



THE UNIVERSITY OF THE WEST INDIES  
SEISMIC RESEARCH CENTRE  
TRINIDAD AND TOBAGO, WEST INDIES

## **SCIENTIFIC UPDATES**

For further information, please e-mail: [src@sta.uwi.edu](mailto:src@sta.uwi.edu) or call 1-868-662-4659

---

### **LA SOUFRIERE VOLCANO, ST VINCENT & THE GRENADINES SCIENTIFIC UPDATES FOR APRIL 9<sup>TH</sup> - OCTOBER 19<sup>TH</sup>, 2021**

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 19/10/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has continued to decrease since the tremor associated with the explosion and ash venting on 22 April. One lahar was recorded on 12 Oct.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level YELLOW.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 12/10/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has continued to decrease since the tremor associated with the explosion and ash venting on 22 April. One lahar was recorded on 11 Oct.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level YELLOW.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

#### **La Soufrière Volcano - SCIENTIFIC UPDATE 05/10/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has continued to decrease since the tremor associated with the explosion and ash venting on 22 April.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 01 October, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 100 tons per day.
4. No lahar signals have been observed since 27 September.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level YELLOW.

7. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufrière Volcano - SCIENTIFIC UPDATE 28/09/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 23rd September, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 176 tons per day.
4. Three lahar signals were observed between 26 - 27 September.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level YELLOW.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 21/09/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 09 and 16th September, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 207 and 262 tons per day respectively.
4. Visual observations on 19th September indicate no major changes have occurred in the crater since the end of explosive activity on 22 April.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level YELLOW.
6. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 14/09/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. No lahar signals have been observed.
4. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
5. The volcano is at alert level ORANGE.
6. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 07/09/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.

2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Lahar signals have been observed but at a lower rate.
4. Work was completed to finalize the installation of the summit seismic station on September 01st through the assistance of the British helicopter RFA Wave Knight.
5. The helicopter enabled excellent views of the crater and observations indicate no major changes have occurred in the crater since the end of explosive activity on 22 April.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEP>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 31/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last week, there was a slight increase in the magnitude but it did not provide any indication of reactivation.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Lahar signals were observed: 4 on the 24 August and 1 on the 25 August in keeping with the rainfall that was experienced during this period.
4. Clear atmospheric conditions at the volcano on 30 August enabled excellent views of the crater and observations indicate no major changes have occurred in the crater since the end of explosive activity on 22 April.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 24/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Heavy rains over the past days have resulted in lahars in most of the valleys on the volcano.
4. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
5. The volcano is at alert level ORANGE.
6. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 17/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.

2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Heavy rains over the weekend resulted in lahars in most of the valleys on the volcano. These were all flows very similar in characteristics to a swollen river.
4. On Aug 15, vigorous steaming accompanied a period of heavy rainfall. These observations are in keeping with the continued presence of near surface hot spots within the crater and are not a sign of an explosive eruption occurring.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information: [www.ivhhn.org/information](http://www.ivhhn.org/information) and use this link for lahars: <https://bit.ly/3m7HEPd>

### **La Soufriere Volcano - SCIENTIFIC UPDATE 13/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 06 August, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 205 tons per day.
4. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level ORANGE.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 10/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 06 August, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 232 tons per day.
4. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level ORANGE.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière Volcano - SCIENTIFIC UPDATE 04/08/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.

2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level ORANGE.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 30/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 27 July, with the assistance of the coastguard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 397 tons per day.
4. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
5. The volcano is at alert level ORANGE.
6. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 27/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
4. The volcano is at alert level ORANGE.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 24/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and persistent degassing.
3. Measurements of the sulphur dioxide flux at La Soufrière were carried out by boat off the west coast on 22 July, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 233 tons per day.
4. Work is still ongoing to restore capacity lost during the explosive phase of the eruption.
5. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
6. The volcano is at alert level ORANGE.

7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 20/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 15 July, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 280 tons per day.
5. Work is still ongoing to restore capacity lost during the explosive phase of the eruption.
6. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and substantial degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 16/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 13 July, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 306 tons per day.
5. Work is still ongoing to restore capacity lost during the explosive phase of the eruption.
6. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and substantial degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 13/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.

2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 8 July, with the assistance of the coast guard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 306 tons per day.
5. Work is still ongoing to restore capacity lost during the explosive phase of the eruption.
6. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and substantial degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart, should there be an influx of new magma from depth.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 09/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurements of the sulphur dioxide flux at La Soufrière were carried out by boat off the west coast on 6 July, with the assistance of the coastguard. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 346 tons per day.
5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue into July.
6. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and substantial degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart with little warning, should there be an influx of new magma from depth
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 06/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Six lahar signals were recorded by the monitoring network on 2 July, associated with heavy rainfall from the passage of Hurricane Elsa.

5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue into July.
6. Current activity is consistent with a period of unrest after an eruption. This can continue for weeks to months. While volcanic activity has been on a decline, there is the continued presence of near surface hot spots, daily seismic activity and substantial degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart with little warning, should there be an influx of new magma from depth
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 02/07/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out by boat on the west coast, with coast guard assistance, on June 29th and yielded an average SO<sub>2</sub> flux of 300 tons per day. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue over the next few weeks..
6. Current volcanic activity is consistent with a period of unrest following eruptive magmatic activity, which can continue for weeks to months. This is characterised by the continued presence of near surface hot spots, daily seismic activity and degassing.
7. There is a small, but not insignificant, possibility that magmatic activity might restart with little warning, should there be an influx of new magma from depth.
- 8.. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 29/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out by helicopter on June 25th and yielded an average SO<sub>2</sub> flux of 215 tons per day.
5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue over the next few weeks.
6. While volcanic activity has been on a decline, the continued presence of near surface hot spots, daily seismic activity and substantial degassing is proof that the system is still in unrest. There is a small, but NOT INSIGNIFICANT, possibility that escalation in activity can still take place with little or no warning.
7. The volcano is at alert level ORANGE.

8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 25/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the summit crater.
4. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out by helicopter on June 23rd and yielded an average SO<sub>2</sub> flux of 683 tons per day. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue until the end of June.
6. The volcano continues to be in a state of unrest. While volcanic activity has been on a decline the continued presence of near surface hot spots, daily seismic activity and substantial degassing is proof that the system is still in unrest and escalation in activity can still take place with little or no warning.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 22/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few small earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies in the crater continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the Summit Crater.
4. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out off the west coast on June 18th and yielded an average SO<sub>2</sub> flux of 479 tons/day. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
5. An increase in the smell of sulphur in Richmond and Chateaubelair regions has also been reported. This can happen when wind direction carries the SO<sub>2</sub> plume towards this direction.
6. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue until the end of June 7.
7. The volcano continues to be in a state of unrest. While volcanic activity has been on a decline the continued presence of near surface hot spots, daily seismic activity and substantial degassing is proof that the system is still in unrest and escalation in activity can still take place with little or no warning.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 18/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April and in the last 24 hours, only a few earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater continue to be the dominant observable feature.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the Summit Crater.
4. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out off the west coast on June 15th and yielded an average SO<sub>2</sub> flux of 352 tons/day. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
5. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue until the end of June.
6. The volcano continues to be in a state of unrest. While volcanic activity has been on a decline the continued presence of near surface hot spots, daily seismic activity and substantial degassing is proof that the system is still in unrest and escalation in activity can still take place with little or no warning.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 15/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April and in the last 24 hours, only a few small earthquakes have been recorded.
2. Several photos of the crater taken by pilots of the British Guard ship taken on June 11th showed no lava dome present but several actively steaming hydrothermal areas.
3. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the Summit Crater.
4. Work is underway to restore capacity lost during the explosive phase of the eruption. This will continue until the end of June.
5. The continued presence of near surface hot spots, daily seismic activity and substantial degassing is proof that the volcano is still in unrest and escalation in activity may still take place with little or no warning.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Volcano - SCIENTIFIC UPDATE 11/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April. In the last 24 hours, only a few earthquakes have been recorded.
2. Persistent steam emissions from a few regions inside the crater due to degassing is observable.
3. Thermal anomalies (an object with a temperature either higher or lower than usual) continue to be detected. They do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over from the eruption, that is still close to the crater floor.
4. Work is underway to restore monitoring capacity lost during the explosive phase of the eruption. This will continue until the end of June
5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.

6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 08/06/21 1:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
  2. In the last 24 hours, only a few earthquakes have been recorded.
  3. Steaming from the volcano summit due to degassing and other interactions is observable from the observatory, once the summit is not obscured by low cloud.
  4. Thermal anomalies (an object with a temperature either higher or lower than usual) continue to be detected. They do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over from the eruption, that is still close to the crater floor.
  5. Several lahar signals were recorded by the monitoring network from June 5-7. Most occurred in the valleys on the western flank (leeward side) of the volcano
  6. Work is underway to restore monitoring capacity lost during the explosive phase of the eruption. This will continue until the end of June
  7. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
  8. The volcano is at alert level ORANGE.
  9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)
- \*Updates will now be posted on Tue & Fri at 1:00 pm AST.

### **La Soufriere Volcano - SCIENTIFIC UPDATE 03/06/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period earthquakes have been recorded.
3. Persistent steaming is observable from the observatory once the cloud cover is high enough.
4. Thermal anomalies continue to be detected but do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the Summit Crater.
5. Measurement of the sulphur dioxide (SO<sub>2</sub>) flux was carried out off the west coast on June 1st and 3rd and yielded an average SO<sub>2</sub> flux of 543 and 456 tons per day, respectively. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
6. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 31/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. From 5:40am on 30 May to 8:00am (local time) on 31 May, there has been no recorded seismicity associated with La Soufrière.
3. Persistent steaming is observable from the observatory once the cloud cover is high enough.
4. Thermal anomalies continue to be detected by the NASA FIRMS alert system.
5. Thermal anomalies do not indicate an explosive event is imminent but that there is a source of heat, most likely from a small body of magma left over, close to the floor of the Summit Crater.

5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 27/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period and volcano-tectonic earthquakes have been recorded.
3. Persistent steaming is observable from the observatory once the cloud cover is high enough and thermal anomalies continue to be detected by the NASA FIRMS alert system. These have been persistent since the 22 April explosion.
4. Thermal anomalies indicate that there is a source of heat within the crater and are most likely from a small body of magma left over, close to the floor of the Summit Crater.
5. Measurements of the sulphur dioxide(SO<sub>2</sub>) flux at La Soufrière were carried out by boat off the west coast on 25 May and 27 May.
6. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 464 and 242 tons per day, respectively. SO<sub>2</sub> can be an indicator that fresh magma from a deeper source is being degassed.
7. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 24/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period and volcano-tectonic earthquakes have been recorded.
3. Persistent steaming is observable from the observatory once the cloud cover is high enough.
4. Thermal anomalies continue to be detected by the NASA FIRMS alert system. These have been persistent since the 22 April explosion.
5. Thermal anomalies indicate that there is a source of heat within the crater and are most likely from a small body of magma left over, close to the floor of the Summit Crater.
5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 21/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period and volcano-tectonic earthquakes have been recorded.
3. Persistent steaming is observable from the observatory once the cloud cover is high enough.

4. Thermal anomalies which indicates high temperatures inside the new crater, continue to be detected by the NASA FIRMS alert system.
5. Measurements of the sulphur dioxide (SO<sub>2</sub>) flux were done on yesterday (20 May) and yielded an average SO<sub>2</sub> flux of 461 tons per day.
6. SO<sub>2</sub> flux is an indicator that fresh magma from a deeper source is being degassed.
7. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 19/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, seismic activity was limited to a few long-period, hybrid and volcano-tectonic earthquakes.
3. When the cloud is high enough, there is persistent steaming observable from the observatory.
4. Thermal anomalies indicating high temperatures inside the new crater continue to be detected by the NASA FIRMS alert system. These have been persistent since the 22 April explosion.
5. Gas measurements on May 18 yielded an average SO<sub>2</sub> flux of 633 tons per day.
6. The volcano continues to be in a state of unrest. Escalation in activity can take place with little or no warning.
7. Caution should be taken in crossing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
8. The volcano is at alert level ORANGE.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano - SCIENTIFIC UPDATE 17/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period earthquakes have been recorded.
3. When the cloud is high enough, there is persistent steaming observable from the observatory.
4. Thermal anomalies, indicating high temperatures inside the new crater, continue to be detected by the NASA FIRMS alert system.
5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
6. Caution should be taken in traversing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere Volcano, St. Vincent - SCIENTIFIC UPDATE 14.05.21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period earthquakes have been recorded.
3. Measurements of the sulphur dioxide flux at La Soufrière were carried out by boat off the west

coast yesterday (13 May) with the assistance of the coastguard.

4. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 722 tons per day.
5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
6. Caution should be taken in traversing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 12/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, seismic activity was limited to a few long-period earthquakes.
3. Gas measurements on May 11 yielded an average SO<sub>2</sub> flux of 252 tons per day.
4. The volcano continues to be in a state of unrest. Escalation in activity can take place with little or no warning.
5. Caution should be taken in crossing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
6. The volcano is at alert level ORANGE.
7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere St. Vincent - SCIENTIFIC UPDATE 10/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period earthquakes have been recorded.
3. Measurements of the sulphur dioxide flux at La Soufrière were carried out by boat off the west coast yesterday (9 May) with the assistance of the coastguard.
4. Several traverses were completed and yielded an average SO<sub>2</sub> flux of 208 tons per day.
5. The volcano continues to be in a state of unrest. Escalation in activity can still take place with little or no warning.
6. Caution should be taken in crossing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
7. The volcano is at alert level ORANGE.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 07/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. No earthquakes have been recorded in the last 24 hours.
3. A small lahar signal was observed at 7:40am this morning.
4. The volcano continues to be in a state of unrest. Escalation in activity can take place with little or no warning.
7. The volcano is at alert level ORANGE.
8. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.

9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere St. Vincent, - SCIENTIFIC UPDATE 05/05/21 6:00PM**

1. Seismic activity at La Soufrière has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further seismic tremor.
3. The volcano continues to be in a state of unrest.
4. Explosions with accompanying ashfall, of similar or larger size to those that have already occurred in this eruption, can take place with little or no warning.
5. Caution should be taken in crossing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.
6. The volcano is at alert level RED.
7. Until further notice one advisory will be issued every Monday, Wednesday and Friday to cover the two-day or three-day period up to 6 pm (local time) on that day.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE - 04/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further seismic tremor.
3. The volcano continues to be in a state of unrest. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred in this eruption, can take place with little or no warning.
4. The volcano is at alert level Red.
5. Visit the International Volcanic Hazard Health Network for volcanic ash information resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 03/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes were recorded and there was no further seismic tremor.
3. The seismic network recorded signals from multiple lahars for a period of about six hours starting around 9 am.
4. These lahars most likely took place in all the valleys around La Soufrière. The most intense lahars occurred between 11 am and 12 noon.
5. Measurements of the Sulphur Dioxide (SO<sub>2</sub>) flux at La Soufrière were carried out with the help of the coastguard off the west coast yesterday. Measurements yielded an average SO<sub>2</sub> flux of 1036 tons per day.
6. The volcano continues to be in a state of unrest. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred can take place with little or no warning.
7. The volcano is at alert level Red.

8. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.

9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere, St. Vincent, SCIENTIFIC UPDATE 02/05/21 6:00PM**

1. Seismic activity at La Soufrière, has remained low since the tremor associated with the explosion and ash venting on 22 April.

2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further seismic tremor.

3. The volcano continues to be in a state of unrest.

4. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred in this eruption, can take place with little or no warning.

5. Caution should be taken in traversing river valleys on the volcano due to the increased risk of lahars (mudflows) during periods of rainfall on the volcano.

6. The volcano is at alert level RED.

7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE - 01/05/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.

2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further seismic tremor.

3. The seismic stations recorded signals from small lahars at about 1am and 8:30 am.

4. Lahars are fast moving, dense mixture of rocks, ash and vegetation and water originating from a volcano.

5. The volcano continues to be in a state of unrest. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred in this eruption, can take place with little or no warning.

6. The volcano is at alert level Red.

7. Visit the International Volcanic Hazard Health Network for volcanic ash information resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere St. Vincent, SCIENTIFIC UPDATE 30/04/21 6:00PM**

1. Seismic activity at La Soufrière has remained low since the tremor associated with the explosion and ash venting on 22 April.

2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further tremor.

3. The seismic stations recorded signals from lahars for a 40-minute period starting at about 5pm. These lahars were much smaller than those on 28 and 29 April.

4. Lahars are fast moving, dense mixture of rocks, ash and vegetation and water originating from a volcano.

5. The volcano continues to be in a state of unrest and the alert level is still RED.

6. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred in this eruption, can take place with little or no warning.

7. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE 29.04.21 6:00PM**

1. Seismic activity at La Soufrière has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further tremor.
3. The seismic stations recorded signals from multiple lahars during a 12-hour period starting at 9pm on 28 April.
4. Lahars seem to have taken place in all the valleys that drain from La Soufrière and caused considerable erosion and damage.
5. Lahars are fast moving, dense mixture of rocks, ash and vegetation and water originating from a volcano.
6. Some of these were hot lahars which were visibly steaming, having passed through hot volcanic deposits.
7. So many trees were brought down by the lahars that floating logs are a hazard to small craft near shore.
8. The volcano continues to be in a state of unrest.
9. Explosions with accompanying ashfall, of similar or larger magnitude to those that have already occurred in this eruption, can take place with little or no warning.
10. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE 28/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further tremor.
3. The volcano continues to be in a state of unrest.
4. Explosions with accompanying ashfall, of similar or larger magnitude, can restart with little or no warning.
5. The volcano is at alert level Red
6. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE - 27/04/21 6:00PM**

1. Seismic activity has remained low with only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further tremor.
2. Signals from several lahars (mudflows) were recorded between 9 and 10 am today, during and after a period of rainfall.
3. A lahar is a rapidly flowing dense mixture of rock debris, ash and water. They have the consistency of wet concrete as they flow and can happen during and after eruptions.
4. Following the rainfall, large amounts of steam could be seen billowing up from a valley south of the summit.
5. This would have been generated when the runoff encountered buried volcanic deposits that were still hot.
6. The volcano continues to erupt. Explosions with accompanying ashfall, of similar or larger magnitude, can restart with little or no warning.
7. The volcano is at alert level Red.
8. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters and material from the International Volcanic Hazard Health Network on volcanic ash and hazard guides.

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 26/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has been low after the tremor associated with the explosion and ash venting around noon on 22 April.
2. Only a few long-period, hybrid and volcano-tectonic earthquakes were recorded and there was no further tremor.
3. An observation flight took place today in a fixed-wing aircraft at about 11:30 am. Visibility was poor, with clouds blocking the crater for much of the time.
4. White steam could be seen venting near-continuously from several locations on the crater floor. No dome was visible, although a spine could be seen through the clouds.
5. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes. Explosions with accompanying ashfall, of similar or larger magnitude, can restart with little or no warning.
6. The volcano is at alert level Red.
7. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufrière, St Vincent SCIENTIFIC UPDATE - 25/04/21 6:00PM**

1. Seismic activity at La Soufrière, has remained low since the tremor associated with the explosion and ash venting around noon on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes have been recorded and there was no further tremor.
3. Satellite radar imagery acquired on 24th April indicates probable continued growth or formation of a lava dome following the explosions on 18 and 22 April.
4. The volcano continues to erupt and is still dangerous.
5. Its pattern of seismic activity over the last few days is typical of the growth of a lava dome.
6. Explosions with accompanying ashfall, of similar or larger size can restart with little or no warning.
7. The volcano is at alert level Red.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere, St. Vincent SCIENTIFIC UPDATE - 24/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has remained low since the tremor associated with the explosion and ash venting around noon on 22 April.
2. In the last 24 hours, only a few long-period, hybrid and volcano-tectonic earthquakes were recorded and there was no further tremor.
3. Since the initial depressurization noted immediately following the April 9 explosive phase, the continuous GPS network has recorded a decrease in the overall rates of horizontal and vertical movement.
4. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
5. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning.
6. The volcano is at alert level Red
7. Visit the International Volcanic Hazard Health Network for volcanic ash information resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

\*Depressurization - a decrease in pressure within a volcano caused by the release of magma, gases or fluids during an explosive event.

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 23/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has been low after the tremor associated with the explosion and ash venting around noon on 22 April.
2. Only a few long-period, hybrid and volcano-tectonic earthquakes were recorded and there was no further tremor.
3. The seismic network recorded signals from multiple lahars (mudflows) at about 9 pm on 22 April. The locations of these lahars have not been determined.
4. Measurements of sulphur dioxide flux (mass) at La Soufriere volcano was again undertaken along the west coast today with the assistance of the coastguard. An average SO<sub>2</sub> flux of 992 tons per day was recorded.
5. Since the initial depressurization (deflation) seen immediately after the April 9 explosive phase, the continuous GPS network has recorded a decrease in the overall rates of horizontal and vertical movement.
6. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning.
7. The volcano is at alert level Red.
8. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent - SCIENTIFIC UPDATE 22/04/21 6:00PM**

1. Seismic activity at La Soufrière continued the pattern established after the explosive activity on 18 April.
2. Small long-period and hybrid earthquakes continued to be recorded, with their rate of occurrence gradually increasing.
3. High-level seismic tremor started at 11:09 am, generated by explosive activity, and lasted for about 20 minutes.
4. A vertical explosive eruption plume rose slowly above the crater eventually reaching a height of about 8 km.
5. During the initial stages of the explosion, a base surge (pyroclastic density current, PDC) was seen moving down the western flank of the volcano. PDCs are hot (200°C-700°C), ground-hugging flows of ash and debris.
6. Tremor continued, at a lower level, for the next two hours as La Soufrière continued to vent ash.
7. Since the initial depressurization noted immediately following the April 9 explosive phase, the continuous GPS network has recorded a decrease in the overall rates of horizontal and vertical movement.
8. The continuous GPS (Global Positioning System) network is used to track changes in ground shape on and around the volcano. As magma moves beneath the volcano, changes in pressure cause the volcano to change shape (inflate/deflate).
9. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
10. Explosions with accompanying ashfall, of similar or larger size, can occur with little or no warning impacting St. Vincent and neighbouring islands.
11. The volcano is at alert level Red.
12. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere SCIENTIFIC UPDATE - 21/04/21 6:00PM**

1. Seismic activity continued the pattern established after the explosive activity on 18 April.
  2. Small long-period and hybrid earthquakes continued to be recorded, with their rate of occurrence increasing gradually over the last 24 hours.
  3. The network also recorded a few rockfalls and volcano-tectonic earthquakes.
  4. No seismic tremor has been recorded in the last 24 hours.
  5. Since the initial depressurization\* noted immediately following the April 9 explosive phase, the continuous GPS network has recorded a decrease in the overall rates of horizontal and vertical movement.
  6. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
  7. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning.
  8. Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash: [www.ivhhn.org/information](http://www.ivhhn.org/information)
- \*Depressurization - a decrease in pressure within a volcano caused by the release of magma, gases or fluids during an explosive event.

#### **La Soufriere, St Vincent SCIENTIFIC UPDATE 20/04/21 6PM**

1. Seismic activity at La Soufrière continued the pattern established after the explosive activity on 18 April.
2. Small long-period and hybrid earthquakes continued to be recorded. The network also recorded a few rockfalls and volcano-tectonic earthquakes.
3. No seismic tremor has been recorded in the last 12 hours.
4. Measurements of sulphur dioxide flux SO<sub>2</sub> (mass) at La Soufriere volcano was again undertaken along the west coast today with the assistance of the coastguard.
5. Measurements yielded an average SO<sub>2</sub> flux of 350 tons per day.
6. Since the initial depressurization noted immediately following the April 9 explosive phase, the continuous GPS network has recorded a decrease in the overall rates of horizontal and vertical movement.
7. The volcano continues to erupt.
8. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
9. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning impacting St. Vincent and neighbouring islands.
10. The volcano is at alert level Red
11. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
12. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere SCIENTIFIC UPDATE - 20/04/21 6:00AM**

1. Seismic activity has continued the pattern established after the explosive activity on 18 April.
2. Small long-period and hybrid earthquakes continued to be recorded. Two rockfalls were also recorded.
3. No volcano-tectonic earthquakes or tremor have been recorded in the last 12 hours.
4. The seismic station at Bamboo Range recorded the signal from a lahar (mudflow) at 4 am, which lasted for about 30 minutes and may have flown along a valley on the south- eastern side of the volcano.
5. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.

6. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning and persons are advised to stay out of the red zone.
7. The volcano remains at alert level RED.
8. Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere St Vincent SCIENTIFIC UPDATE - 19/04/21 6PM**

1. Seismic activity at La Soufrière continued the pattern established after the explosive activity yesterday evening.
2. Small long-period and hybrid earthquakes continued to be recorded. No volcano-tectonic earthquakes, rockfalls or tremor have been recorded in the last 12 hours.
3. The continuous GPS network has shown a change in horizontal and vertical movement since the initial depressurization noted immediately following the April 9 explosive phase.
4. The continuous GPS (Global Positioning System) network is used to track changes in ground shape on and around the volcano. As magma moves beneath the volcano, changes in pressure cause the volcano to change shape (inflate/deflate).
5. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
6. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning impacting St. Vincent and neighbouring islands.
7. The volcano is at alert level Red
8. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere, St. Vincent SCIENTIFIC UPDATE 19.04.21 6:00AM**

1. The episode of continuous seismic tremor generated by explosive activity at La Soufrière, lasted until about 9 pm on 18 April.
2. Following this, small long-period and hybrid earthquakes started to be recorded again, at a rate similar to before the explosive activity. This rate dropped significantly at about 1 am on 19 April.
3. No volcano-tectonic earthquakes were recorded in the last 12 hours.
4. One rockfall was recorded, at 1:39 am. Rockfalls can be generated by a growing lava dome, but this cannot be confirmed without visual observations.
5. The continuous GPS network has shown a change in horizontal and vertical movement since the initial depressurization noted immediately following the April 9 explosive phase.
6. The continuous GPS (Global Positioning System) network is used to track changes in ground shape on and around the volcano. As magma moves beneath the volcano, changes in pressure cause the volcano to change shape (inflate/deflate).
7. These changes may suggest magma influx from deep within the sub-volcanic system, however more investigation is needed to confirm this interpretation.
8. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
9. Explosions with accompanying ashfall, of similar or larger magnitude, can occur with little or no warning impacting St. Vincent and neighbouring islands.
10. The volcano is at alert level Red
11. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
12. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufriere, St. Vincent SCIENTIFIC UPDATE - 18/04/21 6:00pm**

1. The swarm of long-period and hybrid earthquakes continued at La Soufrière with no significant change in their rate of occurrence.
2. Occasional small volcano-tectonic earthquakes were still being recorded.
3. An explosion generated a period of high-level tremor starting at 4:49 pm on 18 April.
4. The resulting eruption plume rose to above 8km and drifted to the south and southwest of the island.
5. Measurements of sulphur dioxide flux (mass) at La Soufriere volcano were again undertaken along the west coast yesterday and today.
6. An average SO<sub>2</sub> flux of 232 and 391 tons per day on 17th and 18th April respectively, was recorded.
7. The volcano continues to erupt. Its pattern of seismic activity over the last few days is typical of the growth and destruction of lava domes.
8. Explosions with accompanying ashfall, of similar or larger size, can occur with little or no warning impacting St Vincent and neighbouring islands.
9. The volcano is at alert level Red
10. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
11. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 18/04/21 6:00AM**

1. The swarm of long-period and hybrid earthquakes continues at La Soufrière. These earthquakes still occur at a near-constant rate.
2. Small volcano-tectonic earthquakes are still being recorded occasionally. No episodes of tremor have been recorded since April 16.
3. The volcano continues to erupt although there appears to be a pause in explosive activity at this time.
4. The volcano's current pattern of seismic activity may indicate growth of a lava dome, but this has not yet been confirmed.
5. Explosions with accompanying ashfall, of similar or larger magnitude, could restart in the future impacting St. Vincent and neighbouring islands.
6. The volcano is at alert level Red.
7. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research - informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
8. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 17/04/21 6:00PM**

1. The swarm of long-period and hybrid earthquakes continued at La Soufrière.
2. The rate of occurrence of these earthquakes has remained near-constant since the last update. No episodes of tremor have been recorded in the last 12 hours.
3. The continuous GPS (Global Positioning System) network has shown a change in horizontal and vertical movement since the initial deflation observed after the April 9 explosive episode.
4. The continuous GPS (Global Positioning System) network is used to track changes in ground shape on and around the volcano.

5. These changes may suggest magma is being added from deep within the sub-volcanic system, however more investigation is needed to confirm this interpretation.
6. The volcano continues to erupt although explosive activity appears to have ended at this time.
7. Its current pattern of seismic activity may indicate growth of a lava dome, but this has not yet been confirmed.
8. Explosions with accompanying ashfall, of similar or larger magnitude, could restart in the future impacting St. Vincent and neighbouring islands.
9. The volcano is at alert level Red.
10. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
11. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

### **La Soufrière, St. Vincent SCIENTIFIC UPDATE - 17/04/21 6:00AM**

1. The swarm of long-period and hybrid earthquakes continued at La Soufrière.
2. The rate of occurrence of these earthquakes dropped significantly at about 8 pm on 16 April and has remained near-constant since. No episodes of tremor have been recorded in the last 12 hours
3. A revised picture (see figure above) has been constructed of the summit crater based on satellite images.
4. The new crater, measures approximately 900 m N to S and at least 750 m E to W.
5. The crater is thought to be at least 100 m deep (Raphael Grandin, IPGP) and is centred in the SW sector of the Summit Crater.
6. Within the new crater, there are several vents, but only one can be identified clearly. Other vents, as indicated by the ash and steam plumes are located in the northern part of the new crater.
7. The volcano continues to erupt although explosive activity appears to have ended at this time.
8. Its current pattern of seismic activity may indicate growth of a lava dome, but this has not yet been confirmed.
9. Explosions with accompanying ashfall, of similar or larger magnitude, could restart in the future impacting St. Vincent and neighbouring islands.
10. The volcano is at alert level Red.
11. Visit [https://volcanoes.usgs.gov/volcanic\\_ash/resources.html](https://volcanoes.usgs.gov/volcanic_ash/resources.html) for Global Ash Impact posters. These are the latest research-informed material for concise best practice information for critical infrastructure managers to effectively manage ash-producing volcanic eruptions.
12. Visit the International Volcanic Hazard Health Network for volcanic ash information and resources:  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

NOTE: This advisory was prepared at 6:00AM, and therefore does not include the explosion which occurred at 6:15AM.

### **La Soufriere St. Vincent SCIENTIFIC UPDATE - 16/04/21 6:00AM**

1. Seismic activity at La Soufrière, continued as before with a near-constant swarm of long-period and hybrid earthquakes.
2. There was one band of low-level tremor at 9pm on 15 April which lasted about 40 minutes and may have been associated with a small increase in venting.
3. The first successful measurements of sulphur dioxide (SO<sub>2</sub>) flux at La Soufriere were undertaken along the west coast and yielded an average SO<sub>2</sub> flux of 809 tons per day.

4. SO<sub>2</sub> is a volcanic gas and flux is the measurement of mass of SO<sub>2</sub> in the plume (a stream of gas vented by the volcano).
5. The presence of SO<sub>2</sub> tells us that fresh magma from a deeper source is being degassed indicating that the eruption is continuing.
6. The volcano continues to erupt although explosive activity appears to have ended at this time.
7. Its current pattern of seismic activity may indicate growth of a lava dome, but this has not yet been confirmed.
8. Explosions with accompanying ashfall, of similar or larger size, could restart in the future impacting St. Vincent and neighbouring islands.
9. The volcano is at alert level Red
10. Visit the [GNS Science](#) website for Global Ash Impact posters. The latest research-informed material for concise best practice information for critical infrastructure managers to effectively prepare for, respond to, and recover from ash-producing volcanic eruptions. <https://tinyurl.com/2w93f3hf> Visit
11. Visit the [International Volcanic Health Hazard Network](#) for volcanic ash information and resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere SCIENTIFIC UPDATE - 15/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent has changed its pattern.
2. The last of a series of bands of tremor ended at about 5:40 am and, unlike all the previous bands, had no strong venting or explosive activity associated with it.
3. The seismic network has now recorded a near constant swarm of long-period and hybrid earthquakes, with three brief episodes of low-level tremor each lasting less than 30 minutes.
4. The continuous GPS network shows a signal consistent with depressurization of the magma reservoir following the initiation of explosive activity on 9th April 2021.
5. The volcano continues to erupt although explosive activity appears to have ended at this time.
6. Its current pattern of seismic activity may indicate growth of a lava dome, but this has not yet been confirmed.
7. Explosions and accompanying ashfall, of similar or larger magnitude, could restart in the future.
8. Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere St. Vincent SCIENTIFIC UPDATE - 15/04/21 6:00AM**

1. Seismic activity at La Soufrière continued to follow the established pattern with bands of tremor about between 13 and 15 hours apart separated by swarms of small long-period earthquakes.
2. The latest band of tremor started at about 2:30 am and was associated with increased venting.
3. The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents - hot (200°C-700°C), ground-hugging flows of ash and debris.
4. Its current pattern of explosions appears to be episodic (stop-start) with increasing periods between eruptions and less energy.
5. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days impacting St. Vincent and neighbouring islands.
6. The volcano is at alert level Red
7. Visit [GNS Science](#) for [#GlobalAshImpact](#) posters - the latest research-informed material for concise best practice information for critical infrastructure managers to effectively prepare for, respond to, and recover from ash-producing volcanic eruptions. <https://tinyurl.com/2w93f3hf>

8. Visit the [International Volcanic Health Hazard Network](http://www.ivhhn.org) for volcanic ash information resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere, St. Vincent SCIENTIFIC UPDATE - 14/04/21 6:00PM**

Seismic activity at La Soufrière, St Vincent continued to follow the pattern established yesterday. Bands of tremor about 14 hours apart separated by swarms of small, long-period (LP) earthquakes.

The latest band of tremor occurred at about 11:35 am and, as before, was associated with an episode of explosive activity.

The explosions produced was gas rich and did not rise as energetically as previous explosions. No pyroclastic density currents were produced.

The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents.

Its current pattern of explosions appears to be episodic with increasing intervals and less energy. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days.

Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash.

[www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere, St. Vincent SCIENTIFIC UPDATE - 14/04/21 6:00AM**

1. Seismic activity at La Soufrière, St Vincent showed a similar pattern to yesterday.
2. Small long-period earthquakes continued to gradually increase in number after the explosive activity at 6:30am on 13 April.
3. These continued until another episode of explosive activity started at 8:30 pm on 13 April.
4. This generated continuous seismic tremor which lasted for four to five hours.
5. After the tremor had died down, small, long-period earthquakes were again recorded, again slowly growing in numbers.
6. The explosions which occurred pulsed for >40 minutes and produced pyroclastic density currents (PDCs) which, appear to have gone down valleys that drain towards the Rabacca River on the east coast of the island.
7. PDCs are hot (200°C-700°C), ground-hugging flows of ash and debris.
8. Lahars (mudflows) were reported in the Sandy Bay Area on 13 April.
9. The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents.
10. Its current pattern of explosions appears to be episodic (stop-and-go).
11. Over the past 24 hours the time between each explosion has increased.
12. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days impacting St. Vincent and neighbouring islands such as Barbados, Grenada, Saint Lucia.
13. The volcano is at alert level Red
14. Visit the International Volcanic Hazard Health Network for volcanic ash information resources: [www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere SCIENTIFIC UPDATE - 13/04/21 6:00PM**

1. Seismic activity changed with the explosive activity at 6:30 am on 13 April. Prior to the explosion, long-period (LP) earthquakes had been increasing in number.

2. Categorized as a Vulcanian explosion, it was accompanied by larger seismic tremor which was followed by over three hours of smaller continuous seismic tremor.

3. Vulcanian explosions are small to moderate explosive eruptions, lasting seconds to minutes. Ash columns can be up to 20 km in height and pyroclastic density currents (PDCs) can be generated.
4. The explosions pulsed for ~30 minutes and produced PDCs that reached the sea at the mouth of the Wallibou approximately 6 km from the volcano.
5. Once this tremor had died down, LP earthquakes were recorded, again slowly growing in numbers. but are significantly smaller than those prior to the 6:30 am explosion.
6. Eyewitness account of this flow indicated that it had extended further into the sea when it reached the coastline.
7. Observations made this afternoon from the coastline indicate that PDCs resulting from this morning and have reached the sea in every valley extending from Larikai to Wallibou.
8. The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days.
9. Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash.  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

NOTE: This update was prepared prior to an explosion which occurred at 6:30AM local time.

#### **La Soufriere SCIENTIFIC UPDATE - 13/04/21 6:00AM**

1. Seismic activity at La Soufrière, St Vincent continued the pattern established yesterday, with short bands of continuous seismic tremor interspersed with long-period earthquakes.
2. Following the latest band of tremor, at 1:30 am, the long-period earthquakes have steadily become more frequent.
3. Audible venting was heard associated with some periods of tremor and long-period earthquake activity.
4. The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents - hot (200°C-700°C), ground-hugging flows of ash and debris.
5. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days impacting St. Vincent and neighbouring islands.
6. The volcano is at alert level Red
7. Visit the International Volcanic Hazard Health Network for information and resources on living with volcanic ash.  
[www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere SCIENTIFIC UPDATE - 12/04/21 6:00PM**

1. The pattern of seismic activity changed again, with the end of the episodes of high-amplitude tremor 2-8 hours apart.
2. Three episodes of tremor have been recorded since 6am, two of them lower-amplitude and the third, at about 5pm, was high-amplitude.
3. The episodes continue to coincide with periods of enhanced venting or explosive activity
4. A reconnaissance of the entire north coast of St. Vincent from Chateaubelair to Georgetown with assistance from the Coast Guard.
5. Observations made indicate that pyroclastic density currents (PDCs) had descended several valleys on the southern and

western flanks of the volcano and had reached the sea at Morne Ronde, Larikai and Trois Loupes Bay.

6. Extensive damage to vegetation was noted in an area extending from Larikai Bay to Turner Bay on the west coast.
7. No other areas along the coast had been affected by PDCs but villages located on the eastern flank of the volcano had been affected by heavy ashfall.
8. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days with the chance of PDCs occurring.
9. Visit the International Volcanic Hazard Health Network for volcanic ash information resources:

#### **La Soufriere SCIENTIFIC UPDATE - 12/04/21 6:00AM**

1. Explosions with pyroclastic density currents at La Soufriere.
2. Since midday on April 11, the time between episodes of high-amplitude tremor has lengthened from 1.5-4 hours to 5-8 hours.
3. The episodes continue to coincide with periods of enhanced venting or explosive activity.
4. Small volcano-tectonic earthquakes were recorded starting at about 6:00pm on 11 April.
5. At about 4:15 am observations from the Belmont Observatory indicated that pyroclastic density currents (PDC) entered multiple valleys surrounding the volcano.
6. Pyroclastic density currents are hot (200°C-700°C), ground-hugging flows of ash and debris.
7. Analysis of satellite imagery and comparison with previous images indicate that the explosive eruptions thus far have destroyed the pre-existing domes (1979 and 2020-21)
8. The current explosions are being generated from a new vent.
9. The volcano continues to erupt explosively and has now begun to generate pyroclastic density currents.
10. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days.
11. Visit the International Volcanic Hazard Health Network for volcanic ash information resources:

[www.ivhhn.org/information](http://www.ivhhn.org/information)

#### **La Soufriere Eruption SCIENTIFIC UPDATE, 11/04/21 6:00PM**

1. Seismic activity at La Soufrière, St Vincent continued the pattern that began yesterday.
2. The seismic network recorded short episodes of high-amplitude seismic tremor, each lasting around 20 minutes and with gaps between them from one to six hours.
3. The episodes appeared to coincide with periods of enhanced venting or explosive activity. The background level of seismic tremor between the episodes has been increasing slowly since about 10:30 am.
4. Steaming in the upper parts of the Rabacca valley was observed at about midday. Investigation of the cause of this phenomena is currently being investigated.
5. The volcano continues to erupt explosively with the production of copious amounts of ash.
6. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days impacting St. Vincent and neighbouring islands.
7. Visit the

[International Volcanic Health Hazard Network](http://www.ivhhn.org/information)

online platforms for information and resources on volcanic ash precautions.

Volcanic ash information resources: <https://www.ivhhn.org/information>

Volcanic ash safety videos: <https://www.ivhhn.org/information/ivhhn-videos>

### **La Soufriere Eruption Scientific Update 11/04/21 9am**

1. In the last twelve hours episodes of tremor normally lasting up to 20 minutes have continued to be recorded.
2. The intervals between the tremors have been between 1.5 to 3 hours.
3. Based on visual observations and satellite imagery, the intervals are associated with periods of explosive activity or enhanced venting.
4. Thunder and lightning were experienced during these periods.
5. Heavy ash fall was observed at the Belmont Observatory throughout the night.
6. Ashfall was also reported to have occurred in most areas of the island overnight and in neighbouring islands: the Grenadines, Barbados and Saint Lucia.
7. Explosions and accompanying ashfall, of similar or larger magnitude, are likely to continue to occur over the next few days.

Learn more about protecting yourself from ash as guided by the International Volcanic Health Hazard Network (IVHHN)

Volcanic ash information resources: <https://www.ivhhn.org/information>

Volcanic ash safety videos: <https://www.ivhhn.org/information/ivhhn-videos>

### **La Soufriere Eruption Scientific Update 10/04/21 6pm**

1. Following the gradual decline of near-continuous seismic tremor at La Soufrière, St Vincent, the seismic network started to record banded tremor from about 3:30 am onwards on 10 April.
2. Banded tremor is a seismic signal which indicates that fluid (magma and gas) are approaching the surface
3. Each tremor episode lasted 20 to 30 minutes, with gaps between them of one to three hours. The episodes appeared to coincide with periods of enhanced venting or explosive activity.
4. The background level of seismic tremor between the episodes continued to decline.
5. Ash thickness from the past 24 hours of eruptive activity varied from <1mm in Colonaire (~12.5 km from the volcano) to 10-15mm in Rabacca (~7.4 km from the volcano).
6. Ash thickness and grain size generally increased from Kingstown northwards to the volcano. Ashfall was reported in parts of Barbados and Saint Lucia.
7. The volcano has entered an explosive eruptive phase that may continue over the next few days and weeks. Explosions are expected to be of similar or larger magnitude.

### **La Soufrière scientific update- April 10th 2021 9:00 AM**

- The tremor generated by energetic venting of La Soufrière, St Vincent continued overnight.
- The size of the tremor peaked between 8 pm and midnight on 9 April and slowly declined over the next few hours.
- There were some periods of increased amplitude (size) during the decline, associated with pulses in the ash venting.
- A small number of volcano-tectonic, long-period and hybrid earthquakes have been recorded during the tremor.
- Audible rumblings accompanied by ash venting occurred throughout most of the night with ashfall reported throughout St. Vincent and some areas in Barbados.
- The volcano has entered an explosive eruptive phase that may continue over the next few days and weeks. Explosions are expected to be of similar or larger magnitude.

### **La Soufriere Eruption Scientific Update - April 9, 2021 8pm**

- Vigorous ash venting resumed at La Soufriere at approximately 2:45 pm.
- Lightning can now be seen in the ash column due to its highly charged nature.

- After the initial explosion, seismicity increased again at approximately 11:30am with a swarm of earthquakes lasting until 2:40pm.
- Continuous tremor has been recorded since 3pm with the largest signals accompanying the most vigorous venting.
- The volcano continues to be in an explosive phase that may last several days to weeks.