

Monday, October 8, 2017

Dear friends and family,

When last you received an email from me, 8 days ago, I had my laptop perched on top of my car in the car park at San Juan airport, my phone acting as a local hotspot resting against the front window. Joan arrived safely and we headed back to the observatory through a stunningly violent rain storm as we approached the town of Arecibo and neither of us enjoyed the drive up along a road flooding all over again in the downpour. But we made it and all week we stayed in my room in the Visiting Scientists Quarters (VSQ) at the observatory where, until today, I have spent a total of 3 weeks.

If you did not receive that email, which included a picture showing the passage of Hurricane MARIA as recorded by the barometer, rain gauge and wind speed indicator at the telescope, please let me know and I will resend.

We just had a 4-day weekend, which made no difference to our routine but which was part of the normal schedule. This past Friday we drove down to the apartment to discover it had electricity but no water. So today (Monday) we moved back into the apartment and there still isn't any water. There is only the faintest AT&T cellphone signal that has not yet allowed me to contact anyone, except by text messaging.

Outside, looking past the top of a large palm tree that collapsed beside our balcony, the skies are very dark as a thunderstorm is brewing, part of the normal summer pattern.

I hope the AT&T signal will increase over the next few days so that I can send this and re-establish contact.

Looking back on these 3 weeks I must emphasize that I (we) were very fortunate. The observatory has its own diesel generators so we never lost electricity or water up there but to this day there is no internet available at the site. The biggest worry has been whether a shipment of diesel could reach the observatory in time to prevent a total shut down, which would have been very damaging. On Friday night, and just in time at 7 pm, the observatory received 5,000 gallons that will last most of this week and then the challenge to get another load will be faced all over again. Diesel costs money and the budget did not take these persistent needs into account. The real problem is that the utility poles up to the observatory that provide electricity are badly damaged and there is as yet no sign of work crews working their way up 12 or so miles of the narrow twisting road. In many places we have to drive right over fallen cables.

In summary, and keeping those less fortunate in mind, the experience of having the eye of a Force 4 hurricane passing right overhead is traumatic. I think that I

suffered from shock a few days later and then went through a phase that I can best describe as feeling empty. Now, I feel better. Those first few days after the hurricane passed saw lines at gas (petrol) stations a mile long. Some people waited patiently for up to 9 hours. (Yes, leaving their cars in line overnight.) By the time we drove down on Friday, we had a zero minute wait at a small station en route from the observatory.

For a perspective, on the Monday morning before the storm, at 7:30 am, I filled my car with gas (I had a 20-minute wait). On Monday afternoon when I drove by that gas station again it had sold out. On Friday, after the storm, I drove by and the gas station wasn't there anymore. Even some of the pumps had been blown away and today we spotted the roof, which had been over the pumps, about 100 yards away in a field, a mess of scrap metal.

Finally, although hundreds were killed (the official total of 30 is inaccurate), the damage to most houses was minor because they are built of cinder blocks and concrete. However, all wooden structures and metal roofs ceased to exist. A word of advice, if you should ever plan to buy a house in a hurricane or tornado prone area of the USA, buy concrete.

If you are wondering about how we survived at the observatory, the observatory cafeteria started serving breakfast and lunch the Friday after the storm but not on weekends. About 6 of us pooled our food resources and those were replenished by an occasional trip to a store that had a generator and the Korean wife of one of my colleagues cooked for all of us including her two kids, with help. We used the stove by the control room and ate in the electronics division lunch-room. We ate well but I still lost about 5 lbs. Experiencing a hurricane is not a recommended diet plan.

A note on accommodations at the observatory: The day before the hurricane I occupied a room in the VSQ while other scientists used 3 other rooms. Then a politically bad decision was made by higher ups (not Joan), which forced everyone out of their rooms and told them to go back to town. My colleagues refused and moved to their offices and have been sleeping there since. I stayed in my room. Andrew and his wife Jee, 2 kids and a dog slept in his office. For those who know these colleagues, Patrick, Edgard and Phil are still sleeping on the floors in their offices, but Joan and I stayed in the VSQ room. Several rooms are now occupied by staff whose homes uninhabitable.

The common denominator for those of us who stayed at the observatory during the storm was that we had no family on the island to turn to for mutual aid. So we relied on each other.

Tuesday, Oct 10

In the evening Joan and I returned from the observatory to our apartment to find that we now also have water. Ecstasy.

Wednesday, Oct 11. Partial cell phone service at the apartment, still unable to access internet at the observatory or at the apartment.

Thursday, Oct 12. If you receive this mail today or soon thereafter, we are parked by the cemetery in town where there is a strong cell phone signal. I will have used my iPhone hotspot again to send this and because Joan really wanted to access her email. Soon we will be back in normal electronic contact (I hope). A couple of balloons were spotted today that are supposed to provide a link to AT&T but as yet I am skeptical. Perhaps they are beyond my horizon.

I did go shopping and found virtually everything I needed for the next week or so (cash only) but the supermarket shelves are getting quite bare. The crowd outside one of the local banks we passed this morning was unbelievably big. People just aren't used to cash and the banks are overwhelmed.

When Joan was still in Maryland at headquarters they organized a cash distribution system for all the staff (70 people) and gave each \$100 to help them.

And for the 3rd day in a row we have had torrential afternoon rains quite unrelated to a hurricane.

Such is life.

Cheers

Gerrit