . The earthquakes were felt not only at the volcano, but at Hilo and at different points in Kau. They were not destructive, but light, with an easy tremor of the ground, accompanied with rumbling noises, like that of a dray or a cart driven rapidly over a paved road; VHR notes: experienced 13 shocks of earthquakes during the evening [of May 4]	PCA, 5/12/1877, p. 3; HG, 5/16/1877, p. 2; VHR, v. 2, [signature unclear] entry dated 5/5/1877

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/04/1877	14:45					do				4.5			Kilauea summit eruption in Keanakakoi crater; Wood notes: lava lakes drained eqs in eve; fissure ext from pit to woods to east; fountaining 50 ft high followed by breakdown [collapse]; bib notes: . . . shortly [after the earthquakes] a brilliant eruption burst out in the S.E. corner of the great pit, and worked its way up into the extinct crater of old Kilauea [Keanakakoi]; . . . [the earthquakes] followed . . . at 3 o'clock, by a jet of lava thrown up from the floor of the crater, near the east bank, through a crack that had evidently been made by the earthquake. The lava continued to spout at this place, gradually ascending the steep bluff to its summit [black ledge], then moving along the isthmus, connecting [Kilauea] crater with [Keanakakoi], down which, the lava ran. . . . Simultaneously, fires of the old South Lake were suddenly extinguished . . .	Wood, 1917 chart 1, p. 117; PCA, 5/12/1877, p. 3; HG, 5/16/1877, p. 2
5/05/1877	1:20					kl sf?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: two shocks within an hour between 1 & 2 o'clock A.M.	Wyss and others, 1992, p. 19; not found in PCA or HG
5/05/1877	1:40					kl sf?				4.5	int	4.6 (Hilo-Cox)	do	do.
5/06/1877	5:30					kl sf?				3.8	int	4.0 (Hilo-Cox)	no mention of eq being felt; Lyman notes: a protracted but moderate shock at 5 1/2 A.M.	VHR, v. 2, entry from Kapapala dated 5/6; Wyss and others, 1992, p. 19; not in PCA or HG
5/06/1877	23:59												Warshauer notes: . . . for the two days following [the eruption of May 4] no fires were to be seen at Kilauea	HG, 5/16/1877, p. 2
5/07/1877													Warshauer notes; . . . Subsequently the eruption subsided here but broke out again on Monday the 7th in the bottom of the pit [Kilauea crater floor], right on the path from the volcano house to the South Lake. . .	PCA, 5/12/1877, p. 3
5/9/1877	23:59												Warshauer notes: from Hilo--we have had within the past few days several smart shocks of earthquakes [times not given]	PCA, 5/21/1877
5/10/1877	5:00												Lyman notes: A heavy tidal wave swept the beech [sic] at 5 A.M. destroying 34 homes at Waiakea with the bridge, & 12 houses between Waialama and Asko's old store. One hundred and sixty three people are made houseless & homeless. Some are bruised and some have broken bones. Five are dead. The wave was (by accurate measurement at Waiakea) 13 1/2 feet above high water mark and swept inland 40 rods; Warshauer notes: . . . on Thursday morning [May 10], before light, he felt very sensibly an earthquake shock [in Honolulu] . . .	Wyss and others, 1992, p. 19; HG, 5/16/1877, p. 3; tsunami generated from an earthquake in Chile, although, Cox reports confusion in the literature regarding association of this event with a Mauna Loa earthquake

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
5/31/1877	4:20					kl cal deep?	35.0	6.3	W&K3;	6.25	k&w; w&k	VI (kau); VI (W&K; S&C); 6.2 (Hilo-Cox)	Lyman notes: A severe and protracted shaking at 4:20 A.M. Some things thrown down and displaced in the house and walls damaged; Warshauer notes: At Hilo and Kohala on Hawaii, and on some parts of Maui, a smart shock of earthquake is reported as having occurred early in the morning of May 31st; On the morning of the 31st ultimate, a heavy earthquake shock occurred on the island of Hawaii, which was also distinctly felt on Maui. It was most distinct in the district of Kau on the southern part of Hawaii where stone walls were thrown down, and cisterns were cracked, and other damage done. Mr. G.W.C. Jones suffered to the amount of about \$2,500. The shock was so severe in Hilo and other parts of the island as to stop clocks	Wyss and others, 1992, p. 19; Wyss and Koyanagi, 1992; PCA, 6/9/1877; HG, 6/13/1877, p. 3; Intensity map in W&K [missing second newspaper reference]; region/magnitude assigned from new isoseismal map; analogy to earthquake of April 21, 1951 (W&K)
5/31/1877	4:45					kl cal deep?	35.0					III	Lyman notes: At a quarter to five there was a slight shake	[aftershock]; Wyss and others, 1992, p. 19; not in PCA or HG
5/31/1877	5:05					kl cal deep?	35.0					III	Lyman notes: another a little past five	[aftershock]; Wyss and others, 1992, p. 19; not in PCA or HG
6/14/1877	23:59												Wood notes: Lava reappears at Kilauea between June 14 and 26; Warshauer notes: Again in June 1877, after a very heavy earthquake which destroyed or injured houses and stone walls in Kau, the fires were again extinguished and remained so some ten days [implies that the earthquake of May 31 was of Kilauea origin]	Wood, 1917 chart 1, p. 117; PCA, 3/15/1886, p. 2
8/02/1877	7:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shake at 7:30 A.M.	Wyss and others, 1992, p. 19; not in PCA or HG
8/02/1877	20:03					south hawaii?				5.3	int	5.2 (Hilo-Cox); IV-V (W&K)	Lyman notes: another quite protracted and decided [shake] at a little past 8 P.M.; no mention in VHR entry on this date; Warshauer notes: A severe earthquake shock is reported to have been felt at Hilo on the evening of the 2nd instant	Wyss and others, 1992, p. 19; HG, 8/8/1877, p. 3
8/18/1877	13:10					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A gentle shake at ten min. past 1 P.M.	Wyss and others, 1992, p. 19; not in PCA or HG
8/30/1877	23:20					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Two slight shocks between 11 & 12M	Wyss and others, 1992, p. 19; not in PCA or HG
8/30/1877	23:40					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: do	Wyss and others, 1992, p. 19; not in PCA or HG
9/28/1877	20:15					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: A shake at 8 1/4 P.M.	Wyss and others, 1992, p. 19; not in PCA or HG
11/30/1877	11:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shocks at 11 AM	Wyss and others, 1992, p. 19; not in PCA or HG
12/10/1877	23:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shocks at 11 PM	Wyss and others, 1992, p. 19; not in PCA or HG
1/28/1878	6:50					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a protracted but moderate shock at 10 min to 7 A.M.	Wyss and others, 1992, p. 19; not in PCA or HG
4/21/1878	13:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at 1 PM	Wyss and others, 1992, p. 19; not in PCA or HG
4/30/1878	15:30					south hawaii?				4.5	int	4.5 (Hilo-Cox)	Lyman notes: a decided jar at 3 1/2 P.M.	Wyss and others, 1992, p. 19; not in PCA or HG
7/06/1878	7:05					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 7:5 A.M. Motion undulatory from N to South	Wyss and others, 1992, p. 19; not in PCA or HG
9/11/1878	11:59					north hawaii?						III	Warshauer notes: On Wednesday, September 11, a slight shock of earthquake was felt at Kohala, Hawaii [no time given]	PCA, 9/21/1878, p. 3

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/07/1879	4:06					north hawaii?						III	Warshauer notes: There was a slight shock felt at Kohala, Hawaii, at 6 minutes past 4 o'clock on the morning of Feb. 7th, which lasted eight seconds only	PCA, 2/15/1879, p. 3
3/04/1879	11:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: A moderate shock at 11 A.M. The first in many months	Wyss and others, 1992, p. 19; not in PCA or HG
3/09/1879													Mauna Loa summit eruption. Warshauer notes: . . . indications of an outbreak of lava on the Kona side of Mauna Loa; confirmed as summit eruption by VHR	PCA, 3/29/1879; VHR, v. 2, 3/9 entry
3/11/1879	2:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shake at 2 AM	Wyss and others, 1992, p. 19; not in PCA or HG
3/16/1879	21:59					north hawaii?				5.3	int	V	Warshauer notes: Letters from Kohala state that a severe shock of earthquake was felt there the night of Sunday the 16th inst [time assumed]	PCA, 3/29/1879, p. 3
3/24/1879	3:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: two slight shakes about 3 AM	Wyss and others, 1992, p. 19; not in PCA or HG
4/20/1879	21:59					kl cal 0-5?						III	Warshauer notes: . . . previous to the night of Sunday, April 20, the crater was very active, the great lake running over with lava and filling the pit even with its banks. On the night mentioned, there were two distinct shocks of earthquake felt at the Volcano House. In the morning it was found that the whole surface of the lake, and what may be termed the subsidiary crater, had disappeared and sunk sheer[?] down several hundred feet, leaving perpendicular walls encircling a vast pit; Wood notes: lake quite empty. 21 April bottom dropped out of crater [time assumed]	PCA, 5/3/1879, p. 3; Wood, 1917 chart 1, p. 117
5/15/1879	21:30					south hawaii?				5.3	int	V (W&K; S&C); 4.8 (Hilo-Cox)	Lyman notes: A smart shock at 9:30 P.M. A respite of several seconds, then a shake that made the house tremble (a crack) violently	Wyss and others, 1992, p. 19; not in PCA or HG
5/15/1879	23:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: Before midnight there was another moderate shake	Wyss and others, 1992, p. 19; not in PCA or HG
5/21/1879	8:50					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at ten min to 9 A.M	Wyss and others, 1992, p. 19; not in PCA or HG
6/29/1879	12:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 12 1/2 P.M.	Wyss and others, 1992, p. 19; not in PCA or HG
11/04/1879	8:55					south hawaii?				5.3	int	V (W&K; S&C); 5.2 (Hilo-Cox)	Lyman notes: Had the hardest shake at 5 min to 9 A.M. that we have had in a long time. The premonitory shock came suddenly, was quite hard & protracted after which we had a real upshaking. No damage done however; Warshauer notes: quite severe earthquake in Hilo	Wyss and others, 1992, p. 19; PCA, 11/15/1879, p. 3
11/09/1879	5:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shake at about 5 A.M.	Wyss and others, 1992, p. 19; not in PCA or HG
11/09/1879	8:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Another about 8 A.M.	Wyss and others, 1992, p. 19; not in PCA or HG
11/09/1879	11:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: two moderate shakes with a few seconds intervening between each; no mention in VHR entry on this date [time assumed]	Wyss and others, 1992, p. 19; not in PCA or HG
11/27/1879	8:40					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: A smart shake at 20 min to 9 A.M.	Wyss and others, 1992, p. 19; not in PCA or HG
12/16/1879	9:59					west hawaii?						III	Warshauer notes: Two shocks of earthquake were felt at Orange Hill, south Kona, Hawaii, on the morning of the 16th inst. . . . [time assumed]	HG, 12/24/1879, p. 3

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/08/1880	12:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: A shake about 12 P.M.	Wyss and others, 1992, p. 20
4/21/1880	1:00					south hawaii?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: Were waked about 1 A.M. by a smart shake which was succeeded by one still harder	Wyss and others, 1992, p. 20
5/01/1880	20:00												Mauna Loa summit eruption begins-ends on 5/1. Whitney notes: no premonitory earthquakes in Kau, but rumblings reported NE side of island [unconfirmed]; Lyman notes: A splendid illumination on the summit of Mauna Loa. Commenced at 8 P.M. and looked as tho the whole summit of the mountain was on fire; Warshauer notes: . . . the eruption [Mauna Loa summit] was first noticed at about 10:30 pm on the evening of the 1st, and assumed the form of three distinct jets . . . . On Monday evening [May 3] there was no light visible . . . ; Light was first seen from Hilo at 8:00 p.m. on May 1; there were no premonitory signs	Whitney, 1880; Wyss and others, 1992, p. 20; PCA, 5/8/1880, p. 3; HG, 5/12/1880, p. 3
5/09/1880	11:59												Mauna Loa summit eruption ends. Warshauer notes: From Kau we have heard that that the eruption in the summit crater of Mokuaweoweo, Mauna Loa, expired on the 9th inst., having lasted but nine days. . . No earthquakes reported [of late?] [no time given]	HG, 6/2/1880, p. 3
6/20/1880	5:00					south hawaii?				5.3	int	V	quite a heavy shock of an earthquake--no damage--no change in volcano	VHR, v. 2, L. [probably Wm. H. Lentz] entry dated 6/20/1880
7/20/1880	14:59					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock in the afternoon; time assumed	Wyss and others, 1992, p. 20; not in PCA or HG
7/27/1880	8:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 8 AM	Wyss and others, 1992, p. 20; not in PCA or HG
8/08/1880	20:00					south hawaii?				3.8	int	4.3 (Hilo-Cox)	Lyman notes: a sudden jerking shake but not protracted at 8 PM	Wyss and others, 1992, p. 20; not in PCA or HG
8/18/1880	3:45					mauna loa?				5.6	int	6.0 (Hilo-Cox); V (W&K)	Lyman notes: A smart protracted shake at 3 3/4 A.M. which drove some from their beds & waked every body; Warshauer notes: A sharp earthquake shock startled the inhabitants of Hilo from their beds at the rather early hour of 3 o'clock on Wednesday morning, August 18th. There were two distinct shocks, one following the other in quick succession, the second being the heavier of the two	Wyss and others, 1992, p. 20; HG, 8/25/1880, p. 3
9/08/1880	13:45					mauna loa?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shock at 1 3/4 P.M.	Wyss and others, 1992, p. 20; not in PCA or HG
9/23/1880	15:15					kaoiiki?				6.6	k&w	VII (Hilo); VI (kona); VII (W&K); 6.1 (Hilo-Cox); V (S&C)	Wood notes: severe earthquake; Lyman notes: Two severe shocks at a quarter past three P.M. The first nearly equal to the second & only a few seconds intervening between them; Warshauer notes: A sharp earthquake shock was felt in Hilo on Thursday Sept. 23 at 3:13 pm. It was by far the severest shock that has been felt at Hilo for some years; On September 23rd, at 3 pm, we [in Kona] had a heavy shake of earthquake, so that it jumped some of the furniture out of place in the houses	Wood, 1917, chart 1, p. 117; Wyss and others, 1992, p. 20; HG, 9/29/1880, p. 3; HG, 10/6/1880, p. 3; region/magnitude assigned by analogy with the Kaoiki earthquake of November 16, 1983 (W&K)

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/24/1880	2:45					kaoiiki?				3.8	int	IV	Warshauer notes: On the following morning [9/24 in Kona], at 2:45 am, we had another smart shake	[aftershock]; HG, 10/6/1880, p. 3
9/25/1880	4:00					kl sf?				6.0	k&w	VI-VII (Hilo); V (Volcano); IV (kona); V (W&K; S&C); 5.0 (Hilo-Cox)	Severe shock of earthquake here at 4:15 a.m. this day; Lyman notes: We were startled by a severe shaking at 4 o'clock this morning which was followed by a still harder one after a few seconds, & followed by a trembling motion which continued several seconds; Warshauer notes: Hilo was visited on Saturday morning, September 25th, at 1 [4?] o'clock by an earthquake more severe than that of September 23rd. Many of the natives were so alarmed that they fled from their houses in terror. There have been several slight shocks since, creating some apprehension lest the days 1868 be repeated; . . . finally some time in the night of the 25th we [in Kona] had a light shake . . . [times off--presumed to be the same event]	VHR, v. 2, W.H. Lentz entry dated 9/25/1880; Wyss and others, 1992, p. 20; HG, 10/6/1880, p. 3; region/magnitude assigned by analogy with Kilauea south flank earthquakes of September 21, 1979 and June 25, 1989 (W&K)
9/25/1880	4:30					kl sf?						III	Lyman notes: In the course of half an hour there were three light but distinct shocks; no mention in above VHR entry	Wyss and others, 1992, p. 20; not in PCA or HG
9/25/1880	23:59												Warshauer notes: From the account that I had from Mr. Lentz in 1880, just before the Hilo flow, the fire disappeared there, leaving a bottomless pit for a week or more when the fire returned [implies Kilauea source for earthquake, accompanying intrusion]	PCA, 3/15/1886, p. 2 [Maby, 1886]
10/7/1880	23:59												[first week in October] low. Molten lava 100-200 feet down. active	Wood, 1917, chart1, p. 117
10/22/1880	11:59					south hawaii?						III	Warshauer notes: A slight shock of earthquake was felt at Hilo on Friday, October 22d, and another on Sunday, 24th [no time given]	HG, 11/3/1880, p. 3
10/24/1880	11:59					south hawaii?						III	do [no time given]	HG, 11/3/1880, p. 3
11/05/1880	19:00												Mauna Loa summit eruption. Warshauer notes: . . . made its first appearance (as far as known) about 7 o'clock in the evening of the 5th inst., and on the upper portion of Mauna Loa. . . No other phenomena is reported in connection with this outburst, the usual accompaniments of earthquake and electrical disturbances being absent; Lyman notes: confirms eruption	PCA, 11/13/1880, p. 3; Wyss and others, 1992, p. 20
11/06/1880	11:59												Mauna Loa NE rift eruption. Lyman notes: A brilliant eruption on Mauna Loa. Lava flowing toward Mauna Kea. [no time given]	Wyss and others, 1992, p. 20; not in PCA or HG
1/05/1881	16:20					south hawaii?				4.1	int	4.3 (Hilo-Cox)	Lyman notes: A little more than a moderate shake at 20 min past 4 P.M.; Warshauer notes: A sharp shock of earthquake was felt at Hilo at twenty-three minutes of 5 o'clock on Wednesday afternoon, Jan. 5th	Wyss and others, 1992, p. 20; HG, 1/12/1881, p. 3

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/21/1881	14:25					maui deep?				5.5	k&w	V (Lahaina); IV (hon, hilo); V (S&C); 3.0 (Cox-Hon)	felt all Honolulu, Maui and Hawaii; lamps/crockery rattle [Hon]; Lyman notes: A not very heavy shake preceded by a premonitory shock at 2.25 P.M.; Warshauer notes: the earthquake mentioned by our Maui and Hawaii correspondents was felt by several of our citizens [Honolulu]. One lady reports all the lamps and crockery as rattling freely; A sharp shock of earthquake was felt at Hilo at half-past 2 o'clock Thursday afternoon, April 22; A gentle earthquake shook up the college [Lahainaluna, Maui] on the 'Barren Hill.' It occurred last Thursday [April 22] at half-past 2 o'clock in the afternoon and lasted three or four seconds. It was almost strong enough to disturb the member of the senior class who was struggling across the [unintelligible] . . .	Cox, 1986, p. 60; Wyss and others, 1992, p. 20; HG, 4/27/1881; region/magnitude assigned from isoseismal map; analogy to earthquake of March 19, 1926 (W&K)
5/23/1881	6:30					south hawaii?						III; 4.0 (Hilo-Cox)	Lyman notes: a distinct but slight shock	Wyss and others, 1992, p. 20; not in PCA or HG
6/17/1881	5:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock	Wyss and others, 1992, p. 20; not in PCA or HG
6/19/1881	10:30					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a distinct shock, not hard; no mention in VHR entry on this date	Wyss and others, 1992, p. 20; not in PCA or HG
8/13/1881													Mauna Loa NE rift eruption ends. Lyman notes: The lava which commenced on Mauna Loa Nov. 6th. 1880. flowed steadily on till within a mile of the sea, when about the 11th of Aug. it began to cool off at the lower end and now on the 13th there is neither fire or smoke to be seen except at the summit. Last night there was perfect darkness for the first time; Warshauer notes: eruption over as of Aug. 27	Wyss and others, 1992, p. 20; PCA, 8/27/1881
9/13/1881														S&C report an earthquake with intensity V on this date. Probably an error in reporting, as there is no corroboration from other sources
9/30/1881	4:53	20	4	155	42	mauna kea deep	40.0	≥6	W&K	6.4	k&w	VII-VIII (Honokaa, kohala); VII (rest of Hawaii island); VI (maui, molokai); V (oahu); III (kauai); VIII (S&C); IV-V (W&K-hon); VI (W&K-kona); V-VI (W&K-ne hawaii); 6.5 (Hilo-Cox)	Lyman notes: At early dawn [dawn] the earth commenced trembling and for nearly a minute there was a violent shaking causing the house to creak & groan making it seem as tho' it must come down. It was the most violent one we ever felt & yet strange to say very few things were displaced in the house. The motion was principally up & down, apparently everything moved with the house	Wyss and others, 1992, p. 20; Wyss and Koyanagi, 1992; Intensity map in W&K; intensity map augmented from that of W&K; region/magnitude assigned from new isoseismal map using additional newspaper references; location and magnitude estimated by analogy to earthquakes of April 4, 1868 (W&K) and November 18, 1941

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/30/1881	4:53					do		do	do	6.4	do	IV-V (W&K-hon); VI (W&K-kona); V-VI (W&K-ne hawaii); 6.5 (Hilo-Cox)	felt in Oahu, Molokai, Maui and especially Hawaii; Warshauer notes: Honolulu-clock stopped, dur 30 s, windows, crockery rattle; A severe shock of earthquake was felt at Pukoo, Molokai, on Friday morning [Sept. 30]; Kauai-felt island-wide, 3 distinct shocks within 1-2 m; Maui-severe, dur 15-20 s; Waimea-stone walls thrown down, houses rocked fearfully; Hamakua-3 houses destroyed, cisterns cracked, stronger than 4/2/1868; severe earthquake felt throughout Hawaii; stone walls and buildings cracked and cisterns damaged, esp in Kona, Waimea and Hamakua districts; Kailua [Kona]-stone walls down, crockery broken, buildings cracked; Kohala-walls cracked, crockery off shelves, stronger than 4/2/68; S Kona-hardest eq in 40 yrs, dur 2 m, stone walls down, buildings/cisterns cracked, crockery thrown down; Hilo [time given as 5:05]-stone walls down, bath tubs cracked, curios damaged; Kau-cisterns cracked; Volcano-caldera wall caved, Kau road cracked; no entry in VHR	Cox, 1986, p. 60-61; PCA, 10/1/1881, p. 2, 3; HG, 10/5/1881, p. 3; PCA, 10/8/1881, p. 3; HG, 10/12/1881 [Bond, 1881; Paris, 1881; Anonymous, 1881]
9/30/1881	4:53					do		do	do	6.4	do	IV-V (W&K-hon); VI (W&K-kona); V-VI (W&K-ne hawaii); 6.5 (Hilo-Cox)	At 5 a.m. this morning received the most destructive and fearful earthquake shock of all I have known during my residence [ Kaawaloa, Kona] in the Sandwich Islands, Much damage has been done, many stone walls thrown down, cistern cracked, my stone store severely injured	Greenwell, Henry N [unpub. journal, 9/30/1881, provided courtesy of Jean Greenwell]
9/30/1881	4:58	20	4	155	42	mauna kea deep	40.0			6.0	int	V (kona, lahaina); III (Hon, hilo)	Lyman notes: In about five minutes there was another slight shock; Warshauer notes: . . . in [Honolulu] about five minutes afterwards was followed by another very light roll and tremble of the earth; After an interval of a few minutes, another slight shaking was experienced [Maui], but not as heavy as the first; a second shock felt [Kailua Kona] three minutes after the first; [the mainshock] lasted about two minutes--then a cessation of about two or three minutes, and then followed another shake [Kaawaloa, Kona], similar to the first, but not quite equal in terrific violence	[aftershock]; Wyss and others, 1992, p. 20; PCA, 10/1/1881, p. 2; HG, 10/5/1881, p. 3; PCA, 10/8/1881; HG, 10/12/1881 [Paris, 1881]; magnitude assigned from intensity analogous to earthquake of August 14, 1955
9/30/1881	5:15					north hawaii deep				4.5	poor		Warshauer notes: a third shock felt [Kailua Kona] about 1/4 past 5 a.m.; thirty minutes [after the mainshock] a fourth occurred [Hilo] but of a milder character	[aftershock] PCA, 10/8/1881; HG, 10/12/1881 [Anonymous, 1881]; magnitude assigned as minimum magnitude felt on both sides of Hawaii island, but not noticed on other islands
9/30/1881	21:30					north hawaii deep				5.3	poor		Warshauer notes: A shock of earthquake, very slight, was noticed by some of our citizens [Honolulu] on Friday evening about 10 o'clock; this has been corroborated by letters received from the other islands; Some declare that there was another slight shock on Friday evening, but if so it was so exceedingly slight as to be noticeable only by a few [Maui]; . . . Some light tremblings were felt the same day [s kona]. . .	HG, 10/5/1881, p. 3; HG, 10/12/1881 [Paris, 1881]; magnitude assigned as minimum magnitude consistent with being felt from hawaii to oahu

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
10/1/1881	11:59					north hawaii deep				4.0	poor	III	Oct. 1. Two or three slight earthquakes (shocks) felt today [kona] . . . ; Warshauer notes: . . . and three moderate shakes [s kona] the next day [after 9/30]. . . [no times given]	[aftershocks]; Greenwell, Henry N [unpub. journal, 10/1/1881, provided courtesy of Jean Greenwell]; HG, 10/12/1881 [Paris, 1881]
10/3/1881	11:59					north hawaii deep				4.0	poor	III	Warshauer notes: . . . These light shakes [s kona] continued through the third inst. . . . [no times given]	[aftershocks]; HG, 10/12/1881 [Paris, 1881]
10/16/1881	4:30					west hawaii?				5.3	int	V	A smart shock of earthquake at 4:30 am [Kaawaloa, Kona]	Greenwell, Henry N [unpub. journal, 10/16/1881, provided courtesy of Jean Greenwell]; not found in PCA or HG
3/17/1882	10:00					south hawaii?						III	Warshauer notes: There was a slight shock of earthquake felt at Hilo on Friday morning, March 17th, at about 10 o'clock, followed about five minutes later by a second shock more generally felt	HG, 3/29/1882, p. 3
3/17/1882	10:05					south hawaii?				3.8	int	IV	do	HG, 3/29/1882, p. 3
5/15/1882	19:00					south hawaii?						III	Lyman notes: one slight shock at 7 PM	Wyss and others, 1992, p. 20; not found in PCA or HG [PCA published daily, beginning 5/1/1882. Microfilm copies checked only for larger earthquakes; HG remains biweekly. Microfilm copies checked for the entire time period up to April 1903]
5/21/1882	6:00					south hawaii?				5.0	int	4.8 (Hilo-Cox)	Lyman notes: a slight jar, followed by a decided but not hard shake; Warshauer notes: Hilo was aroused on Sunday morning, May 21, at about six o'clock by a sharp earthquake	no mention in VHR entry on this day [5/19-22/1881]; HG, 5/31/1882, p. 3
7/17/1882	7:15					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 7 1/4 A.M.	Wyss and others, 1992, p. 20; not found in PCA or HG
7/25/1882	11:59					north hawaii?							Warshauer notes: The northern part of the Island of Hawaii experienced a smart earthquake shock on the 25th instant [same eq as below with date wrong?] [no time given]	PCA, 8/5/1882, p. 3
7/26/1882	2:00					north hawaii?				5.4	int	5.2 (Hilo-Cox); V (W&K)	Lyman notes: a decided shake at 2 AM; Warshauer notes: Quite a heavy earthquake [at Kohala] during the night of Tuesday [Jul. 25-26], shaking us up in a very respectable way; Hilo was aroused from her slumbers on Wednesday morning [Jul. 26] at quarter past two o'clock by a shock of earthquake; no mention in VHR	Wyss and others, 1992, p. 20; PCA, 8/1/1882, p. 2; HG, 8/2/1882, p. 3
7/27/1882	11:59					north hawaii?				3.8	int	IV	Warshauer notes: A shock of earthquake is reported as having startled Hamakua last Thursday [time assumed]	HG, 8/2/1882, p. 3
8/23/1882	11:59												Mauna Loa summit eruption?; Warshauer notes: Word from the summit of Mauna Loa reports fire in the crater of Mokuaweoweo, and smoke has been visible of late from this crater, even at Kilauea; This [the earthquake of 9/26], in connection with the unusual activity of Madame Pele, at Kilauea and Mokuaweoweo, denotes stirring [sic] time under our island. . . [no time given]	HG, 8/23/1882, p. 5 supp.; PCA, 10/2/1882, p. 3
9/22/1882	19:30					south hawaii?						III	Warshauer notes: A slight shock of earthquake was felt at Hilo, on Friday evening September 22nd at about half past seven o'clock	HG, 10/4/1882, p. 3

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/26/1882	9:59					south hawaii?				3.8	int	IV	Warshauer notes: A smart shock of an earthquake was felt here on Tuesday morning last [Sept. 26] [time assumed]	PCA, 10/7/1882, p. 3
10/18/1882	0:30					south hawaii?				5.4	int	5.2 (Hilo-Cox); V (W&K);	Lyman notes: A decided shake at 12 M. not protracted however; Warshauer notes: A sharp shock of earthquake was felt at Hilo, on Tuesday, Oct. 17th [sic- after midnight, make 18th to agree with Lyman], at half past twelve o'clock	Wyss and others, 1992, p. 20; not found in PCA or HG
10/24/1882	23:59												Warshauer notes: Reports from Hilo state that during last week there were a number of earthquake shocks felt. None very violent, but their frequency, together with the activity displayed in Kilauea, leads to the apprehension that another outbreak may be in the course of preparation; Wood notes: no indication of change in Kilauea activity; no mention in VHR entry of 10/17/1882	PCA, 10/24/1882, p. 2; Wood, 1917 chart 1, p. 117
11/07/1882	2:00					oahu?						III	Warshauer notes: A slight shock of earthquake was felt in Honolulu on Tuesday morning [Nov. 7] about 2 o'clock [same event as below, time off?]	PCA, 11/11/1882, p. 3
11/07/1882	10:00					oahu?						III	Warshauer notes: A slight shock of an earthquake was felt in Honolulu yesterday morning about 10 o'clock [same event as above, time off?]	PCA, 11/8/1882, p. 3
2/23/1883	18:59					south hawaii?						III	Warshauer notes: A sharp shock of earthquake was felt at Hilo on Friday evening February 23d [time assumed]	HG, 2/28/1883, p. 3
4/02/1883	14:30					south hawaii?						III; 3.5 (Hilo-Cox)	Lyman notes: it was said there was a shock in April, did not feel it [no date or time]; Warshauer notes: Hilo was visited by a slight shock of earthquake on Monday, April 2nd, at 2:30 pm. No damage was done, in fact many people are so used to these slight tremors that many took no notice	Wyss and others, 1992, p. 20; HG, 4/11/1883, p. 3
4/21/1883	15:30					south hawaii?						III	Warshauer notes: A slight shock of earthquake was felt at Hilo on Saturday afternoon, April 21st, at 3:30 o'clock	HG, 5/2/1883, p. 3
5/15/1883	6:00					south hawaii?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: a decided shake, but not hard at about 6 o'clock A.M.	Wyss and others, 1992, p. 20; not found in PCA or HG
6/12/1883	21:59					south hawaii?						III	Warshauer notes: A slight shock of earthquake was felt at Hilo on Tuesday night, 12th instant, followed by a smaller one--the direction was from east to west and it caused the house to vibrate slightly [time assumed]	PCA, 6/20/1883, p. 2
7/12/1883	19:00					south hawaii?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: A decided, but not hard shake at 7 P.M.	Wyss and others, 1992, p. 20; not found in PCA or HG
7/25/1883	9:59					south hawaii?						III	Warshauer notes: A slight earthquake shock was felt at Kohala on morning of Wednesday last [Jul. 25]. No damage of any kind was done [time assumed]	HG, 8/1/1883, p. 3

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/26/1883	1:00					east hawaii?				5.4	int	5.3 (Hilo-Cox)	Lyman notes: a protracted but not heavy shock at 1 AM; Warshauer notes: Letters from Hilo and Hamakua state that a very sharp shock of earthquake was felt all through those districts at 1:05 am on Thursday July 26th. the direction was from east to west, and the shock is said to be unusually severe, shaking the houses considerably and causing all crockery to swing and rattle. . . . A sharp shock of earthquake was felt at Hilo on Thursday morning July 26th	Wyss and others, 1992, p. 21; PCA, 7/30/1883. P. 3; HG, 8/1/1883, p. 3
10/15/1883	17:54					maui??				6.0	k&w	V (Hon, honokaa); III (hilo-presumed)	Warshauer notes: The earthquake on Monday evening [Oct. 15] shook open a door in Capt. Flemings house, on Kukui street [Honolulu], and shook up things in general pretty lively. The Captain says the shock lasted 30 seconds; Monday night [Oct. 15], at eight minutes of six o'clock, a slight shock of earthquake was felt in this city [Honolulu]. Mr. George Beckley, who timed the shock at his residence on King street, says that it lasted for about two seconds, and was strong enough to shake his house sensibly. The shock was also felt at Messrs. Geo. W. Macfarlane & Co.'s premises in Fort street; A heavy shock of earthquake was felt here [Honokaa] on last Monday evening [Oct. 15]; . . . the shock of earthquake felt in Honolulu on Monday evening the 15th instant, was also experienced throughout Maui, and a similar report has reached us from Hawaii	HDB, 10/17/1883, p. 3; PCA, 10/20/1883, p. 5; PCA, 10/22/1883, p. 2; PCA, 10/27/1883, p. 5; region/magnitude assigned by analogy with earthquakes of June 16, 1940 and March 20, 1927 (W&K)
10/23/1883	21:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 9 in the evening; Warshauer notes: Hilo had a slight earthquake on Tuesday evening [Oct. 23] at nine o'clock	Wyss and others, 1992, p. 21; HG, 10/31/1883, p. 3
11/14/1883	9:59					maui?						III	Warshauer notes: A slight shock of earthquake was felt in Wailuku on the morning of the 14th [not reported felt on oahu or hawaii] [time assumed]	HG, 11/21/1883, p. 3
12/20/1883	21:00					south hawaii?				5.6	int	5.5 (Hilo-Cox); V (W&K)	Lyman notes: A sudden, decided, smart shake at 9 P.M.	Wyss and others, 1992, p. 21; not found in PCA or HG
4/19/1884	12:00					south hawaii?				5.4	int	5.2 (Hilo-Cox)	Lyman notes: Quite a protracted but not a severe shake at 12 M [sic-N? to agree with newspaper]. Have felt no other this year, tho' I have heard of others feeling some slight shocks; Warshauer notes: Quite a sharp shock of earthquake was felt at Hilo on Saturday, April 19th, at 12 o'clock noon	Wyss and others, 1992, p. 21; HG, 4/30/1884, p. 3
8/21/1884	3:00					south hawaii?				5.3	int	V; 3.7 (Hilo-Cox)	Lyman notes: a respectable shake at 3 AM	Wyss and others, 1992, p. 21; not found in PCA or HG
8/28/1884	21:59					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: two moderate shakes in the night [time assumed]	Wyss and others, 1992, p. 21; not found in PCA or HG
9/06/1884	4:15					south hawaii?				5.6	int	5.5 (Hilo-Cox)	Lyman notes: one quite smart one about the 11th Sept [assume newspaper date of Sept. 6]; Warshauer notes: Quite a shock of earthquake occurred in Hilo on Saturday morning at 4:15? [hard to read] o'clock	Wyss and others, 1992, p. 21; HG, 9/10/1884, p. 3

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/15/1884	19:30					kl cal 0-5				3.8	int	V	While sitting on the bank of New Lake about 7:30 p.m. felt two shocks of earthquake, soon after several hundred feet of the bank of New Lake fell in	VHR, v. 2, Henry H. Williams entry dated 9/15/1884
9/19/1884	7:30					east hawaii?							Warshauer notes: It is reported from Onomea that a shock of earthquake was felt there on the 19th instant. Three men were thrown from the roof of a house which they were shingling, and seriously hurt; Onomea had a severe shake up on the morning of the 20th ult between the hours of 7 and 8 o'clock, the effects of an earthquake [assume same event at PCA date and HG time]	PCA, 9/25/1884, p. 3; HG, 10/1/1884, p. 3
9/30/1884	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: there were several slight shocks during September [no date or time]	Wyss and others, 1992, p. 21; not found in PCA or HG
11/05/1884	13:00					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake at 1 PM	Wyss and others, 1992, p. 21; not found in PCA or HG
11/18/1884	13:00					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: a decided shake at 1 PM	Wyss and others, 1992, p. 21; not found in PCA or HG
11/21/1884	1:00					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: one decided shake at 1 AM	Wyss and others, 1992, p. 21; not found in PCA or HG
12/10/1884	9:00					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: a smart shock at 9 o'clock A.M.; Warshauer notes: A sharp shock of earthquake was felt at Hilo on Wednesday morning [Dec. 10] at five minutes to nine	Wyss and others, 1992, p. 21; HG, 12/17/1884, p. 3
1/13/1885	6:30	20	0	155	10	mauna kea deep?	35.0	≥6	W&K	6.1	k&w	VII (Honokaa, hilo); VI-VII (Maui); V (Hon); VI (S&C); 5.0 (Hilo-Cox); IV (W&K-Hon, hawaii)	Cox notes: severe both leeward and windward oahu; severe at Honokaa; some damage at Kahului; Lyman notes: A hard protracted shake at early dawn. It was of the kind which may be called intermittent and which makes one nervous not knowing what the end may be, as it gains strength by each successive renewal. This was more protracted than usual; Warshauer notes: In Honolulu a sharp earthquake shock commenced at 5:59 am, lasting 15 s. The feeling was of a heavy blow under foundation of houses, followed by rattling of small articles on shelves, banging of doors and other sounds. No premonitory sounds, nor did it pass off in any given direction. . . . most violent in [Nuuanu] valley, wave traveled from north to south. Several pendulum clocks stopped, two that swung north to south, one east to west. A glass door facing west swung open, though the door generally sticks at the bottom. . . in lower part of town clocks and flow from the Artesian wells not disturbed. It is nearly five years since Honolulu has felt as severe a shock	Cox, 1986; Wyss and others, 1992, p. 21; Wyss and Koyanagi, 1992; PCA, 1/14/1885, p. 3; Intensity map in W&K; region/magnitude assigned from new isoseismal map; analogy to earthquake of April 26, 1973 (W&K)

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/13/1885	6:30	do	do	do	do	do	35.0	do	do	6.1	do	do	Warshauer notes: A report of a 60-foot high wave that dislodged rock and earth from the cliffs back of Laupahoehoe; The earthquake shock was more severe on the north side of Hawaii than here. The high wave felt at Laupahoehoe was, no doubt, due to the earthquake . . . Kohala, Jan. 15, 1885. . . . A sharp, and long shock of earthquake did not allow our citizens to over-sleep on Tuesday morning. . . Hilo, Jan. 14, 1885. On the 13th instant, at 6:20 am, the people of this place were startled by an earthquake--the heaviest since 1868. There was not much damage done; some glass and crockery were broken, stone walls more or less damaged, and people scared. [The correspondent had to hold on to a bed post to keep from going across the room]. It lasted long enough . . . A few seconds more would have done great damage here; there was no disturbance of the tides. On the Hamakua coast . . . the shock was felt very severely.	PCA, 1/19//1885, p. 3
2/04/1885	9:59					north hawaii?						III	Warshauer notes: A slight earthquake was felt here [Kohala] Wednesday morning [Feb. 4] [time assumed]	PCA, 2/9/1885, p. 3
2/05/1885	5:45					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: a moderate shake [no time]; Warshauer notes: A slight shock of earthquake visited Hilo on Thursday morning February 5th at a quarter of six o'clock, rousing all who had not already risen for their early meal.	Wyss and others, 1992, p. 21; HG, 2/11/1885, p. 3
2/23/1885	21:00					south hawaii?				5.4	int	5.3 (Hilo-Cox); V (W&K)	Lyman notes: A pretty smart shake (preceded by a slight one) at 9 P.M. ending with a protracted trembling; Warshauer notes: Hilo was visited by an earthquake on Monday evening, Feb. 23d, at 25 minutes past nine o'clock. Shock plainly felt, no damage.	Wyss and others, 1992, p. 21; HG, 3/4/1885, p. 3
3/04/1885	9:59					south hawaii?						III	Warshauer notes: Slight shock of earthquake on the morning of the 4th inst. at Hilo. No damage [time assumed]	HG, 3/11/1885, p. 3
4/15/1885	11:57					south hawaii?				3.8	int	IV	Warshauer notes: A sharp shock of earthquake was felt at Hilo on Wednesday April 15th at three minutes of twelve o'clock.	HG, 4/15/1885, p. 3
12/07/1885													Lyman notes: Mother [Sara Joiner Lyman] died. (Lyman earthquake diary continued by B.C.L.)	Wyss and others, 1992, p. 21
12/12/1885	0:45					south hawaii?				5.3	int	V (W&K); 5.5 (Hilo-Cox)	Lyman notes: 1/4 of 1: o'clock A.M. one smart shake	Wyss and others, 1992, p. 21; not found in PCA or HG
12/19/1885	4:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: 1/4 of 5. A.M. slight shake	Wyss and others, 1992, p. 21; not found in PCA or HG [missing 12/29/1885-1/6/1886]
1/19/1886	12:40					south hawaii?				3.5	int	III-IV	Lyman notes: slight shock at 20 mts. to one. P.M. Warshauer notes: Quite a shock of earthquake was felt in Hilo on Tuesday, January [unintelligible-assume 1/19, 12:40] pm	Wyss and others, 1992, p. 21; HG, 1/26/1886, p. 3; not found in PCA [HG microfilm nearly illegible in this period]
1/20/1886	5:30					kilauea?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: At half past 5 A.M. one decided shock [earthquake swarm premonitory to the draining of Halemaumau in March?]	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/20/1886	5:35					kilauea?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: followed by another in five minutes [do]	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]
1/20/1886	5:44					kilauea?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: then another 8 or 10 mts. after [do]	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]
1/20/1886	6:45					kilauea?				3.8	int	IV; 5.2 (Hilo-Cox)	Lyman notes: still another 1 hour after [do]	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]
2/02/1886	am					maui?				4.5	int	IV-V	Warshauer notes: A rather severe shock of earthquake was felt early last Tuesday morning [Feb. 2] at Honolulu, East Maui.	PCA, 2/8/1886
2/13/1886	20:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: one slight shock 8 1/2. P.M. Sat. Eve.	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]
2/26/1886	17:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes:5.P.M. slight shock	Wyss and others, 1992, p. 21; not found in PCA or HG [HG microfilm nearly illegible in this period]
3/06/1886	21:30					kilauea?				4.5	int	VI (kilauea summit); 4.6 (Hilo-Cox)	Earthquake swarm and draining of lava from Halemaumau. Lyman notes:1 quake during the night in Hilo [summarizes Maby info]; breakdown [collapse] and 43 earthquakes; no eq felt at Keauhou, 2 felt at Kapapala; 43 earthquakes lasting until 7:30 a.m. March 7; the first 3 slight, the 4th quite severe [felt-Hilo, Kapapala, see above]; all fire disappeared from New Lake and by 2-3 am, Halemaumau; several rents in the ground, 1 on road to Kilauea Iki, and 3 on Keauhou road; March 10. No fire in crater that can be seen from the House. During the shaking here there was nothing felt at Keauhou, and only two shakes felt at Kapapala ranch. . . .	Wyss and others, 1992, p. 21; Wood, 1917 chart 1, p. 117; VHR, v. 3, 3/6 entry; VHR, v. 3, quoted letter from J.H. Maby to S.G. Wilder, dated 3/6/1886; HDB, 3/30/1886, p. 2 [Earthquake swarm largely associated with collapse (kl cal 0-10?) and upper east or southwest rift intrusion. The largest events, those felt in Hilo or Kapapala are probably south flank response]
3/06/1886	21:30					do				4.5	do	do	Earthquake swarm [summit, east rift zone intrusion?, south flank response] and draining of lava from Halemaumau. Warshauer notes: Saturday evening (March 6th) both the Old and New lakes were unusually full and brilliant looking from the house, and remained so until 9:30 pm of the 6th instant, at which time there commenced a series of earthquakes, forty-three in number, lasting until 7:30 am of the 7th. The first three were slight, and the fourth one quite severe; and on looking out upon the crater, all fire had disappeared from the New Lake. At about 2 or 3 am the fire had also disappeared from Halemaumau.	PCA, 3/15/1886, p. 2 [Maby, 1886]; HDB, 3/15/1886, p. 3

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/07/1886	7:30					do							Earthquake swarm ends. Warshauer notes: On the morning of the 7th, after the mist and smoke had cleared away, it was discovered that all the bluffs surrounding Halemaumau had disappeared during the night. they and the path formerly traveled to go from the New Lake to the old one, and quite a piece of the mountain side of the Old Lake, had all fallen away, forming one large chasm. There have also been several rents in the ground, one on the road to Kilauea Iki, and three on the Keauhou road. Two of them were cracks across the road, which I have bridged over. The other is a large hole where there was a cave, and the road bed had all fallen in. I have cut a new path around it. No other damage has been done that I have heard up to writing.	PCA, 3/15/1886, p. 2 [Maby, 1886]; HDB, 3/15/1886, p. 3
3/09/1886	11:59												Warshauer notes: March 9th, am. No signs of fire. . . . The ground or lava still seems to be sinking [no time given]	HDB, 3/30/1886, p. 2
3/10/1886	11:59												Warshauer notes: [from Maby] There has been only one slight shock of earthquake since the first night [no time given]	HDB, 3/30/1886, p. 2
3/17/1886	21:59					ml wf?				3.8	int	V; III (coast)	Warshauer notes: summit eruption reported [Mokuaweoweo]; Earthquake shocks are reported from Kona as having occurred on the night of Wednesday, March 17th. The tremor was slight near the shore, but severe inland, near Mr. Roy's dairy. No damage has been reported. . . . [time assumed]	PCA, 3/25/1886, p. 2; PCA, 3/29/1886, p. 2
3/18/1886	21:59												Warshauer notes: . . . Mr Maby, of the Volcano House, writes that there was fire in the crater . . . . A bright reflection appeared in the sky, apparently over the crater, on Thursday night [Mar. 18], visible at Mahukona. the Kau mailman reports a large fissure on the road to Kona [time assumed]	HBB, 3/20/1886, p. 3
3/19/1886	9:15					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: 1 slight shock felt in Hilo at 9:15. A.M.	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
3/20/1886	10:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock 10 AM	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
3/23/1886	9:59												Warshauer notes: on Tuesday morning [Mar. 23], the guide pointed out, on a high ridge toward Puna, at least twelve miles from the Volcano, steam issued in large volume from craters of old standing; Green describes native reports of chasms opening in Puna with some evidence of associated heat [suggests east rift intrusion accompanying caldera draining] [time assumed]	HDB, 3/27/1886, p. 4; HG, 3/23/1886 [Green, 1886]
4/14/1886	23:59												Warshauer notes: The area that collapsed in March shows signs of increased smoke, dating from Apr. 10, but no fire yet [Apr. 14]	HDB, 4/17/1886, p. 2

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/23/1886	21:59					mauna kea?				5.3	int	V	Warshauer notes: The Schooner Kulamanu returned from Kukaiau, Hamakua, Hawaii, yesterday, and reports heavy earthquakes at that place last Friday night [Apr. 23], and also on Sunday [Apr. 25] at noon. The rocks, in vast quantities rolled down the steep precipices. [Two persons were injured; felt-Waimea, not Hilo--see entry for 4/29/1886]] [time assumed]	PCA, 4/30/1886, p. 3
4/25/1886	12:00					mauna kea?						III	Warshauer notes: do	PCA, 4/30/1886, p. 3
4/29/1886	3:30					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: At half past 3. A.M. 1 shock from the direction of the volcano [Kilauea] to the sea	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
4/29/1886	13:00					mauna kea?				3.8	int	IV	Lyman notes: one sharp shock felt at Waimea at 1 o'clock. P.M.; also one earlier in the month not felt here	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
5/8/1886													Return of lava to Halemaumau. For the full months of March and April no fire in crater; returned on 8 May	VHR, v. 3, 5/8 entry
7/28/1886	3:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Cox date is 6/28; Lyman notes: A slight earthquake about 3. A.M. 2 shocks	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
8/01/1886	0:20					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Cox time is 12:20 pm; Lyman notes: 20 mts. after 12 M. a slight shock	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
8/17/1886	11:00					kl cal 0-5?						III	Warshauer notes: There was an earthquake at 11 this morning [felt at Volcano House]	HDB, 8/21/1886, p. 3
10/18/1886	18:40					south hawaii?				5.6	int	V-VI	Lyman notes: 20 mts. of 7. P.M. two shocks first a slight tremble second quite hard; Warshauer notes: the Steamer W.G. Hall, which arrived Friday afternoon [Oct. 22] brought intelligence of two light shocks of earthquake, which occurred in rapid succession and were felt in the Kau district, on Hawaii [same event?]	Wyss and others, 1992, p. 21; PCA, 10/25/1886, p. 2
10/19/1886	4:30					south hawaii?				3.8	int	IV	Lyman notes: one slight shock	no mention in VHR entry for this day
10/20/1886	0:00					hawaii				3.8	int	IV	Lyman notes: Near midnight one quite long shock [probably same event as newspaper reference below]	Wyss and others, 1992, p. 21; not found in PCA or HG [microfilm difficult to read]
10/21/1886	23:45					south hawaii?				5.9	int	VI	Warshauer notes: Quite a shock of earthquake was felt in Hilo, on Friday night, Oct. 21st [sic, either Thursday, 21st or Friday 22nd], at quarter of twelve o'clock. It was severe enough to stop clocks at that hour and also to throw down dishes and other articles from shelves in some of the residences	HG, 11/9/1886, p. 5
11/19/1886	14:30					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: 2:30. P.M. two shocks: first up and down, second waving; Warshauer notes: Several slight shocks have been felt recently	Wyss and others, 1992, p. 21; HG, 11/30/1886, p. 5
11/19/1886	21:00					south hawaii?				3.8	int	IV	Warshauer notes: A sharp shock of earthquake was felt at Hilo, on Friday, Nov. 19th, at 9 pm. Several slight shocks have been felt recently	HG, 11/30/1886, p. 5

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/31/1886	23:59												Warshauer notes: The atmosphere of Honolulu was charged with smoke seemingly volcanic in origin during Sunday [Dec. 26, 1886; 3 weeks before Mauna Loa eruption on Jan. 16, 1887]. Rev. S.E. Bishop telephoned the expression of his opinion that the indications signify fresh volcanic action on the island of Hawaii. That gentleman drew attention to a similar phenomenon two years ago with the same view of its cause, and the event proved his surmise abundantly correct; . . . Ever since early in December last [1886], there has been a steady increase in the number and heaviness of the earthquake shocks	HG, 1/1/1887, p. 5; HG, 2/1/1887, p. 8 [Hitchcock, 1887a]
1/11/1887	1:20					mauna loa				5.6	int	5.2 (Hilo-Cox)	Lyman notes:1:20. A.M. one sharp shock; Warshauer notes: quite a severe earthquake was felt at Hilo on the 11th inst. at 1 am [precursor to Mauna Loa eruption?]	Wyss and others, 1992, p. 21; PCA, 1/17/1887, p. 2
1/12/1887	23:59					mauna loa						III	Warshauer notes: . . . About the 12th of January, [earthquake shocks felt at Hilo] had increased to an average of about three a day . . .	HG, 2/1/1887, p. 8 [Hitchcock, 1887a]
1/13/1887	5:00					oahu				5.3	int	5.0 (Oahu)?		Cox, unpub.
1/16/1887	16:15					mauna loa						3.0 (Hilo-Cox)	Lyman notes:4:15. P.M. one slight shock	Wyss and others, 1992, p. 21
1/16/1887	20:20												Mauna Loa summit eruption: Lyman notes: The first light was seen on Sunday the 16th, and was not seen again till Tuesday; Warshauer notes: Last evening [1/16] at 4:40 pm I noticed smoke on the south slope of Mauna Loa, thinking at the time it was clouds. At 8:20 pm the fire broke out . . . and remained in sight up to 11 pm, when the light disappeared. . . . On Sunday, January 15th [sic-16th], at two or three minutes to nine a.m.[sic-pm] . . . a stream of fire . . . from Mokuaweoweo. It lasted until eleven o'clock; [At Pahala] The light vanished, as suddenly as it appeared about 11:30 p.m, and we had six terrific earthquake shocks between that and morning, not counting the trembling and occasional jerks, which were constant; Jones notes: Sunday January 16, 1887, fire was noticed on the summit of Mauna Loa, near Mokuaweoweo. It was seen first about 8 pm, but died out in a couple of hours	Wyss and others, 1992, p. 22; PCA, 1/24/1887, p. 2; HG, 2/1/1887, p. 1; Jones, 1887a
1/17/1887	0:00												Warshauer notes: [At Hilo] on the 14th, 15th and 16th, shocks were heavier and heavier, until on Saturday [sic-Sunday], the 16th, about midnight, came the heaviest shock yet felt [see entry for 2:12 1/17 below]. The motion was long and wavy from a little west of south to the east of north. That night the summit crater of Mauna Loa blazed forth for a few hours and disappeared, and not long after the heavens were lighted with a brilliant reflection from the lava as it ran down the Kau side of the mountain. . . .	HG, 2/1/1887, p. 8 [Hitchcock, 1887a]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/17/1887	2:12					ml swr?				5.6	int	VI (pahala); V-VI (hilo, kahuku)	Jones notes: On January 17, an earthquake swarm began with three quite severe earthquake shocks between 2 and 3 am, the first that have been felt for some time; Warshauer notes: The earthquake shocks began at 2:12 a.m. of the 17th ; . . . and we had six terrific earthquake shocks [at Pahala] between that and morning, not counting the trembling and occasional jerks, which were constant	Jones, 1887a; HG, 2/1/1887, p. 1 [Jones, 1887b; Anonymous, 1887]; HDH, 1/26/1887
1/17/1887	2:12					do				5.6			Jones notes: Kahuku Ranch, January 21st, 1887--The earthquake shocks began at 2:12 a.m. of the 17th, and up to 7 p.m. we had 100.--As I knew that they indicated an eruption, I sat up all night taking a record of the shocks, and squints of the mountain side. At 4:00 a.m. of the 18th, my count had reached 314, and during the day and until 12 midnight 67 were added. On the 19th we had but two and no more since. This was a total of 383 well defined shocks, strong enough to make an open door tap, tap, tap against a partition. There were probably as many more slight tremors and jars, many of which were noticed, but which I did not register, as I preferred to hear the tapping of the door indicate the shock as of some force.	Jones, 1887a-d; HG, 2/1/1887, p. 1; Honolulu Daily Herald [HDH], 1/26/1887 [Specific times and intensities are given, as recorded at the Kahuku ranch, south Kona. Terms used are "light," "hard," "quite heavy," and "severe." We assume corresponding intensities of IV, V, V-VI, and VI]
1/17/1887	2:30					ml swr?				5.6	int	V-VI (kahuku)	do	do
1/17/1887	2:45					ml swr?				5.6	int	V-VI (kahuku)	do	do
1/17/1887	3:00					ml swr?				5.3	int	V (pahala); IV (kahuku)	do	do
1/17/1887	4:00					ml swr?				5.3	int	V (pahala); IV (kahuku)	do	do
1/17/1887	5:00					ml swr?				5.3	int	V (pahala); IV (kahuku)	do	do
1/17/1887	14:30					hilea?				5.9	int	VI (Pahala); V-VI (Kahuku); 5.2 (Hilo-Cox)	Lyman notes: At 2:30 P.M. one decided shock preceded by two slight shocks; Warshauer notes: not less than seven distinct shocks being felt there, on Monday Jan. 17; [Pahala, Jan 17th, day] big shocks seemed as though they meant to take the house down. . . then came a shock that was worse than what we had experienced already	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8; HG, 2/1/1887, p. 1; HDH, 1/26/1887
1/17/1887	16:00					hilea?				4.5	int	IV-V (kahuku); 4.6 (Hilo-Cox); III (hilo)	Lyman notes: Another shake at 4 P.M.; Warshauer notes: not less than seven distinct shocks being felt there [hilo], on Monday Jan. 17	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8
1/17/1887	16:20					hilea?				4.5	int	IV-V (kahuku); 4.6 (Hilo-Cox); III (hilo)	Lyman notes: Still another at 4:20, a long but slight shake; Warshauer notes: not less than seven distinct shocks being felt there [hilo], on Monday Jan. 17	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8
1/17/1887	16:45					hilea?				4.5	int	IV-V (kahuku); 4.6 (Hilo-Cox); III (hilo)	Lyman notes: Another at 4:45; Warshauer notes: not less than seven distinct shocks being felt there [hilo], on Monday Jan. 17	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/17/1887	19:00					hilea?				5.6	calc	IV*100-(6)	Jones notes: A number more [earthquakes] were noticed during the morning, and in the afternoon they increased rapidly. Up to 7 pm 100 were counted; Jones notes: 97 earthquakes from 3 am to 7 pm. With one exception [see 14:30 above] all were light	HG, 2/1/1887, p. 1 [Jones, 1887b]; HDH, 1/26/1887
1/17/1887	20:00					hilea?				5.1	calc	IV*29	Jones notes:29 light earthquakes between 7 and 8 pm	HDH, 1/26/1887
1/17/1887	21:00					hilea?				5.1	calc	IV*25	Jones notes:25 light earthquakes between 8 and 9 pm	HDH, 1/26/1887
1/17/1887	21:15					hilea?				5.2	int	V	Jones notes: one hard and long	HDH, 1/26/1887
1/17/1887	21:30					hilea?				4.8	calc	IV*11	Jones notes:11 light earthquakes between 9 and 9:30 pm	HDH, 1/26/1887
1/17/1887	21:45					hilea?				5.2	int	V	Jones notes: one hard	HDH, 1/26/1887
1/17/1887	22:00					hilea?				5.0	calc	IV*20	Jones notes:20 light earthquakes between 9:30 and 10 pm	HDH, 1/26/1887
1/17/1887	22:30					hilea?				5.0	calc	IV*19	Jones notes:19 light earthquakes between 10 and 10:30 pm	HDH, 1/26/1887
1/17/1887	22:45					hilea?				5.2	int	V	Jones notes: one hard	HDH, 1/26/1887
1/17/1887	23:00					hilea?				5.0	calc	IV*20	Jones notes:20 light earthquakes between 10:30 and 11 pm	HDH, 1/26/1887
1/17/1887	23:30					hilea?				5.0	calc	IV*16	Jones notes:16 light earthquakes between 11 and 11:30 pm	HDH, 1/26/1887
1/17/1887	23:55					hilea?				5.8	int	VI (kahuku); 5.3 (Hilo-Cox)	Lyman notes:2 long but not heavy shocks at 5 min. of 12 last night; Warshauer notes: The shock of Monday night--occurring at quarter of twelve o'clock--was particularly heavy; Jones notes:4 severe [2 quakes, each with two phases?]	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8; HDH, 1/26/1887
1/18/1887	0:00					hilea?				5.0	calc	IV*19	Jones notes:19 light earthquakes between 11:30 pm and midnight	HDH, 1/26/1887
1/18/1887	0:05					hilea?				5.8	int	VI (kahuku); III (hilo)	Lyman notes: Near 12 M a slight shock; Warshauer notes: not less than seven distinct shocks being felt there, on Monday Jan. 17; Monday night [Pahala, Jan. 17] was literally a night of terror, and we felt as though we couldn't live through any more, the heavy shocks were nearly as continuous as the trembling had been for four hours, there was no pause longer than five minutes or often only three between the shocks, and sometimes three succeeded each other like ocean waves; Jones notes: From [7 pm] until midnight there was often not one minute's interval between them; Jones notes:4 severe [2 quakes, each with two phases?]	Wyss and others, 1992, p. 21; HG, 1/25/1887, p. 8; HG, 2/1/1887, p. 1; Jones, 1887a; HDH, 1/26/1887
1/18/1887	0:15					hilea?				5.2	int	V (Kahuku)	Jones notes:2 hard [1 quake with two phases?] earthquakes between midnight and 12:30 am	HDH, 1/26/1887
1/18/1887	1:00					hilea?				4.7	calc	IV*10	Jones notes:10 light earthquakes between 12:30 and 1 am	HDH, 1/26/1887
1/18/1887	1:30					hilea?				4.6	calc	IV*8	Jones notes: 8 light earthquakes between 1 and 1:30 am	HDH, 1/26/1887
1/18/1887	2:00					hilea?				4.4	calc	IV*4	Jones notes:4 light earthquakes between 1:30 and 2 am	HDH, 1/26/1887

1823-1903cat.xls

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/18/1887	2:30					hilea?				4.1	calc	IV*2	Jones notes:2 light earthquakes between 2 and 2:30 am	HDH, 1/26/1887
1/18/1887	3:00					hilea?				4.1	calc	IV*2	Jones notes:2 light earthquakes between 2:30 and 3 am	HDH, 1/26/1887
1/18/1887	3:30					hilea?				3.8	int	IV (kahuku)	Jones notes:1 light earthquake between 3 and 3:30 am	HDH, 1/26/1887
1/18/1887	4:00					hilea?				5.9	calc	IV*214-(2)	Jones/Warshauer notes: at 4 am of the 18th, 314 distinct shocks had been recorded; Jones notes:4 light earthquakes between 3:30 and 4 am	Jones, 1887a; HG, 2/1/1887, p. 1 [Jones, 1887b]
1/18/1887	8:30					hilea?				4.4	calc	IV*5	Jones notes:5 light earthquakes between 8 and 8:30 am	HDH, 1/26/1887
1/18/1887	9:00					hilea?				4.7	calc	IV*10	Jones notes:10 light earthquakes between 8:30 and 9 am	HDH, 1/26/1887
1/18/1887	9:30					hilea?				4.6	calc	IV*7	Jones notes: 7 light earthquakes between 9 and 9:30 am	HDH, 1/26/1887
1/18/1887	10:00					hilea?				4.1	calc	IV*2	Jones notes:2 light earthquakes between 9:30 and 10 am	HDH, 1/26/1887
1/18/1887	10:30					hilea?				4.6	calc	IV*7	Jones notes: 7 light earthquakes between 10 and 10:30 am	HDH, 1/26/1887
1/18/1887	11:00					hilea?				4.5	calc	IV*6	Jones notes: 6 light earthquakes between 10:30 and 11 am	HDH, 1/26/1887
1/18/1887	11:30					hilea?				4.4	calc	IV*4	Jones notes:4 light earthquakes between 11 and 11:30 am	HDH, 1/26/1887
1/18/1887	12:00					hilea?				4.6	calc	IV*7	Jones notes: 7 light earthquakes between 11:30 and noon	HDH, 1/26/1887
1/18/1887	12:30					hilea?				4.2	calc	IV*3	Jones notes:3 light earthquakes between noon and 12:30 pm	HDH, 1/26/1887
1/18/1887	13:00					hilea?				4.1	calc	IV*2	Jones notes:2 light earthquakes between 12:30 and 1 pm	HDH, 1/26/1887
1/18/1887	13:30					hilea?				5.8	int	5.2 (Hilo-Cox)	Lyman notes: At 1:30 P.M. a long shock; Jones notes: hardest yet	Wyss and others, 1992, p. 22; HDH, 1/26/1887; HDH, 1/26/1887; not in PCA or HG
1/18/1887	14:00					hilea?				4.4	calc	IV*5	Jones notes:5 light earthquakes between 1:30 and 2 pm	HDH, 1/26/1887
1/18/1887	14:30					hilea?				4.1	calc	IV*2	Jones notes:2 light earthquakes between 2 and 2:30 pm	HDH, 1/26/1887
1/18/1887	16:00					hilea?				6.1	int	VII (kahuku); V (hilo)	Warshauer notes: Earthquakes occurred at Hilo on the 18th instant at 4 pm and 11 pm, and were quite severe; Jones notes: most severe of any occurred [time between 4 and 4:30 pm], no more until 8:30 pm	PCA, 1/24/1887, p. 2; HDH, 1/26/1887
1/18/1887	16:00					do				6.1	calc	IV*3	Jones notes:3 light earthquakes between 3:30 and 4 pm	HDH, 1/26/1887

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/18/1887	19:00					hilea?				5.4	calc	III-IV*129	Mauna Loa southwest rift eruption. Jones notes: At 7 pm the eruption began in good earnest. The starting point is on the slope of Mauna Loa, about a mile to the north and a little above the well know extinct crater called Halepohaha. . . . The new crater is perhaps twenty miles from the sea and about ten north-west and above the fissure from which poured out the lava flow of 1868. . . . ; Warshauer notes: At 7 p.m. of the 18th . . . the lava burst out about ten miles N.N.W. of my ranch buildings, and has been running ever since . . . and during the day and until 12 midnight 67 [earthquakes] were added; . . . up to 7 o'clock Tuesday night [Jan. 18] we had 508 earthquakes [at Hilea], then we gave up counting. On Tuesday 4 p.m., smoke was seen on the slopes of Mauna Loa, and fire at 7 p.m.	Jones, 1887a; HG, 2/1/1887, p. 1 [Jones, 1887b]; HG, 2/1/1887, p. 8; intensities estimated for earthquakes counted at Pahala in excess of Jones' count at Kahuku
1/18/1887	21:00					hilea?				3.8	int	IV (kahuku)	Jones notes: 1 light earthquake between 8:30 and 9 pm	HDH, 1/26/1887
1/18/1887	23:00					hilea?				5.3	int	V	Warshauer notes: Earthquakes occurred at Hilo on the 18th instant at 4 pm and 11 pm, and were quite severe	PCA, 1/24/1887, p. 2
1/18/1887	23:30					hilea?				4.1	calc	IV*2	Jones notes: 2 light earthquakes between 11 and 11:30 pm	HDH, 1/26/1887
1/18/1887	23:59					hilea?				5.4	calc	IV*67-(3)	Jones notes: [earthquakes] continued, although fewer in number, until midnight; Warshauer notes: . . . during the day [1/18] and until 12 midnight 67 were added	Jones, 1887a; HG, 2/1/1887, p. 1 [Jones, 1887b]
1/19/1887	1:00					hilea?				5.8	int	IV (kahuku)	Jones notes: quite heavy	HDH, 1/26/1887
1/19/1887	11:30					hilea?				3.8	int	IV (Kahuku)	Jones notes: 1 light earthquake	HDH, 1/26/1887
1/19/1887	12:00					ml wf??				5.3	int	V	Warshauer notes: Long shakes at intervals of one or two hours throughout the day [at Kaawaloa]. While I write, my table rocks so that it is with considerable difficulty that I can keep my seat and hold my pen; On the 19th we had but two [at Kahuku] . . .	HG, 1/25/1887, p. 8 [Paris, 1887]; HG, 2/1/1887, p. 1 [Jones, 1887b]; times assumed
1/19/1887	16:15					ml wf??				5.6	int	V-VI (kaawaloa, kahuku)	Warshauer notes: Long shakes at intervals of one or two hours throughout the day [at Kaawaloa]. While I write, my table rocks so that it is with considerable difficulty that I can keep my seat and hold my pen; On the 19th we had but two [at Kahuku] . . . ; Jones notes: heavy	HG, 1/25/1887, p. 8 [Paris, 1887]; HG, 2/1/1887, p. 1 [Jones, 1887b]; HDH, 1/26/1887
1/19/1887	21:59					ml wf??						III	Warshauer notes: This morning we shut in with volcanic smoke. Only 3 shakes during the night (gentle) [at Kaawaloa, Kona] [time assumed]	HG, 1/25/1887, p. 8 [Paris, 1887]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/19/1887	23:59												Warshauer notes: For 36 hours [Jan 17-18, preceding the flank eruption] one continuous series of earthquakes [at Kaawaloa, Kona]. Tremulous jars, with pretty hard shakes interspersed, running into one another. Our home has seemed like a little cap or bubble, floating on the waves sometimes of a chopped sea. . . [Jan. 19] Long shakes at intervals of one or two hours throughout the day. While I write, my table rocks so that it is with considerable difficulty that I can keep my seat and hold my pen; On the 19th we had but two [at Kahuku] and no more since [as of 1/21].	HG, 1/25/1887, p. 8 [Paris, 1887]; HG, 2/1/1887, p. 1 [Jones, 1887b]; 36 hours suggests that the pre-eruption earthquakes began to be felt later at Kaawaloa than at Kahuku
1/21/1887	18:59					hilea?				5.3	int	V	Warshauer notes: [communication dated 1/22/1887] We have only two or three heavy shocks a day now [at Pahala] though frequent tremblings, and last evening [Jan. 21] a very long shock that swayed the house back and forth making us sick and dizzy [time assumed]	HG, 2/01/1887, p. 1
1/21/1887	20:00					hilea?				3.8	int	IV (kahuku)	Jones notes: light	HDH, 1/26/1887
1/22/1887	9:15					hilea?				3.8	int	IV (kahuku)	Jones notes: At 9:15 am [Jan. 22 at Kahuku] had a peculiar earthquake. All of the others have been from a northerly to a southerly direction and without noise. This was apparently from east to west, and although the jar was light, it was accompanied by a rattle similar to that produced by running a stick along a picket fence; light but noisy	Jones, 1887a; HDH, 1/26/1887
1/22/1887	10:15					hilea?				3.8	int	IV (kahuku)	Jones notes: 1 light earthquake	HDH, 1/26/1887
1/23/1887	12:00					hilea?							Jones notes: light all the time between 11 am and noon; a total of 388 quakes tabulated from 2:12 am 1/17 to now	HDH, 1/26/1887
1/23/1887	20:55					hilea?				3.8	int	IV	Onset of earthquake swarm. Warshauer notes: Since 8:55 p.m. [Hilea plantation, Jan. 24, 1 pm], we have had a frightful series of earthquakes, and they still continue. As yet I do not know the amount of damage that the shocks have caused, but I know that stone walls have suffered severely, and a large amount of crockery has been broken	HG, 2/1/1887, p. 1, 8 [Spencer, 1887]
1/23/1887	23:20	19	24	155	30	hilea?				6.1	int	VII (kahuku); VI-VII (pahala); V (hilo)	Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]; [At Pahala] We had two very heavy severe shocks of earthquake about 11:00 last night that did us considerable damage; [At Hilo] The first shake was a rouser, at 11:18 o'clock p.m., followed five minutes later by another more terrible than the first . . . determined to tear windows and doors off houses, many ran outside, crockery/chimneys thrown down; Jones notes: most severe shock	PCA, 1/31/1887, p. 3; HG, 2/1/1887, p. 8 [Foster, 1887; Anonymous, 1887]; HDH, 1/26/1887

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/23/1887	23:30	19	24	155	30	hilea?		~6.5	w&k	6.5	int	VIII (W&K; S&C); 4.5 (Hilo-Cox)	Lyman notes: 11:27 at night a hard shake; [at volcano house] felt quite a severe shock of an earthquake at about 11 and until 12:30 more severe shocks were felt; clocks in the house stopped; Warshauer notes: Hilo-buildings shook, contents thrown down, clocks stopped; Kapapala-water tanks broke, building moved eight inches, stone fences thrown down, much more severe than at Hilo; Jones notes: Reports from Pahala, Punaluu and Naalehu-numerous and severe quakes, the one of 1/23, at 11:30 pm, that was experienced in Honolulu. A steamer off Punaluu steamed seaward to avoid repeat of 1868 tsunami. 4 or 5 buildings thrown down, cisterns broken, and the boilers at Pahala displaced; Dana notes: oscillations at Hilo from sse to nnw. According to Mr. F.L. Clarke, of the Government Survey, the walls that fell in Kau had a northeast and southwest direction and were thrown to the southeast, and the houses (light wooden buildings) were moved 8 to 10 inches in the same direction or down the slopes.	Cox, 1986; Wyss and others, 1992, p. 22; Wyss and Koyanagi, 1992; VHR, v. 3, John G. Eckhardt entry dated 1/24/1887; PCA, 1/31/1887, p. 3; HG, 2/1/1887, p. 8 [Foster, 1887; Anonymous, 1887--see above]; Jones, 1887a; Dana, 1887; Intensity map in W&K
1/23/1887	23:30	do	do	do	do	do		do	do	6.5	do	do	Warshauer notes: see above; 2nd quake shook things down all over Hilo; seemed as though houses would be shaken down; clocks stopped and bottles broken; much stronger at Kapapala-water tanks broke, building moved 8 in, stone fences thrown down; [At Pahala] Nearly all the work done in setting out new boilers was damaged, so that it will have to be done over again. The large iron tank at the mill was thrown down and a number of pipes broken about the mill. The Moaula and the new reservoir were badly damaged. The Whitney reservoir very little. Nearly all the houses on the slopes are off their underpinning. Last night was one of terror; Jones notes: another about as hard	PCA, 1/31/1887, p. 3; HG, 2/1/1887, p. 8 [Foster, 1887; HDH, 1/26/1887; see also bib
1/23/1887	23:30	do	do	do	do	do		do	do	6.5	do	do	Warshauer notes: We were however greatly astonished when on Sunday last the earth again became nervous, and when shock after shock came sabbath eve, each harder and more violent than the last, Hiloans began to think that the shake of 1868 was again to be enacted, and numbers availed themselves of their lanais in order to be ready for the next one. In twenty minutes nine shocks were felt, two of them being violent enough to shake down dishes, stop clocks, upset stoves, and set chandeliers to swinging. The one in my dining room had a swing of fifteen inches from the perpendicular and for two hours there were shocks heavy enough to keep it swinging. . .	HG, 2/1/1887, p. 8 [Hitchcock, 1887a]

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/23/1887	23:30	do	do	do	do	do		do	do	6.5	do	do	Warshauer notes: The principal shocks seemed to be from the interior of the mountain, with no rolling or undulating motion, but rather as severe blows directed outward. The effect produced was to throw down all the stone walls built along the side of the mountain, and running N.E. and S.W. [All] light wooden buildings, and the main dwelling were pushed eight or ten inches down hill, i.e. toward the S.E., by the shocks. . . crockery and other articles on shelves on the N.W. side of the house were thrown down . . . Some water pipes three miles up the mountain were broken and other damage done. At Pahala Mill . . . but little damage was done. A large water tank was dislodged from its foundation, falling toward the west. A boiler loosened and some steam connections broken. . . little damage to the stone walls, those that were tumbled down falling to the west. . . two of the springs, high up in the mountains . . . had disappeared since the earthquakes. Punaluu-no damage to speak of, Hilea--the shocks were much more numerous and violent.	HG, 2/14/1887, p. 2 [Clarke, 1887]
1/23/1887	23:30	do	do	do	do	do		do	do	6.5	do	do	Warshauer notes: Seven shocks of earthquake were felt in Kohala on the 23rd but, beyond giving the people a fright, no damage was done. At Laupahoehoe, nine shocks were felt the same night [1/23-24], a little after eleven. Two of these were quite severe. There have been light shocks ever since	HG, 2/1/1887, p. 8
1/23/1887	23:40					hilea?				5.6	int	5.5 (Hilo-Cox)	Cox date is 1/22; Lyman notes: At 20 min of 12 a hard shake; Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]; after [the second shock] a few very slight shocks were felt; [At Hilo, the first two shocks] were followed by numerous minor shakes, and half an hour later by a third heavy shock, but not as heavy as the two previous ones . . . oscillations south-southeast to north-northwest	Wyss and others, 1992, p. 22; PCA, 1/31/1887; VHR, v. 3, John G. Eckhardt entry dated 1/24/1887; PCA, 1/31/1887, p. 3; HG, 2/1/1887, p. 8 [Anonymous, 1887]
1/23/1887	23:45					hilea?				4.5	int	IV	Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]	PCA, 1/31/1887, p. 3
1/23/1887	23:51					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Cox date is 1/22; Lyman notes: At 9 min of 12 a slight shake; Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]	Wyss and others, 1992, p. 22; PCA, 1/31/1887
1/23/1887	23:54					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Cox date is 1/22; Lyman notes: At 6 min of 12 a slight shake; Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]	Wyss and others, 1992, p. 22; PCA, 1/31/1887
1/23/1887	23:57					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Cox date is 1/22; Lyman notes: At 3 min of 12 a slight shake; Warshauer notes: Hilo shook up by seven earthquakes, two slight [times not given for these]	Wyss and others, 1992, p. 22; PCA, 1/31/1887

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/24/1887	0:00					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Cox date is 1/23; Lyman notes: One at 12. long but slight	Wyss and others, 1992, p. 22
1/24/1887	0:08					hilea?				4.5	int	IV; 2.0 (Hilo-Cox)	Cox date is 1/23; Lyman notes: At 8 min past 12 another very slight	Wyss and others, 1992, p. 22
1/24/1887	9:30					kilauea?				4.5	int	V	this morning at 9:30 I was at the old crater of Kilauea Iki when I felt a severe shock, which was not however felt at the Volcano House; Jones notes: no shocks [at Kahuku] after daylight	VHR, v. 3, John G. Eckhardt entry dated 1/24/1887; HDH, 2/5/1887
1/24/1887	18:30					hilea?				4.5	int	IV; 4.5 (Hilo-Cox)	Lyman notes: Some felt a slight shake between 6 & 7 in the evening	Wyss and others, 1992, p. 22; not in PCA or HG
1/25/1887	0:30					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Lyman notes: A slight shock at 12:30 last night	Wyss and others, 1992, p. 22; not in PCA or HG
1/25/1887	3:30					hilea?				4.5	int	IV; 3.0 (Hilo-Cox)	Lyman notes: another at 3:30; Jones notes: quite a heavy jar [at Kahuku] followed by a lighter one	Wyss and others, 1992, p. 22; HDH, 2/5/1887; not in PCA or HG
1/26/1887	23:59												Warshauer notes: Last night [Jan 26] was the first that I've not felt a shock [at Hilo] since Saturday [sic-prob. Sunday night [Jan. 23]	HG, 2/1/1887, p. 8 [Hitchcock, 1887a]
1/28/1887	0:00					hilea?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: One shake near 12 last night	Wyss and others, 1992, p. 22; not in PCA or HG
1/31/1887	23:59					hilea?				4.5	int	IV	Warshauer notes: On January 31st, Mr. Spencer wrote: "The earthquakes are light and far between"; All through the past week, or since the heavy earthquake of Sunday night, Jan. 23d, there has been felt at Hilo a vast number of minor shakes, not less than a dozen a day of sufficient force to wake people from their slumber at night and often to rattle dishes, doors and windows	HG, 2/5/1887, p. 2; HG, 2/8/1887, p. 8
2/01/1887													Mauna Loa southwest rift eruption ends. The eruption was still in progress, as of January 30; Warshauer notes: As of February 1 the flow was no longer glowing	Jones, 1887; HG, 2/08/1887, p. 5 [Grieve, 1887]
2/02/1887	23:59												Warshauer notes: We are experiencing slight shocks almost every day and night, up to last night [Feb. 2]	HG, 2/15/1887, p. 1 [Bishop, 1887]
2/11/1887	21:59					hilea?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: . . . it was said that there was one last night [Feb. 11-12] [time assumed]	Wyss and others, 1992, p. 22; not in PCA or HG
2/12/1887	12:00					hilea?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: a shock about noon . . .	Wyss and others, 1992, p. 22; not in PCA or HG
2/16/1887	13:20					mauna loa?				4.5	int	IV; 3.0 (Hilo-Cox)	Lyman notes: One slight but rather long shock at 20 min past 1 [pm to agree with newspaper]; Warshauer notes: We had a smart shock of earthquake yesterday [Feb. 16], about 1 pm, which may have been the time it broke out [see below]	Wyss and others, 1992, p. 22; HG, 2/22/1887, p. 8

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/17/1887	9:59												Mauna Loa summit eruption resumes. Warshauer notes: Thursday forenoon Feb. 17th, the top of Mauna Loa is very distinctly seen from Hilo, and a large stream of lava is now flowing from a little south of the summit towards Kau [see above for possible beginning time]. . . the long line of smoke going down the mountain side as it did in 1880 [activity on NE rift?]; Baker notes: Baker identifies sources of the 1887 eruption in Mokuaweoweo (13,500 ft), Pele Kahuku (11,500 ft), and Hale Pahoe (5,600 ft) [time assumed]	HG, 2/22/1887, p. 8 [Anonymous, 1887; Baker, 1887]
2/21/1887						mauna loa?						III	Warshauer notes: slight earthquake at Hilo	cannot find ref
2/24/1887						mauna loa?						III	Warshauer notes: slight earthquake at Hilo	cannot find ref
3/07/1887	21:30					mauna loa?						III	Lyman notes: There were 3 slight shocks between 9 and 12 last night [times assumed]	Wyss and others, 1992, p. 22; not in HG
3/07/1887	22:30					mauna loa?						III	do	Wyss and others, 1992, p. 22; not in HG
3/07/1887	23:30					mauna loa?						3.0 (Hilo-Cox)	do	Wyss and others, 1992, p. 22; not in HG
3/08/1887	23:15					hilea?				4.0	int	IV (south kona); III (hilo)	Lyman notes: two very slight shakes between 11 and 12 last night [times assumed]; Warshauer notes: A sharp shock of earthquake was felt at South Kona, Hawaii, on the evening of March 8th	Wyss and others, 1992, p. 22; PCA, 3/16/1887, p. 3
3/08/1887	23:45					hilea?				3.8	int	III	do	Wyss and others, 1992, p. 22; PCA, 3/16/1887
4/23/1887	6:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock at 7. A.M.; Warshauer notes: A slight earthquake was felt at Hilo on Saturday, April 23d, at quarter before seven o'clock in the morning	Wyss and others, 1992, p. 22; HG, 5/3/1887, p. 5
4/23/1887	10:00					south hawaii?				3.5	int	3.5 (Hilo-Cox)	Lyman notes: it is said there was another near 10 A.M.	Wyss and others, 1992, p. 22; not in HG
5/10/1887	7:10					mauna loa?				5.3	int	V (Pahala); 3.0 (Hilo-Cox)	Lyman notes: A slight shake at 7. A.M.; Warshauer notes: severe earthquake in Pahala at 7:10 am	Wyss and others, 1992, p. 22; PCA, 5/23/1887, p. 3
5/13/1887	2:30					mauna loa?						III (Pahala)	Warshauer notes: somewhat lighter shock [than one on May 10] felt in Pahala	PCA, 5/23/1887, p. 3
5/17/1887	3:10					mauna loa?						III (Pahala)	Warshauer notes: a light shock felt in Pahala	PCA, 5/23/1887, p. 3
7/23/1887	12:00					south hawaii?				5.3	int	V; 5.2 (Hilo-Cox)	Lyman notes: About noon, one decided shock	Wyss and others, 1992, p. 22; not in PCA or HG
8/05/1887	12:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock about noon.	Wyss and others, 1992, p. 22; not in PCA or HG
8/07/1887	1:30					kl sf?				5.3	int	V; 5.0 (hawaii); 6.0 Hilo-Cox)	Lyman notes: 1.30 A.M. one quick sharp shock waked us all up; no mention in VHR entry of that date	Wyss and others, 1992, p. 22; not in PCA or HG
8/22/1887	4:45					east hawaii?				5.3	int	V (Hamakua); IV (Hilo)	Lyman notes: Qr - before 5. A.M. one slight shock; Warshauer notes: Two rather severe shocks of earthquake were felt at Kukuiahae, Hamakua, about 5 o'clock last Monday morning	Wyss and others, 1992, p. 22; PCA, 8/25/1887, p. 3; not in HG
9/13/1887	1:10					south hawaii?				5.3	int	V; 5.0 (hawaii); 5.7-Hilo-Cox)	Lyman notes: 10 m. after 1. A.M. one long continued shock, not severe enough to displace anything, but we all were awakened by it	Wyss and others, 1992, p. 22; not in PCA or HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
10/01/1887	23:05					mauna loa?				5.3	int	V (south kona); IV (hilo); 5.0 (hawaii; 5.2-Hilo-Cox)	Lyman notes: 5 mts. ps 11 P.M.- A long peculiar shake nothing was put out of place, but the bell of the hanging lamp struck from side to side so that we heard it several strokes; Warshauer notes: A shock of earthquake was felt at South Kona, Hawaii, last Saturday night [Oct. 1] at 11 o'clock. A number of inhabitants were awoke by it	Wyss and others, 1992, p. 22; PCA, 10/6/1887, p. 3
10/02/1887	6:05					south hawaii?						3.0 (Hilo-Cox)	cox time is 6:15; Lyman notes: a slight shock after 6. A.M	Wyss and others, 1992, p. 22; not in PCA or HG
10/27/1887	21:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock 9. P.M.	Wyss and others, 1992, p. 22; not in PCA or HG
11/09/1887	5:10					mauna loa?				4.5	int	IV; 3.0 (Hilo-Cox)	Lyman notes: Ten minutes after 5. A.M. two shocks, first very slight, second slight but long continued	Wyss and others, 1992, p. 22; not in PCA or HG
12/09/1887	8:00					mauna loa?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: About 8. A.M. two shocks-not very hard	Wyss and others, 1992, p. 22; not in PCA or HG
2/24/1888	7:20					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Twenty minutes after 7. A.M. four slight shocks	Wyss and others, 1992, p. 22; not in PCA or HG
2/24/1888	7:21					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Twenty minutes after 7. A.M. four slight shocks	Wyss and others, 1992, p. 22; not in PCA or HG
3/01/1888	7:00					south hawaii?						3.0 (Hilo-Cox)	Cox date is 3/00; Lyman notes: Slight shock abt 7. A.M. [no date]	Wyss and others, 1992, p. 22; not in PCA or HG
5/08/1888	0:30					south hawaii?				5.6	int	V-VI; 5.0 (hawaii; 6.0-Hilo-Cox)	Lyman notes: About half past 12 A.M. one hard shock waked us all up out of sound sleep	Wyss and others, 1992, p. 22; not in HG
5/08/1888	1:30					south hawaii?						III	Lyman notes: and another slight shock about an hour after	[aftershock?]; Wyss and others, 1992, p. 22
5/24/1888						south hawaii?				4.5	int	IV-V	Warshauer notes: . . . two heavy shocks of earthquake on Thursday of last week [prob. May 24 rather than May 31]	PCA, 6/2/1888, p. 3
8/14/1888	2:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: Slight shock in the night abt 2. AM	Wyss and others, 1992, p. 22; not in PCA or HG
8/20/1888	7:35					south hawaii?				5.9	int	VI; V (S&C); 5.0 (hawaii; 6.0-Hilo-Cox)	Lyman notes: quite a severe shock. began with a long trembling then a shock then a second which was severe enough to throw out water from vases fall of flowers & milk from the pans & many things fell down that were not secured with fastenings; Warshauer notes: There was a right smart earthquake on the 20th instant at Hilo; The earthquake shock briefly mentioned by our Hilo correspondent was, according to accounts in private letters, strong enough to knock articles off shelves and tables; Earthquake at 7:30 a.m. [volcano house 8/21-probably same event-someone's date is wrong]	Wyss and others, 1992, p. 22; PCA, 8/27/1888, p. 3; VHR, v. 3, J.H. Maby entry dated 8/21/1888
8/20/1888	8:05					south hawaii?				3.5	int	3.0 (Hilo-Cox)	Lyman notes: following this were two slight shocks - abt. half an hour & an hour apart	[aftershock]; Wyss and others, 1992, p. 22; not in PCA or HG
8/20/1888	8:35					south hawaii?				3.5	int	3.0 (Hilo-Cox)	cox time is 9:05; Lyman notes: do	[aftershock]; Wyss and others, 1992, p. 22; not in PCA or HG
8/26/1888	5:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: Slight shock. at 5 A.M.	Wyss and others, 1992, p. 22; not in HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/07/1888	4:00												Warshauer notes: . . . a heavy shock of earthquake at Kau, Hawaii, last Wednesday [11/07] at 4 am; should refer to mainshock in next row. Newspaper mixup of time and date?	PCA, 11/15/1888 [wrong date]
11/08/1888	18:00					maui deep??	40.0			6.0	k&w	V-VI (hilo); V (kona); 5.5 (Hilo-Cox); IV-V (Oahu)	Lyman notes: 6 P.M. - a long continued shock commenced with a rumble & trembling which increased more & more in one hard shock & went off as it began, trembling; Warshauer notes: The slight shock [5:45 pm 11/8] [was] generally felt [Oahu]. At Punahou college it was severe enough to rattle doors and windows, and was noticed by nearly everybody . . . Residents on the plains also felt the shock, the direction being apparently from southeast to northwest; Quite a severe shock of earthquake was felt at Hilo on the 8th inst., also at Laupahoehoe and Ookala; Hana, Maui, experienced the earthquake shock felt here [Honolulu] on Thursday, as well as Hilo, Hawaii, as reported in our news letter from there; The earthquake shock of the 8th inst. was strong and long enough at Kealakekua Bay to shake houses for the space of about a minute. It caused a sensation, reminding one of 'riding in a railcar on a rough track'; VHR notes: Earthquake occurred at 10 min before 6 PM. Quite a deep, sharp shock, felt all over Hawaii, on Maui, and also at Honolulu, Oahu	Wyss and others, 1992, p. 22; PCA, 11/10/1888, p. 3; PCA, 11/12/1888, p. 3; PCA, 11/20/1888, p. 7; VHR, v. 3, H.M. Whitney entry dated 11/08/1888; region/magnitude assigned from isoseismal map; analogy to earthquakes of Sept. 13, 1896 [M6.6] and June 16, 1940 [M6.0] (W&K); location not well defined. Could also be offshore Maui or deep Hawaii.
11/09/1888	3:30					south hawaii?				4.5	int	IV-V; 3.0 (Hilo-Cox)	Lyman notes:3:30 A.M. one shock quite long but slight	Wyss and others, 1992, p. 22; not in PCA or HG
11/20/1888	16:25					south hawaii?						3.0 (Hilo-Cox)	Lyman notes:4:25 P.M. one slight shock - North & South	Wyss and others, 1992, p. 22; not in PCA or HG
1/03/1889	19:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: 7.30 P.M. - one slight shock	Wyss and others, 1992, p. 22; not in PCA or HG
2/17/1889	9:45					south hawaii?						3.0 (Hilo-Cox)	Cox date is 1/17; Lyman notes:1/4 before 9 slight shock [am assumed]; Warshauer notes: a slight earthquake at Hilo at 9:45 am [Lyman time off?]	Wyss and others, 1992, p. 23; PCA, 2/25/1889, p. 3
2/21/1889	5:15					south hawaii?				5.4	int	5.2 (Hilo-Cox)	Lyman notes: About 5 o'clock A.M. one decided shake; Warshauer notes: another earthquake felt at Hilo at 5:15 am	Wyss and others, 1992, p. 23; PCA, 2/25/1889, p. 3
2/21/1889	5:20					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: followed in about five minutes by another very slight one	[aftershock?]; Wyss and others, 1992, p. 23
5/07/1889	10:45					south hawaii?						2.8 (Hilo-Cox)	Lyman notes:15 mts to 11 A.M. 1 shock - a protracted tremble	Wyss and others, 1992, p. 22; not in PCA or HG
11/04/1889	12:01					south hawaii?						III	Lyman notes:1 slight shake in November [date and time assumed; probably part of Nov. 4 sequence-see below]	Wyss and others, 1992, p. 23

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/04/1889	19:15					kl cal 0-5				3.8	int	IV-V	earthquake accompanied by fissure in Kilauea crater; no time given; [see succeeding entry]; Warshauer notes: . . . During our absence in the crater [up to 10 pm 11/4] there have been felt at the Volcano House twelve distinct earthquakes occurring between the hours of 6:12 and 8:45 pm. One of them, occurring at 7:15 pm, was felt by us, while alongside of, and watching Dana lake, after which there was a very marked difference in the action of the lake, it immediately commenced to boil up in the centre as well as from the sides, throwing up lava into the air . . . After leaving the lake at 8 pm . . . when about six hundred yards from where the ascent is made to the Volcano House we were startled by a heavy report, . . . saw a column of sulphurous smoke, and found that a large number of new craters had opened . . . There was also a line of live fire in the bottom of the cracks. . . . Volcano House host tells us no fire on this part of the crater floor since May 7, when a lake was formed . . . [Earthquake swarm not associated with draining!]	Wood, 1917 chart 1, p. 117; VHR, v. 3, Mr. and Mrs. Roebuck entry dated 11/04/1889; see also Edwd. P. Baker entry in VHR dated 1/2/1890; PCA, 11/11/1889, p. 3 [repeats Roebuck entry in VHR]
2/06/1890	14:45					south hawaii?				3.8	int	IV; 4.0 (Hilo-Cox)	Lyman notes: Quarter to 3 P.M. two shocks distinctly felt	Wyss and others, 1992, p. 23
2/10/1890	10:00					kona?				3.8	int	IV	Warshauer notes: There was a slight shock of earthquake [in Kona] on the 10th at 10 am, with a loud rumbling noise	PCA, 2/12/1890, p. 3
2/15/1890	15:10					south hawaii?				3.8	int	4.0 (Hilo-Cox)	Lyman notes: 3:10 P.M. one shocks distinctly felt	Wyss and others, 1992, p. 23; not in PCA or HG
3/24/1890	20:25					kl sf??				5.2	k&w	5.2 (Hilo-Cox); III (Kona)	Lyman notes: 8.25 P.M. one shock very long trembling - with a good deal of noise; Warshauer notes: There was a shock of earthquake [felt at Kona] at 8:20 pm on the 24th inst; only a slight one	Wyss and others, 1992, p. 23; PCA, 3/31/1890, p. 3; region/magnitude assigned by analogy with earthquakes of August 18, 1962 and December 27, 1989 (W&K)
3/31/1890	21:30					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: 9 30 P.M. -one shock	Wyss and others, 1992, p. 23; not in PCA or HG
5/11/1890	10:00					north hawaii??				3.8	int	IV	Lyman notes: at Waimea 10 A.M. there was quite a prolonged earthquake. did not notice it here	Wyss and others, 1992, p. 23; not in PCA or HG
5/17/1890	5:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: We felt a slight shock abt 5 a.m.; no mention in VHR entry on this date	Wyss and others, 1992, p. 23; not in PCA or HG
6/05/1890	15:10					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: At 10 m. after 3.P.M. one shock with considerable noise	Wyss and others, 1992, p. 23; not in PCA or HG
6/15/1890	6:00					mauna loa?				3.8	int	3.0 (Hilo-Cox)	Lyman notes: About 6 a.m. one shock with protracted trembling but slight; Warshauer notes: On the 15th inst, there was an earthquake [felt at Hilo] at 6 am	Wyss and others, 1992, p. 23; PCA, 6/23/1890, p. 3
7/01/1890	14:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: About 2 P.M. one shock - slight	Wyss and others, 1992, p. 23; not in PCA or HG
7/01/1890	16:30					south hawaii?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: 4:30 P.M. one sharp decided shake	Wyss and others, 1992, p. 23; not in PCA or HG
7/10/1890	14:20					south hawaii?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: 2:20 P.M. one sharp decided shake	Wyss and others, 1992, p. 23; not in PCA or HG

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/28/1890	16:03					kl sf?				5.3	int	5.0 (hawaii); 4.6 (Hilo-Cox)	[apparently not felt at Mauna Loa summit]; Lyman notes: Shortly after 4.P.M. an earthquake with two shocks & long trembling with a good deal of noise. I felt it standing in the street; Warshauer notes: Two rather severe shocks of earthquake were experienced at Hilo on July 28th	VHR, v. 3, L.A. Thurston entry dated 7/29/1890; Wyss and others, 1992, p. 23; PCA, 8/2/1890, p. 3
8/06/1890	23:10	19	20	155	0	kl sf?				6.5	k&w	VI-VII (Hilo); VI (Puna); V-VI (Kilauea summit); III-IV (Mauna Loa summit); VI (W&K; S&C); 6.0 (Hawaii); 5.0 (Hilo-Cox)	Lyman notes: Ten minutes after 11. P.M. - we were all awakened by a prolonged shake - 5 shocks - with long continued trembling [additional felt information given in Lyman entry for 0:30, 8/07]; Lyman [E.B.], 1890 notes: . . . reaching Kau we heard that a dozen earthquakes had been felt, two of them quite severe. In Puna and in Hilo stone walls and many things in the houses were thrown down; at the volcano only three were felt and several of the cones around Halemaumau tumbled in, Strange to say we did not feel any of them [camped at Mauna Loa's summit on Wednesday night Aug. 6]; no mention in VHR on subsequent dates; Warshauer notes: The Kinau brings news of a series of earthquakes at Hilo on August 6th. Considerable damage was done in several houses; At Hilo, 6th inst., 11:20 pm, there was a very severe earthquake; felt at kona and kau	Wyss and others, 1992, p. 23; Lyman, 1890; PCA, 8/14/1890, p. 3; PCA, 8/09/1890; region/magnitude assigned from isoseismal map; analogy to the pair of earthquakes on March 30, 1954 (W&K)
8/06/1890	23:18					kl sf?						III	Lyman notes: followed by three slight shocks during the next half hour [times assumed]	[aftershock]; Wyss and others, 1992, p. 23
8/06/1890	23:26					kl sf?						III	Lyman notes: do	[aftershock]; Wyss and others, 1992, p. 23
8/06/1890	23:34					kl sf?						3.0 (Hilo-Cox)	cox time is 23:40; Lyman notes: do	[aftershock]; Wyss and others, 1992, p. 23
8/06/1890						kl sf?							Wood notes: Kilauea very active in early August and inactive at end of August; Warshauer notes: a series of earthquakes at Hilo on Aug. 6; considerable damage to houses [eqs most likely accompanied draining of Halemaumau and intrusion on the east rift zone]	Wood, 1917 chart 2, p. 118; PCA, 8/14/1890
8/07/1890	0:30					kl sf?				5.9	k&w	V-VI (estimated); 6.5 (Hilo-Cox)	Lyman notes: 12:30 a decided earthquake with two shocks. Small things were thrown down in nearly every room in the house during the first earthquake & in some houses tables & pianos were moved half a foot from the wall. Stone walls also fell down; Warshauer notes: . . . on the 7th inst. another one at 12:30 am, not quite so severe [as the one at 11:20 pm on the 6th]; felt at kona and kau	Wyss and others, 1992, p. 23; HG, 8/19/1890, p. 5; PCA, 8/09/1890; region/magnitude assigned by analogy with the pair of earthquakes on March 30, 1954 (W&K)
8/07/1890	4:00					kl sf?				3.8	int	IV; 3.0 (Hilo-Cox)	Cox date is 8/7, also 8/8 at 3:00; Lyman notes: A slight shock was felt near 4. a.m. same day	[aftershock]; Wyss and others, 1992, p. 23
8/08/1890	3:00					kl sf?				3.8	int	IV	Lyman notes: A slight shock was felt near 3 A.M.	[aftershock]; Wyss and others, 1992, p. 23
8/09/1890	23:59					kl sf?						III	Lyman notes: several very slight shocks were noticed during the days of Aug. 9th & 10th [no times]	[aftershock]; Wyss and others, 1992, p. 23
8/10/1890	23:59					kl sf?						2.0 (Hilo-Cox)	Lyman notes: do	[aftershock]; Wyss and others, 1992, p. 23

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
8/21/1890	3:50					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: one shock was felt in the A.M. ten minutes before 4. wakening us all up - but nothing was overturned; Warshauer notes: There was an earthquake at Hilo on the 21st inst. at 3:40 am medium heavy	Wyss and others, 1992, p. 23; PCA, 8/25/1890, p. 3
10/08/1890	21:00					west hawaii?				5.0	int	V	Warshauer notes: There was quite a severe shock of earthquake felt in Kona last Wednesday night about 9 o'clock	PCA, 10/11/1890, p. 3
10/20/1890													Mauna Loa summit eruption? Warshauer notes: volumes of smoke and reflection of light seen; brightest in several years; also seen on Oct. 23	PCA, 10/23, 25/1890
11/10/1890	2:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: About 2 A.M. one slight shock	Wyss and others, 1992, p. 23
1/15/1891	15:20					south hawaii?				4.5	int	4.6 (Hilo-Cox)	cox time is 3 am; Lyman notes: Two shocks at 3:20 P.M. The second heavier than first, but nothing disturbed; Warshauer notes: On Thursday pm at 3 o'clock a very heavy shock of earthquake disturbed the repose of our usually quiet town. At first the shock as gentle, but as the second came it was harder, and finally wound up with a 'double twister' and 'under cut' that started everybody to their feet. It lasted about ten seconds, and gave us such a shaking as we have not had for a long time. . .	Wyss and others, 1992, p. 23; PCA, 1/29/1891, p. 3
2/25/1891	21:30					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: A slight shock at 9.30 in the evening	Wyss and others, 1992, p. 23; not in HG
3/05/1891	21:00					kilauea?				5.3	int	VI-VII (kapapala); IV (kilauea summit)	Halemaumau draining and southwest rift zone intrusion [modern analogue is the earthquake swarm beginning Dec. 31, 1974]. Wood notes: breakdown [collapse] on March 6-7 accompanied by earthquakes; Warshauer notes: On the night of the 5th inst., at 9 pm, we had a slight shake at the Volcano House. At the same time the cones of Halemaumau sunk some seventy-five to 100 feet, leaving a depression from the floor of the crater, sloping toward the base of the cones. On the night of the 4th, the fires in the crater were very active and were so up to the time we felt the shaking; At the Half Way House, on the Kau side, they have had shaking going on for the past three days. Mr. Dalway telephoned me on the 5th, that he had felt over 100 shakes . . . On the 5th it was shaking at the Kapapala Ranch, and threw down some of their stone walls; VHR notes: slight earthquake at around 9:30 p.m.	Wood, 1917 chart 2, p. 118; PCA, 3/12/1891, p. 3 [Maby, 1891]; VHR entry of 3/6/1891

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/06/1891	21:00					kilauea?				4.5	int	IV-V (Pahala); 2.8 (Hilo-Cox)	Lyman notes: A long tremble at 9 in the evening; Warshauer notes: On the night of March 6th, at 9:10 o'clock, we had another shake; . . . and when we could see across the crater at 4 am, we found that the cones have sunken still further, leaving only the highest points to be seen above the edge of the crater floor; it was also shaking [at Half-way House] on the 6th; On Friday eve of last week [Mar. 6] there were four slight earthquakes felt in town [Hilo]	Wyss and others, 1992, p. 23; PCA, 3/12/1891, p. 3 [Maby, 1891]; PCA, 3/20/1891, p. 2
3/07/1891	18:00					kilauea?				3.8	int	IV	Warshauer notes: The cone of Halemaumau has disappeared altogether during the night. That is, they have sunk out of sight. We have had no earthquake during the night up here. Mr. J. Monserrat telephoned to me this am that it kept shaking at his place all night, and was still shaking, and that there was not an interval of 20 minutes through the whole night. . . I have heard from Pahala and Punaluu also. They had three shakes during the night, and report one of them quite hard [see entry for 21:00, 3/06]. No damage done. At the Half-way House it was shaking all night, and two or three since daylight. At Hilea they had three shakes during the night; at 6 pm of the 7th a light one; Three hundred earthquake shocks are reported to have been felt in one night in Kau District. If there had been one or two more shakes there might have been a night of continuous shaking	3/12/1891, p. 3 [Maby, 1891]; PCA, 3/20/1891, p. 3
3/07/1891	21:10					kilauea?						III	at 9:10 p.m. on the 7th a slight shake was felt at the house [volcano house]	VHR, v. 3, J.H. Maby entry dated 3/06/1891
3/08/1891	2:00					kilauea?				5.6	int	V; 5.0 (Hawaii); 6.0 (Hilo-Cox)	Lyman notes: 2 A.M. another long trembling which shook the windows & waked us all up; at the 2 o'clock earthquake on the night of the 8th all fire went out of Kilauea; Warshauer notes: . . . at 2 am one heavy one [at Hilea] . . . ; and two again [felt at Hilo] on Sunday morning [Mar. 8]	Wyss and others, 1992, p. 23; 3/12/1891, p. 3 [Maby, 1891]; PCA, 3/20/1891, p. 2
3/08/1891	6:00					kilauea?				3.5	int	III-IV	Warshauer notes: . . . one light one [at Hilea] about daylight this am. No damage reported at any place on the line	3/12/1891, p. 3 [Maby, 1891]
3/08/1891	9:30												Warshauer notes: 8th-9:30 am, reports by telephone that everything is quiet	3/12/1891, p. 3 [Maby, 1891]
3/09/1891	12:01					north hawaii?						III	Warshauer notes: slight earthquake in Kohala [time assumed]	PCA, 3/13/1891
3/10/1891	22:00					kilauea?				3.5	int	3.0 (Hilo-Cox)	Lyman notes: about 10 in the evening slight shock	Wyss and others, 1992, p. 23; not in HG
3/12/1891	2:00					kilauea?				3.5	int	3.0 (Hilo-Cox)	Lyman notes: about 2 a.m. & 6 a.m. slight shocks	Wyss and others, 1992, p. 23; not in HG
3/12/1891	6:00					kilauea?				3.5	int	3.0 (Hilo-Cox)	Lyman notes: do	Wyss and others, 1992, p. 23; not in HG
3/13/1891	4:30					kilauea?				5.3	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: at 4.30 one decided shock [am assumed]; Warshauer notes: A slight earthquake felt in Kohala	Wyss and others, 1992, p. 23; PCA, 3/13/1891, p. 3

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/14/1891	13:30					kilauea?				3.5	int	III; 4.5 (Hilo-Cox)	Lyman notes: between one & two P.M. one shock. There are many slight shocks, but we do not feel them all	Wyss and others, 1992, p. 23; not in HG
4/10/1891	23:00												lava returns to Halemaumau	Wood, 1917 chart 2, p. 118; see also VHR entry of 4/10/1891
6/05/1891	14:00					south hawaii?						2.5 (Hilo-Cox)		Cox, unpub
7/02/1891	1:00												Warshauer notes: sharp and heavy earthquake in Hilo [same as following event?]	PCA, 7/29/1891, p. 4
7/05/1891	14:03					south hawaii?				3.5	int	III	Lyman notes: Shortly after 2 P.M. a long continued trembling but slight	Wyss and others, 1992, p. 24; not in PCA or HG
9/30/1891	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: In September one slight earth quake was felt [no date or time]	Wyss and others, 1992, p. 24; not in PCA or HG
10/06/1891	15:45					south hawaii?						3.0 (Hilo-Cox)	cox time is 4:45; Lyman notes: 1/4 4 P.M. one slight shock	Wyss and others, 1992, p. 24; not in PCA or HG
10/15/1891	17:30					south hawaii?				5.3	int	5.5 (Hilo-Cox)	a slight shock of earthquake, Mrs. Lee being the only person who felt it [at volcano house] although we learn by telephone that it was felt all along the country; Lyman notes: 1/2 6 P.M. - We felt a hard shock. It began with a long tremble & sound like thunder. Then a decided shock	VHR, v. 3, C.J. McCarthy entry dated 10/13-16/1891; Wyss and others, 1992, p. 24; not in PCA or HG
10/16/1891	5:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: at 5 AM slight shock	Wyss and others, 1992, p. 24; not in PCA or HG
10/16/1891	9:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: at 9 AM slight shock	Wyss and others, 1992, p. 24; not in PCA or HG
12/29/1891	20:30					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: one shock 8.30. P.M.	Wyss and others, 1992, p. 24; not in PCA or HG
1/07/1892	14:15					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Quarter after 2 P.M. two slight shocks	Wyss and others, 1992, p. 24; not in PCA or HG
1/31/1892	23:59					south hawaii?						III	Lyman notes: During the month of Jan. several slight shocks were felt	Wyss and others, 1992, p. 24; not in PCA or HG
3/11/1892	0:15					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: Quarter after 12. A.M. one shock, with very slight premonitory shock	Wyss and others, 1992, p. 24; not in PCA or HG
3/16/1892	6:10					maui?				3.5	int	III	Warshauer notes: A slight shock of earthquake took place at Ulupalakua, Maui, at 6:10 am, March 16th. The shock lasted only a few seconds	PCA, 3/??/1892
3/31/1892	23:59					south hawaii?						III	Warshauer notes: During the past month we have had a number of light earthquakes [at Hilo]; [another Halemaumau collapse? Wood, 1917, chart 2 shows no entry for March, but lake about the same depth in February and April]	PCA, 4/5/1892
5/30/1892	3:30					south hawaii?						3.0 (Hilo-Cox)	cox gives times of 2 and 5 am; Lyman notes: Between 2 & 5 one slight shock [am assumed]	Wyss and others, 1992, p. 24; not in PCA or HG
6/26/1892						hilea?						III	Warshauer notes: There was a slight shock of earthquake at Punaluu, Kau, Hawaii, last Sunday [June 26]	PCA, 7/2/1892, p. 3
10/18/1892	4:30					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: About half past. 4 o'clock a.m. - slight shock	Wyss and others, 1992, p. 24; not in PCA or HG
10/31/1892	18:00					hilea?						III	Warshauer notes: There was a slight earthquake shock at Kau, Hawaii, on Monday evening, August [sic-- perpetual calendar and date of newspaper indicates October] 31, at 6 o'clock. It lasted but a few seconds	PCA, 11/5/1892, p. 3

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/30/1892	22:30												Mauna Loa summit eruption. Lyman notes: During the last week of Nov. light was seen in the Crater on Mauna Loa which seems to be active again; Fire appeared last night between 10 and 11 p.m., quietly rising from the summit of Mauna Loa without any earthquakes or previous signs of disturbance; the fire only lasted three days	Wyss and others, 1992, p. 24; VHR, v. 4, Peter Lee entry dated 12/01/1892
12/02/1892													Warshauer notes: Mauna Loa became active again on Friday morning, December 2, 1892, when light was seen over Mokuaweoweo. We have not been disturbed by any earthquake shocks of late, but such was the case with the flow of 1881 from this crater . . . no disturbance of a seismic nature being experienced; Mokuaweoweo active for three days, no earthquakes; Lyman notes: During the last week in November light seen in the crater on Mauna Loa	HG, 12/13/1892, p. 6; Wood, 1917 chart 1, p. 117; Wyss and others, 1992, p. 24
12/03/1892	21:00					mauna loa?						III; 4.6 (Hilo-Cox)	Lyman notes: About 9 P.M. - one shock of earthquake	Wyss and others, 1992, p. 24; not in HG
12/04/1892						mauna loa?						III	Warshauer notes: The lava overflowed the banks of Mokuaweoweo [cannot be taken literally] for several days last week, but subsided again . . . There were several shocks of earthquake at Hilo last Sunday [Dec. 4]; Mauna Loa is reported in eruption at its summit, first light being seen during the night of Dec. 1-2 . . . We have not been disturbed by any earthquake shocks of late [contradicted-see first entry], but such was the case with the flow of 1881 from this crater, which broke out in November of that year [sic-1880] and flowed uninterruptedly for nine months, no disturbance of a seismic nature being experienced	PCA, 12/7/1892, p. 3; PCA, 12/12/1892, p. 7
12/22/1892	0:30					south hawaii?						VI (Hilo); IV (Kohala); 5.0 (Hawaii); 6.0 (Hilo-Cox)	Lyman notes: At half past 12 A.M. - a sharp earthquake - waked every body in town; Warshauer notes: Two very heavy shocks of earthquake occurred here on Thursday morning, 22d December; first one at 12:30 am; second at 2:20 am; On that same night, Thursday, we had a very severe shock of earthquake, occurring about 12:15 am, accompanied an hour later by a lighter one. The first one lasted about ten seconds, and was the heaviest felt since August 1890. In fact it has been noteworthy, the absence of shakes during the past two years; At about midnight of Thursday, the 22d, the elite of Kohala were awakened by an earthquake. It was strong enough to make the glassware jingle, though no subterranean noise accompanied it. Almost immediately afterwards a second slight tremor was felt	Wyss and others, 1992, p. 24; PCA, 12/29/1892, p. 3; PCA, 1/3/1893, p. 1; HG, 1/3/1893, p. 4

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/22/1892	21:59												Resumption of Mauna Loa's summit eruption before this date. Warshauer notes: On Thursday Dec. 22, 1892, Mauna Loa's summit was brilliantly lit [time assumed]	PCA, 1/3/1893, p. 1
12/23/1892	2:20					south hawaii?				5.3	int	V; 2.8 (Hilo-Cox)	Lyman notes: another at qr. of 2-a.m. - which was a long continued tremble [1:45 am-disagrees with newspaper time]; Warshauer notes: Two very heavy shocks of earthquake occurred here on Thursday morning, 22d December; first one at 12:30 am; second at 2:20 am; On that same night, Thursday, we had a very severe shock of earthquake, occurring about 12:15 am, accompanied an hour later by a lighter one; We had just got asleep again when still another considerable shock was felt, though not quite so violent as the first	Wyss and others, 1992, p. 24; PCA, 12/29/1892, p. 3; PCA, 1/3/1893, p. 1; HG, 1/3/1893, p. 4
12/23/1892	5:59					south hawaii?						III	Lyman notes: another slight one before morning [time assumed]	[aftershock?]; Wyss and others, 1992, p. 24
12/24/1892	12:01					south hawaii?						III	cox time is 1:45; Lyman notes: one the next day-slight [time assumed]	[aftershock?]; Wyss and others, 1992, p. 24
12/27/1892	12:00					south hawaii?						III; 4.6 (Hilo-Cox)	Lyman notes: Just about 12 - noon - one shock	Wyss and others, 1992, p. 24
12/29/1892	0:00									4.6	int	4.6 (Hilo-Cox)		Cox, unpub [date wrong?]
1/03/1893	13:50					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: At ten minutes to two P.M. - one shock	Wyss and others, 1992, p. 24; not in PCA or HG
4/08/1893	23:00					east hawaii?				3.8	int	IV (Hilo); III (Kohala)3.0 (Hilo-Cox)	Lyman notes: About Eleven P.M. a long continued tremble. fully half a minute; Warshauer notes: An earthquake occurred Saturday night [04/08, felt at Hilo]. Although not a severe one, it shook for fully 15 seconds; On Sunday night [Apr. 8- 9?], between 11 and 12 o'clock, there was a slight shock of earthquake [felt in Kohala]; A slight shock of earthquake was felt at Kohala, Sunday night, 9th inst.[Apr. 8-9?]; Last week was one of storm, rain and earthquake in Hilo	Wyss and others, 1992, p. 24; PCA, 4/17/1893, p. 4, 5; HS, 4/17/1893, p. 5
4/09/1893	5:00					south hawaii?						III; 4.6 (Hilo-Cox)	Lyman notes: one shock	Wyss and others, 1992, p. 24; not in HG
6/27/1893	2:10					molokai?				5.3	int	V	Warshauer notes: A moderate earthquake is reported from Pukoo, Molokai . . . occurring at 2:10 am of the 27th, lasting for about twenty-five seconds, the oscillations coming from the southeast. . . .	HS, 7/1/1893, p. 5
8/27/1893	21:59					kilauea?				3.8	int	IV (kilauea summit)	Warshauer notes: From another source it is learned that sharp shock of earthquake was felt at the volcano on Sunday night [Aug. 27], and more or less throughout the entire island, although at Hilo it was scarcely perceptible; It is also learned that a slight shock of earthquake was felt at the Volcano House last Sunday night [time assumed]	HS, 8/30/1893, p. 5; PCA, 8/31/1893, p. 3
9/30/1893	23:59					south hawaii?						III	Lyman notes: Several very slight shocks between April & Oct	Wyss and others, 1992, p. 24

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
10/09/1893	20:50					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: Ten minutes before 9 P.M. three separate earthquakes - none of them very hard, ending with a very slight tremble	Wyss and others, 1992, p. 24; not in HG or HS
11/04/1893	17:30					east hawaii?				5.6	int	V; 5.5 (Hilo-Cox)	Cox date is 11/3 and 11/4; Lyman notes: 5.30 P.M. - While we were at the dinner table, one smart shock with long trembling afterwards; Warshauer notes: On Saturday last [Nov. 4] we were visited [in Hamakua] by a very sharp and severe earthquake which shook the houses and caused many people to seek the open air. It came upon us without any warning, the shock was felt all through the district and also in Kohala; At 6:30 pm, Saturday, November 4th, residents of Hamakua were startled by three successive earthquakes, the third being the strongest and longest for some years the like of the last shock has no been felt here. . . .; no mention in VHR on subsequent dates	Wyss and others, 1992, p. 24; HS, 11/11/1893, p. 5; PCA, 11/13/1893
2/02/1894	5:00					mauna loa				5.8	k&w	VI (kau); IV (Hilo); 3.0 (Hilo-Cox)	Lyman notes: At 5 o'clock Feb. 2. a slight shock [am assumed]; Warshauer notes: Advices from Kau state that the district was lately visited by quite a vigorous earthquake, which shook things up generally and disturbed some fences [assume same event; No mention of this event in subsequent Hilo/Hamakua notes]; Hawaii has had several shocks of earthquake lately	Wyss and others, 1992, p. 24; PCA, 2/12/1894, p. 5, 7; region/magnitude assigned by analogy with earthquake of June 27, 1962 and January 21, 1982 (W&K)
2/08/1894	18:55					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: A very gentle shake at 5 minutes to seven Feb. 8. evening.	Wyss and others, 1992, p. 24; not in PCA, HG or HS
3/18/1894	9:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: About 9. A.M. - slight shock	Wyss and others, 1992, p. 24
3/21/1894													lateral intrusion of magma adjacent to Halemaumau	Castle, 1894; Anonymous, 1894
4/30/1894	23:59					south hawaii?						III; 4.6 (Hilo-Cox)	Lyman notes: only one slight shock during April [no date or time given]	Wyss and others, 1992, p. 24; not in PCA, HG or HS
5/28/1894	0:15					south hawaii?				5.3	int	V; 5.0 (Hawaii); 6.0 (Hilo-Cox)	Lyman notes: Quarter after 12-A.M. - one shock that made the windows shake & awoke us all-course from the mountain to the sea	Wyss and others, 1992, p. 24; not in PCA, HG or HS
6/16/1894	2:20					south hawaii?				5.3	int	V; 5.2 (Hilo-Cox)	Lyman notes: About twenty mts. after 2. A.M. one shock quite long continued; Warshauer notes: A sharp shock of earthquake was felt here during the early hours of the 14th instant [wrong date in either Lyman or newspaper?]	Wyss and others, 1992, p. 24; PCA, 6/21/1894, p. 3
7/8/1894	11:59												Warshauer notes: On the 8th of July the lake in Kilauea overflowed its banks [no time given]	HS, 7/18/1894, p. 3
7/11/1894	23:59					kl cal 0-5				3.0	int	IV	Two earthquakes were felt during the 11th at Volcano House. Many slight shakes were felt on the brink of the lake, but not as hard as those at the House; breakdown [collapse], light earthquakes	VHR, v. 4, L.A. Thurston entry dated 7/16/1894; Wood, 1917 chart 2, p. 118

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/12/1894	2:00					kl cal 0-5				3.5	int	IV	1 earthquake felt at Volcano House at 2 am of the 12th; On the 12th the lava fell 270 feet in twelve hours, causing the banks to fall in on all sides, and engulfing about eight acres of the floor of the crater. The falling of the banks was going on all day and far into the night, producing a scene indescribably grand. Three shocks of earthquake were felt at the Volcano House, but not hard enough to do any damage	VHR, v. 4, L.A. Thurston entry dated 7/16/1894; HS, 7/18/1894, p. 3 [Thurston, 1894]
7/13/1894	12:40					kilauea?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: 20 mts. of one P.M. an earthquake with 2 shocks. Fire dropped way down in the Lake but did not disappear	Wyss and others, 1992, p. 24
7/19/1894	23:59					kilauea?				3.8	int	IV	Warshauer notes: Several slight shocks of earthquake have been felt [Hilo, dateline 7/19] during the past week. Halemaumau has dropped down a distance of about 300 feet	PCA, 723/1894, p. 6
8/3/1894	23:59												Warshauer notes: The lake, although now about 300 feet below the level of the plain, is again steadily rising	HG, 8/3/1894, p. 5
11/20/1894	21:00					mauna loa?						III	Warshauer notes: An earthquake was felt Tuesday night, November 20th, about 9 o'clock [dateline Kau, Nov. 28]	PCA, 12/1/1894, p. 3
11/28/1894	9:59					mauna loa?						III	Warshauer notes: a slight shock [Kau] this morning [Nov. 28; time assumed]	PCA, 12/1/1894, p. 3
12/02/1894	11:59					mauna loa?						III	Warshauer notes: Earthquakes seem to be prevalent here, four occurring during the week: a light one Sunday morning, Dec. 2 [dateline Kau, Dec. 9] [no time given]	PCA, 12/12/1894, p. 1
12/03/1894	3:30					molokai deep?	40.0			6.4	k&w	6.0 (Hilo-Cox); V- VI (waimea); V+ (Honolulu, Maui, Kau); V (Hawaii, Kauai, S&C)	Lyman notes: In the morning at half past 3-one long shock that finished with trembling and every one waked up; heard afterwards that it was felt at Waimea or in Honolulu; Warshauer notes: A severe earthquake shock was felt [Honolulu] yesterday morning about 3:30 o'clock; We [Honolulu] felt the earthquake at 3:30 last Monday morning. It awakened everybody. This shock was a wave; . . . a long slow earthquake was felt at Hilo at 3:40 o'clock Monday morning. . . . At the same time on the same day a heavy shock was felt on Maui. . .	Wyss and others, 1992, p. 24; PCA, 12/4/1894, p. 5; HS, 12/5/1894, p. 3; region/magnitude assigned from isoseismal map; analogy to earthquakes of March 20, 1927, August 7, 1870 and June 16, 1940 (W&K)

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/03/1894	3:30					do				6.4	do	do	Warshauer notes: The recent earthquake was felt in the vicinity [Volcano House]; . . . the most considerable earthquake for many years shook up Kohala . . . about 3:30 am, and lasted upward of [30 s]. It began very gently and increased in strength, and then subsided as gently as it began. The waves passed from south to north, from Mauka to the sea. There was no severe shock, just a prolonged and substantial shake; About 3 am on the 3d of December, there was a severe shock of earthquake felt throughout this portion of the island [Kauai]. At Kealia and Kapaa, the vibrations were sufficient to arouse people from sound slumbers and rattle the windows, crockery and chandeliers in the houses. No further damage is reported; quite a severe one [Kau] Monday at 3:30 am; A sharp shock of earthquake was felt [N Kona], the first in some time	PCA, 12/6/1894, p. 5; HG, 12/7/1894, p. 6; PCA, 12/10/1894; PCA, 12/12/1894, p. 1; HG, 12/14/1894, p. 2
12/03/1894	11:10					molokai?				5.3	int	V; 5.2 (Hilo-Cox)	Lyman notes: another shake at 10 mts after 11 a.m., two shocks, long swaying motion; Warshauer notes: At 10:10 there was a tremble [same event?]; felt-Kau [see note on 12/10]	aftershock?-intensity and magnitude approximate; Wyss and others, 1992, p. 24; HS, 12/5/1894, p. 3; HS, 12/12/1894, p. 3
12/03/1894	22:10					molokai?				5.3	int	V; 5.2 (Hilo-Cox)	Lyman notes: In the evening of same day at 10 mts. after 10 P.M. one long shake; Warshauer notes: felt-Kau [see note on 12/10]	aftershock?-intensity and magnitude approximate; Wyss and others, 1992, p. 24; HS, 12/12/1894, p. 3
12/04/1894	5:00					kilauea?						3.0 (Hilo-Cox)	Lyman notes: at 5 A.M. one slight shock; Warshauer notes: felt-Kau [see note on 12/10]	Wyss and others, 1992, p. 24; HS, 12/12/1894, p. 3
12/05/1894	11:59					kilauea?						III	Warshauer notes: Wednesday morning a slight one [Kau] [no time given]	PCA, 12/12/189, p. 1
12/6/1894													breakdown complete on December 6; molten lava disappeared from view; Lyman notes: Fire disappeared from the lake at Kilauea [given in December 9 note]; Warshauer notes: The fire has disappeared from the crater, leaving a large deep hole, with little smoke [Kau, datelined Dec. 19]	Wood, 1917 chart 2, p. 118; Wyss and others, 1992, p. 24; PCA, 12/24/1894, p. 3
12/09/1894	16:20					kilauea?				4.5	int	IV (kau); III (hilo, kona); 4.6 (Hilo-Cox)	Lyman notes: 20 mts after 4 P.M. - two shocks. Fire disappeared from the Lake at Kilauea but was seen early in Jan. but has disappeared again; Warshauer notes: Sunday afternoon, December 9th, at 5 o'clock, a long, but not very heavy one [same event?]; felt-Kau [see note on 12/10]; a slight tremble was felt yesterday afternoon [N Kona]	Wyss and others, 1992, p. 24; PCA, 12/12/1894, p. 1; HS, 12/12/1894, p. 3; HG, 12/14/1894, p. 2
12/10/1894	23:59												Warshauer notes: A series of earthquake shocks have been felt in Kau for the past ten days. The cause is attributed to the volcano	HS, 12/12/1894, p. 3
1/11/1895	4:10					south hawaii?				4.5	int	IV-V; 5.0 (Hilo-Cox)	Lyman notes: 10 mts after 4 a.m. - one shock slight but waked us up. No Fire in the lake	Wyss and others, 1992, p. 24; not in PCA, HG or HEB

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
1/22/1895	22:00					molokai?				6.5	k&w	VI (Hon); V (Maui, Kohala); III (hilo, kau); 3.0 (Hilo-Cox)	Lyman notes: Quarter after 10 P.M. - two shocks, long continued, but slight - from south to north; Warshauer notes: severest quake in years felt throughout Honolulu and Waialua; initial shock at 10 PM, heavier shake 30 sec later, waves passed NE, sea to mountain, building shook, occupants left; A severe earthquake shock was felt throughout Oahu at twenty seconds past 10 o'clock Tuesday night. It was preceded by a slight tremor at ten seconds to 10 o'clock. the distinguishing points in this shock from others of recent occurrence [sic] were that a jerkey [sic] motion attended the tremor and it was more severe than any other in the past several years. It lasted 6 to 8 seconds. Lyons opines that it was felt on all islands. There was general alarm throughout the city. Houses trembled violently	Wyss and others, 1992, p. 25; PCA, 1/23/1895, p. 1; HS, 1/23/1894, p. 3; region/magnitude assigned from isoseismal map; analogy with earthquake of February 19, 1871 (W&K)
1/22/1895	22:00					do				6.5	do	do	Warshauer notes: On Tuesday night [Jan. 22] a severe shock of earthquake was felt [at Kohala]. There seems to have been two distinct shocks, the first of which waked people up in time to feel the second and heavier one. The waves passed from mauka to the sea, and the duration of each shock was about a second; At 9:35 pm, Tuesday, the 22d, a heavy prolonged shock of earthquake was felt on Maui; A shock of earthquake was felt throughout this island [Maui] on the night of the 22d inst., at about 9:40 pm. The shock, though not of very long duration, was the most severe experienced here for some years; The earthquake felt in Honolulu Tuesday night [Jan. 22] was very light here [kau]--in fact, very few felt it; Thursday [sic-Tuesday], January 22d, at 10:02 pm, at Kapaa, three distinct shocks of earthquake, following each other at intervals of about one or two seconds, were felt. It was noticed quite generally throughout the Island [Kauai]	PCA, 1/28/1895, p. 5, 6; HS, 1/29/1895, p. 3; PCA, 2/2/1895, p. 1; HG, 2/8/1895, p. 5
2/13/1895	12:00					north hawaii?				3.8	int	IV	Warshauer notes: About noon on Wednesday, the 13th inst., a shock of earthquake was felt [on Kohala]. Makai it felt like a sudden blow. Mauka the motion was more tremulous. The wave traveled from East to West	PCA, 2/16/1895, p. 1
3/31/1895	14:20					south hawaii?				5.3	int	V; 5.2 (Hilo-Cox)	Lyman notes: 25 mts. after 2. P.M. two shocks first long trembling then decided shock	Wyss and others, 1992, p. 25; not in PCA, HG or HS
5/17/1895	21:00					kilauea?				3.8	int	IV	Return of lava to Halemaumau. Warshauer notes: On Friday night the 17th inst. Madame Pele gave a vicious kick about 9 o'clock. It was felt at the Volcano house and throughout the [Kau] district. It is reported that fire has appeared in the crater, and at time small stones are thrown over forty feet into the air	PCA, 5/29/1895, p. 3
6/26/1895	15:00					kilauea?						III	Warshauer notes: On Wednesday, June 26th, about 3 p.m., a slight earthquake shock was felt [in Kau]	PCA, 7/12/1895, p. 2

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/16/1895	7:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: a slight shock	Wyss and others, 1992, p. 25; not in HG
8/27/1895	23:30					mauna loa?				5.3	int	V	Warshauer notes: A shock of earthquake was felt throughout the [Kau] district about 11:30 p.m. Tuesday night	PCA, 8/31/1895, p. 6
9/21/1895	21:30					kilauea?				5.3	int	V	Warshauer notes: On Saturday night, 21st inst., [there were two earthquakes] about 9:30 o'clock; the first was very light, but the other was quite heavy [in Kau]	PCA, 10/3/1895, p. 2
9/22/1895	20:00					kilauea?						III	Warshauer notes: Sunday night another earthquake was felt [in Kau]	PCA, 10/3/1895, p. 2
9/26/1895	11:59					kilauea?						III	Warshauer notes: one more earthquake [in Kau] on Thursday [no time given]	PCA, 10/3/1895, p. 2
10/07/1895	23:59					kilauea?						3.0 (Hilo-Cox)	Lyman notes: early in October, several slight shocks of earthquakes were felt in Kau and Hilo [Continued draining of Halemaumau with accompanying intrusion?-see Lyman note of Nov. 5, 1895]	Wyss and others, 1992, p. 25; not in HG
10/25/1895	13:00					kilauea?						3.0 (Hilo-Cox)	Lyman notes: At one P.M. - slight shock	Wyss and others, 1992, p. 25; not in HG
10/25/1895	14:30					kilauea?				5.3	int	5.0 (Hawaii); 5.0 (Hilo-Cox)	Lyman notes: 1/2 past 2 P.M. one decided shock which started us all to our feet	Wyss and others, 1992, p. 25; not in HG
11/05/1895	11:45					maui??				5.3	int	IV (hilo); IV-V (Hon); 4.6 (Hilo-Cox)	Lyman notes: Quarter of 12 noon. one shock, not severe - We hear from the volcano that the lake pit has fallen still more, about 500 ft now, & stones are falling & there is a great deal of smoke - but no fire; a later note (12/13/95) states that the earthquakes of Nov. 5 were felt in Honolulu more heavily than on Hawaii	Wyss and others, 1992, p. 25; not in HG
12/03/1895	11:55					south hawaii?						III	Warshauer notes: The Hilo Tribune reports a slight shock of earthquake at 11:55 a.m. on Tuesday, December 3rd	PCA, 12/14/1895
12/08/1895	21:59												Cox notes: About 10 o'clock Sunday night [8 Dec.] eight distinct, severe earthquake shocks were felt at Punaluu, Kau, and other places on the west [sic] side of Hawaii. Three heavy shocks were felt in Kailua. In Kau, there was considerable excitement owing to a report that the volcano was overflowing at an alarming rate. The Hall [a ship] was at Punaluu and was badly shaken, the shocks were especially severe at sea. It is reported that several of the crew of the Hall were thrown from their bunks by the disturbance. At Kailua, the shocks were severe, though not so bad as farther down the coast. . . . [time assumed]	HS, 12/10/1895

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/08/1895	23:04	20	0	157	30	kona os?				6.8	k&w	VI (Hon, kohala, kona); V (hilo, kau); V (W&K; S&C-Hon); 5.0 (Hawaii); 5.2 (Hilo-Cox); 5.0 (Honolulu-Cox)	<p>Lyman notes: Half past eleven P.M - one long shake and a trembling that kept up a whole minute-motion from the volcano to the sea; Cox notes: earthquake felt in Honolulu also felt on Maui [w volcanic activity on Hawaii]; Warshauer notes: two distinct shocks of earthquake at 11:04, each about ten sec dur. The first quite light, the second much stronger and perhaps the most severe ever felt on the island [oahu]. Downtown the shocks were heavy, but not quite as hard at Waikiki and King street. The clock at Lucas' mill was stopped, and in the Interisland dock office a clock was thrown to the floor and smashed. At Fred Whitney's residence, King street, contents of house strewn in all directions. . . Telephone messages from Waialua and other places beyond the pali reported the earthquakes equally as strong as in Honolulu; The earthquake of 11:04 p.m. yesterday threw from the shelves of the Bishop Hall of Science several tall glass cylinders. . . the vibrations proceeded from a point about 10° to 12° north of east</p>	Wyss and others, 1992, p. 25; Cox, 1986 [Thrum, 1895]; PCA, 12/9/1895, p. 1; PCA, 12/10/1895, p. 5; isoseismal map consistent with location about 150 km west of Hawaii
12/08/1895	23:04	do	do	do	do	do				6.8	do	do	<p>Warshauer notes: Last Sunday night [Dec. 8] at 11 o'clock . . . a severe earthquake [occurred at Kau], followed by another . . . From reports the earthquakes were felt throughout the island, and more severe within a radius of thirty miles from the volcano [Kilauea]. At the volcano it was very light [from] fire [that] appeared in the crater Sunday night . . . ; A heavy earthquake shock was felt here [Hilo] shortly after eleven o'clock Sunday night--the first for months. The earthquakes that shook up Honolulu were also felt here [Hilo] at the same hours. The one at 11 o'clock began with a preliminary shock that wakened most of those who were asleep. After an interval of a second or two it was followed by a strong tremor that continued with decreasing force for probably thirty seconds [to] a full minute. The undulation proceeded from mauka to the sea. The waves were longer, and the shock less violent than is usual with such a considerable earthquake. On the Kona side the shocks [were] much more violent. . . the greatest shake up Kohala has had for years</p>	PCA, 12/14/1895, p. 1; PCA, 12/18/1895, p. 1
12/09/1895	1:04					kona os?						III	<p>Warshauer notes: [The shock at 11 pm] was followed by a lighter shock two hours later [at Hilo-possibly the one below, 4 hours later]</p>	PCA, 12/18/1895, p. 1

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
12/09/1895	3:20					kona os?				5.8	int	IV (Hon); III-IV (Hilo); 3.0 (Hilo-Cox); 1.5 (Honolulu-Cox)	cox time is 3:06; Lyman notes:20 mts after 3 a.m. - one slight shock; Warshauer notes: [A quake at Honolulu] most sensibly felt mauka occurred at 3:06 am; [At Honolulu] two shocks of earthquake were felt Monday morning [Dec. 9] at about 3:12 o'clock. The first lasted but a few seconds; the second being quite severe and of some fifteen seconds duration; . . . [at Hilo] one more shake 3 a.m. (Monday); At 3 o'clock there was a second prolonged tremor, less violent than the former; but characterized by the same long graceful undulations . . .	Wyss and others, 1992, p. 25; HS, 12/09/1895; PCA, 12/10/1895, p. 7; PCA, 12/18/1895, p. 1
12/09/1895	6:00					hawaii						3.0 (Hilo-Cox)	Lyman notes: 6 A.M. - another. It was reported that fire has come back into the crater at Kilauea & that there is a change with the look of the smoke	Wyss and others, 1992, p. 25
12/12/1895	4:00												Warshauer notes: the bottom of the crater had fallen in again and the fire disappeared	PCA, 12/14/1895, p. 1
12/13/1895	2:05					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	cox time is 2 am; Lyman notes: Slight shock felt in the night aft 2 a.m.	Wyss and others, 1992, p. 25; not in HG
1/03/1896	23:30												lava returned to Halemaumau; Lyman notes: fire returned in the lake at a great depth 450 ft below its rim. It continued in action only 3 or 4 weeks going out entirely on the night of Jan 28	Wood, 1917 chart 2, p. 118; Wyss and others, 1992, p. 25
1/26/1896													lava left Halemaumau	Wood, 1917 chart 2, p. 118
1/29/1896	5:15					kaoiiki?				3.8	int	IV; 5.5 (Hilo-Cox)	Lyman notes:1/4 after 5 A.M. earthquake felt 2 shocks quick & sharp; felt-Kapapala ranch; Warshauer notes: see entry for 1/31	Wyss and others, 1992, p. 25; PCA, 2/5/1896, p. 2
1/31/1896	11:59					kaoiiki?				5.0	int	V (kapapala)	Warshauer notes: A letter from Kapapala Ranch says that several light shocks of earthquake were felt during a few days previous to last Friday [Jan. 31st]. On that day a very heavy shock was experienced [More intrusion on Kilauea sw rift zone? See Lyman note on Jan. 3, 1896] [no time given]	PCA, 2/5/1896, p. 2
2/11/1896	14:59					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: P.M. very slight shock [time assumed]	Wyss and others, 1992, p. 25; not in HG
3/11/1896													Warshauer notes: Now that Pele has been shaking the neighboring country [Hilo dateline], a fresh burst of activity may be expected in a short while.	PCA, 3/11/1896, p. 7
4/20/1896	12:00					mauna loa?				3.5	int	III-IV	Warshauer notes: Pele's custom when making her appearance at Mokuaweoweo is to announce her arrival by a series of earthquakes. On this occasion her only warning was two slight shakes about 12 PM; From latest accounts from Kilauea there is hardly any change, but several shocks of earthquake are reported; Lyman notes: eq felt at the volcano, we did not feel it; several felt in Kau that week; Warshauer notes: Mokuaweoweo became active on April 20, 1896 [April 21?-see below], accompanied by two earthquakes felt in Kau	PCA, 4/23/1896, p. 1-2; Wyss and others, 1992, p. 25; PCA, 4/27/1896, p. 1-2

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/20/1896	23:59					maui?						III	Warshauer notes: During the 20th [April, 1896] a slight shock of earthquake was experienced at Ulupalakua [Maui]	PCA, 4/27/1896, p. 3
4/21/1896	1:30					mauna loa?				5.0	int	IV-V (Kau); III (Hilo)	Warshauer notes: Several severe shocks have been reported lately, both from Kau and from Hilo, which indicated increased activity in the volcanic craters; [At Kapapala ranch] we had five or six shakes about 1:30 Tuesday morning, April 21st. None of these were very severe, but the reflection was seen down at Pahala about 4 o'clock or earlier, so that the fire must have started soon after the cessation of the earthquakes. . . . ; The latest news from Hawaii is to the effect that there have been no earthquakes on the island since Tuesday morning, April 21st, the time of beginning of the outbreak	PCA, 4/23/1896, p. 1; PCA, 4/29/1896, p. 6
4/21/1896	2:00												Mauna Loa summit eruption begins. Warshauer notes: . . . the reflection was seen down at Pahala about 4 o'clock or earlier, so that the fire must have started soon after the cessation of the earthquakes. . . .	PCA, 4/23/1896, p. 1
4/21/1896	21:50					mauna loa?				4.5	int	III	Lyman notes: Mauna Loa eruption visible from Hilo on April 22; With the exception of a slight earthquake at 9:50 this evening, everything is quiet	Wyss and others, 1992, p. 25; VHR, v. 4, J.M. Lee entry dated 4/21/1896
4/24/1896	20:00												Warshauer notes: Glow was first reported at the summit of Mauna Loa at 8:00 p.m. on April 24, 1896 [Apr. 20?]	PCA, 5/1/1896, p. 1 [Dodge, 1896a]
4/25/1896	21:59					oahu?						III	Warshauer notes: Several residents felt a slight shock of earthquake Saturday night about town [Honolulu] [time assumed]	PCA, 4/28/1896, p. 7
5/3/1896	23:59												Warshauer notes: The eruption in Mokuaweoweo had waned as of May 3, 1896	PCA, 5/4/1896, p. 1
5/06/1896	5:59												Mauna Loa summit eruption ends; Warshauer notes: On the night of the 5th the fires ceased to loom up, and all signs of activity have disappeared [time assumed]	VHR entry of 6/5/1896; PCA, 5/14/1896
6/30/1896	23:59					mauna loa?						III (Kau); 3.5 (Cox)	Lyman notes: several slight eq's have been reported to us during May and June, but one did not feel them	Wyss and others, 1992, p. 25; not in HG
7/11/1896													lava returned to Halemaumau, continued for three weeks, then gradually died out, disappearing entirely in December 1896; Lyman notes: Fire came back to Kilauea in the Lake-remained through August, sometimes more & sometimes less, and seemed to be entirely gone by the first part of September 10th or so	Wood, 1917 chart 2, p. 118; Wyss and others, 1992, p. 25
9/13/1896	4:30					maui east?				5.3	int	IV	Lyman notes: At 4.30 A.M. slight shock	foreshock?; Wyss and others, 1992, p. 25

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment	
9/13/1896	4:59	20	50	155	50	maui east?			≥6	W&K	6.6	k&w	VII (Hamakua); VI (Hilo, Maui); V (Hon, Kilauea summit, Kohala); IV (Kau, Kona); VI (W&K); 6.0 (Hawaii); 6.0 (Hilo Cox); V (S&C)	Warshauer notes: There were two shocks of earthquake early Sunday morning [Honolulu] which shook people up considerably and banished sleep from the minds of many. . . The first shock was at 4:48 a.m. [4:58?-- assume same quake as below] and lasted perhaps three seconds, appearing to go off in a northeasterly direction. The sound died away gradually, lasting 15 or 20 seconds after the shock. Then after an interval of 10 seconds there came a second shock about equal in severity to the first but of shorter duration, apparently a reflection of the earthquake wave. It was impossible to tell from what direction the second shock came and it ended quite abruptly	PCA, 9/14/1896, p. 1; Wyss and Koyanagi, 1992; see also bib; Intensity map in W&K; new isoseismal map yields similar location to earthquake of January 22, 1938, but somewhat smaller magnitude
9/13/1896	4:59	do	do	do	do	do					6.6	do	do	cox time 5:59; Lyman notes:5 a.m. felt a heavy shake most a half a minute. began all at once very hard shook things down stopped clocks - splashed milk out of pans, & water from the Fish globe - waked every body in town - It was from N.W. to S.E.; no entry in VHR	Wyss and others, 1992, p. 25
9/13/1896	4:59	do	do	do	do	do					6.6	do	do	Warshauer notes: . . . the severest shock since 1868 was felt [atVolcano house] at one minute before 5 a.m. Sunday. . . [At Hilo] the shock came from NE to SW, light in the beginning and growing stronger during the 10 seconds it lasted. Dishes were thrown from the shelves in private houses and bottles from shelves and tables in the business section . . . [At] Wainaku . . . several pieces of valuable statuary and bric-a-brac . . . were thrown from their places and smashed to pieces. . . As an evidence of the shock a crack beginning at the sea and running north for half a mile [can be seen]. . . the stone wall around the Catholic Mission was thrown to the ground and one tree uprooted. . . shock at the crater was not as severe as in Hilo [not felt by some]. . . shock was severe [in Kohala], no damage. . . most severe shock experienced [on Maui] in many years. . . the shock was severely felt at every point [on Hawaii], no disturbance of the sea . . ; strong at Hamakua, light at Kau and Kona, crack in lava at Kilauea, Oahu considerably shaken	PCA, 9/16/1896, p. 1; HH, 9/17/1896; see bib for more complete damage reports
9/13/1896	14:59					maui east?					4.5	int	2.8 (Hilo-Cox)	Lyman notes: There was a slight jar in the afternoon. No more fire reported at the crater [time assumed]	[aftershock]; Wyss and others, 1992, p. 25
10/10/1896	9:59													Lyman notes: It was telephoned this morning that there is much activity in the crater - full of fire & reflection seen from Hilo - active only a little while [time assumed]	Wyss and others, 1992, p. 25

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
11/17/1896	13:45					kaoiki??				5.6	int	V-VI (kau); V (Hilo); 4.6 (Hilo-Cox)	cox time is 13:35; Lyman notes: A little after half past one P.M. 2 shocks of earthquake felt. great noise - seemed to come in direction of the volcano; Warshauer notes: Shortly before 2 o'clock last Tuesday afternoon Hilo was treated to an earthquake shock which was not severe enough to cause any damage, though it was quite a little shake. The quiver was quite generally felt over the island; Tuesday, November 17th we [at Kau] had a very heavy earthquake shake at 1:45 pm. This was felt all over the island	Wyss and others, 1992, p. 25; PCA, 11/23/1896; PCA, 11/25/1896, p. 3
11/18/1896	6:45					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Quarter before 7 A.M. slight shock	Wyss and others, 1992, p. 25; not in HG or HH, HT microfilm missing
11/24/1896	11:59												Warshauer notes: Kilauea is very active. Last night fire was thrown from a cone over 100 feet high, and the reflection was seen all over the district. This is the first time any such reflection has been seen for two or three years; The volcano of Kilauea was very active on Monday night [no time given]	PCA, 11/?/1896; HH, 11/26/1896, p. 3
11/25/1896	2:15					south hawaii?				3.8	int	IV	Warshauer notes: A slight shock of earthquake was felt yesterday morning at 2:15 o'clock [Hilo]	HH, 11/26/1896, p. 3
11/25/1896	4:20					hilea??				5.6	int	V-VI (kau); IV (Hilo); 2.8 (Hilo-Cox)	Lyman notes: Twenty minutes after 4 a.m. one long tremble; Warshauer notes: Nov. 25th (4 a.m.) we [in Kau] had a very heavy shock of earthquake which wakened us from sleep. It was one of those old time rumblers which come without warning and go with a rumble that suggests a repetition	PCA, 11/?/1896
11/25/1896	11:59					south hawaii?						III	Lyman notes: a slight one later [than previous event] [no time given]	Wyss and others, 1992, p. 25; not in HT or HH
12/31/1896	21:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: one slight shock after 9 PM	Wyss and others, 1992, p. 25; not in HT or HH
2/04/1897	5:30					north hawaii?				3.8	int	IV (Waimea); 3.0 (Hilo-Cox)	Lyman notes: 5 30 a.m. slight shock. Felt in Waimea with more force	Wyss and others, 1992, p. 25-26; not in HT or HH
2/15/1897	18:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Slight shock at 6. P.M. no fire in Kilauea	Wyss and others, 1992, p. 26; not in HT or HH
3/08/1897	11:59					maui?				3.8	int	IV (Maui); I (Hilo)	Lyman notes: We heard that there was a heavy one felt in Paina [near Hana, Maui] on the 8th of March [no time given]	Wyss and others, 1992, p. 26; not in HT or HH
3/10/1897	5:15					south hawaii?				5.3	int	5.2 (Hilo-Cox)	cox time is 5 am; Lyman notes: Quarter after 5-A.M. one decided shock N.W. to S.E.	Wyss and others, 1992, p. 26; not in HT or HH
3/13/1897	23:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Saturday evening near eleven o'clock - slight	Wyss and others, 1992, p. 26; not in HT or HH
3/14/1897	3:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: About 3. a.m. slight earthquake 2 slight shocks	Wyss and others, 1992, p. 26; not in HT or HH
3/22/1897	15:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: About 3 P.M. slight earthquake 2 slight shocks	Wyss and others, 1992, p. 26; not in HT or HH
4/01/1897	16:00					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: About 4 P.M. one shock, quite decided	Wyss and others, 1992, p. 26; not in PCA, HG, HS, HEB, HT or HH
4/09/1897	21:45					hilea?				3.8	int	IV	Warshauer notes: On Friday evening last [Apr. 9] at about 9:45 pm there was quite a lively shock of earthquake felt at both Pahala and Naalehu	HT, 4/17/1897, p. 4

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
4/23/1897	9:40					south hawaii?						III; 4.6 (Hilo-Cox)	Lyman notes: Friday morning 20 mts to 10, one shock. There is said to be a great deal of smoke at the Volcano - towards Puna	Wyss and others, 1992, p. 26; not in HT or HH
5/06/1897	21:00					south hawaii?				5.3	int	5.2 (Hilo-Cox)	Lyman notes: At nine in the evening one shock with rumbling sound & long trembling	Wyss and others, 1992, p. 26; not in HT or HH
6/11/1897	9:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: Early in the morning a long gentle shake [time assumed]	Wyss and others, 1992, p. 26; not in HT or HH
6/24/1897													lava returned to Halemaumau for three days only; Lyman notes: It was telephoned from the volcano that fire had come back into the crater.	Wood, 1917 chart 2, p. 118; Wyss and others, 1992, p. 26
7/07/1897	10:00					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: 10 o'clock A.M. - slight shock - Word comes from the crater that the fire has gone again, & only smoke, & very little reflection	Wyss and others, 1992, p. 26; not in HT or HH
8/06/1897	4:00					south hawaii?				4.5	int	IV-V; 3.0 (Hilo-Cox)	Lyman notes: Slight shock about 4 a.m. direction from the volcano toward the shore	Wyss and others, 1992, p. 26; not in HT or HH
8/16/1897	23:59					oahu??				3.8	int	IV; 3.0 (Hon-Cox)	Lyman notes: An earthquake felt in Honolulu short but 'very strong'	Wyss and others, 1992, p. 26; not in HT or HH
8/31/1897	23:59					south hawaii?						III	Lyman notes: Several slight shakes during latter part of Aug [no dates or times]	Wyss and others, 1992, p. 26; not in HT or HH
9/16/1897	11:59					south hawaii?						III	Lyman notes: [a shake?] in September about the 16; Fire in the lake on this day and also on the 18th. Continued on for a couple of weeks or so this went down again [no time given]	Wyss and others, 1992, p. 26; not in HT or HH
10/24/1897	17:18					kl sf?				5.3	int	5.5 (Hilo-Cox)	cox time is 17:00; Lyman notes: 18 mts after 5 P.M. - one quick hard shock	Wyss and others, 1992, p. 26; not in PCA, HG, HS, HEB, HT or HH
11/30/1897	23:59					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: several very slight shakes [in November-no dates or times]	Wyss and others, 1992, p. 26; not in HT or HH
12/03/1897	11:59					kahoolawe				3.8	int	IV	Warshauer notes: During Friday the 3rd, three unusually heavy earthquakes were felt on the island of Kahoolawe. . . . No earth tremors were felt on Maui. [no times given]	PCA, 12/6/1897, p. 8
12/18/1897	18:20					mauna loa?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: 20 minutes after 6 P.M. - one long shake continued trembling from the mountain to the shore	Wyss and others, 1992, p. 26; not in PCA, HG, HS, HEB, HT or HH
12/19/1897	5:40					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: 20 mts of six A.M. - one shake not so long as last night, but from the same quarter	Wyss and others, 1992, p. 26; not in HT or HH
12/24/1897	3:00					south hawaii?				3.8	int	IV	Warshauer notes: There were two light shocks of earthquake about 3 o'clock yesterday morning	HH, 12/25/1897, p. 5
12/31/1897	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: the latter part [of December, no dates or times] were several slight shakes in Hilo, and more felt at Olaa. At the Volcano heavy smoke but no fire [More intrusion?]	Wyss and others, 1992, p. 26; not in HT or HH
1/14/1898	23:59					south hawaii?						2.0 (Hilo-Cox)	Lyman notes: Several very slight shocks felt 1st & 2 week [of January, 1898-no date of time; more intrusion?]	Wyss and others, 1992, p. 26; not in HT or HH
1/25/1898	19:30					south hawaii?						3.0 (Hilo-Cox)	cox time is 19:30; Lyman notes: 7-30 P.M. a slight shock felt	Wyss and others, 1992, p. 26; not in HT or HH
2/04/1898	3:00					south hawaii?				3.8	int	4.0 (Hawaii); 4.0 (Hilo-Cox)	cox time is 3 am; Lyman notes: 3-A.M. one shock like long trembling - and the windows rattled	Wyss and others, 1992, p. 26; not in HT or HH

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/28/1898	17:00					oahu?				3.8	int	IV	Warshauer notes: Kakaako [Honolulu] experienced an earthquake, very light and seems to have been local; people ran from houses; manner in which the earthquake started seemed to give promise of others to follow but nothing more happened	PCA, 3/1/1898, p. 3
3/25/1898	11:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: One shock felt the last week in the month, at 11 o'clock A.M., quite decidedly marked in some parts of town, not noted in other parts [date assumed]	Wyss and others, 1992, p. 26; not in HT or HH
4/15/1898	23:00					south hawaii?				3.8	int	IV; 3.5 (Hilo-Cox)	cox time is 13:00; Lyman notes: one [during month of April, 1898] at 11 o'clock at night felt by many members of the household [date assumed]	Wyss and others, 1992, p. 26; not in HT or HH
4/15/1898													Warshauer notes: date (?); word comes from Kona that large quantities of pumice have been seen floating off shore of the beaches; [another Mauna Loa undersea eruption??]	PCA, 4/21/1898
4/30/1898	23:59					south hawaii?						III; 4.6 (Hilo-Cox)	Lyman notes: several slight shocks noted during the month [no date or time; more intrusion?]	Wyss and others, 1992, p. 26; not in HT or HH
5/01/1898	16:57					east hawaii?				5.3	int	V; 4.0 (Hawaii); 4.0 (Hilo-Cox)	cox time is 16:55; Lyman notes: A very decided earthquake at a little before 5 o'clock P.M. direction mauka to makai a decided rumbling first,-then two decided shocks which shook doors & windows perceptibly; Warshauer notes: A quite heavy earthquake shock was felt a week ago Sunday [May 1] at Honokaa.	Wyss and others, 1992, p. 26; PCA, 5/10/1898, p. 7
5/01/1898	22:30					east hawaii?				3.8	int	IV	Lyman notes: 10.30 P.M. Another slight shock took place felt by all the household	Wyss and others, 1992, p. 26; not in HT or HH
5/17/1898	16:55					south hawaii?				5.4	int	5.2 (Hilo-Cox)	Lyman notes: Tuesday Five minutes of five P.M. a decided shock. A long tremble & strong up & down shake	Wyss and others, 1992, p. 26; not in HT or HH
7/03/1898	23:59					south hawaii?						3.0 (Hilo-Cox)	Lyman notes: one shock [no time]	Wyss and others, 1992, p. 26; not in HT or HH
7/31/1898	23:59					south hawaii?						III	Lyman notes: several other slight shocks felt during the month [July; more intrusion?]	Wyss and others, 1992, p. 26; not in HT or HH
8/05/1898	6:00					kaoiki?				4.5	int	IV-V; 4.0 (Hawaii); 5.2 (Hilo-Cox)	Lyman notes: one shock decidedly felt-windows and doors rattled; Warshauer notes: A rather heavy earthquake shock was experienced in Kau about six o'clock yesterday morning. It was apparently quite restricted in area, as no effects were felt in this vicinity [Hilo]; Punaluu, Kau, Aug. 13.--On August 5, at 6:30 a.m., there was a very heavy earthquake shock in this district--the strongest felt here in some time. It shook dishes, etc., up in great shape	Wyss and others, 1992, p. 26; HT, 8/6/1898, p. 5; PCA, 8/22/1898, p. 3
8/06/1898	6:00					hilea?				4.5	int	IV-V (kau); 3.0 (Hilo-Cox)	Lyman notes: one slight shock; others felt in Kau much heavier	Wyss and others, 1992, p. 26; not in HT or HH
8/19/1898	6:50					maui deep??				5.0	int	III (Hon, Hilo)	Warshauer notes: A slight earthquake shock was felt in the city [Honolulu] at 6:50 yesterday morning. A noticeable tremor was felt at the weather observatory at Punahou; A slight shock of earthquake was felt in Hilo at 6:55 on Friday morning [Aug. 19]	PCA, 8/20/1898, p. 7; HT, 8/20/1898, p. 5

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
8/30/1898	14:30					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: At 2:30 P.M. an earth quake	Wyss and others, 1992, p. 27; not in HT or HH
9/11/1898	5:35					kl sf?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: A sharp quick shock 5.35 a.m	Wyss and others, 1992, p. 27; not in HT or HH
9/15/1898	11:45					south hawaii?				5.3	int	V; 5.5 (Hilo-Cox)	Lyman notes: Quarter to 12 - noon an earthquake. 2 shocks hard, with long continued trembling. direction about North & South with noise before it came; Warshauer notes: A shock of earthquake, heavy enough to be interesting, but quite harmless, was felt in Hilo at ten minutes before twelve o'clock Thursday morning [Sept. 15]. . . .	Wyss and others, 1992, p. 27; HT, 9/17/1898, p. 5
9/18/1898	19:25					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: Another shock - not so severe - at 7.25 P.M.	Wyss and others, 1992, p. 27; not in HT or HH
12/04/1898	3:30					mauna loa?				5.3	int	4.6 (Hilo-Cox)	Lyman notes: At 3.30 one shock; Warshauer notes: The S.S. Mauna Loa, arrived yesterday from Hawaii, reports a heavy shock of earthquake in Kau last Sunday [12/04]	Wyss and others, 1992, p. 27 [am assumed]; PCA, 12/10/1898, p. 9
12/04/1898	3:33					mauna loa?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: three minutes after it another shock	Wyss and others, 1992, p. 27 [am assumed]
12/14/1898	21:00					south hawaii?				3.8	int	IV; 4.6 (Hilo-Cox)	Lyman notes: About 9. P.M. one shock felt more upstairs than down	Wyss and others, 1992, p. 27; not in HT or HH
12/21/1898	9:59					south hawaii?				3.8	int	IV	Warshauer notes: A rather heavy shock of earthquake was felt in Hilo on Wednesday forenoon [Dec. 21 or 14] [time assumed]	HT, 12/24/1898, p. 5
12/29/1898	21:00					south hawaii?				4.5	int	IV; 4.6 (Hilo-Cox)	Lyman notes: About 9. P.M. one shake like long tremble	Wyss and others, 1992, p. 27; not in HT or HH
12/30/1898	2:00					mauna loa?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: 2 AM - one shake - long trembling, but slight	Wyss and others, 1992, p. 27; not in HT or HH
1/04/1899	2:10					south hawaii?				5.3	int	V; 5.0 (Hawaii); 6.0 (Hilo-Cox)	Lyman notes: 10 mts after 2 A.M. one long shock from S. East to North West. waked us all up; Warshauer notes: An earthquake shock was felt at Hilo at 4 o'clock last Wednesday morning [times discrepant-same shock?]	Wyss and others, 1992, p. 27; PCA, 1/9/1899, p. 9
1/23/1899	2:00					south hawaii?				3.8	int	IV; 3.0 (Hilo-Cox)	Lyman notes: About 2 a.m. one slight shock	Wyss and others, 1992, p. 27; not in HT or HH
3/06/1899	10:30					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: About 10.30. AM one shock-North and South	Wyss and others, 1992, p. 27; not in HT or HH
3/24/1899	11:59												further breakdown [collapse] of Halemaumau [no time given]	Wood, 1917 chart 2, p. 118:
5/31/1899	23:59					north hawaii?						III	Lyman notes: In Waimea an earthquake was felt in May - but not noticed in Hilo [no date or time]	Wyss and others, 1992, p. 27; not in HT or HH
6/20/1899	19:45					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: About 15 mit of 8. P.M. - two shocks - North & South	Wyss and others, 1992, p. 27; not in HT or HH

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/04/1899	2:00												Mauna Loa summit eruption begins in Mokuaweoweo; moves to upper NE rift two hours later. Lyman notes: There was an eruption from Mauna Loa early in the morning of 4 of July. It broke out near the same place as the flow of 1880; Warshauer notes: Fennell describes the opening phases of the eruption of Mauna Loa, which began about 3:15 a.m., July 4, 1899. No premonitory earthquake was felt; At twenty minutes to two, Tuesday morning [Jul. 4] our cook . . . said the volcano must be active as he had heard a noise like a cannon shot. . . The glare over the crater of Mokuaweoweo showed clearly where the disturbance was. . .	Wyss and others, 1992, p. 27; PCA, 7/08/1899, p. 1 [Fennell, 1899], p. ?; no mention in HT or HH!!
7/04/1899	16:00												Warshauer notes: On Tuesday afternoon the activity in the crater apparently ceased and at 4 o'clock the molten lava made its appearance on the edge of the ridge about 3000 feet from the summit and in about [copy cut off]	PCA, 7/08/1899, p. ?
7/07/1899	0:00					mauna loa?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: There were several slight shakes about 12 o'clock (midnight)	Wyss and others, 1992, p. 27; not in HT, HH 7/13 missing
7/07/1899	3:00					mauna loa?				3.5	int	3.0 (Hilo-Cox)	Lyman notes: 3-a.m. slight shock	Wyss and others, 1992, p. 27; not in HT, HH 7/13 missing
7/11/1899	10:40					mauna loa?				4.5	int	IV-V; 5.2 (Hilo-Cox)	Lyman notes: There was a decided shake at 20 mts of eleven o'clock a.m - coming on & going off with long trembling	Wyss and others, 1992, p. 27; not in HT or HH
7/24/1899	6:00												Mauna Loa NE rift eruption ends. Warshauer notes: The cessation of the flow occurred almost as suddenly as the outbreak. Those who took their last glance at Mauna Loa's stream of fire on the evening of the 23d inst., were astonished to find on the next morning that all was quiet	PCA, 7/29/1899, p. 3 [Whitney, 1899]
7/24/1899	12:00					kaoiiki?				5.3	int	V	Warshauer notes: During the day [July 24, following the eruption end] the whole island of Hawaii was shaken with earthquakes of various degrees. None were very heavy and no damage was done. . . On Monday [July 24] about lunchtime Hawaii had a heavy earthquake. It was most severe at Hilo and vicinity and very light here [Punaluu]; Mr. Baldwin reports the eruption as having ceased. . . It appears to have subsided about the time that the earthquake shock of the early part of the week occurred. . . .	PCA, 7/29/1899, p. 3 [Whitney, 1899]; HT, 7/29/1899, p. 5
8/23/1899	21:59												Possible eruption on Kilauea's east rift zone. Warshauer notes: Reports of a volcanic eruption in Puna were circulated on Wednesday night [Aug. 23]. It seems that someone at 9 miles on the Volcano Road had seen a considerable glow in the direction of the old crater in that district and telephoned his suspicions of the cause thereof to town. . . [time assumed]	HT, 8/26/1899, p. 5
8/24/1899	21:59					south hawaii?				4.5	int	IV-V	Warshauer notes: Rather heavy earthquake shocks were experienced in Oloo and Hilo on Thursday night [time assumed]	PCA, 8/28/1899, p. 11

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
8/31/1899	23:59					south hawaii?						III	Lyman notes: There were several slight shocks of earthquake during August [no date or time] - no action at Kilauea but a great deal of smoke	Wyss and others, 1992, p. 27; not in HT or HH
10/29/1899	22:10					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: Ten mts after 10 P.M. - an earthquake with two decided shocks though not very hard passing off with long trembling	Wyss and others, 1992, p. 27; not in HT or HH
10/31/1899	7:10					south hawaii?				5.3	int	V; 4.0 (Hawaii); 2.8 (Hilo-Cox)	Lyman notes: Ten mts. after 7. a.m. one long tremble; windows and doors shook and the ferns in their places shook; other slight shakes reported which we did not feel	Wyss and others, 1992, p. 27; not in HT or HH
11/06/1899	1:00					mauna loa?				5.3	int	V (kau); I-III (Hilo)	Lyman notes: quite severe earthquake in Kau reported, at 1 ac [sic-1 oc; AM assumed] (not felt in Hilo)	Wyss and others, 1992, p. 27; not in HT or HH
11/11/1899	20:20					south hawaii?				4.5	int	4.6 (Hilo-Cox)	Lyman notes: 20 mts after 8. P.M. 2 shocks went off with long trembling; Warshauer notes: Last Saturday evening at 8:20 the most severe earthquake shock was felt in Hilo since the eruption on Mauna Loa. Though no damage was done the residents said There's a shock.	Wyss and others, 1992, p. 27; PCA, 11/20/1899, p. 11
11/26/1899	15:00					south hawaii?				3.8	int	IV	Lyman notes: 3. P.M. - one shock - north & south	Wyss and others, 1992, p. 27
11/27/1899	21:59					south hawaii?				3.8	int	IV	Warshauer notes: Two fairly good shocks of earthquake were felt in Hilo Monday night [Nov. 27] [time assumed]	HH, 12/2/1899, p. 5
12/10/1899	23:59					kilauea?				4.5	int	V	Warshauer notes: an earthquake shock in the vicinity of the volcano overturned a stone wall and started the smoke a booming in Kilauea [no date or time given]	PCA, 12/11/1899, p. 13
1/16/1900	1:45					south hawaii?				4.5	int	IV-V	Warshauer notes: There was a sharp shock of earthquake at 1:45 yesterday morning [Jan. 16]	HH, 1/17/1900, p. 5
1/31/1900	23:59												Lyman notes: In Jan. there were no earthquakes to speak of	Wyss and others, 1992, p. 27
2/27/1900	2:00					south hawaii?						III	Warshauer notes: A slight earthquake on Monday morning at about two o'clock, was noted [in Hilo] by those whom trouble conscience or indigestion caused to sleep but ill.	HT, 3/3/1900, p. 5
2/29/1900	23:59												Lyman notes: In Feb. there were no earthquakes to speak of	Wyss and others, 1992, p. 27
3/31/1900	23:59												Lyman notes: In March there were no earthquakes to speak of	Wyss and others, 1992, p. 27
4/30/1900	23:59												Lyman notes: In April there were no earthquakes to speak of	Wyss and others, 1992, p. 27
5/29/1900	18:59					south hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Lyman notes: In May there was one that all noticed & several slight trembles; Warshauer notes: A light shock of earthquake was experienced in Hilo on Tuesday evening [May. 29] [time assumed]	HT, 6/2/1900, p. 5
6/07/1900	9:50					east hawaii?						2.0±1.8 (Hilo-Cox)	cox time 9:55; Lyman notes: one at 5 mts to 10 [am assumed]; Warshauer notes: Earthquake reported from Pepeekeo, 7th	Wyss and others, 1992, p. 27; PCA, 7/19/1900, p. 7
6/27/1900	5:30					mauna loa?				4.5	int	IV-V (W&K-kau); III (W&K-hilo); 4.0±1.8 (Hilo-Cox)	Heavy in Kau; Lyman notes: about 5-30 a m. there was a very long tremble, then a slight shock which went off with a trembling from North to South	Wyss and Koyanagi, 1992; Wyss and others, 1992, p. 27; not in HH

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
7/10/1900	20:40					south hawaii?				5.3	int	V; 6.0±1.5 (Hilo-Cox)	Lyman notes: Twenty mts of 9 P.M. one shock quite hard coming and going off with long S.W. to N.E. trembling.; Warshauer notes: A rather heavy shock of earthquake at about nine o'clock on Tuesday evening	Wyss and others, 1992, p. 27; HT, 7/14/1900, p. 5
8/31/1900													Lyman notes: No earthquakes to note in Aug. - unless so slight they were not noticed	Wyss and others, 1992, p. 27
9/30/1900													Lyman notes: No earthquakes to note in Sep - unless so slight they were not noticed	Wyss and others, 1992, p. 27
10/11/1900	0:03					south hawaii?				4.5	int	IV-V; 3.5±1.8 (Hilo-Cox)	cox time is 0:05; Lyman notes: Just after midnight a long continued gentle trembling in two shocks windows rattled; Warshauer notes: A rather heavy shock of earthquake was felt by many residents of Hilo on last Wednesday evening between eleven and twelve o'clock. The pitching and rocking of the earth brought some alarm to those who roost above the ground floor; [felt at] Hilo, 10th, 11 p.m. [same event?]	Wyss and others, 1992, p. 27; HT, 10/13/1900, p. 5; PCA, 11/16/1900
10/12/1900	3:57					south hawaii?				5.3	int	V; 5.5±1.5 (Hilo-Cox)	cox time is 3:55; Lyman notes: Just before 4-A.M. an earthquake with three shocks, none of them very severe but enough to throw things down that were on the piano - from South to North; Warshauer notes: Earthquake felt at Hilo and Pepeekeo at 3:45 a.m.	Wyss and others, 1992, p. 27; PCA, 11/16/1900, p. 12
10/25/1900	14:45					south hawaii?						III; 4.5±1.5 (Hilo-Cox)	Lyman notes: 1/4 of 3-P.M. 2 - shocks	Wyss and others, 1992, p. 28; not in HH
11/22/1900	2:00					south hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Lyman notes: There were two earthquakes in the night. One slight, the other two shocks [time assumed]	Wyss and others, 1992, p. 28; not in HH
11/22/1900	3:00					south hawaii?				4.5	int	4.5±1.5 (Hilo-Cox)	Lyman notes: do	Wyss and others, 1992, p. 28; not in HH
11/25/1900	2:00					south hawaii?				4.5	int	4.5±1.5 (Hilo-Cox)	Lyman notes: Earthquake in the night 2 shocks [time assumed]	Wyss and others, 1992, p. 28; not in HH
11/30/1900													Warshauer notes: no earthquakes reported in the weather summary for November 1900	PCA, 12/18/1900
12/5/1900	11:59					north hawaii?						III	Warshauer notes: There was a slight earthquake at Waimea, Hawaii, on the 5th. [no time given]	PCA, 1/17/1901, p. 12
1/14/1901	22:00					south hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Lyman notes: 10 in the evening one shock	Wyss and others, 1992, p. 28; not in HH
1/16/1901	1:45					maui??				5.6	k&w	IV; 4.5±1.5 (Hilo-Cox)	cox time is 2 am; Lyman notes: 2 A.M. (Jan. 16) Two shocks; Warshauer notes: A slight earthquake was reported about 2 o'clock Wednesday morning, felt by only a few [on Oahu]; The report of a slight earthquake shock at a quarter past two o'clock last Wednesday morning [Jan. 16], has been corroborated by a report of a shock felt at Waimea at the same hour; Slight earthquake on Jan. 16; 1:45 a.m., felt at Honolulu, Hilo and Waimea	Wyss and others, 1992, p. 28; PCA, 1/18/1901, p. 5; 1/23/1901, p. 11; 2/15/1901, p. 14; region/magnitude assigned by analogy with earthquake of April 21, 1881 (K&W) and March 19, 1926 (W&K)
1/24/1901	15:00					north hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Lyman notes: about 3 P.M. an earthquake with two shocks and long trembling first & trembling between and went off the same way; Warshauer notes: on Jan. 24 at 3 p.m., [felt] at Waimea and Hilo	Wyss and others, 1992, p. 28; PCA, 2/15/1901, p. 14

Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/21/1901	7:15					south hawaii?						III	Warshauer notes: a slight shock of earthquake was felt [in Hilo] at 7:15 yesterday [Mar. 21] morning; Earthquake at Hilo, 21st, 7:15 a.m.	PCA, 3/25/1901, p. 11; PCA, 4/16/1901, p. 8
4/02/1901	22:00					maui?						III	Warshauer notes: Lahaina [Maui], April 4--Was it a diminutive earthquake? About 10 o'clock Tuesday night [Apr. 2] several persons thought they perceived a slight tremor in their houses, accompanied with singular noises. The strange phenomenon lasted for only a few moments.	PCA, 4/9/1901; not in MN
4/16/1901	3:00					south hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Lyman notes: One shock at 3 A.M.; Warshauer notes: Earthquake at Hilo, 16th, at 2:55 am	Wyss and others, 1992, p. 28; PCA, 5/18/1901, p. 11
4/26/1901	3:45					south hawaii?				3.8	int	IV	Warshauer notes: Earthquake at Hilo, 26th, at 3:45 am	PCA, 5/18/1901, p. 11
6/06/1901	18:00					south hawaii?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	cox time is 18:00; Lyman notes: One shock at about 6 P.M.; Warshauer notes: A sharp earthquake occurred [in Kau] at 3:50 p.m. June [date obscured]	Wyss and others, 1992, p. 28
6/07/1901	15:50					mauna loa?				3.8	int	IV; 4.5±1.5 (Hilo-Cox)	Warshauer notes: Waiohinu, Kau, June 8--A sharp earthquake occurred at 3:50 p.m. June [date obscured]; date assumed	PCA, 6/12/1901, p. 7
7/02/1901													Warshauer notes: Shiny, jet-black pumice reported found floating in Kealakekua Bay for miles in every direction; thought to be another submarine eruption analogous to 1877; see also bib	PCA, 7/3/1901
8/10/1901													Warshauer notes: tsunami observed along Kona coast, not observed on Kau or Kohala coast; natives believe it was generated by a submarine eruption	PCA, 8/14, 16, 17, 19, 9/14/1901
8/30/1901													Warshauer notes: U.S. transport Solace passed through a stretch of water covered with pumice and cinder indicating a submarine eruption; [see entry for July 2, 1901]	HT, 8/30/1901
11/15/1901	22:00					south hawaii?				4.5	int	IV-V (Kilauea summit); IV (Hilo); 4.5±1.5 (Hilo-Cox)	Lyman notes: One shock about 10 P.M.; Warshauer notes: A vigorous earthquake was felt on this island Friday night [Nov. 15] at 10 o'clock. The shock came in two distinct waves, probably ten seconds apart. The second was the more violent of the two and made the windows rattle in many Hilo homes. At the Volcano Hotel the quaking was felt and the opinion of the manager was that the seismic wave started from the nether regions of Mauna Loa; Earthquake at Hilo, 15th at 10 p.m.	Wyss and others, 1992, p. 28; HT, 11/22/1901, p. 5; PCA, 12/17/1901, p. 9; not in MN
11/21/1901	23:59					south hawaii?						III	Warshauer notes: a light one on the 21st [felt in Hilo--no time]	PCA, 12/17/1901, p. 9
12/02/1901	19:30					south hawaii?						III	Warshauer notes: There was a slight shock of earthquake at 7:30 Monday night [Dec. 2]	HH, 12/5/1901, p. 7
2/09/1902	18:25					north hawaii?				3.8	int	IV?	Warshauer notes: 9th, 6:25 p.m. [felt at Waimea, Kohala and Hilo]	PCA, 3/18/1902, p. 9
2/14/1902													fresh black lava at bottom of [Halemaumau] indicating unobserved action a little before this date	Wood, 1917 chart 2, p. 118
2/20/1902	5:30					north hawaii?				3.8	int	IV?	Warshauer notes: 20th, 5:30 a.m. [felt at Waimea, Kohala and Hilo]	PCA, 3/18/1902, p. 9

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
3/30/1902	22:00					south hawaii?						III	Warshauer notes: An earthquake was reported at Hilo March 30, 10:09 p.m.	PCA, 4/15/1902, p. 12
4/07/1902	22:30					maui??				4.7	k&w	II-III (Hon); 3.0±1.8 (Hilo-Cox)	cox time is 22:00; Lyman notes: One slight shock at 10 P.M.; Warshauer notes: Earthquake on Hawaii on the 7th, 10:30 p.m., also noticed at Honolulu	Wyss and others, 1992, p. 28; PCA, 5/16/1902, p. 12; not in MN; magnitude inferred from intensity-distance relation
5/31/1902													Warshauer notes: smoke and ashes seen issuing from Mokuaweoweo; natives from Kawaihae confirm first story of outbreak; no quakes reported in weather summary for May, 1902	PCA, 6/10, 14/1902
6/1/1902	11:59					east hawaii??						III	Warshauer notes: The Kinau brought news yesterday of slight earthquake shocks in the Hamakua district [no time given]	PCA, 6/2/1902, p. 7
6/03/1902													lava visible [in Halemaumau] throughout early part of June	Wood, 1917 chart 2, p. 118
6/03/1902	22:00					east hawaii??						III	Warshauer notes: An earthquake at Hamakua on the 3rd at 10 p.m.	PCA, 7/15/1902, p. 12
6/13/1902	6:20					south hawaii?				3.8	int	IV	Warshauer notes: An earthquake at Hilo on the 13th at 6:20 a.m.	PCA, 7/15/1902, p. 12
6/14/1902	3:00					south hawaii?				3.8	int	IV	Warshauer notes: An earthquake at Hilo on the 14th at 3 a.m.	PCA, 7/15/1902, p. 12
6/16/1902	16:25					north hawaii?						III	Warshauer notes: An earthquake at Hamakua and Waimea on the 16th at 4:25 p.m.	PCA, 7/15/1902, p. 12
6/17/1902	5:15					south hawaii?				3.8	int	IV; 3.0±1.8 (Hilo-Cox)	Lyman notes: Slight shock at 5:15 this A.M.	Wyss and others, 1992, p. 28
7/15/1902	12:45					south hawaii?						III	Warshauer notes: Earthquake, Pepeekeo, Hilo, reports 15th, 12:45 p.m.	PCA, 8/15/1902, p. 12
8/08/1902	14:15					south hawaii?						III	Warshauer notes: A slight earthquake was felt in Hilo last Friday afternoon at 2:25 p.m.; Earthquake felt at Hilo and Pepeekeo on Aug. 8th at 2:15 p.m. [discrepant times-probably same event]	HT, 8/15/1902. P. 5; PCA, 9/16/1902, p. 12
8/15/1902	14:26					south hawaii?						III	Warshauer notes: Hilo, 15--2:26 p.m	PCA, 9/16/1902, p. 12
8/25/1902													lava returns to Halemaumau. Lyman notes: Fire returned in Kilauea abt. Aug. 25. & lasted a week & a half; Warshauer notes: Lake of molten lava 400 feet in diameter appeared in the bottom of Halemaumau pit in Kilauea crater on the evening of the 25th, said to be 800 or more feet below general floor of crater, but rising	Wood, 1917 chart 2, p. 118; Wyss and others, 1992, p. 28; PCA, 9/16/1902, p. 12
8/25/1902	11:59					south hawaii?						III	Warshauer notes: Hilo, 25th [no time given]	PCA, 9/16/1902, p. 12
8/26/1902	19:00					south hawaii?						III	Warshauer notes: Papaaloo, 26th, 7 p.m.	PCA, 9/16/1902, p. 12
8/27/1902	3:00					south hawaii?						III	Warshauer notes: Papaaloo, 27th, 3 a.m	PCA, 9/16/1902, p. 12
9/12/1902													lava disappears from Halemaumau	Wood, 1917 chart 2, p. 118
9/15/1902													lava returns to Halemaumau; Warshauer notes: During the first half of the month the lava disappeared from the pit in Kilauea, on the 16th active again and rising, light visible at 30 miles distance. The glows brighter than in August	Wood, 1917 chart 2, p. 118; PCA, 9/16/1902, p. 12
9/19/1902	17:30					kona?						III	Warshauer notes: Kealakekua 19th, 5:30 p.m.	PCA, 10/15/1902, p. 12
9/24/1902	21:30					south hawaii?						III	Warshauer notes: Pepeekeo, 24th, 9:30 p.m.	PCA, 10/15/1902, p. 12

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
9/25/1902	11:59					mauna loa?				3.5	int	III; 5.0±1.5 (Hilo-Cox)	Lyman notes: slight, but long continued [no time given]	Wyss and others, 1992, p. 28
9/26/1902	18:59					north hawaii?						III	Warshauer notes: Waimea 26th evening [time assumed]	PCA, 10/15/1902, p. 12
9/27/1902	18:59					north hawaii?						III	Warshauer notes: Waimea 27th evening [time assumed]	PCA, 10/15/1902, p. 12
9/28/1902	6:25					kl sf??				5.6	int	5.5±1.5 (Hilo-Cox)	Lyman notes: Sunday, 6:25 A.M. a smart short earthq. 2 shocks; Warshauer notes: Hilo, 28th, 6:13 a.m., smart shock, severest in six years, also felt in Waimea	Wyss and others, 1992, p. 28; PCA, 10/15/1902, p. 12
10/13/1902													lava returns to Halemaumau	Wood, 1917 chart 2, p. 118
10/16/1902	4:30					maui deep?				5.5	k&w	V (maui); IV-V (Hilo); IV (Hon); 3.0±1.8 (Hilo-Cox)	Lyman notes: Slight shock at 4:30 A.M.; Warshauer notes:4:31 am; Warshauer notes: quite a heavy shock of earthquake felt in the Makawao region, Maui early Wednesday morning the 15th [assume Thursday 16th to agree with other reports]; The people of Hilo were awakened about 4 o'clock Thursday by a slight earthquake shock; slight but decided earthquake felt at Honolulu 4:31 am 16th--same reported from Kohala, Waimea (2 shocks), and Hilo (Pepeekeo)	Wyss and others, 1992, p. 28; PCA, 10/20/1902, p. 2; HT, 10/17/1902, p. 5; PCA, 11/17/1902, p. 4; not in MN; region/magnitude assigned by analogy to earthquake of April 21, 1881 (K&W) and March 19, 1926 (W&K)
10/20/1902	5:30					north hawaii?						III	Warshauer notes: On the 20th, Kohala, 5:30 a.m.	PCA, 11/17/1902, p. 4
10/25/1902	0:00					south hawaii?						3.0±1.8 (Hilo-Cox)	Lyman notes: slight shock at midnight	Wyss and others, 1992, p. 28; not in HH
10/26/1902	15:05					north hawaii?						III	Warshauer notes:26th, Waimea, 3:05 pm	PCA, 11/17/1902, p. 4
10/26/1902	23:05					north hawaii?						III	Warshauer notes:26th, Waimea, 11:05 pm	PCA, 11/17/1902, p. 4
11/09/1902	11:00					north hawaii?						III	Warshauer notes: Kohala, 9th, 11 a.m.	PCA, 12/15/1902, p. 12
11/10/1902	22:00					north hawaii?				3.8	int	IV	Warshauer notes: Kohala, 10th, 10 pm, hard	PCA, 12/15/1902, p. 12
11/11/1902	19:05					maui east??				5.0	int	IV-V; 4.0±1.8 (Hilo-Cox)	Lyman notes: long trembling motion; Warshauer notes: One of the heaviest earthquake shocks in recent years was experienced by the people of Honokaa shortly after 7 o'clock Tuesday night. Disturbances were reported at the same time by people in Waimea. The shock was noticed in Hilo and Olaa; Hilo, 11th, 6:45 p.m. [same event?]	Wyss and others, 1992, p. 28; ; PCA, 11/17/1902, p. 2, 12/15/1902, p. 12; uncertain region/magnitude
1/01/1903													lava returns to Halemaumau; active lake, as in 1894; disappeared again January 12	Wood, 1917 chart 2, p. 118
1/03/1903	7:30					maui?				5.5	k&w	V (east maui; IV? (Hilo,Waimea, Kohala); III (Hon)	Warshauer notes: at 7:29:30 yesterday morning a slight but distinct earthquake was felt in Punahou and also in Honolulu. A number of early risers also noticed that a tremblor was on; This morning (the 3rd) at 7:20 a.m., East Maui experienced two quite heavy shocks. The second vibration, was heavier than the first, making houses creak and windows rattle. There was an interval of a second or two between them; Earthquake noted at Hilo, Waimea and Kohala on the 3d between 7:20 and 7:25 a.m.	PCA, 1/4/1903, p. 4; PCA, 1/5/1903, p. 8; 2/17/1903, p. 6; not in MN; region/magnitude assigned from isoseismal map; analogy with earthquake of April 21, 1881 (K&W)
2/04/1903	0:20					north hawaii?						III	Warshauer notes: Kohala, 4th, 12:20 a.m	PCA, 3/18/1903, p. 5
2/04/1903	22:00					north hawaii?						III	Warshauer notes: Waimea, 10 p.m. on the 4th	PCA, 3/18/1903, p. 5
2/09/1903	11:23					south hawaii?						III	Warshauer notes: Hilo, 9th, 11:23 a.m.	PCA, 3/18/1903, p. 5

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Date	Time HST	Lat deg	Lat min	Lon deg	Lon min	Region	Pref Depth	M other	M other source	M pref	M pref source	I max	Location/felt report	Comment
2/22/1903	5:03					south hawaii?				4.5	int	4.5±1.5 (Hilo-Cox)	cox time is 5 am; Lyman notes: One shock a little after five A.M.; Warshauer notes: Hilo, 21st [same as Lyman entry ?]	Wyss and others, 1992, p. 28; PCA, 3/18/1903, p. 5; not in HH
2/27/1903	21:20					south hawaii?						III; 4.5±1.5 (Hilo-Cox)	cox time is 9:20 am; Lyman notes: Two slight shocks at 9:20 P.M.	Wyss and others, 1992, p. 28; not in HH
3/01/1903													lava returns to Halemaumau for a few days in early March	Wood, 1917 chart 2, p. 118
3/13/1903	18:00					north hawaii?				3.8	int	IV?	Warshauer notes: Hilo, 13th, 6 p.m., Waimea, 13th, 6:15 p.m	PCA, 4/17/1903, p. 5
3/15/1903	6:15					north hawaii?						III	Warshauer notes: Kohala, 15th, 6:15 a.m	PCA, 4/17/1903, p. 5
3/23/1903	23:25					south hawaii?						III	Warshauer notes: Hilo, 23rd, 11:25 p.m.	PCA, 4/17/1903, p. 5