

MEMORANDUM

November 6, 1985

Status as of 16⁰⁰

To: Paul Vanden Bout

From: George Seielstad *gss*

Subject: Consequences of Severe Rainstorm

In 24 hours on Nov. 4, we received ≈ 7.5 inches of rain. This was not evenly distributed either-- most of it fell between 11 and 18 hours. The result was the worst flooding West Virginia has had in this century. Naturally there is heavy damage everywhere, although the Observatory escaped with surprisingly little.

Cass and Marlinton, where several of our employees live, were devastated. In Cass, the bridge across the river is an island; the road on either side was cut away. Many downtown business buildings (e.g., Granny's Cafe) are gone. Little news exists about the full extent of the damage. Surely there is some loss of life, although the water only began receding today so that searches could be mounted.

In Marlinton, the water rose to the roof of French's Diner (10-15 ft) on Main Street. 100% of the businesses and 90% of the homes were flooded. Some high fraction of these were completely destroyed. It is too early to know how many are total losses, but the number is large. Those who lost their houses of course lost all their other possessions--clothes, furniture, cars, etc. As of this morning, 9 deaths had been confirmed, but the sheriff's office was just beginning a search for bodies. The toll is likely to rise. Cars, trailers, houses, debris are scattered all along the river's path. The sheriff's search will be long and gruesome.

By comparison, Green Bank and Arbovale were treated mildly. That seems a bit cruel to say (and unintentionally so) about people whose basements were flooded, or who shivered in the cold without electricity, but at least no deaths were reported. The sense of isolation was extreme, however. Roads were impassable in all directions for about 24 hours. Power was lost in most locations, and telephone service was restricted to the immediate vicinity. The long-distance telephone path passed through Marlinton, where the entire switching system was submerged. By great good fortune, a new switching system was being installed on the second story of the phone company's office. Its completion was targeted for Feb. 1986, but it now

offers a quicker fix than repairing rusted junk.

NRAO miraculously survived all this in tact. We never lost our power except at the Rabbit Patch, where houses went without electricity for perhaps 20 hours. We naturally became an emergency headquarters--by virtue of our in-tact status and because we alone locally have the knowhow to assist. We received (read-only) messages on the scanner from the Forest Service, the WV Department of Natural Resources, Monongahela Power, the State Police, and the Pocahontas Co. Sheriff. All operate on different frequencies, so we became the only link between them. In some cases we could relay messages by telephone, but only locally. In other cases, individuals would stop in periodically to "read their mail." Our third option was to use amateur radio. (Rich Bradley is the only ham left in GB. He is working heroic hours and could use some relief.) Rich could radio messages to the State Police office in Elkins, and its dispatcher could contact troopers in their mobile units, both here in the northern end of the county as well as in Marlinton. The system was cumbersome, but was the only one in existence and became heavily relied upon.

NRAO also became a place where the homeless could stay. On Monday night (actually Tues. at 3 AM) we received evacuees from the Hermitage Motel, where they feared a dam break. We fed and housed them overnight. NRAO employees unable to get home (at various times, including Bill Shank, Bill Radcliff, Roger Norrod, Srikanth, George Grove, and their families) and some residents of the community stayed in the Residence Hall also.

We have also been called upon for generators and pumps. Here we have been careful to loan to public agencies or facilities accessible to the whole community, so that we provided a service to the public rather than to specific individuals. Our most critical contribution was a generator to the water plant in Marlinton. This is almost the first essential the community must restore. In the Green Bank/Arbovale area, we have permitted people to fill containers with water; many wells are contaminated by groundwater or inoperative without power. We have supplied fuel to the sheriff and the state police. Manpower has mostly been provided on a voluntary basis. In short, we are doing everything we can in a life-or-death situation.

Meanwhile, the science goes on. The two worlds of catastrophe and research are hard to reconcile. Who really cares about NGC3690 when he hears Franklin request 24 body bags and some dry ice? At the pinnacle of absurdity

was the request from the lounge for pingpong balls during the period of severest rainfall on Monday. (We are such a dedicated service organization that we complied with this request.)

Matthews, Bell, and Madden are using the 140 ft telescope at 18 GHz. Their run is lousy, but mainly because the weather made the system temperature 300K and unstable; not because the equipment failed.

The 300 ft telescope developed a problem late Sunday, i.e. before the deluge, with the EW tracking of the Sterling mount. Because Monday's storm was splattered with lightning, no one could get to the focus to work on it. Tuesday was also an emergency day, where the goal was to survive not improve, so only today, Wednesday, is any progress being made. As a consequence, Gottesmann's run was a total washout (forgive the pun), and Simonetti lost several days. I should be able to reschedule both.

We should invite observers to continue to come. They can do so from Charlottesville (at least if you are able to read this, since it was to be delivered by the shuttle). It would be better if they could call in advance to determine whether we could service them: some of our operators, particularly at the 300 ft telescope, may have difficulty getting here. But the observers can't: our phone service may be restored Sunday, but only if the optimists are right.

The interferometer has resumed operation with both 85 ft telescopes and the 46 ft telescope near Huttonsville in operation, but without the 45 ft telescope near Huntersville. The latter is near the region of greatest devastation, and no one knows when power will be restored. The operators usually enter a time correction provided from USNO. Since this can't be telephoned to us, we are using a week-old correction. There are other detailed problems of this sort. Len Howell is writing a report he would like telephoned to USNO. It should also be carried on the same shuttle as this memo.

A useful step would be to establish CV-GB ham radio contact. Bradley monitors the West Virginia Net. His call is WB3DZC. He has established contact with Mike Balister, who therefore knows the details for contact. I suggest scheduled contacts, so that both ends can be listening. Two are set up now, at 20 hours tonight and at 08 h tomorrow. Get your news to Balister.

We are requesting another favor. People here would like their relatives and friends to know their situation, but communications in either direction are impossible. Beaty has assembled a list of brief telephone messages which we would like someone in CV to deliver on our behalf. Thanks in advance.

This memo reads a bit like a newspaper. Its only purpose was to bridge the silence-gap enforced by circumstances. We are continuing to perform, even though the outside world can't know that. Don't worry about us.

*This message was transmitted Bradley to Balister via
ham radio. Created at $\approx 10^{02}$, 11/6/85.*

To: **NRAO, Edgemont Road, Charlottesville, VA, (804) 296-0241**
Attn: **Paul Vanden Bout**

NRAO-Green Bank has survived the storm with no major damage. One of the few spots in this part of WV to have power and water without interruption. Power was out at Rabbit Patch only for about 24 hours; now restored. All visiting observers and employees local to Green Bank/Arbovale OK. Employees from Marlinton and Cass cannot contact us; until we hear otherwise, we assume they are also OK.

Employees were dismissed on Monday at 13:00. We continue in an emergency operation status. Approximately 25 employees here today.

Observations are continuing at 140 ft. Suffering from poor K-band weather, but otherwise OK. Problem with Sterling mount on 300 ft. It started before the storm, but storm prevented repair. Trying to get started today. Interferometer did not observe Monday night-Wednesday AM because link was lost in poor weather. Has resumed operating 3 elements today. Point Mountain 45 ft has no power. Please inform USNO.

Road open to Staunton. We will run shuttle tomorrow and will send more detailed information. **Important that driver leaves CV at 9:00 AM also. Will have a passenger for Shenandoah Airport on return trip.** Observers can travel to GB. *No tourists please,*

Telephones only access the local community. Service may not be restored for 5-10 days.

NRAO is the communications center for Pocahontas Co. With scanner, ham radio, and telephone, we relay all messages between agencies. We have loaned generator to Marlinton for the water plant. Other generators and pumps have been loaned where necessary. Residence hall has housed stranded travelers and local residents without power. Cafeteria has fed them. Food supply adequate and being replenished. Neighbors come to observatory for potable water.

Don't worry. We're OK.

George Seielstad