

EFFUSIVE ERUPTION AT LA SOUFRIÈRE VOLCANO, ST. VINCENT

SITUATION REPORT No. 7

AS OF 8:00 PM ON 5 MARCH, 2021

Volcanic Activity Continues at La Soufrière, Alert Level Remains at Orange; COST Support Deployed to St. Vincent

LOCATION:

La Soufrière Volcano, Saint Vincent and The Grenadines

PRESENT ACTIVITY:

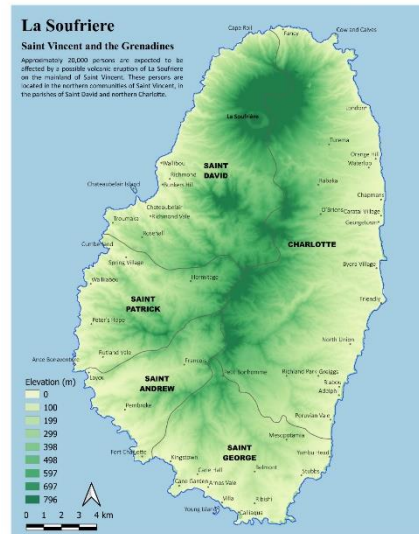
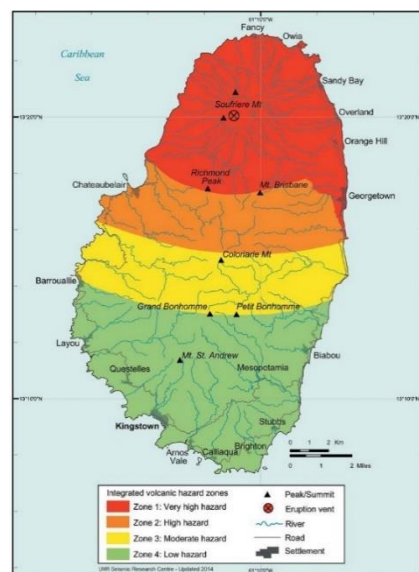
Effusive eruption, ongoing fumarolic activity, continued growth of the new volcanic dome, and increased seismic activity

ALERT LEVEL: ORANGE

SITUATION OVERVIEW

On 29th December 2020 the alert level for the La Soufrière volcano in St. Vincent and the Grenadines was elevated to **Orange** because of increased activity at the site. The volcano has had an effusive eruption, with visible gas and steam eruption and the formation of a new volcanic dome. The volcano continues to exude magma on the surface and gas emissions can be observed from the Belmont Observatory. A UWI Seismic Research Centre team is currently in St. Vincent to support monitoring and data collection and analysis.

An Orange Level alert means that there is highly elevated seismicity or fumarolic activity, or both, or other highly unusual symptoms. Eruptions may occur with less than 24 hours notice. Monitoring systems are continuously manned and there is regular visual inspection of potential vent areas as well as continuous ground deformation and hydrothermal monitoring.



**No Evacuation Orders
have been issued. Access to the
volcano is strictly prohibited.**

SITUATION cont'd

The UWI SRC advised that the tracking of dome growth was being undertaken using photogrammetric techniques informed by both aerial photographs taken with fixed wing, helicopter and UAV aircraft supplemented by satellite images. The new dome continues to grow towards the north-west and south-east with the most active gas emissions being the top of the new dome, as well as the contact areas between the pre-existing 1979 dome and the 2020-21 dome, as well as the top of the new dome. The fumarolic area on the old dome has become more active than prior to the eruption.

The ongoing effusion of magma onto the crater floor continues with episodic changes in the rate of dome growth. The gas plume issuing from the dome continues to cause damage to vegetation in the summit areas on the south-western parts of the volcano. The gases within the plume could also be harmful to human beings and may, with prolonged exposure (such as may occur at the summit or in the crater), have the potential to render unconscious and even asphyxiate, is the added corrosive effect on skin and eyes, even with short exposure.

The Education & Outreach arm of the SRC provided updates and information on their social media platforms. The "Soufriere Today" program was recorded and posted to YouTube and a virtual community meeting for Chateaubelair was held on Tuesday 2nd March 2021. The meeting was carried live on UWI TV Global (www.uwitv.org), uwiseismic YouTube channel, local NBC Radio and VC3 tv (channel 114).



View of the fumarole on the old dome Photo credit: SMU, Kemron Alexander



Eastern edge of the new dome Photo credit: MVO, Thomas Christopher

Updates from Impacted CDEMA Participating State

The Caribbean Disaster Emergency Management Agency (CDEMA) has been in regular contact with the National Disaster Coordinator in St. Vincent and the Grenadines and the following was reported:

ST. VINCENT AND THE GRENADINES

1. NEMO's recent bulletins have advised that drone surveys and aerial photographs of the volcano were done at the La Soufriere Volcano on Wednesday 3rd March, 2021.
2. The new seismic station constructed at the National Parks Interpretation Centre at Bamboo Range, on the eastern side of the volcano is operational. The streaming of data from this into the Seismic Research Centre (SRC) began on March 01, 2021.
3. A new continuous Global Positioning System (GPS) monitoring station was installed at the monument recently constructed in Fancy.
4. Work continued at the Belmont Observatory, on the installation of the seismic data acquisition system.
5. Additional measurements of carbon dioxide in soil along the lower sides of the volcano is completed.
6. Three members of the Seismic Research Centre Team returned to Trinidad and Tobago on Monday March 1, 2021.
7. The National Emergency Management Organisation continued to remind the public that no evacuation order or notice had been issued.
8. NEMO continued to appeal to the public to desist from visiting the La Soufrière Volcano, especially going into the crater, since doing so was extremely dangerous.
9. NEMO will continue to provide regular updates on all activities taking place at La Soufriere.

4 Tips for Evacuating during an Explosive Eruption



Do you know how to prepare your family in the event that an evacuation becomes necessary?

- 1 Take at least a three -day supply of clothing, food and water. **Take all important documents such as birth certificates, title deeds, and marriage certificates.**



- 2 If you don't have transportation, **go to the assembly point in your community that is closest to your home.** In this area NEMO buses will pick you up to transport you to a safe area. (sign marked ASSEMBLY POINT).



- 3 The **safe areas** are the villages located in areas from **Biabou to Barrouallie** on mainland St. Vincent and the Grenadines.



- 4 As much as possible, try to **keep all the members of your family together, especially children and the elderly.**



A message from the National Emergency Management Organisation of St. Vincent and the Grenadines | 784-662295 | nemo.gov.vg | FB: NEMOSVG | IG: NEMOSVCSO

4 Tips on how to dress during an Explosive Eruption



Protect yourself during an explosive eruption (where there is ash, stone or rock particles coming from the volcano)

- 1 Wear goggles and/or eyeglasses instead of contact lenses.



- 2 A mask to prevent you from breathing in ash. This is especially important for persons with asthma and other respiratory ailments.



- 3 Use a damp cloth to cover your face if you don't have a mask to help with breathing.

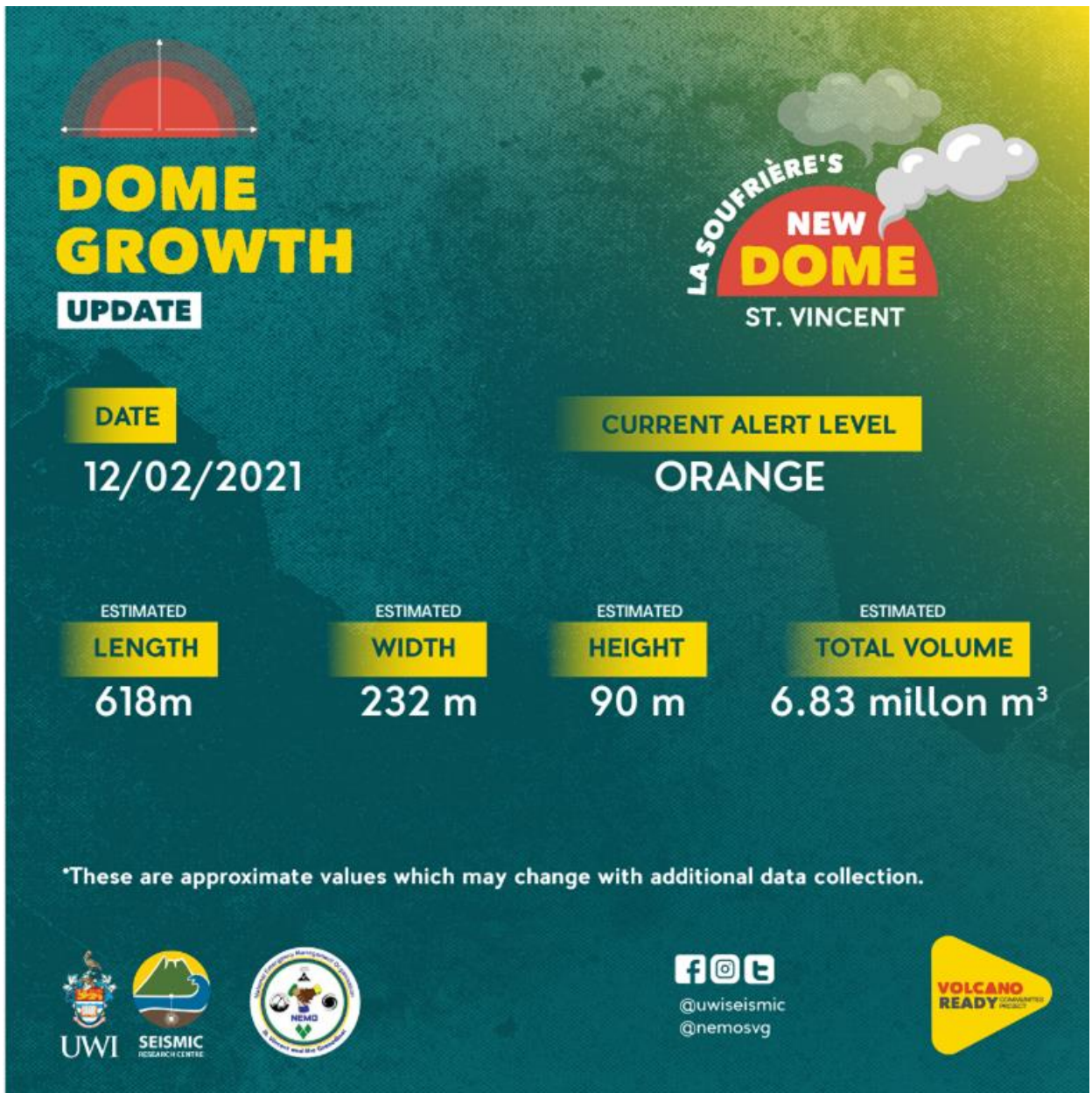
- 4 Wear long-sleeved shirts/tops and long pants and enclosed shoes to protect you from falling ash.



A message from the National Emergency Management Organisation of St. Vincent and the Grenadines | 784-662295 | nemo.gov.vg | FB: NEMOSVG | IG: NEMOSVCSO

The effusive eruption at the La Soufriere volcano SVG continues and as the scientists study the new dome, UWI SRC shared the following infographic to help persons to better understand the activity and what was being done to monitor the volcano.

(Source: UWI SRC <https://www.facebook.com/uwiseismic/photos/a.112065204326/10157904654989327/>)



THREAT LEVELS

Below is a summary of the threat alert levels for the La Soufriere volcano:

LA SOUFRIERE VOLCANO HAZARD ALERT LEVEL

| Alert Level | Symptoms | Action Scientist | Action: Civil Authorities |
|--------------------|--|---|---|
| Green | Volcano is quiescent (quiet): seismic and fumarolic (steam vent) activities are at or below the historical level at this volcano. No other unusual activity has been observed. | Normal monitoring | Undertake ongoing public awareness campaign and work on volcanic emergency plans. |
| Yellow | Volcano is restless: seismic or fumarolic activity or both are above the historical level at this volcano or other unusual activity has been observed (this activity will be specified at the same time that the alert level is raised). | Monitoring system will be brought up to full capability. Civil authorities alerted. | Undertake ongoing public awareness campaigns and work on volcanic emergency plans. Advise vulnerable communities of evacuation procedures in the event of an emergency. |
| Orange | Highly elevated level of seismicity or fumarolic activity or both or other highly unusual symptoms. Eruptions may occur with less than 24 hours notice. | Monitoring system continuously manned. Regular visual inspection of potential vent areas. Continuous ground deformation and hydrothermal monitoring. Daily assessment reports to civil authorities. | Coordinate evacuation (if necessary) based on hazard zones. Entry to the restricted access zone by scientist will be permitted after evacuation on a case-by-case basis. Organize regular radio and television announcements. |
| Red | Eruption is in progress or may occur without further warning | Measurements as permitted by safety condition. Civil authorities advised continuously. | Coordinate continued evaluation as necessary. Organize regular radio and television announcements. |

Caribbean Disaster Emergency Management Agency (CDEMA) Actions

The CDEMA Coordinating Unit (CU) continues to operate in accordance with the Standard Operating Procedures (SOPs) of the Regional Coordination Plan (RCP) which includes maintaining contact with the threatened states and its Regional Response Mechanism (RRM) partners.

CDEMA's actions to date:

- I. The CDEMA Coordinating Unit continues to undertake technical consultations with the UWI Seismic Research Centre (SRC) on the status of La Soufriere volcano.
- II. The Regional Coordination Plan (RCP) was activated at 6:00 PM December 29, 2020.
- III. The Volcano Response Plan, the Regional Coordinating Centre (RCC), the Regional Logistics Plan (RLP) and the Regional Response Mechanism were activated.
- IV. The CDEMA Coordinating Unit (CU) undertook consultations with the National Disaster Coordinator of the Subregional Focal Point in Barbados remained ready to provide support.
- V. In accordance with the Volcanic Annex of the RCP, the following Regional Response Mechanism (RRM) Teams have been placed on ALERT:
 - a) CARICOM Disaster Assessment and Coordination (CDAC)
 - b) Rapid Needs Assessment Team (RNAT)
 - c) Caribbean Disaster Relief Unit (CDRU)
 - d) Regional Urban Search and Rescue Teams (RSART)
- VI. The CARICOM Operational Support Team (COST) was activated and Superintendent Sylvan McIntyre was deployed from Grenada to St. Vincent and the Grenadines on Monday, March 1st, 2021. Supt. McIntyre is a former National Disaster Coordinator and a member of the Royal Grenada Police Force.
- VII. The CDEMA CU was in constant contact with the SVG NDO and was providing technical assistance to the SVG National Emergency Management Organisation (NEMO) by testing the Emergency Telecommunications between the CDEMA CU, SVG, SRFP (Barbados and the Participating States; also Volcano Hazard Emergency and Logistics Planning and the GeoCRIS mapping – with support from the Copernicus Emergency Mapping Service (EMS).
- VIII. The CDEMA CU convened a Brief and Table-Top Exercise (TTX) on the revised SVG Volcano Emergency Plan & SOP document on Friday, January 29, 2021.
- IX. The CDEMA CU continues to provide technical assistance to the SVG National Emergency Management Organization (NEMO) in the following areas:
 - a) Evacuation Planning
 - b) Logistics Planning

Caribbean Disaster Emergency Management Agency (CDEMA) Actions

- IX. The Core-Coordination Group on Volcanic Hazards (CCG-VH), established as a thematic coordinating cell of the Regional Coordination Centre, convened its third meeting on Thursday, March 4th, 2021. The CCG-VH, which comprises key representatives of political, scientific and technical institutions in the region, agreed to undertake the following:
 - a) To work in support of the National Disaster Office of the threatened or impacted State, under the scientific guidance of the UWI Seismic Research Centre or other designated scientific entity, and
 - b) To provide guidance for the provision of regional and international assistance to affected populations, with a focus on preparedness actions to address possible effects/impacts of the volcanic hazard.
- X. The next meeting of the Caribbean Development Partners Group (CDPG) will be held on March 11, 2021
- XI. The CDEMA CU co-chaired with NEMO SVG an evacuation planning meeting with the Trinidad & Tobago Defence Force (TTDF) and Coast Guard (TTCG), the Regional Security System (RSS), and the Royal SVG Police Force and Coast Guard on Feb 11.
- XII. The CU continues to engage regional and international partners on matters related to resource mobilisation.
- XIII. The CU will continue to monitor the situation in collaboration with the UWI Seismic Research Centre, the St. Vincent and the Grenadines NEMO and the National Disaster Management Offices of Participating States in close proximity to the volcano, and provide updates to the RRM partners as necessary.

The CDEMA CU urges all Participating States and members of the RRM to monitor the progress of this volcanic event. The public should continue to monitor the releases from their local National Disaster Management Office.

List of preparatory actions being undertaken by the RRM Partners



LOGISTICS SUPPORT

- The Regional Security System (RSS) facilitated the transport for deployment of the SRC team on December, 31 2020; and COST personnel, deployment package, kit and equipment on March 1, 2021.
- The UK Foreign, Commonwealth & Development Office (FCDO) supported the procurement of helicopter, services for a 7-day period, to aid the SRC team in transporting staff and equipment, conducting aerial investigations, photogrammetry and gas measurements, among other scientific requirements valued at £51,000.
- The RSS in collaboration with CDEMA, NEMO and NODS, Antigua and Barbuda facilitated transportation of the dignity kits which were provided by the United Nations Population Fund (UNFPA) from Antigua to St. Vincent.
- The World Food Programme (WFP) provided technical support for transportation planning and mapping to determine where logistics hubs could be set up if needed, as well as the projected costs for Feeding options for the operational planning and the cost planning.
- RSS via Air Wing and C26 Aircraft, French Military support via rotary winged aircraft and 7- day contracted support of CalvinAir Helicopters provided through CDEMA and the UK FCDO.



SUPPORT TO DATE

- The United Nations Population Fund (UNFPA) donated 400 dignity kits for women and families. The pre-positioning and supply of dignity kits was made to the Gender Affairs Division and the Family Planning Unit within the Ministry of National Mobilisation, Social Development, Family, Gender Affairs, Youth, Housing and Informal Human Settlements and the Ministry of Health, Wellness and the Environment respectively.
- The European Commission activated the Copernicus Emergency Mapping Service to produce mapping and monitoring of La Soufriere Volcano via its Rapid Mapping Service and Risk and Recovery Mapping Service.
- USAID ESC, through the Caribbean Climate Resilience Initiative (CCRI), has approved up to USD 50,000 for COST support to NEMO SVG to provide capacity building over a period of 9 months and up to USD 150,000 for the procurement of equipment to enhance the capacity of the EOC and satellite EOC.
- UK Foreign and Commonwealth Development Office (UKFCDO) provided support in January 2021 for a 7-day helicopter mission, to facilitate the SRC in monitoring of the volcano, and equipment installation.
- RoAid (Romania) has provided USD 20,000 for the purchase of scientific equipment required by the SRC to strengthen monitoring and the volcano.
- UNICEF pre positioned supplies (water containers, purification tables, sanitisation supplies etc.) in Antigua, Barbados and Trinidad and Tobago. They stand ready to support any other areas via cash or non-food items.