



Contingency Planning
St Vincent and the Grenadines
La Soufrière Volcano Eruption /
Hurricane Beryl

6TH HUMANITARIAN AVIATION SAFETY CAMPAIGN
COLLABORATING FOR EFFECTIVE DISASTER
RESPONSE AND PREPAREDNESS
AUGUST 13-15, 2025
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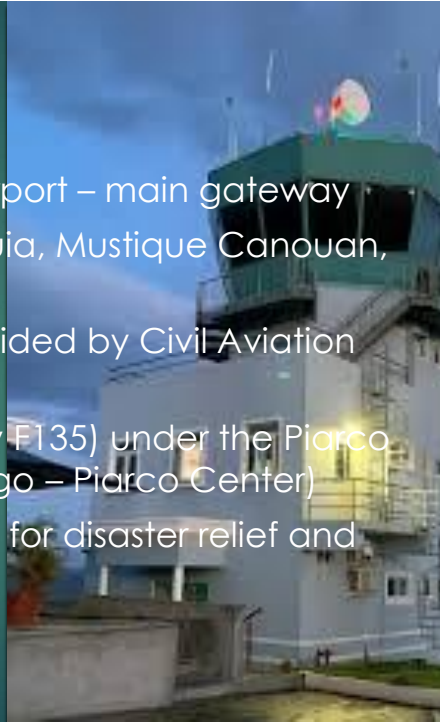
Overview – St Vincent and the Grenadines

- ▶ Multi-island nation in the Eastern Caribbean
- ▶ Population: ~110,000
- ▶ 32 Islands and Cays - St Vincent (mainland) and the Grenadines
- ▶ Economy: tourism, agriculture, and services
- ▶ Air Transport: vital link for inter-island and international travel

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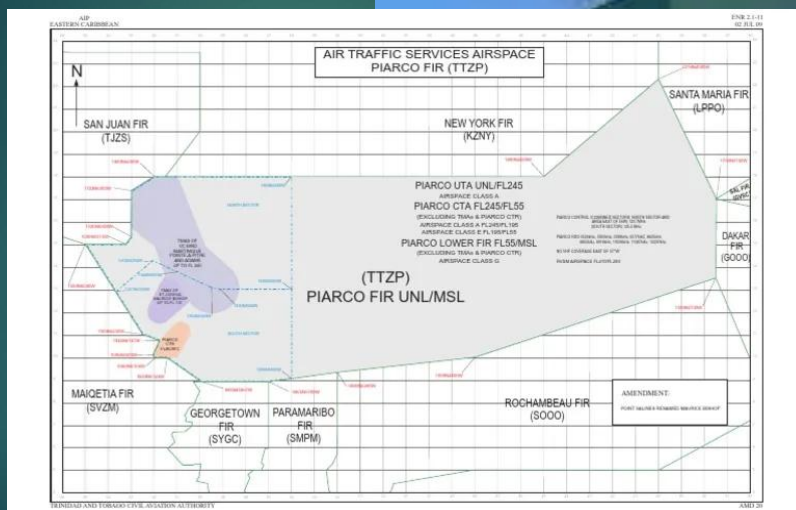
Aviation Sector

- ▶ Argyle International Airport – main gateway
- ▶ Smaller airports in Bequia, Mustique Canouan, and Union Island
- ▶ Air Traffic Services provided by Civil Aviation Department
- ▶ Lower Airspace (below FL35) under the Piarco FIR (Trinidad and Tobago – Piarco Center)
- ▶ Air connectivity critical for disaster relief and medical transport.



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PIARCO FIR



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Argyle International Airport

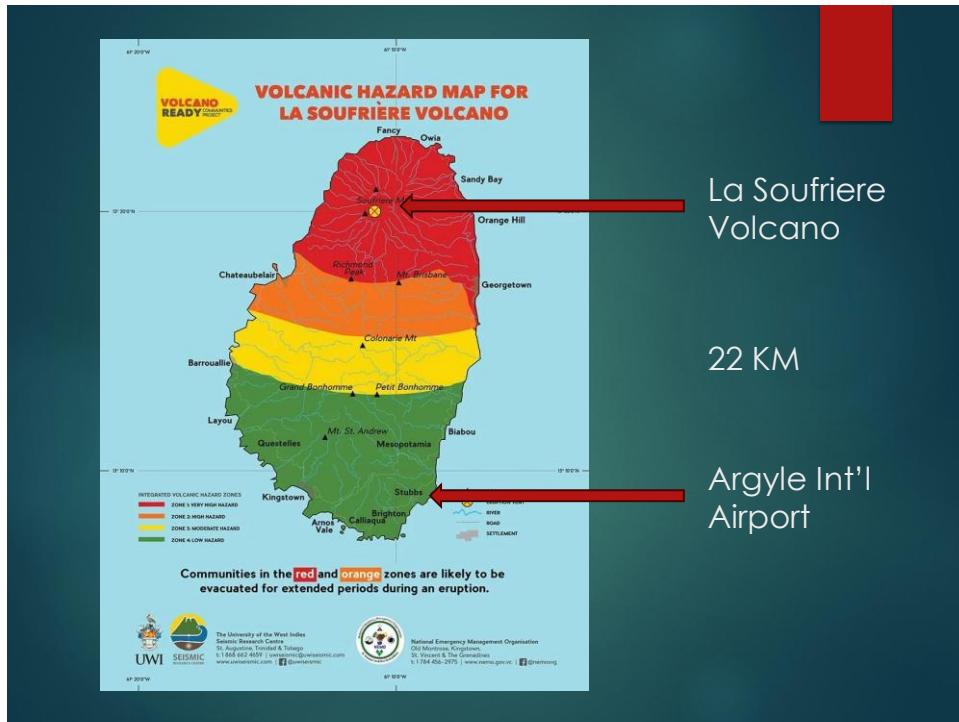
- ▶ Opened in 2017
- ▶ Runway Length - 9000 feet
- ▶ 171,000 square foot terminal building
- ▶ Two jet bridges
- ▶ Designed to handle 1.5 million passengers per year.

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Argyle International Airport



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Contingency Plans

- ▶ Air Traffic Services Contingency Plans (NOTAM, Level Restrictions, Piarco Control – alternative routes)
- ▶ Meetings with Piarco FIR (ATM Committee)
- ▶ Civil Aviation Representation on the National Emergency Committee
- ▶ Regular Emergency Drills
- ▶ Inter-agency Coordination (Argyle Airport Inc, Meteorology,

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The Event – La Soufrière Eruption - 2021

- ▶ Previous eruption – 1979
- ▶ Preceded by increased seismic activity from December 2020
- ▶ Alert levels escalated from Yellow to Orange to Red
- ▶ April 9, 2021 – explosive eruption of La Soufrière Volcano
- ▶ National Early Warning Mechanism activated

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Preparedness Actions

- ▶ Pilot report triggered alerts
- ▶ Meetings with Piarco FIR (ATM Committee)
- ▶ WhatsApp group established for real-time updates
- ▶ Local airlines advised to relocate aircraft
- ▶ Protection of equipment from ash (AC units, electronics)
- ▶ Alternative water storage in-place
- ▶ Shutters installed on windows
- ▶ Reduced work hours for staff
- ▶ Airspace closed – Piarco FIR took over ATC
- ▶ Pre-identification of helicopter landing zones

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Eruption – 9th April 2021



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Challenges Faced



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Challenges Faced

- ▶ Ashfall covered Argyle International Airport
- ▶ Could not measure dust particle levels or air quality
- ▶ Lack of Man-power for Cleanup
- ▶ Unavailability of suitable equipment for cleanup (retrofit existing equipment)
- ▶ Damage to Roof, AC Equipment (Airport)

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Challenges Faced



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Challenges Faced



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Innovation and Lessons Learned

- ▶ Inter-Agency Networking - Beneficial
- ▶ Wetting ash before removal improved efficiency
- ▶ Importance of direct communication with meteorological services
- ▶ Need for portable air quality monitoring tools
- ▶ Retrofit of existing equipment – rubber on skid-steer
- ▶ Use of cement trucks (as water trucks) and front loaders to clear ash from runway grooves

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Contingency Planning in Action Hurricane Beryl – 2024

IMPACT ON ST VINCENT AND THE GRENADINES –
SOUTHERN GRENADINES FOCUS

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The Event – Hurricane Beryl – CAT 4

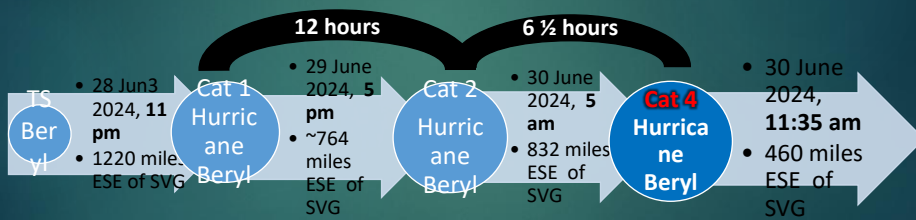


01 Jul 2024 14:40Z - NOAA/NESDIS/STAR - GOES-East Source: NOAA

- ❑ Max winds of 150 mph
- ❑ 4 ½ inches rainfall
- ❑ Significant storm surges
- ❑ 4-8 m swells (14 to 26 ft.)

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Hurricane Beryl's Rapid Intensification



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The Event – Hurricane Beryl

- ▶ Category 4 hurricane impacted on July 1, 2024
- ▶ Main impact: Southern Grenadines – Remote Islands of Canouan, Mayreau, Union Island - Population ~5,000, ~ 36 miles from Mainland
- ▶ 5 Deaths, 4 Missing
- ▶ All communications down, power out for months
- ▶ Union Island Airport completely destroyed

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Hurricane Beryl Impact



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Hurricane Beryl Impact



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Hurricane Beryl Impact



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Aviation Response

- ▶ Coordination at the NEC level (NEMO, other agencies)
- ▶ Airport opened to military & humanitarian flights 1 day after assessment - relevant NOTAMS issued.
- ▶ Argyle Approach – unaffected
- ▶ Uncontrolled airspace Union Island – pilots self-announced positions
- ▶ Argyle Approach monitored flights via VHF
- ▶ Continuous monitoring of the relief efforts

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Communication Challenges and Solutions

- ▶ The only source of communication was a privately-owned Satellite Phone and Starlink on Union Island – first photos of destruction via whats app.
- ▶ Starlink became vital for communications – Satellite Internet and WhatsApp Calls
- ▶ Government (NEMO) added more Starlinks
- ▶ Three Public Starlink spots set up for residents across Union Island, eventually on Mayreau and Canouan.

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Humanitarian Air Operations

- ▶ Assistance from several Regional Agencies – CDEMA, UN, World Food Kitchen, Samaritan's Purse etc
- ▶ Community Organised - Aid flights from Martinique via - Twin Otters, Helicopters
- ▶ Recon Missions – Regional Security System
- ▶ Medical evacuations conducted
- ▶ Airlift enabled the delivery of food, water, and medical supplies to isolated communities

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Lessons Learned – Hurricane Beryl

- ▶ Importance of pre-positioned communications equipment
- ▶ Satellite internet devices should be part of standard disaster kits
- ▶ Uncontrolled airport operations require clear procedures
- ▶ Updates to Contingency Plan

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Recovery – Hurricane Beryl



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Recovery – Hurricane Beryl



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End

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