

EVACUATION PLAN FOR THE ISLAND OF ANEGADA

INTRODUCTION

The purpose of this plan is to outline the administrative procedures required to evacuate the people of Anegada when it has been proclaimed by the Governor in Council, that it is unsafe to remain in that area. The Virgin Islands (Emergency Powers) Order. {Regulation 41}. General Powers of the Governor states: “*Without limiting or affecting any power conferred on the Governor by the Order of these Regulations, the Governor may do such things as he considers necessary for the safety, welfare and preservation of the community and, for that purpose he may give such directions as may be necessary.*” In accordance with Regulation 41. The Governor may issue an *Evacuation Order* for the Island of Anegada.

“*The British Virgin Islands Hazard and Risk Assessment Project*” (conducted by the Office of Disaster Preparedness in 1997) states that a category 4 hurricane (131-155 miles per hour) could be expected to produce storm surge inundation (covered with water) depths of 13-18ft on Anegada. The study also identifies zones of seismic activity that have the capacity to produce damaging earthquakes in the BVI. The zones which pose the greatest threat are the zones associated with the Anegada Trough and the Puerto Rican Trench. It has been estimated that earthquakes with a magnitude of Ms 8.5 can be produced in those zones. The most significant potential source of tsunami threat to the BVI is the Anegada Trough. It was estimated that an earthquake of magnitude 7.5 could produce run-up in Road Town of 6-9ft. Another possible regional source of tsunamis that could affect the BVI is the Kick-`em-Jenny submarine volcano, located about 5 miles north of Grenada and 500 miles south of Tortola. Dr. John Shepherd (Head of the Seismic Research Unit, Trinidad) said (in September 1999) “Kick `em Jenny’s eruptions are frequent, but small. Our hypothetical worst case scenario was for 130ft. waves in the Grenadines, but the *realistic* worst case scenario is for 50ft. waves – and in the *most likely* scenario, waves would probably not be much worse than the swell from a near-miss hurricane. The SRU’s ‘high probability’ predictions (based on Kick `em Jenny’s 1939 eruption, which caused a 3 to 6 ft. tsunami in Barbados) forecast a 10 ft. wave at Grenada’s north coast, diminishing to under 3 ft. by the time it reaches Port of Spain, Trinidad.”

CHARACTERISTICS OF ANEGADA

Anegada (Latitude: 18.43.9 North. Longitude: 64.20.4 West) is a coral island lying about 22 miles northeast of Tortola and 20 miles north of Virgin Gorda. The island is about 10 miles long by 2 ½ miles wide, covers 15 square miles and has a population of one hundred and sixty-five (165) residents. It is very flat and the highest point is about 28 feet above sea level. Anegada has about nine miles of sandy beaches, protected by the famous ten mile long Horseshoe Reef – one of the largest coral reefs in the world. The Anegada ‘*Harbour*’ is simply an opening in the coral reef in its southwestern side between the Anegada Reef Hotel at Setting Point and Pomato Point. It is about 4 ½ miles from the main residential area – called *The Settlement*. The only jetty that can accommodate ferryboats is at *Setting Point*. The two designated Emergency Shelters are the Methodist Church (capacity 26 persons) and the Community Centre (capacity 40 persons) both of which are located in *The Settlement*.



Map of Anegada Island on next page →

EVACUATION RESOURCES & OPTIONS

Evacuation on land to Collection Points

In accordance with the Zonal Committees Handbook (P.15) it is the responsibility of the *Anegada Zonal Committee* (under the direction of the *Zone Coordinator*) to “*Develop a vehicle deployment plan to cope with all transportation requirements in the event of a disaster at zonal level*”. (There are sufficient vehicles on Anegada for the Anegada Zonal Committee to develop a plan to transport the 165 residents from their homes to the *Collection Points* at Setting Point Jetty and/or Anegada Airport).

Evacuation by Air to Tortola and/or Virgin Gorda

Anegada has an airstrip (2500 feet long) that can accommodate 19-seater aircraft. Flight time from Anegada to both Beef Island Airport and Virgin Gorda Airport is approximately 10 minutes. Evacuation by air is conceivably possible but it would depend upon such factors as, the speed and direction at which a storm was travelling, the quantity and type of aircraft(s) available and the number of persons (out of the 165 residents) willing to be evacuated. Bear in mind that the airports would be officially closed by the Director of Civil Aviation when sustained winds reach 30 mph, gusting to 40 mph. The following Airline Companies operates into Beef Island:

| <u>Airline Company</u> | <u>Type of Aircraft(s)</u> | <u>Passenger Capacity</u> |
|-------------------------------|-----------------------------------|----------------------------------|
| Air Sunshine, Inc. | Cessna 402 | 9 |
| Caribbean Wings | Piper Navaho (2) | 7-8 |
| Claire Air, Inc. | Cessna 402 | 9 |
| | Air Commander 500 | 7 |
| | Cessna 172 | 3 |
| Fly BVI Ltd. | Cessna 404 | 10 |
| | Piper Aztec (2) | 5 |
| | Cessna 172 (2) | 3 |

The number of trips from Anegada to Beef Island and/or Virgin Gorda would be determined by the quantity and type of aircraft(s) available and the number of persons to be evacuated. In 1989, when it became evident that hurricane Hugo would strike the BVI, 25 Anegadians agreed to be evacuated. They were transported by Air BVI (no longer in operation) to Tortola and placed in temporary accommodation. Food and clothing was supplied by the BVI Red Cross. Please see the map on facing page, which shows air routes →

Evacuation by Sea to Tortola and/or Virgin Gorda

Listed below are the known locally owned powerboats on Anegada. The ones for Reefs Hotel and Neptune's Treasure Resort would be used primarily to evacuate their own families and guests:

| <u>Power Boat Owner</u> | <u>Type of Boat</u> | <u>Capacity</u> |
|--|----------------------|-----------------|
| Clinton Vanterpool (District Officer) | 30 ft. Island Hopper | 20/30 |
| Capt. Lowell Wheatley (Reefs Hotel) | 46 ft. Hatteras | 20/50 |
| Capt. Mark Soares (Neptune's Treasure) | 48 ft. Fishing Boat | 20/50 |

Ferryboats

Mr. Edwin (Speedy) George, owns *Speedy's Ferry Service* on Virgin Gorda is the closest ferryboat company to Anegada and he has three boats available for charter, namely:

- "Speedy's Delight" (60 passengers)
- "Speedy's Fantasy" (110 passengers)
- "Speedy's Adventure" (20 passengers)

(In September 1998, about 24 hours before hurricane "Georges" threatened to strike Anegada, "*Speedy Delight*" was chartered to evacuate the (8) eight persons (not residents, but persons working on the Island) wishing to leave the island. Some of the evacuees were transported to Tortola (Beef Island) where they stayed with friends or relatives. The others were transported to Virgin Gorda and were accommodated in an emergency shelter. The Charter fee was \$1,000.00 and Mr. Edwin George has expressed his willingness to execute similar evacuations, if and when required).

In accordance with the Zonal Committee Handbook, if the ferryboat docked at North Sound (Virgin Gorda) it would be the responsibility of the North Sound Zonal Committee (No.10), under the direction of the *Zone Coordinator*, to provide transportation for the evacuees to the nearest available Emergency Shelter(s). Similarly, the Valley (Virgin Gorda) Zonal Committee (No.9) would be responsible for evacuees disembarking at St. Thomas Bay or Virgin Gorda Yacht Harbour. East End/Long Look Zonal Committee (No.6) would be responsible for evacuees disembarking at Beef Island (Trellis Bay) and Road Town Zonal Committee (No.4). would be responsible for evacuees disembarking at Road Town.

The maps on the next pages show Sea Evacuation Routes/ Emergency Shelters, etc. →

STANDING EVACUATION PROCEDURE

This procedure will be determined by the nature of the threat. In the event of a *hurricane* threat, proceedings to alert all persons to be involved in the evacuation would commence approximately 36 hours before the predicted onset of hurricane conditions. Such an alert would come from the NEOC as a result of information regarding the hurricane conditions and the known potential hazards, discussed earlier. On receipt of such an alert, the Royal Virgin Islands Police Force (RVIPF) would initiate their evacuation procedures for the Territory and Districts and the Zonal Committees would initiate their Zonal Plans and evacuation procedures.

ALERT STAGE

36 HOURS BEFORE IMPACT

The NDC will alert the following response agencies via telephone, radio or TV and brief them on all relevant information on the hurricane:

- The Royal Virgin Islands Police Force (RVIPF)
- Anegada Zonal Committee Chairman
- Virgin Gorda North Sound Zonal Committee Chairman
- Long Look/East End Zonal Committee Chairman
- Road Town Zonal Committee Chairman
- FerryBoat companies and/or airline companies
- The Public, CDERA and its participating states

24 HOURS BEFORE IMPACT

At this stage the NEAC Chairman will need to decide, based upon the status of the hurricane, whether to declare an *Evacuation Order* for the island of Anegada.

- If evacuation is decided upon, the NDC will contact the Anegada Zonal Chairman to determine how many persons, if any, are willing to be evacuated
- Based upon the number of potential evacuees, and the weather conditions, the NEAC Chairman will decide whether to evacuate them by land or sea, or both - using the information contained in the *Resources and Options* section of this plan as a guideline
- The NEAC Chairman will contact the appropriate transport agencies (listed under *Resources and Options*) and make the necessary arrangements with them to commence evacuation. The NEAC Chairman will then advise the Anegada Zonal Chairman of these arrangements so that he can arrange for the evacuees to be transported to the appropriate Collection Point(s) at the Anegada Airstrip, the Government jetty at Setting Point, or both
- The NDC will contact the relevant Zonal Committee Chairmen and advise them of the evacuation arrangements (how many evacuees to expect, whether by sea, air, or both) and ask them to provide transport to the appropriate shelters and look after their welfare
- The appropriate Zonal Committee Chairpersons will advise the NDC when the evacuees are safely housed in shelters

Current planning contingencies at the 36 hour and 24 hour stages before impact as outlined in the National Disaster Plan called for the activation of evacuation orders. There is, however, need for research to consider whether legislation should be introduced to allow for the forced temporary removal of children, sick or incapacitated adults during a disaster situation.

In order to finalise this document, there will be a need for cooperation from all parties including the residents of Anegada. It is a belief that the reefs surrounding the island will provide protection from storm surges and tsunamis. The plan will call for the movement and relocation of all residents in flood zone areas, living in properties within 150 feet of the high water demarcation line and 20 feet from the ground. The height and distance stipulated is pertinent to any zone which is subject to flash flooding from ghuts and hurricane induced storm surge waves. These waves have been recorded at 35 feet with a forward speed based on strength of hurricane force winds which have been recorded at speeds in excess of 175 mph. In order to finalise this plan discussions must be initiated with residents of Anegada and other low lying areas regarding their evacuation.

During the approach of hurricane Georges, a storm surge of 9 feet was at one time predicted. The Government responded by providing a ferry to remove residents from Anegada to an emergency shelter on Virgin Gorda. Eight persons opted to move. These persons were not residents but workers who had been assigned to duties on the island. The ODP will seek to finalise this plan and the accompanying database.

POST EVACUATION PROCEDURES

