**Recent Kilauea Status Reports, Updates, and Information Releases**

**HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE**
Tuesday, May 6, 2008 08:00 HST (Tuesday, May 6, 2008 18:00 UTC)

**KILAUEA VOLCANO** (CAWW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: **WATCH**
Aviation Color Code: **ORANGE**

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

**Activity Summary for last 24 hours:** Kilauea Volcano is active at two locations. At the summit, production of small amounts of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava flowed through tubes to the ocean.

**Last 24 hours at Kilauea summit:** Molten lava may reside at shallow depth within the new vent.

A white plume continued to issue from the vent in Halema`uma`u Crater and was being blown more westerly, directly into the east flank of Mauna Loa volcano. Small amounts of ash continue to be found each morning in collectors beneath the plume. Overnight, the view of the vent was quite good when not obscured by fog.

The SO2 emission rate remained high; the most recent average measurement (May 5) was 900 tonnes/day compared to a background rate between 150-200 tonnes/day.

The summit tiltmeter network resumed recording deflation after completion of the most recent DI tilt event. Seismic tremor levels continued to be elevated. GPS receivers on opposite sides of the summit caldera recorded no extension or contraction above measurement error. Two earthquakes were located on south flank faults and two were located beneath the east rift zone just south of Napau Crater.
Last 24 hours in the middle east rift zone vents and flow field: Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded no significant changes. Seismic tremor levels remained at low values with occasional low-frequency tremor bursts.

Incandescence was observed in the vicinity of the TEB vent. No surface flows were observed anywhere from the rootless shields to the ocean entries. Three ocean entries continued supplying lava. Surface flow and ocean entry activity could be unstable for the next day as a result of the recently completed DI tilt event.

Definitions of terms used in the update:

- **ppm**: parts-per-million; 10,000 ppm = 1 %.

- **incandescence**: the production of visible light from a hot surface. The color of the light is related to the temperature of the surface. Some surfaces can display dull red incandescence at temperatures as low as 430 degrees Centigrade (806 degrees Fahrenheit). By contrast, molten lava displays bright orange to orange-yellow light from surfaces that are hotter than 900 degrees C (1,650 degrees F).

- **tephra**: all material deposited by fallout from an eruption plume, regardless of size.

- **ash**: tephra less than 2 mm (5/64 inches).

- **TEB**: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

- **DI tilt event**: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilts are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


A map with details of earthquakes located within the past two weeks can be found at http://tux.wr.usgs.gov/

A definition of alert levels can be found at http://volcanoes.usgs.gov/2006/warnschemes.html
KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of small amounts of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava resumed flow through tubes to the ocean in response to completion of the 5/3 DI tilt event; instability is anticipated in response to the ongoing DI tilt event.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.

A white plume continued to issue from the vent in Halema`uma`u Crater. Small amounts of ash continue to be found each morning in collectors beneath the plume; the ash and the surrounding ground was wet this morning suggesting less contribution from the wind and more from the plume itself. Overnight, the view of the vent was often obscured by fog.

The SO2 emission rate remained high; the most recent average measurement (May 4) was 920 tonnes/day compared to a background rate between 150-200 tonnes/day.

The summit tiltmeter network recorded another DI tilt event - the third in the past four days; deflation started at 2:20 pm yesterday followed by inflation this morning at 3:15 am. Seismic tremor levels continued to be elevated and temporarily increased during the deflation part of the ongoing DI tilt event. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Three earthquakes were located beneath the southwest rift zone.

Last 24 hours in the middle east rift zone vents and flow field: Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded a characteristically delayed response to the ongoing DI tilt event superimposed on a strong rain-induced increase. Seismic tremor levels remained at low values.

Last night, short surface flows continued to issue from one of the rootless shields. There appeared to be no surface activity on the pali but there was significant incandescence reflected in clouds indicating surface flow activity at the base of the pali. The Waikupanaha ocean entry was reported to be vigorous with a surface flow entering the ocean at the eastern of the two active entries. Surface flow and ocean entry activity is likely to be unstable for the next day or two as a result of the ongoing DI tilt event.

Definitions of terms used in the update:

ppm: parts-per-million; 10,000 ppm = 1 %.

incandescence: the production of visible light from a hot surface. The color of the light is related to the temperature of the surface. Some surfaces can display dull red incandescence at temperatures
as low as 430 degrees Centigrade (806 degrees Fahrenheit). By contrast, molten lava displays bright orange to orange-yellow light from surfaces that are hotter than 900 degrees C (1,650 degrees F).

tephra: all material deposited by fallout from an eruption plume, regardless of size.

ash: tephra less than 2 mm (5/64 inches).

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


A map with details of earthquakes located within the past two weeks can be found at http://tux.wr.usgs.gov/

A definition of alert levels can be found at http://volcanoes.usgs.gov/2006/warnschemes.html

HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
Sunday, May 4, 2008 07:57 HST (Sunday, May 4, 2008 17:57 UTC)

KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of small amounts of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava resumed flow through tubes to the ocean in response to completion of the most recent DI tilt event.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.
A white plume continued to issue from the vent in Halema`uma`u Crater. Small amounts of ash continue to be found each morning in collectors beneath the plume. Overnight, the view of the vent was intermittent but, when visible, it stilled glowed.

The SO2 emission rate remained high; the most recent average measurement (May 3) was 940 tonnes/day compared to a background rate between 150-200 tonnes/day but the individual measurements captured an emission pulse around noon.

The summit tiltmeter network recorded the completion of the most recent DI tilt event. Seismic tremor levels continued to be elevated. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Four earthquakes were located on south flank faults, one beneath an area just east of the summit, and one beneath the lower southwest rift zone.

**Last 24 hours in the middle east rift zone vents and flow field:** Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded completion of the most recent DI tilt event when local rainfall swamped the DI signal. Seismic tremor levels increased from a slight low over the past 4 days but remained at low values.

Yesterday, HVO geologists, CD personnel, and Kaimu residents noted the near lack of activity at the ocean entries in the morning, probably a result of the DI tilt event mentioned yesterday. By evening, the entries were returning to activity and incandescence was noted on the pali. By 9 pm, the incandescent spots had turned into a surface flow that traversed the pali and reached the coastal plain. Overnight, surface flows advanced almost to the base of the uppermost rootless shield. The tube system and ocean entries may remain unstable over the next day or two.

**Definitions of terms used in the update:**

ppm: parts-per-million; 10,000 ppm = 1 %.

incandescence: the production of visible light from a hot surface. The color of the light is related to the temperature of the surface. Some surfaces can display dull red incandescence at temperatures as low as 430 degrees Centigrade (806 degrees Fahrenheit). By contrast, molten lava displays bright orange to orange-yellow light from surfaces that are hotter than 900 degrees C (1,650 degrees F).

tephra: all material deposited by fallout from an eruption plume, regardless of size.

ash: tephra less than 2 mm (5/64 inches).

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.

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HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
Saturday, May 3, 2008 07:49 HST (Saturday, May 3, 2008 17:49 UTC)

KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of small amounts of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. A seventh DI tilt event, second in the last two days, is nearing completion. At the east rift eruption site, lava continued to flow through tubes to the ocean although flow was disrupted in response to ongoing DI tilt events.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent. Yesterday, hazy views into the vent during the day revealed a small patch of dull incandescence only about 40 m beneath the vent rim; all but the east wall of the vent conduit appeared overhung. The incandescence probably represents more hot rock and not molten lava.

A white plume continued to issue from the vent in Halema`uma`u Crater; this morning, the plume is rising a bit higher in its path toward the southwest. Small amounts of ash continue to be found each morning in collectors beneath the plume; strong winds contributed an unknown amount of windblown ash to these samples. Overnight, the view of the vent was mostly clear with bright incandescence reflected in the base of the plume and the east (back) wall of the vent. At around 10 pm, there was a 2-minute dimming of the incandescence that was not associated with any unusual seismicity.

The SO2 emission rate remained high; the most recent measurement (May 2) was 540 tonnes/day compared to a background rate between 150-200 tonnes/day. The rate has been unusually variable over the last few days but still reflects elevated values.

The summit tiltmeter network recorded the completion (inflation at 7:30 am yesterday) of the 6th DI tilt event since April 8 and the deflation (5:45 pm yesterday) and inflation (5:50 am) of the 7th. Seismic tremor levels continued to be elevated and are sluggishly mimicking the tilt. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Five earthquakes were located
on south flank faults and one beneath the lower southwest rift zone.

**Last 24 hours in the middle east rift zone vents and flow field:** Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded delayed responses to the 6th and 7th DI tilt events. Seismic tremor levels remained at low values.

Weak incandescence was seen from the TEB vent but nowhere else within the rootless shield complex or the flow field above the pali. Geologists on an HVO overflight yesterday reported very low levels of lava in the TEB tube system and weak activity at the Waikupanaha ocean entries consistent with a significant reduction in lava supply from the vent; the expected response to the 6th DI tilt event. The ongoing 7th DI tilt event will result in continuing instability of the TEB tube system and the ocean entries for the next day or two.

**Definitions of terms used in the update:**

ppm: parts-per-million; 10,000 ppm = 1 %.

incandescence: the production of visible light from a hot surface. The color of the light is related to the temperature of the surface. Some surfaces can display dull red incandescence at temperatures as low as 430 degrees Centigrade (806 degrees Fahrenheit). By contrast, molten lava displays bright orange to orange-yellow light from surfaces that are hotter than 900 degrees C (1,650 degrees F).

tephra: all material deposited by fallout from an eruption plume, regardless of size.

ash: tephra less than 2 mm (5/64 inches).

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


A map with details of earthquakes located within the past two weeks can be found at http://tux.wr.usgs.gov/

A definition of alert levels can be found at http://volcanoes.usgs.gov/2006/warnschemes.html
Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava continued to flow through tubes to the ocean.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.

A white (when viewed by reflected light) plume continued to issue from the vent in Halema`uma`u Crater; this morning, the plume appeared a bit lazier as its being blown to the southwest. Small amounts of ash continue to be found each morning in collectors beneath the plume; strong winds contributed an unknown amount of windblown ash to these samples. Overnight, the view of the vent was mostly clear with bright incandescence reflected in the base of the plume and the east (back) wall of the vent.

The SO2 emission rate remained high; the most recent measurement (May 1) was 1,250 tonnes/day compared to a background rate between 150-200 tonnes/day.

The summit tiltmeter network recorded the start of a DI tilt event at about 4:30 pm. Seismic tremor levels continued to be elevated and increased a bit more yesterday afternoon in response to the DI tilt event. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Two earthquakes were located beneath Kilauea Volcano - one beneath Halema`uma`u Crater and the other beneath the southwest rift zone.

About 15 minutes after the DI tilt event started, seismometers near the vent recorded a rockfall followed by about 30 seconds of increased tremor. Coincident with these signals, the plume temporarily turned brown with dust probably from the rockfall.

Last 24 hours in the middle east rift zone vents and flow field: Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter responded to the DI tilt event with deflation starting by 6:40 pm. Seismic tremor levels remained at low values.

No incandescence was seen within the rootless shield complex or the flow field above the pali.

Hazard Summary: see previous updates.
Definitions of terms used in the update:

tephra: all material deposited by fallout from an eruption plume, regardless of size.

ash: tephra less than 2 mm (5/64 inches).

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


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HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
Thursday, May 1, 2008 08:41 HST (Thursday, May 1, 2008 18:41 UTC)

KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava continued to flow through tubes to the ocean.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.

A white (when viewed by reflected light) plume continued to issue from the vent in Halema`uma`u
Crater; this morning, the plume is being blown low to the southwest by strong trade winds before spreading laterally over the Ka`u Desert. Small amounts of ash continue to be found each morning in collectors beneath the plume; strong winds contributed an unknown amount of windblown ash to these samples. Overnight, the view of the vent was mostly clear with bright incandescence reflected in the base of the plume and the east wall of the vent; one well-observed 'wink' was observed lasting about a minute, cause unknown.

The SO2 emission rate remained high; the most recent measurement (April 30) was 850 tonnes/day compared to a background rate between 150-200 tonnes/day.

The summit tiltmeter network recorded inflation until 10:40 am before resuming deflation. Seismic tremor levels continued to be at elevated values with episodic variations in amplitude. GPS receivers on opposite sides of the summit caldera recorded slow contraction. No earthquakes were located beneath Kilauea Volcano.

Last 24 hours in the middle east rift zone vents and flow field: Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded general deflation since the most recent DI tilt event that finished on April 27 superimposed on some oscillations of unknown origin. Seismic tremor levels remained at low values.

No incandescence was seen within the rootless shield complex or the flow field above the pali.

Hazard Summary: see previous updates.

Definitions of terms used in the update:
tephra: all material deposited by fallout from an eruption plume, regardless of size.
ash: tephra less than 2 mm (5/64 inches).

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


A map with details of earthquakes located within the past two weeks can be found at http://tux.wr.usgs.gov/
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HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
Wednesday, April 30, 2008 08:49 HST (Wednesday, April 30, 2008 18:49 UTC)

KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, production of ash, elevated sulfur dioxide, and elevated seismic tremor continued from the Halema`uma`u vent. At the east rift eruption site, lava continued to flow through tubes to the ocean.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.

A white (when viewed by reflected light) plume continued to issue from the vent in Halema`uma`u Crater; this morning, the plume is being blown low to the southwest by strong trade winds. Ash production has been very low but small amounts of ash continue to be found each morning. 
Overnight, the view of the vent was mostly clear with bright incandescence reflected in the base of the plume and the east wall of the vent; brief jetting was observed from the vent.

The SO2 emission rate remained high; the most recent measurement (April 29) was 940 tonnes/day compared to a background rate between 150-200 tonnes/day. Winds were sufficient yesterday to allow emission measurement but they were not optimum for measuring this dense plume.

The summit tiltmeter network again recorded slow inflation. Seismic tremor levels continued to be at elevated values with episodic variations in amplitude. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Two earthquakes were located on south flank faults.

Last 24 hours in the middle east rift zone vents and flow field: Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded inflation of a source to the southeast starting late yesterday. Seismic tremor levels remained at low values.

No incandescence was seen within the rootless shield complex or the flow field above the pali. No surface flows were seen anywhere on the flow field yesterday. Lava was observed flowing into the ocean at several points on the Waikupanaha bench with variable vigor.

Hazard Summary: see previous updates.
Definitions of terms used in the update:

tephra: all material deposited by fallout from an eruption plume, regardless of size.

ash: tephra less than 2 mm (5/64 inches). Previous updates sometimes used the term 'ash' loosely (without regard to particle size) where 'tephra' was more appropriate.

TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

DI tilt event: DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.


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HAWAIIAN VOLCANO OBSERVATORY DAILY UPDATE
Tuesday, April 29, 2008 07:12 HST (Tuesday, April 29, 2008 17:12 UTC)

KILAUEA VOLCANO (CAVW#1302-01-)
19.42°N 155.29°W, Summit Elevation 4091 ft (1247 m)
Volcano Alert Level: WATCH
Aviation Color Code: ORANGE

This report on the status of Kilauea volcanic activity, in addition to maps, photos, and webcam images (available using the menu bar above), was prepared by the USGS Hawaiian Volcano Observatory (HVO). Information on the status of Hawai`i Volcanoes National Park can be found at http://www.nps.gov/havo/ or 985-6000. Information on the Hawai`i County Viewing Area can be found at http://www.lavainfo.us or 961-8093.

Activity Summary for last 24 hours: Kilauea Volcano is active at two locations. At the summit, reduced ash production and elevated seismic tremor continued from the Halema`uma`u vent. Sulfur dioxide emissions have been steadily increasing since April 1. At the east rift eruption site, lava continued to flow through tubes to the ocean.

Last 24 hours at Kilauea summit: Molten lava may reside at shallow depth within the new vent.
A white (when viewed by reflected light) plume continued to issue from the vent in Halema`uma`u Crater; this morning, the plume is being blown to the southwest by trade winds. Ash production has been very low but small amounts of ash continue to be found each morning. Overnight, the view of the vent was mostly clear with bright incandescence reflected in the base of the plume and the east wall of the vent.

The SO2 emission rate remained high and has been steadily increasing since April 1; the most recent measurement (April 28) was 1,910 tonnes/day compared to a background rate between 150-200 tonnes/day. Winds were sufficient yesterday to allow emission measurement but they are not yet optimum for measuring this dense plume.

The summit tiltmeter network recorded slow inflation. Seismic tremor levels continued to be at elevated values with episodic variations in amplitude. GPS receivers on opposite sides of the summit caldera recorded slow contraction. Six earthquakes were located beneath Kilauea volcano; three on central Koa`e faults south of the caldera (including a magnitude-3.2 quake at 3:48 pm at a depth of 1.3 km (0.8 miles)) and three on south flank faults.

**Last 24 hours in the middle east rift zone vents and flow field:** Magma continued to degas at shallow levels beneath Pu`u `O`o before entering the lava tube system under the TEB vent and the rootless shield complex resulting in the emission of about 2,240 tonnes/day when last measured on April 27. No incandescence was seen in Pu`u `O`o crater overnight. The Pu`u `O`o tiltmeter recorded deflation of a source to the southeast. Seismic tremor levels remained at low values; an average of 100 small earthquakes were recorded near the TEB vent.

No incandescence was seen within the rootless shield complex or the flow field above the pali. The vigor of the ocean entries, observed at low levels on Saturday, should be back to normal levels but the tube supplying the entry may be unstable for the next day or two. A Chopper 1 overflight is planned for today.

**Hazard Summary:** see previous updates.

**Definitions of terms used in the update:**

- tephra: all material deposited by fallout from an eruption plume, regardless of size.
- ash: tephra less than 2 mm (5/64 inches). Previous updates sometimes used the term 'ash' loosely (without regard to particle size) where 'tephra' was more appropriate.
- TEB: Thanksgiving Eve Breakout, the designation used for lava flows that started with a breakout on November 21, 2007.

**DI tilt event:** DI is an abbreviation for 'deflation-inflation' and describes a volcanic event of uncertain significance. DI events are recorded by tiltmeters at Kilauea summit as an abrupt deflation of up to a few microradians in magnitude lasting several hours to 2-3 days followed by an abrupt inflation of approximately equal magnitude. The tilt events are usually accompanied by an increase in summit tremor during the deflation phase. A careful analysis of these events suggests that they may be related to changes in magma supply to a storage reservoir at less than 1 km depth, just east of Halema`uma`u crater. Usually, though not always, these changes propagate through the magma conduit from the summit to the eruption site, as many of the DI events at Kilauea summit are also recorded at a tiltmeter at Pu`u `O`o, delayed by 1-2 hours. DI events often correlate with lava pulses and/or pauses in the eruption at the Pu`u `O`o/July 21/TEB vents.

Maps, photos, webcam views, and other information about Kilauea Volcano are available at http://volcano.wr.usgs.gov/kilaueastatus.php. A daily update summary is available by phone at
(808) 967-8862.

A map with details of earthquakes located within the past two weeks can be found at http://tux.wr.usgs.gov/

A definition of alert levels can be found at http://volcanoes.usgs.gov/2006/warnschemes.html

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**Update Archive**

Older updates can be found using the [HVO Archive Form](http://volcano.wr.usgs.gov/lvostatus.php).

**New Update Format**

This dynamically updated status page replaces the Kilauea Update section of the Kilauea update page. For more information about the new template and the CAP format, please see the [Volcano Hazards News Archive](http://volcanoes.usgs.gov/2006/warnschemes.html). For more information about the alert levels, please see the U.S. Geological Survey’s Alert Notification System for Volcanic Activity Fact Sheet (pdf).