

Eastern Caribbean Seismograph Networks

Richard Robertson
Director
Seismic Research Centre



SEISMIC RESEARCH CENTRE

TRINIDAD & TOBAGO W.I.

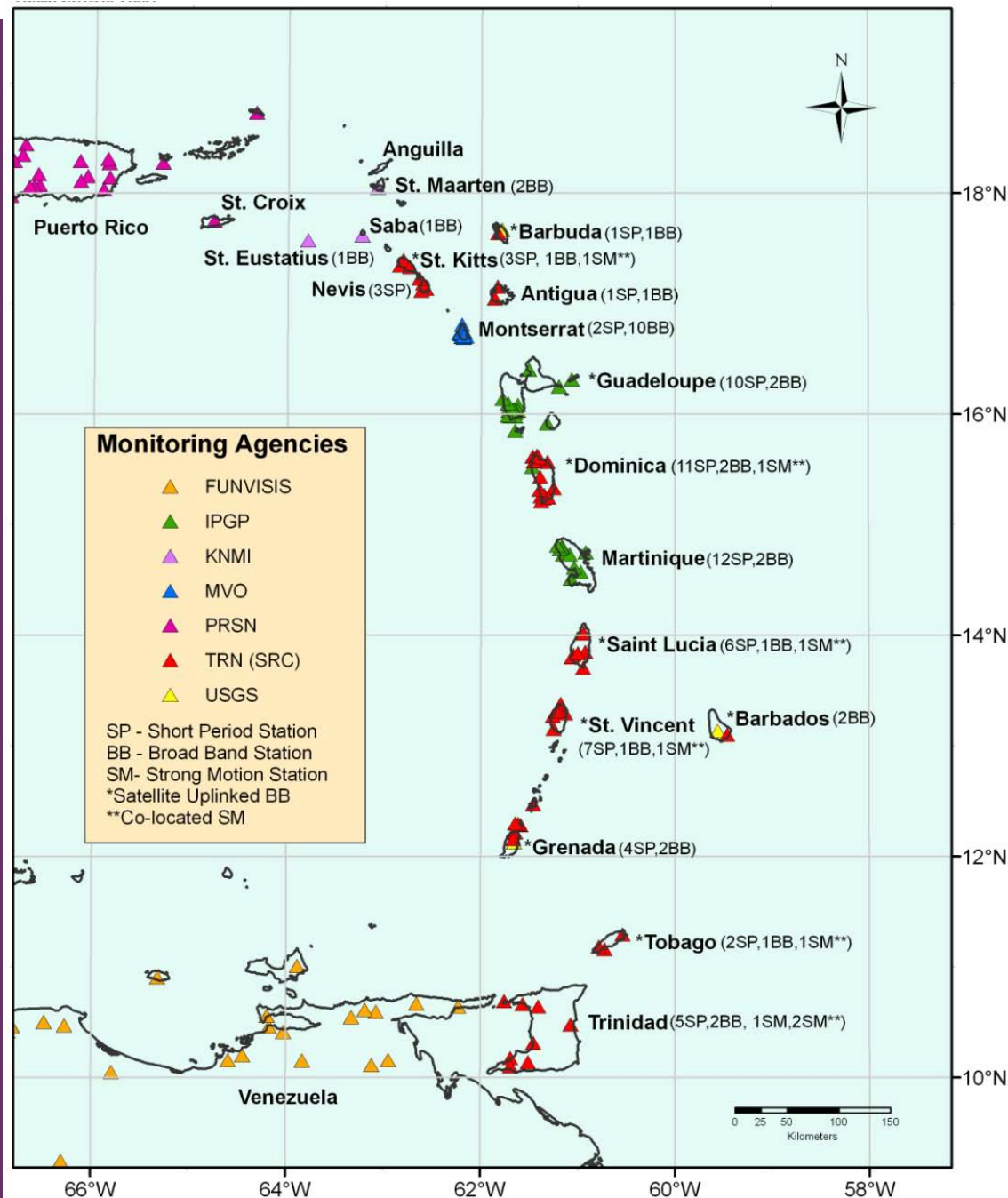
Seismograph Networks

Institutions:

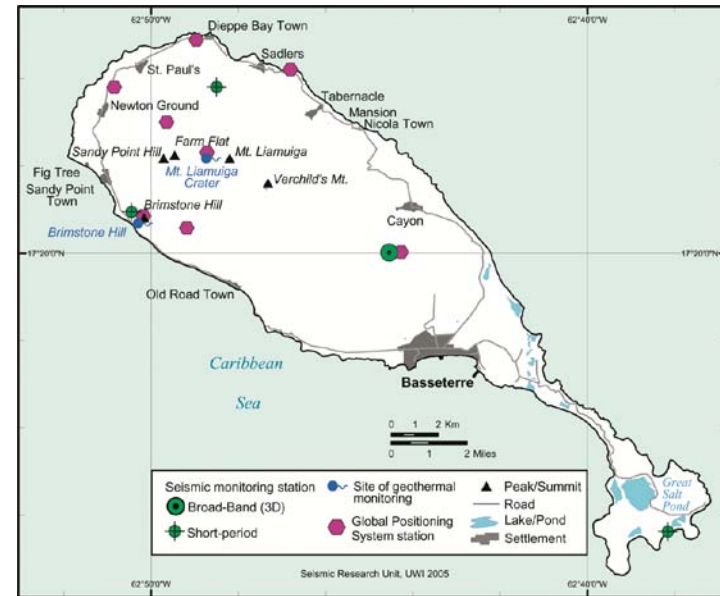
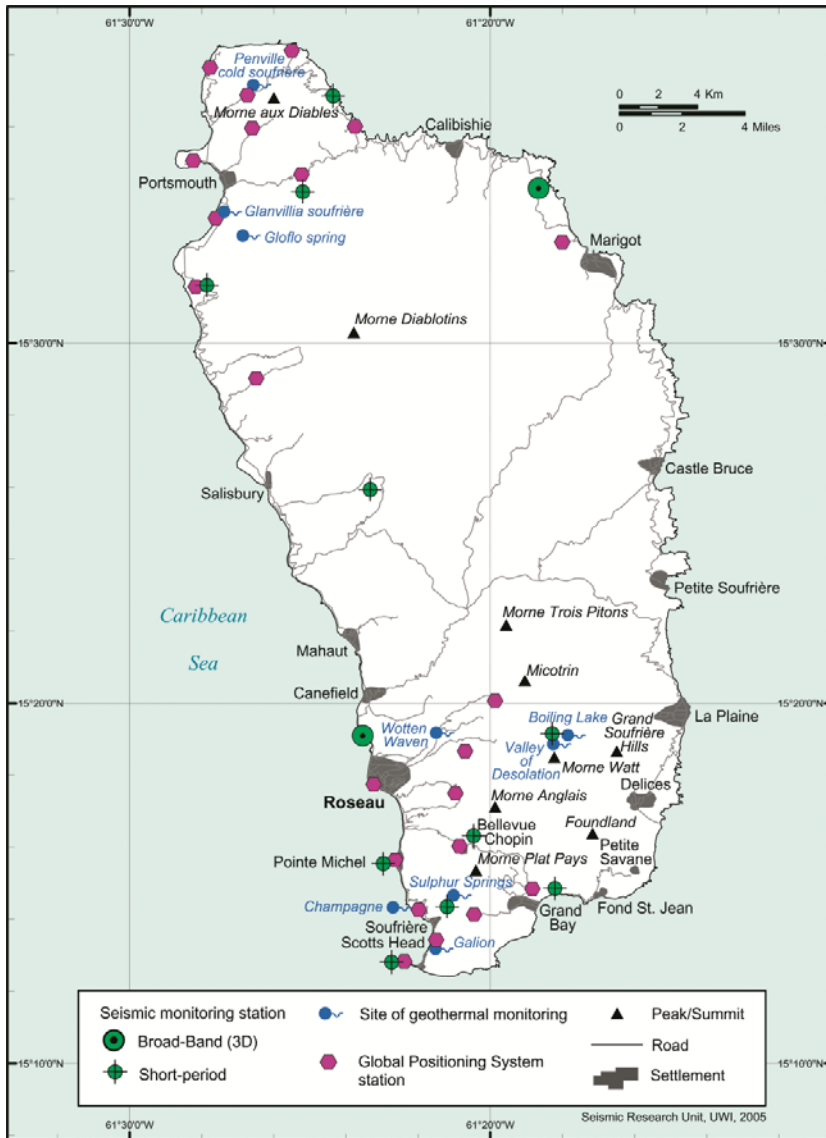
- PRSN
- USGS
- KNMI
- IPGP
- SRC
- FUNVISIS

Instrumentation: SP, BB, SM

Data Transmission: radio, satellite, internet



UWI Seismic Research Centre



- 9 Contributing Territories: SK&N, A&B, MON, DOM, SLU, SVN, GRN, BDS, TRN
- Mandate: Monitor, Research, Outreach => Mitigation
- Networks: Seismograph (Legacy, VSAT), GPS (cGPS, campaigns), Geothermal

How is geophysical data used?

- SRC => hazard maps, reports, public info materials
- Government => physical & land-use planning (land-use and DRR)
- Private => building design and construction
- Educational => training of engineers

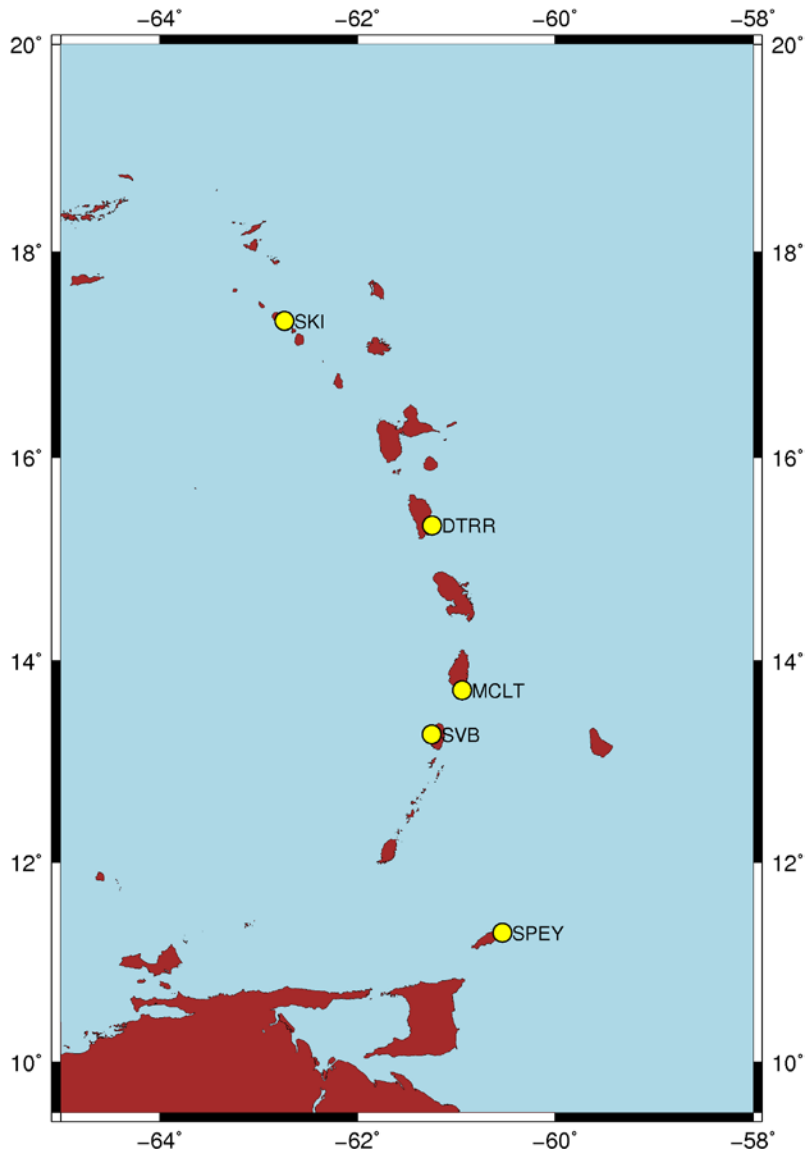


Seismological research



- Seismic Hazard Assessment (PSHA)
- Strong Motion Network & Studies
- Microzonation Studies
- *b*-value & Forecasting
- Regional tectonics + cGPS

ECSN – plans/goals



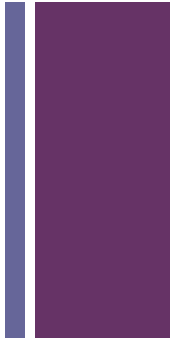
- Automatic solutions & alerts
- Upgrade Stations => BB & VSAT
- Soufriere System => SEISAN
- GEM Regional Programme
- EQ loss estimation/Risk assessment
- ECAR SM network

How are seismologist trained locally?

- Mostly outside region (UK and USA)
- UWI & other reg. institutions => geophysics and related fields
- SRC - MPhil & PhD programmes in Seismology => new and limited intake

Concerns

- Data-sharing given limited resource available for research
- Impact of resource-rich US in delivery of products rapidly and in real-time
- Challenge of remaining relevant in an '*open*' global community of free access
- How to ensure capacity building & knowledge transfer



Priorities for regional collaboration



- Access to resources for undertaking collaborative research
- Opportunities for PG students & Staff exchanges
- Priority to regional research needs
- How to ensure survival?
- Moving from research to mitigation

Contact the SRC

Seismic Research Centre
University of the West Indies
Gordon Street
St. Augustine
Trinidad and Tobago

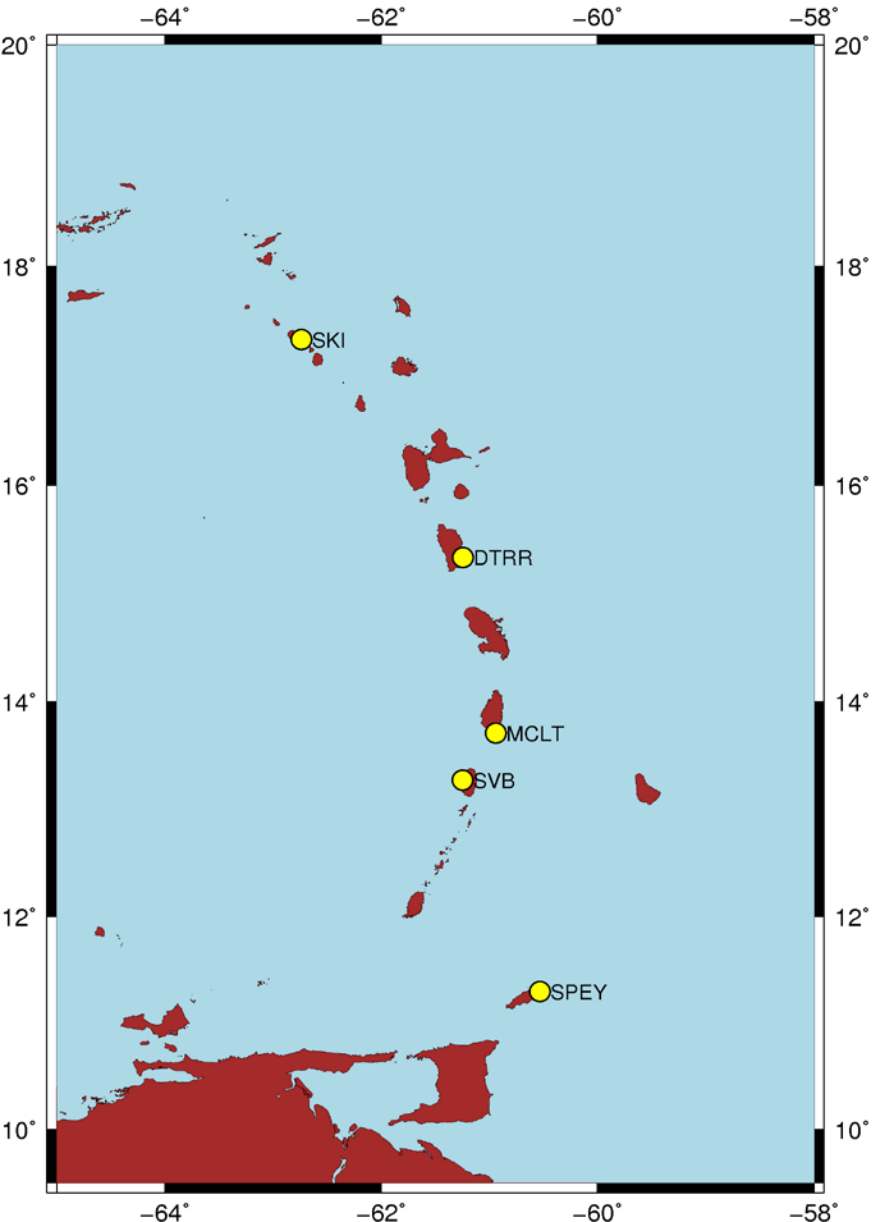
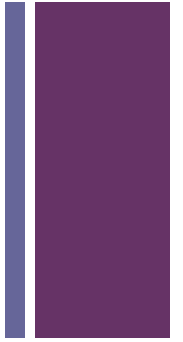
Tel: +1 868 662 4659
Fax: +1 868 663 9293
Email: uwiseismic@uwiseismic.com
Web: www.uwiseismic.com



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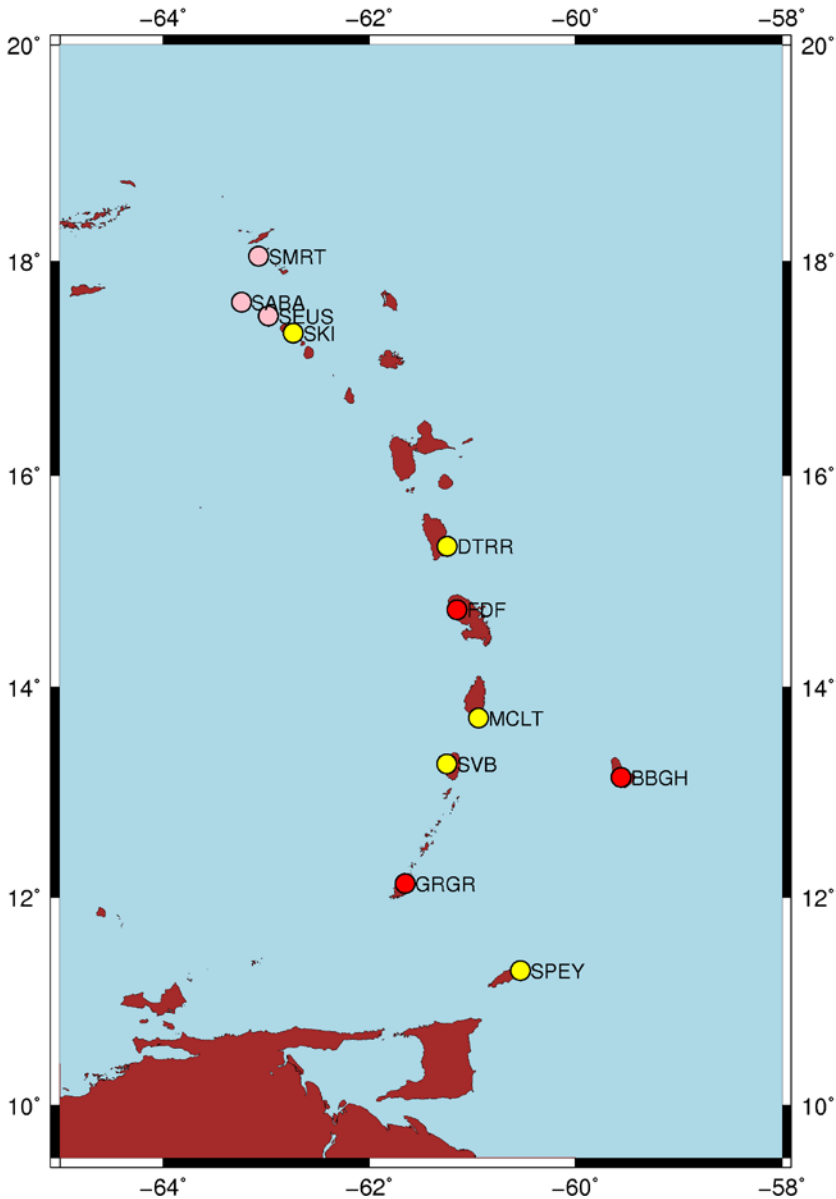
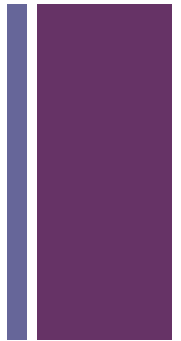
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ECSN – VSAT Network



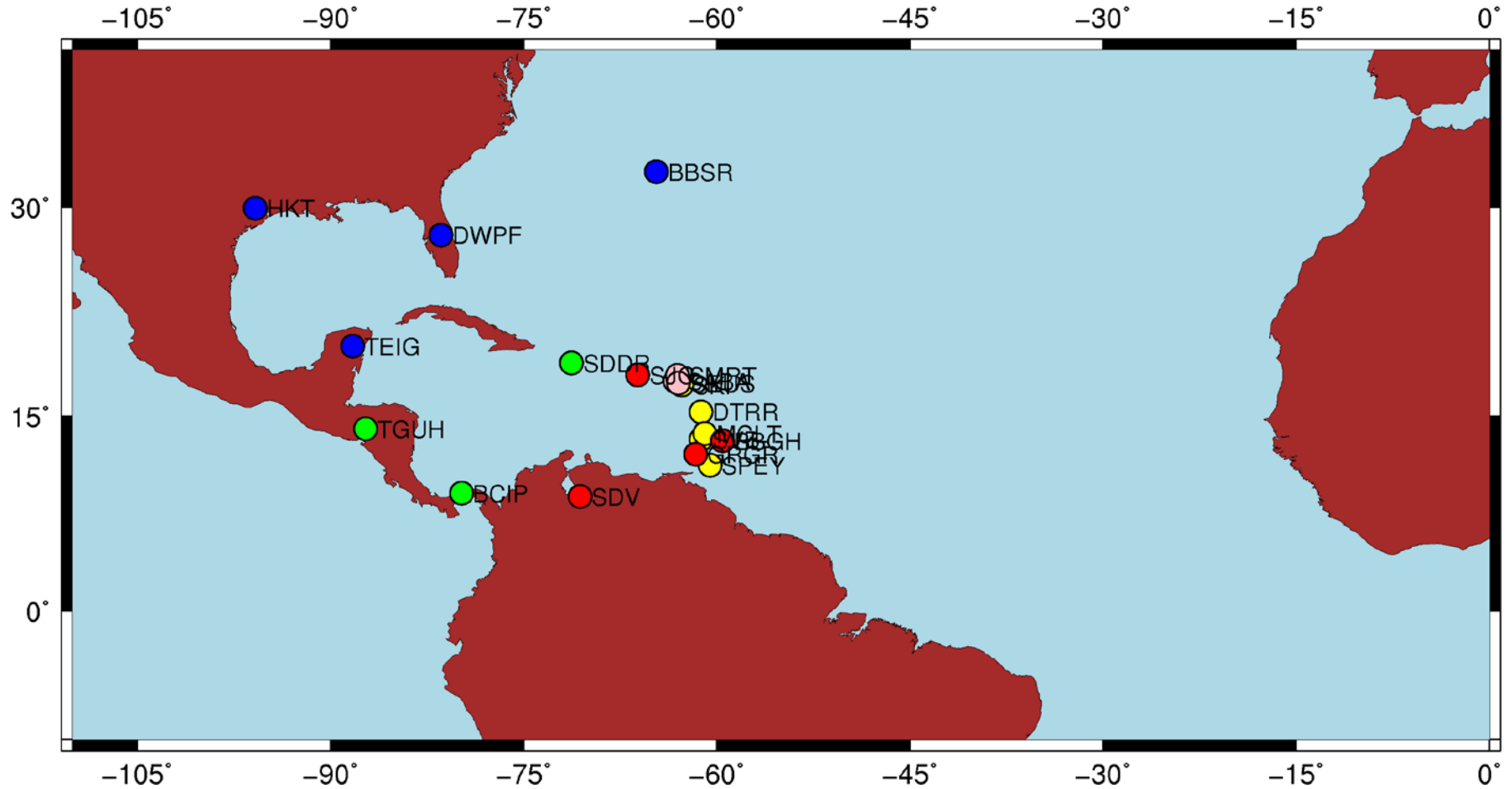
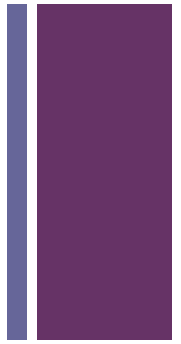
- CMG-40T
- TSA-1000S
- Nanometrics Trident
- 100 Hz
- VSAT
- Naqserver at SRC

ECSN – sharing

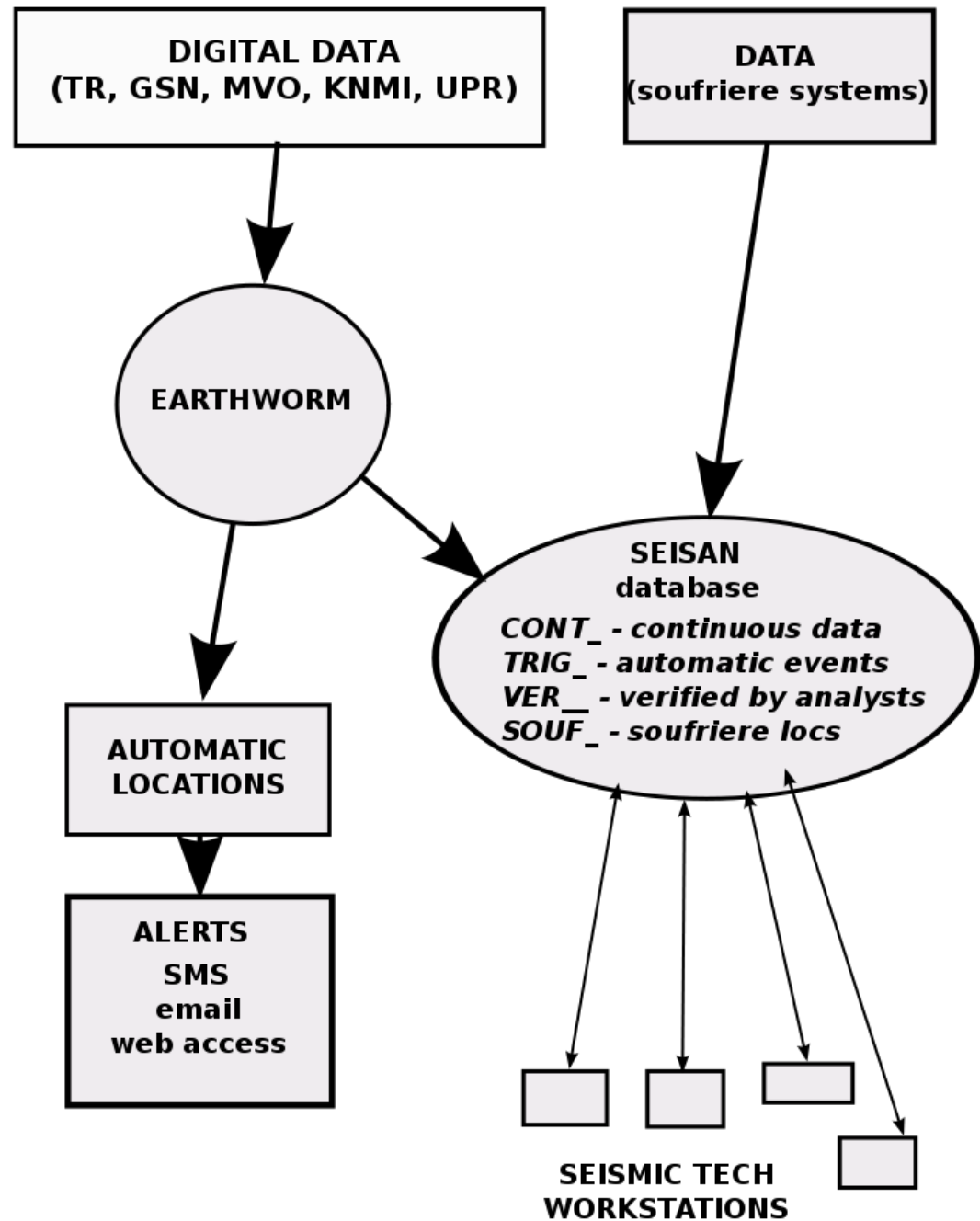


- St Eustatius (KNMI) – BB, RTX via INTERNET
- Saba (KNMI) – BB, RTX via INTERNET
- St. Martin (KNM) – BB, RTX via INTERNET
- St. Kitts (SRU) – Vault, BBs, SMS, RTX via VSAT
- Nevis (SRU) - Vault, BBs, SMS, RTX via VSAT
- Antigua (SRU) – Vault, BBs, SMS, RTX via VSAT
- Barbuda (USCS-CU) – Vault, BBS, SMS, SBUP, RTX via VSAT
- Montserrat (SRU) – Vault, BBs, SMS, RTX via VSAT
- Dominica (SRU) – Vault, BBs, SMS, SBUP, RTX via VSAT
- St. Lucia (SRU) – Vault, BBs, SMS, RTX via VSAT
- St. Vincent (SRU) – Vault, BBs, SMS, RTX via VSAT
- Barbados (USCS-CU) – Vault, BBS, SMS, SBUP, RTX via VSAT
- Grenada (USCS-CU) – Vault, BBS, SMS, SBUP, RTX via VSAT
- Tobago (SRU) – Vault, BBs, SMS, RTX via VSAT
- Grenada (SRU) – Vault, BBs, SMS, RTX via VSAT
- Trinidad (SRU) – Vault, BBs, SMS, RTX via LAN

ECSN – sharing (virtual network)



ECSN – data processing



ECSN - Legacy Network

