



March 22, 2011

Critical Infrastructure and Key Resources: Saint Lucia Profile

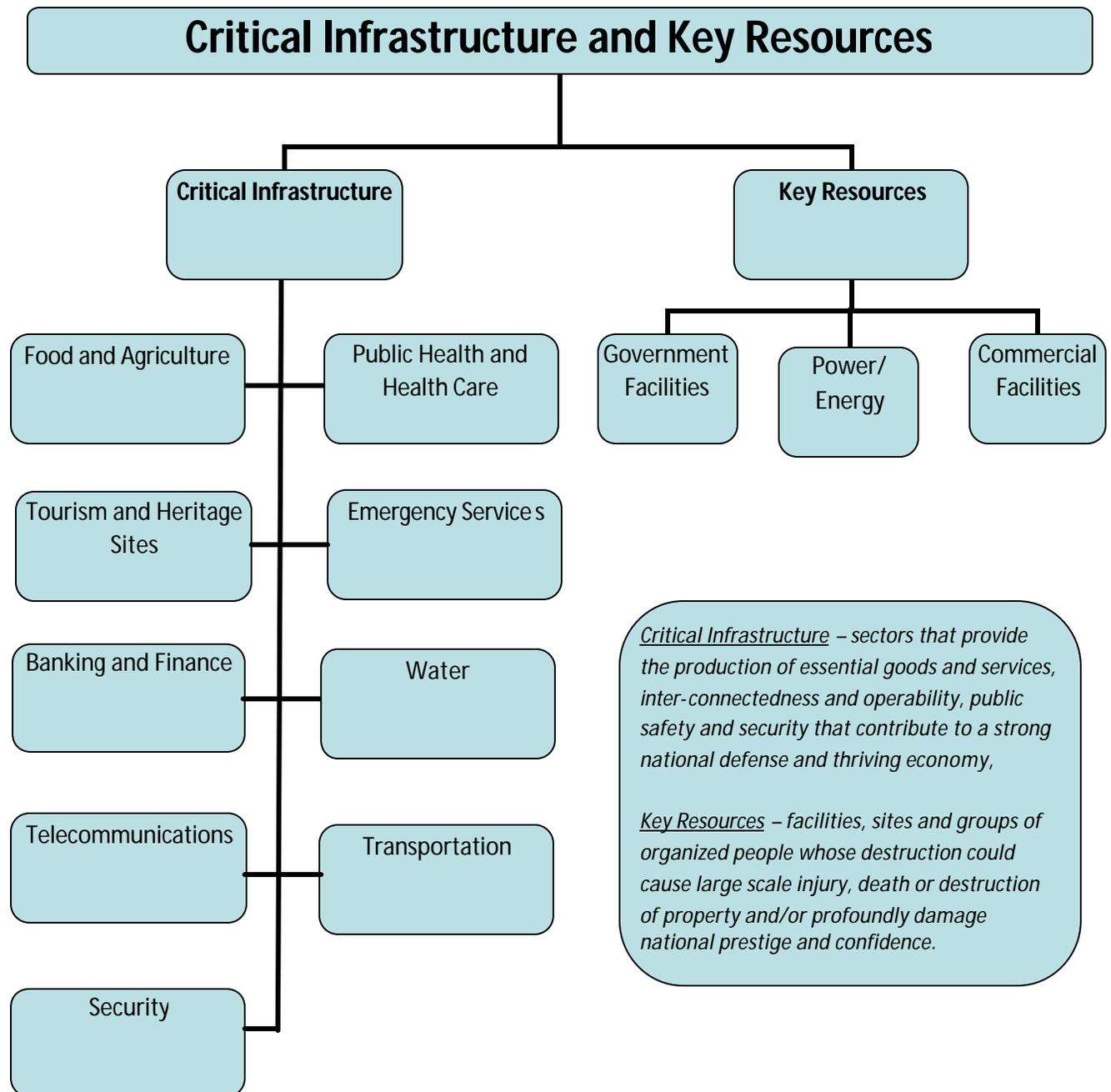


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Introduction

Protecting and ensuring the continuity of the critical infrastructure and key resources (CIKR) of Saint Lucia is essential to the Nation's security, public health and safety, economic vitality, and way of life. CIKR includes systems and assets, whether physical or virtual, so vital to the Country that the incapacitation or destruction of such systems and assets would have a debilitating impact on national security, national economic security, public health or safety, or any combination of those matters. Manmade or natural disasters could significantly disrupt the functioning of government and business alike and produce cascading effects far beyond the affected CIKR and physical location of the incident. Direct and indirect impacts could result in large-scale human casualties, property destruction, economic disruption, and mission failure, and also significantly damage national morale and public confidence.

Profile

Geography:

Saint Lucia is a typical Windward Island formation of volcanic rock that came into existence long after much of the region had already been formed.

Dominated by high peaks and rain forests in the interior, the 616- square-kilometer island is known for the twin peaks of Gros Piton and Petit Piton on the southwestern coast, its soft sandy beaches, and its magnificent natural harbors. Mount Gimie, the highest peak, is located in the central mountain range and rises to 958 meters above sea level, a contrast that is also evident in the abrupt climatic transition from coastal to inland areas. The steep terrain also accentuates the many rivers that flow from central Saint Lucia to the Caribbean. Fertile land holdings, which support banana farming, are scattered throughout the island.

Saint Lucia has a tropical, humid climate moderated by northeast trade winds that allow for pleasant year-round conditions. Mean annual temperatures range from 26° C to 32° C at sea level and drop to an average of 13° C in the mountain peaks. The abundant annual rainfall accumulates to approximately 200 centimeters, with most precipitation occurring during the June to December wet season. Hurricanes are the most severe climatic disturbance in this area and have been known to cause extensive damage.

Population:

160,922 (July 2010 est.)

Religions:

Roman Catholic 67.5%, Seventh Day Adventist 8.5%, Pentecostal 5.7%, Rastafarian 2.1%, Anglican 2%, Evangelical 2%, other Christian 5.1%, other 1.1%, unspecified 1.5%, none 4.5% (2001 census)

Languages:

English (official), French patois

Critical Infrastructure

Critical Infrastructure – sectors that provide the production of essential goods and services, inter-connectedness and operability, public safety and security that contribute to a strong national defense and thriving economy,

Banking and Finance

Exchange: US\$1.00 = EC\$2.70

Eastern Caribbean Central Bank

The Eastern Caribbean Central Bank was established in October 1983. It is the Monetary Authority for eight island economies including Saint Lucia

Commercial Banks

- Bank of Saint Lucia [BOSL]
1st Caribbean Bank
- 1st National Bank
- Royal Bank of Trinidad and Tobago [RBTT]
Royal Bank of Canada [RBC]
- Credit Unions

Special Agencies

- Saint Lucia Development Bank [SLDB]
- FICS
- Fast Cash
- BelFund
- MicroFin

Offshore Banking

Is regulated by the Financial Services Supervision Unit of Saint Lucia and the Eastern Caribbean Central Bank. Offshore Banks are expected to conduct business in accordance with internationally recognized principles of banking.

There are four main business time zones that have to be mentioned if talking about offshore banking sector:

1. Europe
2. Caribbean/Latin America which includes Saint Lucia
3. The Persian Gulf states
4. The Asian Pacific region

Emergency Services

Fire Service

- Headquarters in Castries
 - Gros Islet Fire Station (GIFS)
 - Fire Service Head Quarters (FSHQ)
 - Dennery Fire Station (DFS)
 - Micoud Fire Station (MFS)
 - Vieux Fort Fire Station (VFFS)
 - Soufriere Fire Station (SFS)

Ambulance Service

- There is no central coordination of the Ambulance Service in Saint Lucia. However the Government's Ambulance is coordinated by the Saint Lucia Fire Service.
- A number of Communities have an Ambulance located for local use.

Food and Agriculture¹

Agriculture continues to be a critical sector for St Lucia although its contribution to GDP has been steadily declining over the last 10 years. The sector contributed approximately 5.1% to GDP in 2004. The country is a net-food importing country, with a growing trade deficit in its food bill over the last 10 years. Despite its contraction over the years, banana production remains central to the sector, occupying 48% of the cultivated land and accounting for 41.4% of gross agricultural output. Other important crops include coconut, cocoa, vegetables and herbs, other fruit and tree crops and cut flowers. Although the livestock sector is small and dominated by the poultry and pork sub-sectors, it continues to experience some growth.

¹ http://www.caricom.org/jsp/community/donor_conference_agriculture/agri_profile_st_lucia.jsp

Public Health and Health Care

34 health centers

1 Polyclinic

4 Hospitals [3 Government and 1 Private]

Victoria Hospital

- 150 Beds
- The emergency room of Victoria Hospital consists of a resuscitation chamber and six intensive care beds.
- X-ray,
- Dialysis
- diagnostic lab

Saint Jude's Hospital

- Dialysis

Soufriere Hospital

- 26 beds, community hospital, accepts overnight stays for relatively minor health problems.

Tapion Hospital [Private]

- 22 beds
- Pacemaker/Defibrillator
- Laboratory Service
- Radiology (including CT scanning, color Doppler and MRI Machines)
- Nuclear Medicine
- Laparoscopic Surgery
- Executive medicine package
- Hyperbaric Chamber
- Sleep Lab
- Dialysis
- no MRI available.

Gros Islet Polyclinic

Primary health care services, including ambulance, dental, radiology, and pharmaceutical.

Open Daily

8 a.m. to 4:30 p.m.

Telecoms

Telephones

main lines in use:

41,000 (2009)

mobile cellular:

176,000 (2009)

Telephone system:

general assessment: adequate system

domestic: system is automatically switched

international: country code - 1-758; the East Caribbean Fiber Optic System (ECFS) and Southern Caribbean fiber optic system (SCF) submarine cables, along with Intelsat from Martinique, carry calls internationally; direct microwave radio relay link with Martinique and Saint Vincent and the Grenadines; tropospheric scatter to Barbados

Broadcast media:

10 privately-owned television stations; 1 public television station operating on a cable network; multi-channel cable TV service is obtainable; a mix of state-owned and privately-owned broadcasters operate nearly 25 radio stations including repeater transmission stations (2007) See Appendix 1: Medial Houses.

Internet country code:

.lc

Tourism and Heritage Sites

Pigeon Island National Landmark²

It is a vivid representation of the cultural and historical monuments of international, civil, military and marine cross currents, characteristic of West Indian historical change.

44 acre island reserve, off the North West, was originally surrounded by water but was joined to the mainland by a man-made causeway in 1972.

Pigeon Island National Landmark has a number of heritage attractions and amenities which include:

² PINL cited at http://www.slunatrust.org/pigeon_island.php

1. Ruins of military buildings used during the battles between the French and the British for the island of Saint Lucia.
2. An Interpretation Centre describing the rich history of the island.
3. Two beautiful beaches.
4. A restaurant featuring local cuisine.
5. A pub and restaurant with a historical theme.
6. A lookout point at the top of the Fort which gives a panoramic view of the Northwest coastline.

Piton Management Area³

The 2,909-ha site near the town of Soufriere includes the Pitons, two volcanic spires rising side by side from the sea (770 m and 743 m high respectively), linked by the Piton Miton ridge. The volcanic complex includes a geothermal field with sulphurous fumaroles and hot springs. Coral reefs cover almost 60% of the site's marine area. A survey has revealed 168 species of finfish, 60 species of cnidaria, including corals, eight molluscs, 14 sponges, 11 echinoderms, 15 arthropods and eight annelid worms. The dominant terrestrial vegetation is tropical moist forest grading to subtropical wet forest, with small areas of dry forest and wet elfin woodland on the summits. At least 148 plant species have been recorded on Gros Piton, 97 on Petit Piton and the intervening ridge, among them eight rare tree species. The Gros Piton is home to some 27 bird species (five of them endemic), three indigenous rodents, one opossum, three bats, eight reptiles and three amphibians.

Transport

Roadways:

total: 1,210 km (2002)

Airports

The Official Ports of Saint Lucia are:

George FL Charles Airport

Runway Length: **6,200 ft or 1889.76m**

Runway Width: **150 ft or 45.72m**

Aircraft stands: **4**

Runway directions: **09/27**

Elevation: **20 ft (6.1m)**

Distance and Direction From City - 3.7 Km (2nm) north of Castries

³ PMA cited at <http://whc.unesco.org/en/list/1161>

Operational Hours

6:00 A.M. - 11:00 P.M.

Fuel Grades

100 / 130 JET A1, AVGAS

Hewanorra International Airport

Airport Code: UVF

Runway Length: 9,000 ft or 2743.20m

Runway width: 150 ft or 45.72m

Aircraft stands: 5

Runway directions:10/28

Elevation: 11 ft (3.3m)

Distance and Direction From City:

3.7 km north of Vieux Fort

56 km south of Castries

Operational Hours

6:00 A.M. - 11:00 P.M.

Elevation

3.3 Meters (11ft)

Seaports

Port Castries

Berthing Facilities

General Cargo:

Berth #1: 200 ft Long (60.96m); Depth 18 -20 ft (5.48m – 6.09m)

Berth#2 & 3: 720 ft Long (219.45m) (continuous); Depth 27 ft (8.23m)

Berth#4: 498 ft Long (151.79m); Depth 32 ft (9.75m)

Berth#5: 520 ft Long (158.49m); Depth 32 ft (9.75m) with a RoRo Ramp 48 ft wide (14.63m)

Berth#6: 448 ft Long (136.55m); Depth 30 ft (9.14m)

Pointe Seraphine

Cruise Berths:

P/S #1 400 ft Long (121.92m); Depth 36 ft (10.97m)

P/S #2 300 ft Long (91.44m); Depth 34 ft (10.36m)

Berth #1 for ships of length 850 - 1000 ft (259.08m – 304.8m)

Berth #2 for ships of length 750 - 850 ft (228.6m – 259.08m)

Outer Anchorages

1. While awaiting a pilot, vessels may anchor one mile NW of Vigie Point in a depth of 22m with good holding in rock and sand. No shelters
2. 2.5 cables NW of Vigie point in depths of less than 20m with good holding ground in coral and sand. Shelter is provided from the east but there is little swinging room.

Internal Anchorages

Anchorage with good holding ground but little swinging room, is available inside the harbour for small vessels. Vessels can anchor as convenient, clear fairway and submarine cables close within the harbour entrance.

Tugs

Two (2) tugs are available:

Tug Chale - 100 Ft 1500 horsepower

Doggersbank - 56 Ft 1350 "

Stevedoring:

All stevedoring are performed by SLASPA. Labour is recruited from the Seamens' Union. Normal working hours are from 7:00 a.m. - 4:00 p.m. with overtime work provided on request. No shift systems are in place. Gang(s) are employed for the duration of work on a ship. No work is performed during periods.

Water:

Portable water is available alongside all Berths. There is an 8" main at Pointe Seraphine. Applicable rates - EC\$40.00 / 1000 gallons.

Customs:

Customs clearance is between 8:00 a.m. - 4:00 p.m. Overtime can be requested.

Port Vieux Fort**Berthing Facilities**

A Finger Pier 500 Ft (163m) long and 50Ft (15m) wide. It can accommodate vessels on either side. The height of the quay from the water level at low tide is 7.5 Ft (2.3m) and at high tide it measures 6.5 Ft (2m). The water depth alongside is 35 Ft (2m).

A Lolo container berth (exclusive of a Ro-Ro ramp) 690 Ft (210m) in length. The height of the quay from the water level at low tide is 8ft. (2.5m) and high tide it measures 7Ft (2m). The depth of the water alongside is 35 Ft. (11m).

Lighting

High mast high intensity lights provide adequate lighting for the entire facility.

Hours of Operation

24 Hour Port

Security

A fully trained Ports Police Force provides twenty four (24) hour security surveillance

Storage Capacity

633 TEU bottom spaces or 1899 TEU spaces

stacking 3 high

40 reefer points

20 - 40 Ft interchange slots

Equipment

1 mobile harbour crane with automatic spreader. Heavy lift capacity 80 tons.

2 -3 high stacking straddle carriers.

1 terminal tractor.

Pilotage

Pilotage is compulsory for vessels over 100 GRT. Pilot boards vessels on the Port side for ships entering and on the starboard side for ships leaving.

Pilots are available during the hours of 0500 - 0900 hours and 1600 - 2000 hours. Pilots are available on request between 0900 - 1600 hours and 2000 - 0500 hours.

Soufriere Port

While Soufrière itself is an official port of entry, anchorages can also be found at Anse Chastanet, just north of Soufrière Bay, and off the Hummingbird Beach Resort north of Soufrière town.

Marinas

Rodney Bay

Rodney Bay is an official port of entry.

Officials insist that yachts entering the harbour come directly to the Customs' dock (if there is no room, anchor east of the Customs buoy). **It is wise not to ignore this directive as a fine could be incurred.**

Marigot

- Marigot Harbour is an official port of entry.
- Marigot Bay, this completely sheltered anchorage with a small marina, this is the anchor point for some chartered boats and catamarans; Also frequently used as a hurricane haven. It lies approximately one mile south of the Hess Oil depot at Cul de Sac Bay.
- When entering Marigot Harbour, stay to the southern side of the channel. Anchor anywhere in the inner harbour (the holding is fair in soft mud), then make your way to Customs & Immigration.
- The docks in the south east corner of the bay can accommodate yachts up to a 16ft draft, and have already seen yachts in excess of 160ft LOA using the facilities. Stern-to and alongside berthing available.
- The docks themselves are managed by The Moorings with 60% of the berths designated specifically for visiting yachts. Rates start at US\$0.62 per foot per day for yachts up to 100ft and US\$1 per foot for yachts over 100ft.
- Water and electricity [110v / 220v - 50 amps] are available.

Security

Military Branches:

No regular military forces; Royal Saint Lucia Police Force (includes Special Service Unit and Coast Guard) (2010)

Borderlais Correctional Facility

Capacity of 500 prisoners

Water

Available: 20 pumps, of these five will have been installed at the John Compton dam, five at the Vanard pumping station, five at the Theobalds potable water treatment plant, and five at the Morne underground pumping and storage station

Theobalds Potable Water Treatment Plant

- Located at Ciceron
- Capacity to remove 10 million gallons water from the John Compton Dam at Roseau

John Compton Dam

- Located at Roseau Valley to the South of Castries.
- The dam is 600ft at its widest point, 5,000 feet in length from the spillway to the upland delta, 130ft in depth at its deepest point and covers an area of 64 acres.
- It has a capacity of 800 million gallons with 500 million gallons considered to be active storage.
- The average raw water production rate is 6.5MGD via 5
- The dam supplies water to the northwest region of Saint Lucia including the capital, Castries.

Sewerage Treatment Plant

- Located at Beausejour, Gros Islet
- It is the only sewage treatment facility found in Saint Lucia. It was commissioned in 1995
- The facility covers a surface area of 11ha and has a capacity of 70,000 m³. Its daily wastewater flow is 1,241 m³/d, domestic wastewater.
- The system consists of waste stabilization ponds including two anaerobic ponds inside 2 facultative ponds in parallel and three maturation ponds in series. Drying beds are used for sludge stabilization and dewatering.
- Some of the effluent is used at a nearby golf course for irrigation purposes. Surplus effluent is disposed of in a ravine leading to a wetland area and coastal region.

Key Resources

Key Resources – facilities, sites and groups of organized people whose destruction could cause large scale injury, death or destruction of property and/or profoundly damage national prestige and confidence.

Commercial Facilities

*Deglos Sanitary Landfill*⁴

The Deglos Sanitary Landfill is located 3.2km southeast of Castries, in a valley 3.8km to the east of Cul-de-Sac Bay. The site is approximately 10-15m above sea level. The Deglos landfill is equipped with a leachate collection and treatment system to process the landfill leachate prior to discharge into the Cul-de-Sac river. The landfill also has a designated recycle area for waste diversion of glass, plastics, paper and other recyclable materials. In addition, there is a site services area equipped with a Stanton Systems STB75 Wheel Wash System for exiting vehicles. A toe bund (berm) has been constructed at the southern border of the landfill to prevent the migration of solid and liquid contaminants off the site. A steel deck weighbridge is situated at the entrance to the landfill for quantifying the waste and cover material entering the site.

Government Facilities

Cabinet Rooms

- Located at Castries Waterfront
- The Cabinet collectively decides the government's policy and tactical direction.

House of Parliament

- Located in Castries City
- Parliament is the highest Court of the Land. Its procedures are based on the Westminster System.
- Historic Building constructed in 1951 after the 1948 Fire.

Judicial Complex

- Located in Castries
- Historic Building constructed in 1951 after the 1948 Fire.

⁴ http://www.cehi.org.lc/cwwa_cef/CEHICON1.pdf

- Saint Lucia legal system is based on English common law and "Code Napoleon". The highest judicial body is the Privy Council of the United Kingdom. Both common law and statute law govern St. Lucia. The lowest court is the district or magistrate's court, above which is the Court of Summary Jurisdiction.
- Also located in Castries is the Eastern Caribbean Supreme Court also known as the West Indies Associated States Supreme Court.

Government House

- Constructed in c.1895
- Located Morne Fortune, Castries
- The sitting Governor General represents the Crown in Saint Lucia and carries out the duties of Head of State.
- The Governor General also carries the responsibility for the declaration of a State of Emergency. Section 17 of the 1978 Saint Lucia Constitution "*The Governor-General may, by proclamation which shall be published in the Official Gazette, declare that a state of emergency exists...*"

Power/Energy

LUCELEC Power Station

- 7 substations, located at Cul De Sac, Castries, Union, Reduit, Soufriere, Vieux Fort and Praslin.
- Transmission voltage is 66kV across 73.32 miles of transmission lines. Distribution voltage is 11kV across 2566 miles of distribution lines.
- Customers are supplied at 240V Single Phase, and 415V three Phase.

Appendices

Appendix 1: Media in Saint Lucia

Updated March 19, 2011

Some material was obtained from <http://www.caribbean-radio.com/>

Radio stations	Television stations
<ol style="list-style-type: none"> 1. JoyFM [90.1/96.9 FM] 2. Love FM [91.9/94.9/103.9FM] 3. The Wave FM [93.7/94.5FM] 4. RhythmFM [95.5FM] 5. HotFM [96.1/105.3FM] 6. Hit Radio [96.5/96.7/96.9/103.7 FM] 7. Radio St Lucia [97.3/97.7FM] 8. PrayzFM [98.5/101.5FM] 9. Blazzin [99.5FM] 10. HelenFM [100.1FM] 11. Radio Caribbean International [101.1FM] 12. RizenFM [102FM] 13. RFI SLU [102.1FM] 14. Kiss FM [105.5/105.9FM] 15. Caribbean Harmony [107.9FM] 	<ol style="list-style-type: none"> 1. All Sports Channel 2. Calabash TV 3. Choice 4. Daher Broadcasting Service 5. Health and Wellness 6. Helen Television System 7. K45 8. National Television Network 9. Shine TV 10. Think Caribbean Television 11. Visitor Channel 12. Winners TV
	Subscriber Cable Operators
	<ol style="list-style-type: none"> 1. Cable TV 2. Cox Cable 3. Karib Cable 4. Spectra
Web Radio Stations	Newspapers
<ol style="list-style-type: none"> 1. Deliverance Radio 2. Real Strong Radio 3. Scruffy Radio 4. Unity FM 	<ol style="list-style-type: none"> 1. One Caribbean 2. The Advocate 3. The Crusader 4. The Mirror 5. The Star 6. The Voice