VLB ARRAY MEMO No. 659

HURRICANE DAMAGE ON ST. CROIX, FIVE MONTHS AFTER

C. M. Wade

21 February 1990

Hurricane Hugo struck St. Croix with brutal force on September 18-19, 1989. The exceptional severity of the storm involved several factors: (1) the rotary winds were unusually strong, probably over 200 miles per hour at times; (2) numerous tornados were imbedded in the storm; (3) the storm system advanced slowly, so the high winds lasted far longer than usual (about 10 hours). Hugo was quite dry for a tropical storm, with most of the damage caused by high winds rather than the torrents of water that normally accompany hurricanes and often do the greatest harm.

John Dowling and I were on Saint Croix during 14-16 February, almost exactly five months after Hugo paid his unwanted visit. Although much has been repaired and the island is steadily recovering, a great deal of damage remains in almost its original state. The present report records my impressions, for what they are worth.

General comments: The best progress seems to be in clearing roads and restoring electric power, both of which are almost finished. I was surprised, however, by the large amount of dead electric wiring still lying on the roads. There are places where wires dangle in the roadway, a clear hazard to traffic. Much of the island remains without telephone service; progress is slow because the new lines are being buried.

Most buildings suffered severe roof damage, even those that appear to have come through rather well otherwise. I judge eighty to ninety percent of the usable buildings have their roofs covered by great sheets of plastic that flap and flutter incessantly in the trade wind.

Many cars show heavy body damage. Windshields seem to have been particularly vulnerable. A lot of cars have no glass at all in front of the driver. The breeze is no doubt as delightful as it is continuous -- motoring al fresco, as it were.

What impressed me most was the capriciousness of the damage. Time and again we saw an apparently intact building only a few dozen feet from the rubble of one that was totaled. The airport terminal suffered little apart from the neat amputation of the observation deck, yet the large National Guard building right next to it was wrecked. The VLBA site: When the storm struck, construction was on hold pending resolution of a noble protest filed by a certain land developer. This no doubt mitigated the harm that otherwise might have occured. Summary of the work that had been done, and my assessment of the damage:

<u>Clearing and grading</u>: The entire site and the access road had been cleared and leveled. The excavation for the cistern, at the north end of the control building, had been started. <u>Damage</u>: None.

Antenna foundation: Excavation was complete. The pintle-bearing room was finished, and most of the base of the ring foundation had been poured. <u>Damage</u>: None to the structure. Some dirt washed in and will have to be removed.

<u>Control building</u>: Stem wall was nearly finished. <u>Damage</u>: Several concrete blocks along the top course are broken.

Berm: The high earthen wall intended to deflect runoff from adjacent higher ground. Complete. Damage: Essentially none. Minor cracking along the top may or may not be due to the storm. Virtual absence of watercutting at the base suggests there was not much rain on the hillside above.

The contractor's trailer was blown over, and it is still lying there. No evidence of looting, and nothing seems to have been vandalized.

The trees bordering the site on the north and east are in good shape, with no stripping of leaves and no broken limbs in evidence. Even so, a building 300 yards north in Cramer Park was wrecked. A further 200 yards north, the only harm suffered by a group of bath-houses was that one lost its roof. Back to my point about capricious damage...

Christiansted: Much of the downtown area is in fairly good shape, except for the ubiquitous roof damage. A few buildings were totalled, many more were extensively damaged. The oldest generally came through best, thanks to their massive masonry construction.

It is along the waterfront that one sees the worst devastation. The boardwalk is gone. The seaplane base is a shambles, with half a dozen wrecked airplanes jumbled together near what was once the hangar. Numerous sailboats remain high and dry on the beaches. A large sloop still lies on its side in Queen Cross Street, with cars parked around it. In the anchorage, there are sailboats without masts, and sunken boats poke out of the water. The trees on Protestant Cay have lost nearly all of their leaves. The 300-foot radio tower on the point of land near the harbor entrance now lies flat on the ground with its erstwhile top in the water. The boatyards in Gallows Bay are still a bit scrambled.

The huge Sunny Isle Shopping Center, where the worst looting took place, is an empty shell. Most buildings are boarded up, and the whole place seems dead. It has not even begun to recover.

The hospital is a tent city, a larger version of what one sees on MASH. The old hospital was smashed possibly beyond repair. No decision yet on whether to replace it or fix it.

A Virgin Islands National Guard MP unit remains on active duty, with headquarters in the old scale house near Fort Christiansvaern. I judge that their job is to be visible, since I never saw them actually doing anything.

East end of the island: This includes the VLBA site, which we have already discussed.

First, the bad news. The Contessa's castle, arguably the ugliest eyesore in the entire Caribbean, survived without perceptible damage. It sits atop a very exposed hill, but its massive concrete construction saved it. Pity.

Now, the good news. Duggan's Reef, probably the best place for lunch on the island, came through without a scratch. Not so its long pier, which once afforded such delightful girl-watching. A couple of sailboats are lying on the ground just outside the restaurant, 30 yards or more from the water. Good for conversation...

The shore facilities of the West Indies Laboratory suffered considerably, but the main building complex south of the highway came through fairly well. The site we had once wanted for our antenna seemed untouched.

The fancy houses along the ridge above the lab suffered heavily. Some, including the home of our friend Bill Steif, were truly shattered.

The facility on top of Sugarloaf Hill, operated for the Navy by the General Offshore Corporation, simply disappeared. The generator and a fuel tank are still there, as is the concrete slab for the building. The state-of-the-art twoholer privy hasn't been seen since the storm; it may have made it to St. Thomas. Two radio towers, about 25 feet high, blew over without bending -- they pulled their concrete footings out of the ground as they went. Looks odd... Sugarloaf is the big hill that shielded our site from the worst of the storm.

On the south side, the Grapetree Bay area was devastated. The Divi Hotel will not be back in business for at least a year. Fairleigh Dickinson's house, near the shore, was destroyed; even the concrete slab under it was lifted off of level.

Elsewhere: The Hess refinery and the associated port area survived in remarkably good shape, and are thriving. Some of the oil storage tanks collapsed, but most seem unhurt.

Frederiksted came through pretty well, although with the usual extensive roof trauma. An exception is the great pier where the cruise ships docked; it was totaled, and is now being rebuilt.

What of relevance for the VLBA can we conclude from all this? Very little, I think. Our site was hardly touched by the worst hurricane to hit St. Croix in this century. That is very nice, but no grounds for comfort. Given the erratic nature of the damage pattern, we might well be bulls-eyed by the next one. At least we got away with it this time.