

UNITED STATES  
DEPARTMENT  
OF AGRICULTURE

# Radio Service

OFFICE OF  
INFORMATION

CHATS WITH THE WEATHER MAN

Friday, March 31, 1933.

(FOR BROADCAST USE ONLY)

Speaking Time: 10 Minutes.

ANNOUNCEMENT: And here's the Weather Man -- this time with a story about Uncle Sam's flood warning service. He brings you this story as one of his regular chats with the weather man from the United States Weather Bureau.

--ooOoo--

Sunday morning a week ago, a Cincinnati manufacturer visiting in Washington, D. C., read about the big flood down along the Ohio River.

The manufacturer 'phoned the River and Flood Division of the United States Weather Bureau and inquired, "How high will the Ohio River go at Cincinnati?"

M. W. Hayes, chief of the division, answered, "We expect the Ohio to reach a crest of 63 to 64 feet at Cincinnati Wednesday morning."

When Hayes said 63 to 64 feet, that manufacturer knew instantly just how high the flood waters would get in his manufacturing plant along the Cincinnati water front. He immediately called his men by long distance from Washington and gave them instructions about moving certain perishable material in his plant out of reach of the water.

About that same time, other folks throughout the country were also besieging the river and flood men in Washington for information about the flood. Some were interested for business reasons; others had friends or relatives in the flood zone.

But, of course, the big interest centered in towns along the Ohio Valley.

Just after that big two-inch rain fell over the Ohio River basin on March 13 and 14, the district centers of the River and Flood Division began to broadcast, and telegraph, and bulletin their flood warnings.

For instance, on March 14, the Cincinnati district center forecast a flood stage of 52 feet for March 18. Along came another big rain on the 19th and 20th and the flood men raised their estimate of the flood crest from 52 feet to 63 or 64 feet. The river reached its high stage of about 63 and a half feet on Wednesday the 22nd just as the flood men predicted.

At the same time, other district centers up and down the river -- centers at Pittsburgh, Parkersburg, and Cincinnati -- and Louisville, Evansville, and Cairo -- were making similar forecasts.

So, you see, the flood caught nobody napping. Folks knew well in advance just about how high the water would get at such and such a time. They had plenty of chance to move or protect their property in any way they could. Of course, the flood waters did an immense amount of damage and took several lives. But those losses weren't due to a lack of advance warning. Folks got the warnings but lost their lives or property for other reasons.

Hayes tells me those district centers base their forecasts, or warnings, on rainfall records and river measurements.

Each of those district centers in the Ohio Valley, along with the rest of the 64 centers on our main rivers throughout the country, is a pretty well defined part of a river system. The district center has rainfall gauges scattered around over its particular section of the river basin. It also has gauges to measure the height of the water along the main rivers and their principal tributaries. Every morning at 7 o'clock, each district center gets reports on the rainfall and river stages, especially from points upstream, and with those reports, the men at the district centers can sit down and figure out how much the river will rise or fall during the next few hours, or days, or weeks.

Along the upper stretches of the Ohio -- and the same thing is more or less true of the other rivers -- the flood men make their forecasts for only one to four days in advance. The period between a rain and the time when that rain water rolls into the river and raises the river level is very short. But as you move downstream, the flood and river men forecast the river stages for longer and longer periods ahead. At the mouth of the Mississippi, they make accurate forecasts as far ahead as three or four weeks. They can make those long-time forecasts because they know how fast the river is rising upstream and how long it takes for flood waters to work their way down to, say, New Orleans.

As long as the river is running along at something near its normal rate, most folks pay very little attention to those forecasts. The reports interest only boat captains who want to know how deep the water is over certain sand bars or shoals, or men who are doing construction work along the rivers.

But just let the river start on a rampage like the Ohio did a couple of weeks ago --- Folks along the river bottoms begin to follow those river-stage figures over the radio, and in the newspapers, and other places about like they do baseball or football scores. A forecast of, say, "52 feet by tomorrow night" may mean they'll have the river right at their door, or in the parlor, or in the barn. They've learned to know just what those figures mean.

Just to illustrate, Hayes tells of two negro farmers who came to his office at Cairo, Illinois, during a July flood a good many years ago to ask how high the river would likely go. Hayes told them the forecast was for 45 feet. One negro looked at the other and asked, "How much of your farm will the river cover?" The second negro replied the water would get all but so many feet of his corn. And the second negro in turn asked the first, "How much of YOUR place will the water get?" The first negro replied the water would get up to a certain point on a certain cottonwood tree on his farm.

Those two negro farmers knew exactly how much of their farms would be covered by the river at a stage of 45 feet. They, like other folks along the river bottoms, had driven stakes in the ground or notched trees to mark the high water marks in previous floods.

When folks get forecasts of high river stages, they begin to make things ship shape for the flood waters.

One man keeps several thousand hogs on an island in the Mississippi. If the river is going to cover the island, he must have advance warning so he can move the hogs to the mainland.

Another man has a herd of cattle on an island in the Potomac near Washington. He, too, must move his animals during big floods.

Hundreds of farmers pasture herds of cattle in lowlands along the rivers. Those cattle tend to hunt the high places in the pasture. When the flood water rises, it gradually closes in on all sides of the cattle and leaves them marooned. So farmers move their cattle back to higher land when they expect the river to overflow its banks.

Packet boats, discharging cargoes at country landings, watch the river stage forecasts to see how high up on the bank they will have to put the stuff they unload.

The Red Cross keeps in close touch with the river stage forecasts in planning its relief work. If it gets warning of a bad flood in a certain district, it marshals its forces and supplies to move at a moment's notice.

River forecast records also play an important part in many court cases. Let's say a man is suing an insurance company to collect damages on property carried away or destroyed by flood waters. If the insurance company can show the man got a flood warning in plenty of time to move or protect his property, the insurance company is apt to win the suit.

As a general thing, folks take the flood warnings at their face value. If the forecast says a 45-foot stage, they prepare for a 45-foot stage.

But a few years ago, a district along a river flowing into the Mississippi got a warning that sounded unbelievable. The forecast predicted a rise of about 30 feet within a period of 12 or 18 hours. The forecasters realized their prediction was very unusual and broke their customary practice of giving no advice with their forecast. They cautioned farmers to get their livestock up to high ground. But nobody had ever heard of such a thing as a rise of 30 feet in a half day's time. So many folks failed to heed the warning. But the flood came as forecast. Several persons lost their lives in a last-minute effort to save their stock and property. Today, folks in that district act on the forecasts without question.

Hayes tells me the river and flood men have been putting out their river stage reports for around 60 years.

Years ago, before the day of radio, farmers in the lowland sections used to gather at a country store during times when the river was rising and put in a 'phone call to the nearest Weather Bureau station. The farmer doing the talking would ask the weather man about the river stage forecast. As the weather man gave him the details of the forecast, the farmer would repeat them for the benefit of the rest of the farmers. The other farmers would ask questions and make notes. Different men might ask the same question in a little different way a half dozen times. Sometimes, they kept the line open 15 or 20 minutes.

But after radio stations began to broadcast river stage reports, farmers in the lowlands bought radios. Today, they get hour to hour reports on the river stage while they sit at home in their parlors.

--oOo--

CLOSING ANNOUNCEMENT: And that concludes the Weather Man's story about Uncle Sam's river and flood service. He will be around again with another Chat from the United States Weather Bureau at this same time two weeks from today.

###

# **National Oceanic and Atmospheric Administration**

## **ERRATA NOTICE**

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages  
Faded or light ink  
Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or [Library.Reference@noaa.gov](mailto:Library.Reference@noaa.gov)

HOV Services  
Imaging Contractor  
12200 Kiln Court  
Beltsville, MD 20704-1387  
July 23, 2010