

Bulletin of World Volcanism

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FALSE REPORTS OF VOLCANIC ACTIVITY

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WORLDWIDE MONTHLY VOLCANIC ACTIVITY



The early stages of the eruption of Paluweh, the eruption is from the Rokatenda crater.

NAME: Paluweh

LOCATION: Indonesia (Lesser Sundra Islands)

HEIGHT: 875 M

TYPE: Stratovolcano

COORDINATES: 8.32°S 121.708°E

A new eruptive phase began on Thursday, 9th October (or possibly the 8th October) at Paluweh volcano; the volcano has been dormant since 1985. The volcano has shown signs of revival since October

1st when 31 tremors occurred until 8th October. The MODVOLC (MODIS) detected thermal anomalies on 9th October followed by an emission of large ash plumes that could be seen from Flores Island, plus reports of "huge fire" issuing from the top of the volcano. Several villages reported intense ash fall. 6000 people have been reported to have evacuated the area. Dust masks were distributed. A 1.5 KM exclusion zone was set up around the volcano.

The CVGHM raised the Alert Level for Paluweh to ORANGE on the 13th October. A MODIS satellite image taken on Monday, 22nd October showed a gas plume containing ash drifting 80 KM W of the volcano. The MODVOLC (MODIS) continued to detect weak thermal anomalies at Paluweh.

NAME: Kliuchevskoi

LOCATION: Russia (Kamchatka)

HEIGHT: 4835 M

TYPE: Stratovolcano

COORDINATES: 56.057°N 160.638°E

The KVERT reported that on October 13th and 14th, strombolian activity was noted from its crater. The Alert Level was raised to YELLOW. One newspaper reported that Kliuchevskoi began erupting on the night of 15th October and that incandescence was seen; possibly indicating lava in

its crater. Several reports said that a new lava dome is possibly forming in its crater.

Weak thermal anomalies were detected at the volcano from 14th – 15th October.



Kliuchevskoi on 23 October, note the steaming craters.

NAME: Lokon - Empung

LOCATION: Indonesia (Sulawesi)

HEIGHT: 1580 M

TYPE: Stratovolcano

COORDINATES: 1.358°N 124.792°E

Three explosions were detected at Lokon – Empung at 21:37, 21:39, and 21:40 (local time) on 5th October. Sending an ash plumes to a height of 1500 M, with incandescent material being thrown up 350 M into the air. Ash from the explosions drifted E and N. Several news reports claimed that a new lava flow had been emitted. A strong explosion on 6th October produced a plume 3000 M high. On 7th October another explosion occurred which was heard up to 6 KM away.

On 20th October, a small eruption took place at 01:33 AM (local time?) that ejected ash and ejecta 400 M above the crater. The eruption lasted for about 70 seconds.

NAME: Alaid

LOCATION: Russia (Kuril Islands)

HEIGHT: 2339 M

TYPE: Stratovolcano

COORDINATES: 50.858°N 155.55°E

The KVERT reported that a thermal anomaly was detected on 7th October at the volcano a steam plume was also observed rising 200 M above the crater. The Alert Level was raised to YELLOW.

On 12th and 15th October, thermal anomalies were detected. A steam plume was observed on 16th October.

A picture taken on September 17th showed a minor layer of ash on the volcano's slopes. Observers on



Above; an ash plume from an eruption of Lokon - Empung on October 7.

Below; steaming crater of Alaid volcano on October 27. Note the fresh layer of ash on the slopes.

Shumshu Island (50 KM E) noted that on 23rd October an ash plume from Alaid rose 700 M above the crater.

NAME: Michael

LOCATION: Antarctica (South Sandwich Islands)

HEIGHT: 990 M

TYPE: Stratovolcano

COORDINATES: 57.78°S 26.45°W

A thermal anomaly was detected at Michael volcano on 2nd October. A thermal anomaly was last observed on June 30th, 2012.

More anomalies were detected throughout the month, focused on the S and SW sides of the volcano but a MODIS satellite image taken on 28th October failed to find any evidence of volcanic activity.

NAME: Heard

LOCATION: Indian Ocean (territory of Australia)

HEIGHT: 2745 M

TYPE: Stratovolcano

COORDINATES: 53.106°S 73.513°E

Thermal anomalies were detected at Heard on 10th October. A NASA satellite image of Heard Island on

October 13th shows Heard covered in a white ice sheet. The summit crater was unusually dark, with a possible lava flow in its crater. Strong heat signatures were detected in its crater.

Another photo taken an hour earlier showed heavy cloud cover covering a possible volcanic plume. More thermal anomalies were detected on October 17th and 28th.



A NASA satellite photograph on 13 October, note the dark summit crater.

NAME: Poas

LOCATION: Costa Rica

HEIGHT: 2708 M

TYPE: Stratovolcano

COORDINATES: 10.20°N 84.233°W

The OVSICORI reported that on Friday, 28th October two phreatic explosions were detected at 11:20 in the morning and 17:57 (both local time), the latter deposited a large amount of sediments on the crater walls.

On early Saturday morning, 28th October (around 01:00) residents reported a rumbling sound from Poas. Then at around 13:00 (local time) the volcano ejected ash and mud 500 M above the crater. Two other eruptions took place at 16:34 and 16:44 (both local time). The eruptions were probably phreatic. The Alert Level remains at GREEN.

NAME: Manam

LOCATION: Papua New Guinea

HEIGHT: 1807 M

TYPE: Stratovolcano

COORDINATES: 4.080°S 145.037°E

The RVO reported that Manam's Southern Crater continued to erupt during 1st – 15th October. Activity was low the first few days, characterized by emissions of light gray ash plumes, occasional dark gray plumes, and ejected incandescent tephra. The intensity of ejected incandescent tephra increased on 5th October, and peaked during 9th – 10th October when the ejections developed into Strombolian

activity. The Darwin VAAC reported that Manam produced a 2000 M high ash plume on 8th October; thermal anomalies were also detected in satellite images. Strong explosions during the Strombolian activity produced shock waves that rattled houses on the S part of the island. Activity subsided after 10th October; erupted material fell in the SE and SE valleys. There was a corresponding increase in emissions of ash clouds that drifted NW but the volume of ash appeared insignificant. White vapour plumes rose from Main Crater during the reporting period.

The Darwin VAAC reported that on 15th October an ash plume rose to a height of 3 KM a.s.l. and drifted 37 KM SW.

NAME: Tengger Caldera

LOCATION: Indonesia (Eastern Java)

HEIGHT: 2239 M

TYPE: Stratovolcanoes

COORDINATES: 7.942°S 112.95°E

A tremor increase over the start of October prompted the CVGHM to raise the Alert Level from 0 to 2.

NAME: Raung

LOCATION: Indonesia (Eastern Java)

HEIGHT: 3332 M

TYPE: Stratovolcano

COORDINATES: 8.125°S 114.042°E

The CVGHM reported that Raung volcano (not to be confused with Ruang volcano in the Sangihe islands), Eastern Java began to show increased seismicity since the 17th September. Small white plumes were seen rising to heights between 50 – 75 M above the crater. The Alert Level was raised to 2 (on a scale of 1-4) by the CVGHM on 18th September.

The Alert level was further raised to 3 (on a scale of 1-4) after increasing seismic activity (including a strong volcanic tremor) and a degassing plume 50 M high.

NAME: Isluga

LOCATION: Chile/Bolivia border

HEIGHT: 5550+

TYPE: Stratovolcano

COORDINATES: 19.15°S 68.83°W

The ONEMI raised the alert level for Isluga volcano from 1 to 2 after increased seismic signals, degassing and reports of a sulphur smell. The SERNAGOMIN maintained their alert level at GREEN.

NAME: Kverkfjoll

LOCATION: Iceland

HEIGHT: 1929 M

TYPE: Stratovolcano

COORDINATES: 64.65°N 16.72°W

On 20th October, a seismic swarm took place at Kverkfjoll. Around 20 tremors were recorded with the largest being a magnitude 2.6 at 1.1 KM in depth. This may represent magmatic intrusion under the volcano.

NAME: Sotara

LOCATION: Colombia

HEIGHT: 4400+

TYPE: Stratovolcano

COORDINATES: 2.108°N 76.592°W

The INGEOMINAS reported that on 17th October, a swarm of over 700 small tremors took place.

Seismicity remains elevated

NAME: San Miguel

LOCATION: El Salvador

HEIGHT: 2130 M

TYPE: Stratovolcano

COORDINATES: 13.434°N 88.269°W

Strong tremors pulses and swarms were detected at the volcano on 9th October. No eruptive activity has been reported in this unrest phase since the Alert Level was raised in mid-2011.

NAME: Sangeang Api

LOCATION: Indonesia (Lesser Sunda Islands)

HEIGHT: 1949 M

TYPE: Complex Volcano

COORDINATES: 8.20°S 119.07°E

The alert level for Sangeang Api volcano has been raised based on seismic data. Possible ash emissions could occur.

NAME: Mammoth Mountain

LOCATION: USA (California)

HEIGHT: 3369 M

TYPE: Lava Domes

COORDINATES: 37.631°N 119.032°W

A stronger than usual seismic swarm took place at the volcano on 29th October. The swarm was accompanied by slight deformation. An extension of magmatic fluids was also noted beneath the volcano.



The Mammoth Mountain lava dome complex.

CONTINUING ACTIVITY**NAME: Etna****LOCATION: Italy (Sicily)****HEIGHT: 3330 M****TYPE: Stratovolcanoes****COORDINATES: 37.734°N 15.004°E**

A slight tremor increase was noted at Etna on 2nd October, accompanied by incandescence at the Bocca Nuova crater. An SO₂ plume was seen in satellite imagery.

On October 5th, a lava flow was observed being effused from the new Scoria cone on the floor of the Bocca Nuova crater. A steady gas plume was seen rising above the crater.

Vigorous strombolian activity was noted from the new scoria cone on 6th and 7th October, the height of the cone reached 50 M.

Just before midnight on 19th October, strombolian activity resumed at the Bocca Nuova. The tremor started to pick up after midnight. Activity was also noticed on 21st October.



Strombolian activity from the scoria cone in Etna's Bocca Nuova crater. Note the small lava flow on the far right.

NAME: Cleveland**LOCATION: USA (Alaska)****HEIGHT: 1730 M****TYPE: Stratovolcano****COORDINATES: 52.825°N 169.944°W**

The AVO reported that elevated surface temperatures were detected on 19th, 20th, 22nd, 24th, 26th and 29th – 30th October; this may be related to dome growth in the summit crater.

NAME: Fuego**LOCATION: Guatemala****HEIGHT: 3763 M****TYPE: Stratovolcano****COORDINATES: 14.473°N 90.880°W**

The INSIVUMEH reported that during 29th September – 2nd October, explosions ejected incandescent tephra 200 M above the crater and produced ash plumes that rose 500 – 1100 M. Shock waves were detected in areas 12 – 15 KM away. Incandescent avalanches travelled 700 M down the flanks; during 1st – 2nd October, avalanches travelled S down the Santa Teresa drainage. Ash fall was reported at the observatory, and in Morelia (8 KM SW) and Santa Sofia (12 KM SE).

The INSIVUMEH reported that during 10th – 11th October, lava flows travelled 200 M down the Ceniza drainage, on Fuego's SSW flank, producing incandescent block avalanches from the flow front and steam-and-tephra plumes. On 12th October a lava flow on the S flank travelled 800 M. Explosions produced ash plumes that rose 500 M and drifted 10 KM S. During 14th – 16th October explosions produced ash plumes that rose 400 M and drifted W and SW. A lava flow travelled 800 M down the Ceniza drainage, producing incandescent block avalanches that reached vegetated areas.

The INSIVUMEH reported that during 17th – 19th and 21st – 23rd October, white fumarolic plumes from Fuego drifted S and SW. Explosions produced ash plumes that rose 240 – 640 M above the lava dome and drifted 7 KM SW, W, and NW. A lava flow travelled 400 – 800 M down the Ceniza drainage, producing incandescent block avalanches that reached vegetated areas.

NAME: Suwanose - Jima**LOCATION: Japan (Ryukyu Islands)****HEIGHT: 799 M****TYPE: Stratovolcanoes****COORDINATES: 29.635°N 129.716°E**

On 3rd October, an explosion at Suwanose-Jima at 07:00 (GMT) produced an ash plume that rose to a height of 3 KM. A plume was not seen in satellite imagery.



The crater of Suwanose-Jima volcano.

NAME: Galeras

LOCATION: Colombia

HEIGHT: 4276 M

TYPE: Complex Volcano

COORDINATES: 1.22°N 77.37°W

The INGEOMINAS reported that during 25th September – 2nd October, cameras around Galeras recorded emissions that were mostly water vapour drifting NW. However, on 27th and 28th September, the emissions contained ash. An earthquake swarm detected on 28th September was characterized by M 1.4 events that occurred within 13 KM of the crater at depths less than 8 KM.

The INGEOMINAS reported that during 9th – 16th October cameras around Galeras recorded daily emissions; on 9th and 12th October ash was present in the emissions in small quantities. On 12th October a gas-and-ash plume rose 1 KM above the crater, and staff at the Galeras National Park Wildlife Sanctuary reported sulfur gas odour in a cabin located on the E side of the volcano. Earthquakes were at most M 1.7 and occurred within 10 KM of the crater at depths of less than 6 KM.

During 17th – 23rd October, cameras around Galeras recorded daily emissions. On 19th and 21st October the plumes contained ash and rose 1.8 KM above the crater. On 19th October observatory staff reported fine ash fall on the NE flank and a sulfur odour was reported in Consacá Sandoná (W flank). Staff at the Galeras National Park Wildlife Sanctuary reported sulfur odours on the E side of the volcano.

The INGEOMINAS reported that during 24th – 30th October cameras around Galeras recorded daily emissions, including pulsating ash emissions. Multiple gas-and-ash plumes rose 500 M above the crater on 25th and 27th October. Seismicity fluctuated but was slightly lower compared to the previous week. Sulfur dioxide gas emissions were low to moderate.



Ash emission at Galeras, 21 October.

NAME: Gorely

LOCATION: Russia (Kamchatka)

HEIGHT: 1829 M

TYPE: Caldera

COORDINATES: 52.558°N 158.03°E

The KVERT reported that Gorely was steaming and seismic activity was moderate. A thermal anomaly was detected late in the month.

NAME: Kilauea

LOCATION: USA (Hawaii)

HEIGHT: 1222 M

TYPE: Shield Volcano

COORDINATES: 19.421°N 155.287°W

During 26th September – 31st October, the HVO reported that the circulating lava lake periodically rose and fell in the deep pit within Kilauea's Halema'uma'u Crater. Periodic measurements indicated that the gas plume from the vent continued to deposit variable amounts of spatter and Pele's hair onto nearby areas. Lava flows were active above the abandoned Royal Gardens subdivision and flowed down the pali. At Pu'u 'O'o Crater, incandescence was often visible from the S pit, from lava circulating in the E pit, and from the W edge of the crusted N pit. An opening in the roof of the lava tube at the base of the SE flank of Pu'u 'O'o also continued to glow.

Lava flows were 1.7 KM from the ocean on 10th October. Flows also remained active high on the pali. At Pu'u 'O'o Crater, incandescence was visible from lava flows in the S pit, lava circulating in the NE pit, and from the W edge of the crusted N pit. On 12th October lava erupted from an incandescence spatter cone at the W edge of the N pit, filling a low depression on the N side of the crater floor and extending almost to the NE pit and lava lake. Small flows erupted from a spatter cone in the S pit during 13th – 14th and 16th October.

Cracking noises, audible from the Jaggar overlook and caused by rocks of the vent wall fracturing from the heat, emanated sporadically from the vent. On 18th October the lake rose to a level 42 M below Halema'uma'u Crater floor, and the next day the lake rose to 38 M below the floor. During 21st – 23rd October, the lake rose to within 33 M of the crater floor. Small collapses of rock into the N portion of the lava lake triggered small spatter explosions on 21st and 23rd October. Lava flows accumulated at the base of the pali in the Royal Gardens subdivision and flowed across the coastal plain, but were 1.4 KM from the coast. Flows also remained active on the pali. At Pu'u 'O'o Crater, incandescence was visible from lava flows in the S pit, lava circulating in the

NE pit, and from the W edge of the crusted N pit. Three small lava flows erupted from a spatter cone on the S side of the crater floor on 17th October. Two fuming hot vents in the same area were observed the next day. Activity at Pu'u 'O'o Crater was elevated during 18th – 21st October; the lava lake in the NE pit overflowed its rim, the S pit produced three lava flows, and the spatter cone vigorously spattered. On 25th October the lava lake in the Halema'uma'u crater rose to a level 27 M below the Crater floor.

From the 24th – 30th October, lava flows accumulated at the base of the pali in the Royal Gardens subdivision and flowed across the coastal plain, but were 1.3 KM from the coast. Flows also remained active on the pali. Activity at Pu'u 'O'o Crater remained elevated: the lava lake in the NE pit overflowed its rim, the vent on the N part of the crater floor produced lava flows, and lava fountaining and lava flows from the S vent were observed. Spattering was recorded from sources at the S and N edges of the crater floor.

NAME: Popocatepetl

LOCATION: Mexico

HEIGHT: 5426 M

TYPE: Stratovolcanoes

COORDINATES: 19.023°N 98.622°W

The CENAPRED reported that during 25th September – 2nd October, seismicity at Popocatepetl indicated continuing gas-and-steam emissions; cloud cover often prevented visual observations of the volcano. Incandescence from the crater was sometimes observed at night. On most days gas-and-steam plumes rose at most 1.5 KM above the crater and drifted in multiple directions.

The CENAPRED reported that during 10th – 16th October, seismicity at Popocatepetl indicated continuing gas-and-steam emissions; during 10th – 13th the emissions observed drifting W and NW. During 14th – 16th October ash was present in the gas-and-steam plumes. Plumes rose 1.5 KM above the crater and drifted W, WSW, and NW. Incandescence from the crater was observed at night.

The CENAPRED reported that during 15th – 23rd October seismicity at Popocatepetl indicated continuing gas-and-steam emissions that occasionally contained variable amounts of ash; the plumes rose 0.5 – 1 KM and drifted NW, W, and SW. Incandescence from the crater was observed at night. During 15th – 16th and 20th October incandescent tephra was ejected 1 KM above the crater and fell back in the crater or on the flanks. On 20th October ash fall was reported in Tetela del Volcan (20 km SW).

The CENAPRED reported that during 23rd – 30th October, seismicity at Popocatepetl indicated continuing gas-and-steam emissions that contained ash. Incandescence from the crater was observed at night during 23rd – 24th and 28th – 30th October. Incandescent tephra was ejected from the crater on 26th October.

NAME: Pagan

LOCATION: Mariana Islands (claimed by the USA)

HEIGHT: 570 M

TYPE: Stratovolcanoes

COORDINATES: 18.13°N 145.80°E

Continuous steam-and-gas plumes from Pagan were observed in clear satellite images during 12th – 19th October. According to NASA's Earth Observatory, a satellite image acquired on 16th October showed a steam-and-gas plume drifting WNW. It is possible that some plumes contained ash.

A thermal anomaly was detected at Pagan on 31st October.



Ash eruption from Pagan volcano in 1994.

NAME: Nevado Del Ruiz

LOCATION: Colombia

HEIGHT: 5321 M

TYPE: Stratovolcano

COORDINATES: 4.895°N 75.322°W

On 10th October, an ash plume from the volcano was seen in satellite imagery drifting 30 KM NW.

Earthquake swarms were detected between 1 and 8 KM below Arenas crater.

NAME: Reventador

LOCATION: Ecuador

HEIGHT: 3562 M

TYPE: Stratovolcano

COORDINATES: 0.077°S 77.656°W

The IG reported that on 10th September, activity was low at the volcano. Large vapour plumes with slight ash content were seen rising from the volcano. One plume drifted near 60 KM.

The IG reported that a lava dome continues to grow in the Intracaldera cone.

NAME: Sakura - Jima

LOCATION: Japan (Kyushu)

HEIGHT: 1117 M

TYPE: Stratovolcano

COORDINATES: 31.585°N 130.657°E

The Tokyo VAAC reported that explosions from Sakura-jima's Showa Crater during 12th and 14th – 15th October produced plumes that rose to altitudes of 1.8 – 3 KM a.s.l. and drifted W, SW, and SE. On 12th October a pilot observed an ash plume that rose to an altitude of 2.4 KM a.s.l. and drifted SE. The JMA reported that during 12th – 15th October explosions ejected tephra as far as 800 M from the crater.

The JMA reported that explosions from Sakura-jima's Showa Crater during 15th – 19th October explosions ejected tephra as far as 1,300 M from the crater. Based on information from JMA, the Tokyo VAAC reported that explosions during 17th – 21st October produced plumes that rose to altitudes of 1.8 – 3.7 KM a.s.l. and drifted NE, E, and S. During 21st – 23rd October pilots observed ash plumes that rose to altitudes of 1.8 – 3.4 a.s.l. and drifted N and SE. The JMA reported that explosions from Sakura-jima's Showa Crater during 15th – 19th October, explosions ejected tephra as far as 1.8 KM from the crater. A small explosion from Minami-dake Crater occurred on 29th October. Based on information from JMA, the Tokyo VAAC reported that explosions during 24th – 27th and 29th – 30th October produced plumes that rose to altitudes of 1.5-3.4 KM a.s.l. and drifted N, NE, E, SE, and S. During 24th – 25th and 29th October pilots observed ash plumes that rose to altitudes of 1.8 – 2.4 KM a.s.l. and drifted N and SE.

NAME: Santa Maria

LOCATION: Guatemala

HEIGHT: 3772 M

TYPE: Stratovolcano

COORDINATES: 14.756°N 91.552°W

The INSIVUMEH reported that during 29th

September – 1st October, explosions from Santa María's Caliente dome generated ash plumes that rose 600 – 800 M and drifted W and SW. Active lava flows generated block avalanches that travelled S down the Rio Nima I and Rio Nima II during 29th September – 2nd October.

The INSIVUMEH reported that during 11th – 12th October white plumes from Santa María's Caliente



Above; minor ash ejection at Santa Maria's Santiaguito lava dome complex on 21 October.

Below; a large ash emission at Shiveluch on 6 October.

dome rose 3.9 KM and drifted S and SE. According to the Washington VAAC, INSIVUMEH reported a lava-dome collapse on 14th October. An ash plume observed in satellite imagery drifted WSW and W, and then dissipated. INSIVUMEH noted that during 15th – 16th October white plumes rose 400 m and drifted SW and W. An explosion generated a white plume that rose 600 M, and white plumes rose 50 M above the fronts of active lava flows.

The Washington VAAC reported that on 24th October an 11-km-wide ash plume from Santa María drifted over 30 KM SW. A diffuse gas-and-ash plume drifted 18 KM S the next day.

INSIVUMEH reported that during 24th – 25th October explosions from Caliente dome produced ash plumes that rose 600 M and drifted W and almost 20 km S.

Lava flows were visibly active on 26th October. Cloud cover prevented observations on 28th October. On 30th October a weak explosion generated an ash plume that

rose 700 M and drifted SW. A few avalanches were produced by lava flows.

NAME: Shiveluch

LOCATION: Russia (Kamchatka)

HEIGHT: 3283 M

TYPE: Stratovolcano

COORDINATES: 56.653°N 161.360°E

Based on visual observations and analyses of satellite data, KVERT reported that during 5th – 12th October a viscous lava flow continued to effuse on the NW flank of Shiveluch's lava dome, accompanied by hot avalanches and fumarolic activity. Satellite imagery showed ash plumes drifting 360 KM SE during 4th – 6th October, and a thermal anomaly on the lava dome during 5th – 7th October. A plume detected by the seismic network and observed rose to altitudes of 6 – 7 KM a.s.l. on 6th October.

The KVERT reported that during 12th – 19th October a viscous lava flow continued to effuse on the NW flank of Shiveluch's lava dome, accompanied by hot avalanches and fumarolic activity. Satellite imagery showed a thermal anomaly on the lava dome during 12th – 16th October; clouds prevented views on the other days.

The KVERT reported that during 19th – 26th October a viscous lava flow continued to effuse on the NW flank of Shiveluch's lava dome, accompanied by hot avalanches and fumarolic activity. Satellite imagery showed a thermal anomaly on the lava dome during 20th – 23rd October; clouds prevented views on the other days.

NAME: Nyiragongo

LOCATION: Democratic Republic of the Congo

HEIGHT: 3470 M

TYPE: Stratovolcano

COORDINATES: 1.52°S 29.25°E

Large SO₂ plumes are often seen in satellite imagery.

NAME: Nyamuragira

LOCATION: Democratic Republic of the Congo

HEIGHT: 3058 M

TYPE: Shield Volcano

COORDINATES: 1.408°S 29.20°E

SO₂ plumes are also seen from Nyamuragira, but what activity is causing these plumes is unknown.

NAME: Ibu

LOCATION: Indonesia (Halmahera)

HEIGHT: 1325 M

TYPE: Stratovolcano

COORDINATES: 1.488°N 127.63°E

The MODVOLC detected thermal anomalies at Ibu on 17th September. Suggesting eruptive activity at the summit, possibly related to lava dome growth in

the wide summit crater that has been documented since 2000.

NAME: Tongariro

LOCATION: New Zealand (North Island)

HEIGHT: 1978 M

TYPE: Stratovolcanoes

COORDINATES: 39.13°S 175.642°E

On 12th October, the GeoNet Data Centre reported that Tongariro had been degassing after the 6th August eruption from the Te Mari Craters. Gas plumes drifted downwind and were detected a hundred kilometres or more away. During the previous two weeks an odour was noticed in Manawatu (112 KM S) and Hawke's Bay (120 KM ESE).

NAME: Karymsky

LOCATION: Russia (Kamchatka)

HEIGHT: 1536 M

TYPE: Stratovolcano

COORDINATES: 54.05°N 159.45°E

The KVERT reported moderate seismic activity from Karymsky during 5th – 12th October. Seismic data indicated that ash plumes possibly rose to an altitude of 6.5 KM a.s.l. Satellite imagery showed an ash plume drifting 42 KM SE on 6th October, and a thermal anomaly on the volcano on 7th and 11th October. The Aviation Colour Code remained at Orange.

Satellite imagery showed a thermal anomaly on the volcano on 14th October, and an ash plume drifted 64 KM N the next day.

The Tokyo VAAC reported that on 16th October a possible eruption produced a plume that rose to an altitude of 4 KM a.s.l. and drifted N. Ash was detected in a subsequent image.

The KVERT reported moderate seismic activity from Karymsky during 12th – 19th October. Seismic data indicated that ash plumes possibly rose to an altitude of 6 KM a.s.l.

From 19th – 26th October, the KVERT reported moderate seismic activity from Karymsky, indicating



The crater of Ibu volcano.

possible ash explosions. Satellite imagery showed a thermal anomaly on the volcano on 20th October.

NAME: Kizimen

LOCATION: Russia (Kamchatka)

HEIGHT: 2376 M

TYPE: Stratovolcano

COORDINATES: 55.130°N 160.32°E

The KVERT reported that throughout the month, effusion of lava at the summit and on the East flank. Moderate seismicity of the volcano continues. Incandescence was seen at the volcano. Thermal anomalies were observed from 13th – 16th October.

NAME: Bezymianny

LOCATION: Russia (Kamchatka)

HEIGHT: 2882 M

TYPE: Stratovolcano

COORDINATES: 55.978°N 160.587°E

The KVERT reported that effusion of a lava flow continues. Seismic activity was low. Thermal anomalies were detected from 13th – 16th October.

NAME: Bagana

LOCATION: Papua New Guinea (Bougainville Autonomous terr.)

HEIGHT: 1750 M

TYPE: Lava Cone

COORDINATES: 6.140°S 155.195°E

The Darwin VAAC reported that on 3rd October an ash plume from Bagana rose to an altitude of 4.3 KM a.s.l. and drifted 65 KM NW.

NAME: Batu Tara

LOCATION: Indonesia (Komba Island)

HEIGHT: 748 M

TYPE: Stratovolcano

COORDINATES: 7.792°S 123.579°E

The Darwin Volcanic Ash Advisory Centre (VAAC) reported that during 6th – 7th October ash plumes from Batu Tara rose to an altitude of 2.4 KM a.s.l. and drifted 45 KM W.

All volcano reports in this issue are subject to change. All reports in this issue were from the following sources.

Global Reports:

Activolcans.info

Volcano Discovery:

<http://www.volcanodiscovery.com/news.html>

Global Volcanism Program (Weekly Reports):

<http://www.volcano.si.edu/reports/usgs/>

Volcano Live, John Seach:

<http://www.volcanolive.com/news.html>

Also Including:

The Jakarta Globe:

<http://www.thejakartaglobe.com/home/>

CVGHM (see Acronyms and Abbreviations):

<http://proxy.vsi.esdm.go.id/index.php>

Tico Times: <http://www.ticotimes.net/>

The Costa Rican Times:

<http://www.costaricantimes.com/>

SatNews Publishers:

<http://www.satnews.com/cgi-bin/home.cgi>

AVO (see Acronyms and Abbreviations):

<http://www.avo.alaska.edu/>

KVERT (see Acronyms and Abbreviations):

<http://www.avo.alaska.edu/activity/avoreport.php?view=kaminfo>

And also the writers and commenter's and writers Eruptions.blog

(<http://www.wired.com/wiredscience/eruptions>) and Volcanocafe

(<http://volcanocafe.wordpress.com/>)

If you would like to submit a report to the Bulletin of World Volcanism. Please e-mail bulletinwv@hotmail.co.uk and enter into the Title Box 'volcano report'

Acronyms and Abbreviations

a.s.l - Above Sea Level

AVO - Alaska Volcano Observatory

CENAPRED - Centro Nacional de Prevencion de Desastres

CVGHM - Center of Volcanology and Geological Hazard Mitigation

GVP - Global Volcanism Program

HVO - Hawaii Volcano Observatory

IG - Instituto Geofísico

INGEOMINAS - Instituto Colombiano de Geología y Minería

INSIVUMEH - Instituto Nacional de Sismología, Vulcanología, Meteorología e Hidrología

JMA - Japanese Meteorological Agency

KVERT - Kamchatkan Volcanic Eruption Response Team

MODIS (MODVOLC) - Moderate Resolution Imaging Spectroradiometer

ONEMI - Oficina Nacional de Emergencia - Ministerio del Interior

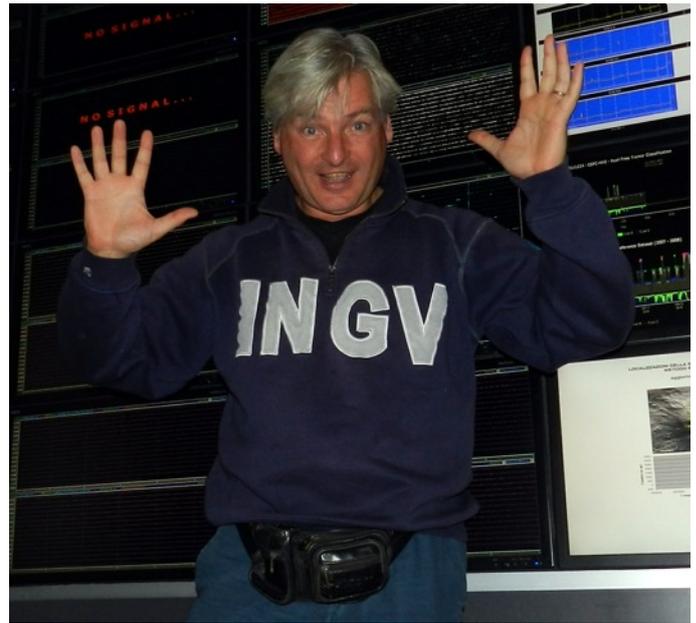
OVSICORI - Observatorio Vulcanológico y Sismológico de Costa Rica, Universidad Nacional

SERNAGEOMIN - Servicio Nacional de Geología y Minería

VAAC - Volcanic Ash Advisory Center

AN INTERVIEW WITH DR. BORIS BEHNCKE

Born in Germany but fascinated since childhood by volcanoes, Boris eventually moved to Catania, Sicily, to live and work close to one of the Earth's most active and intriguing volcanoes: Mount Etna. Following his college studies and PhD in geology, he obtained a contract with the Istituto Nazionale di Geofisica e Vulcanologia (National Institute of Geophysics and Volcanology), Sezione di Catania, and now works full time as a volcanologist on this fascinating and beautiful volcano. He is also responsible for the updates and general volcano information on the institute's web site: <http://www.ingv.it/it/>



Boris Behncke at his place of work, the INGV control room on the flank of Etna, Italy.

What got you interested in volcanoes?

When I was 10 years old, in early 1973, the eruption on the Icelandic island of Heimaey, next to the town of Vestmannaeyjar, was the big news. I came across these huge articles in the newspapers that my parents (journalists) had at home and started reading them ... it was a truly gripping story, that volcano that opened a new fissure just next to a town in the middle of the night, and the ensuing evacuation and then the fight of the people against the volcano. From then on would keep track of all (newsworthy) eruptions via the newspapers.

What fascinates you most about volcanoes?

I think it's mostly the things happening at the interface between volcanism and humans living near volcanoes. It's been there since the Heimaey eruption and constitutes a significant part of my fascination about the Etna area - the volcano AND its people. But then, too, it's volcanic processes, especially such processes that are poorly understood such as the peculiar pyroclastic-flow-like vapor and ash clouds that we have seen during numerous of the recent paroxysms at Etna, caused by the explosive interaction between fast-moving lava flows and thick snow on steep slopes. Finally, a very important part of volcanology for me is public outreach - bringing our understanding of volcanoes, their dynamics, their hazards, but also their benefits, to the people. Firsthand those who live nearby and need to better know their volcanic neighbours, but also people coming from

elsewhere, who wonder why the hell one million of people are so crazy and live next to Etna, one of the most active volcanoes on this planet.

Etna is your favourite volcano, any others?

Vesuvius is quite intriguing - again also because it's got all those people around it; then there are all those beautiful Cascades volcanoes that I really would love to visit, one after the other, one day before I die. Finally, there's Montagne Pelée on the Caribbean island of Martinique and its 1902 eruption - one of the absolutely most fascinating and riveting stories in volcanology and humanity.

Do you collect souvenirs from volcanoes?

There's the one or the other piece of rock that I usually take with me, and postcards ... especially aerial views. I also try to find and photograph peculiar sites, signs or else, which have to do with the volcano and how people perceive it.

How did you feel when you got offered to work at the INGV?

I felt like I'd made it ... though now I am not very sure whether I will still have a job at the INGV from 1 January 2013, like more than 200 of my colleagues.

What was your greatest experience on Etna/Stromboli/other?

Seeing some of those eerie pyroclastic-flow-like vapor and ash clouds at Etna, and in general, Etna's awesome lava fountains ... at Stromboli, my most intense experience was having a swim and diving in



Boris Behncke and his colleague Marco enjoying an eruption of Etna in 2011. A vent on the flank of the SE crater is producing two incandescent lava jets that are powering a lava flow.

front of the Sciara del Fuoco in early September 2012.

Any 'close calls' on a volcano?

umm ... yeah. Like, several times, having rocks flying past me and hitting the ground behind me. This is especially haunting when it's at night and not all rock fragments are incandescent and well visible, some of them ... you just hear them hissing past you and crash into the ground. This is thoroughly frightening. It's also a strange experience to see how a place that you have stood on many times to watch the activity in one of Etna's summit craters all of a sudden has gone - collapsed into the crater. Or learning that one hour after I left, a huge avalanche rushed across a site where I had been with my colleagues taking samples and photographs.

What was your greatest (scientific) discovery about Etna?

I guess it's these pyroclastic-flow-like vapor and ash clouds ...

How likely is it that we will see a large flank eruption from Etna in the near future?

I don't know whether the next flank eruption will be a large one, but it should not be too far away in the

future (though currently there's nothing indicating that such an eruption is imminent). Sooner or later, there will be a very large one, but again, Etna is currently not giving us any hint about when, where and how that will be.

Many view Etna as a 'safe' volcano, is that true?

Let's say Etna is not a killer volcano. People usually have the time to get out of the way even when lava flows invade populated areas. The few people that are known to have died in eruptions of Etna were always in the wrong place at the wrong time, the curious, who went out to watch the eruptions. But certainly, a major eruption on Etna's extremely urbanized southeast flank could wreak enormous havoc, also due to the interruption of major lifelines, water pipelines, fuel deposits and all that stuff.

How will we see Etna evolve in the future?

We might be in a phase where Etna is progressively getting more active, with more frequent, more voluminous, and more violent eruptions. Certainly Etna is more active now than it has been 100 years ago - but it's still only half as productive as it was during the period 1600-1669.

What could Stromboli do in the future?

Pretty likely it'll go on like it has been going for many hundreds of years - with continuous small Strombolian explosions and occasionally much stronger ones. However, one day it will probably also produce a flank eruption; there have been a number of flank eruptions in the past few millennia. But maybe such eruptions occur once continuous supply to the summit vents get blocked, who knows?

Any other Italian volcanoes to keep an eye on?

The volcano that I am most concerned about is Campi Flegrei, the rather unknown volcano on the western side of Naples, which some would call a "super volcano" though I thoroughly dislike that term. Campi Flegrei since decades is showing intense signs of unrest, and it has one-third of Naples standing in its caldera. Even a very small eruption - like the last one, Monte Nuovo in 1538 - would have devastating effects.

To see more photo's from Boris, please visit his Flickr page:

<http://www.flickr.com/photos/etnaboris/>

To find out more about the INGV and Italian Volcanoes visit: <http://www.ingv.it/it/>



A photo of the Etna summit area from a recent visit by helicopter by Boris Behncke.

VOLCANO ANALYSIS: South Sarigan Seamount

COORDINATES: 16.58°N 145.78°E

LOCATION: Mariana Islands
(claimed by the USA)

HEIGHT: -184 M

VOLCANO TYPE: Submarine
Volcano

LAST ERUPTION: 2010

Overview

A brief volcanic eruption took place at a seamount S of Sarigan Island (a Holocene volcano) in May 2010.

Morphology of the volcano suggests that it is frequently active.

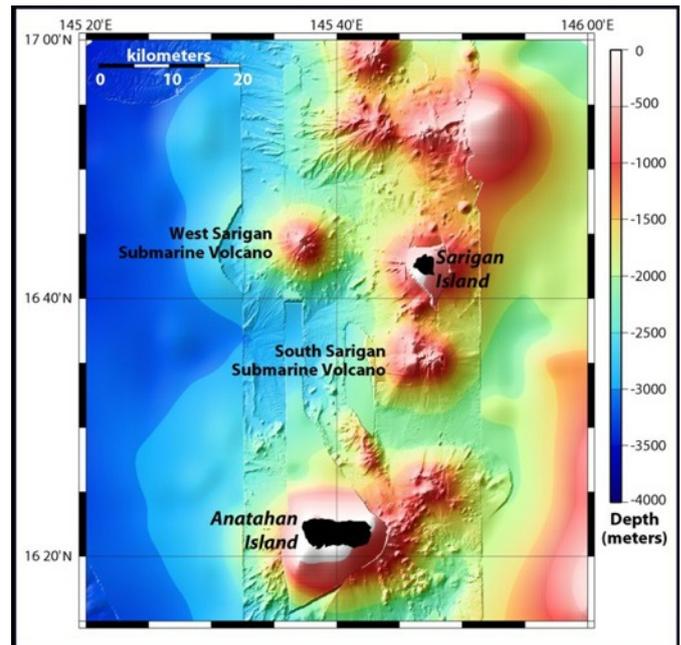
Another submarine cone is located nearby.



Sarigan island, a Holocene volcano N of South Sarigan Seamount.

Morphology

South Sarigan Seamount consists of two volcanic cones rising to within 184 M of the surface; but rises over 3000 M from the sea floor.



Map showing the location of submarine volcanoes located near Sarigan Island.

Two cones make up South Sarigan Seamount, the western cone appears to be an older eroded cone, partially filled by the younger, eastern cone.

The eastern cone has a rugged morphology suggesting many recent eruptions. Both cones appear to have erosional gullies similar to that of land volcanoes.

Another volcano, West Sarigan Seamount, appears to be extremely youthful.

May 2010 Eruption

Seismic stations on Sarigan and Anatahan island started to detect seismicity in Mid-April.

On May 27th - 28th, a wave like tremor was detected, possibly marking the onset of eruptive activity.

On May 27th, a helicopter detected an elongate patch of discoloured water

and possible light-coloured floating material was detected (accompanied by tremors), possibly because of smaller activity.

Satellite images obtained the following day showed that the discoloured patch of water was twice the size of Sarigan island.

On 28th May, A U.S. Fish and Wildlife Service research crew camped on Sarigan Island reported many earthquakes, then a loud explosion, this was followed by minor ash fall.

Reports also mention that a small tsunami (5 M high) may have been produced during this event.

On 29th May, the tremors were almost constant and the area was declared off-limits.

Then at 11:48 (UTC) seismic stations detected the onset of the main eruptive phase.

Soon after the Washington Volcanic Ash Advisory Centre detected a plume rising to a height of around 12 KM a.s.l

The plume was reported to have contained mostly water vapour, containing slight ash content. The plume drifted over Guam, but no ash fall was reported.

The plume quickly diminished.

The main eruptive phase continued until 21:57, the tremors decreased dramatically to near background levels. There no reports of volcanic

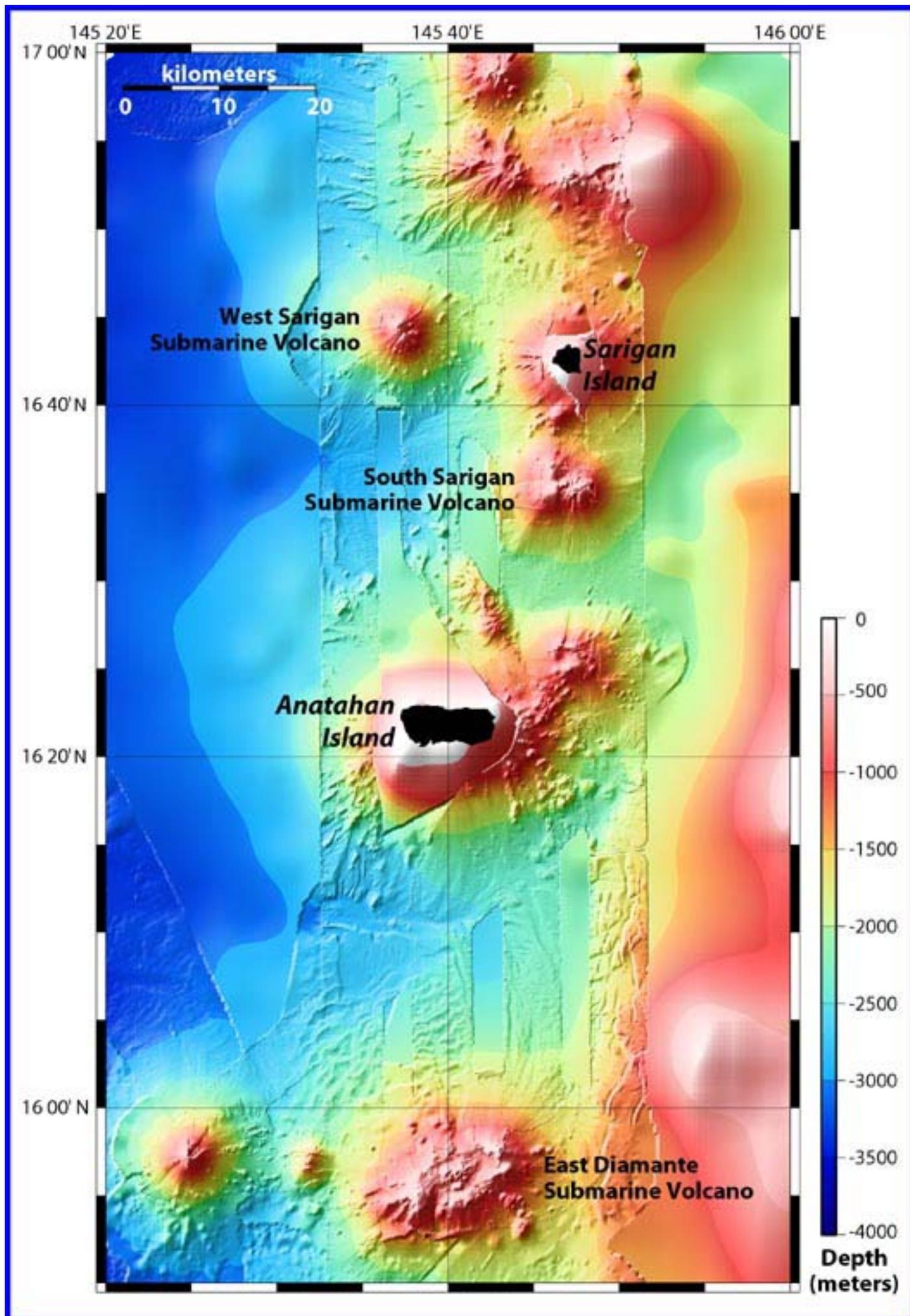
activity at South Sarigan Seamount after 29th May.

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McGimsey R G, Neal C A, Searcy C K, Camacho J T, Aydlett W B, Embley R W, Trusdell F, Paskievitch J F, Schneider D J, 2010. The May 2010 submarine eruption from South Sarigan seamount, Northern Mariana Islands. Eos, Trans Amer Geophys Union, Fall Meet Suppl, abstr #T11E-07

Smithsonian Institution-GVN, 1990-. [Monthly event reports]. Bull Global Volc Network, 35:05



BOOK REVIEW: VOLCANOES OF THE ANTARCTIC PLATE AND SOUTHERN OCEANS

A book considering the volcanoes of the southernmost extremities of the Earth was considered as early as 1970.

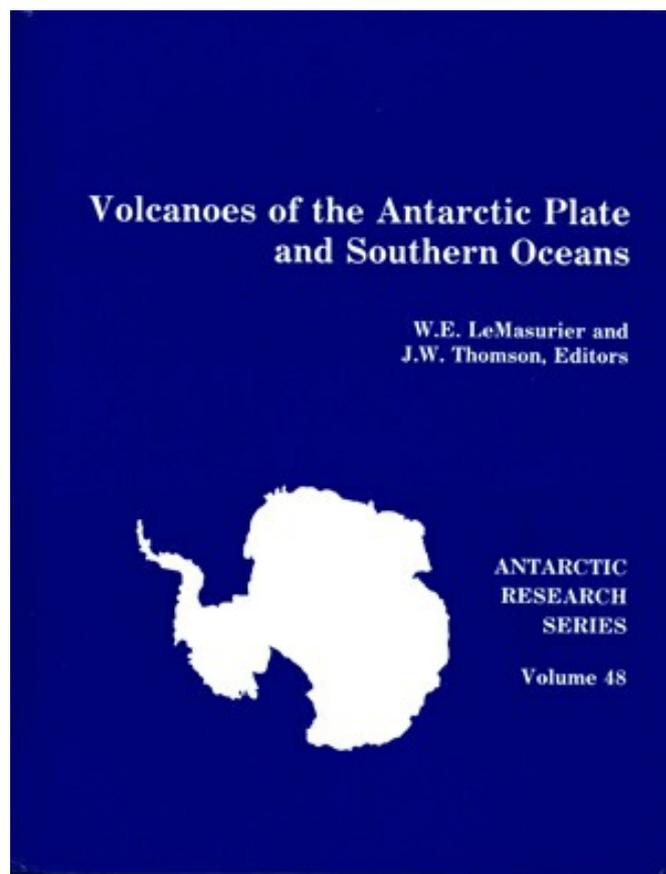
In 1990 the American Geophysical Union published *Volcanoes of the Antarctic Plate and Southern Oceans* as part of their Antarctic Research Series.

The book is based on the Catalog of the Active Volcanoes of the World book of 1960. The book features 100 individual volcano descriptions, also with highly detailed regional descriptions. All are written by pioneers in Antarctic volcanism.

The book is an incredible publication, most of the volcanoes included are remote, covered by the vast continental ice sheet and may have only been visited once. The book mainly focuses on the volcano's Petrology and Morphology.

It also includes little segments including all the people who have visited the volcano on studies and details about its Holocene eruptions, height, type and other.

The book still remains the only real reference book on Antarctic volcanism. Any study of an Antarctic volcano would be incomplete without data from this book.



Basic Data

Price: £38.00 (AGU)

Pages: 487p

Year: 1990

Writers: W. LeMasurier, J. Thomson et.al.

Rating: 4.5/5

“Any study of an Antarctic volcano would be incomplete without data from this book”