

National Weather Digest

One of the more exhaustive surveys of listener reactions was made by the Columbia, South Carolina, Weather Service Forecast Office, under the direction of Meteorologist in Charge John C. Purvis.

His official (sic) controls station WXJ-20 at Columbia and WXJ-22 at Florence, South Carolina. Last spring, a message soliciting listeners to comment by mail was broadcast over the air. The result was about 100 replies, almost all highly favorable.

The range of occupational and recreational uses was particularly impressive, along with the responses from people who simply wanted to know what the weather would be so they could plan what to wear, how to dress the children for school, whether to hang clothes out to dry, whether to plan a shopping trip, or stay home and read a good book.

The spectrum ranged from the obvious, such as farmers, commercial fishermen, aviators, outdoor construction workers, school and hospital adminis-

trators, and outdoor recreationists, to the manager of an FM station at Columbia Bible College who repeated the information over the air, a realtor planning his work schedule, a representative of a textile supply company, a furniture company owner, the manager of a hardwood sawmill scheduling work for loggers, truck drivers, mill and yard supervisors, the manager of a trailer park planning the best time to put in grass seed, the owner of a TV store who kept the Weather Radio on constantly as an attraction for customers, conservation workers, an outdoor worker in a railroad yard, the plant engineer of Columbia College, and the owner of a retail store catering to bass fishermen.

Many of the writers were especially grateful for the timely and informative warnings of thunderstorms and tornadoes. Letters from two women summed up the sentiment neatly. Mrs. Chanie Beard of West Columbia wrote: "You have come to be a dependable necessity and we thank you." Mrs. Harry Ivey of the same locality said: "Just keep up this most helpful service! I would hate to do without it."

part 2

WARNINGS BY LIVE, SIMULTANEOUS BROADCAST FROM NOAA WEATHER RADIO AND COMMERCIAL RADIO/TV

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By the end of 1978, two-thirds of the 340 NOAA Weather Radio (NWR) stations planned for installation around the United States were in operation.

Weather Radio has progressed from a relatively obscure service aimed mainly at boaters along the coasts, to a popular and efficient means of relaying up-to-date weather information and warnings to the general public as well as to special users.

The Weather Radio has become one of the National Weather Service's most important contributions to an effective warning system. Whereas many improvements have taken place in the prediction and detection of hazardous weather, NWR has made a significant impact on the dissemination portion of the warning system by saving the precious seconds, or often minutes, required to type, transmit via teletype, and broadcast warnings from commercial radio and TV stations. Live

broadcasts of warnings from NWR can save even more time by avoiding delays necessary for tape recording.

Further enhancement of the speed and efficiency already inherent in live broadcasts from NWR is possible through a system of simultaneous broadcast (simulcast) with cooperating radio and television stations. This system was devised by the news director of a radio station in Belleville, Illinois, just across the Mississippi River from St. Louis, as a means of reducing delays of ten minutes or more in relaying warnings from the Missouri Weather Wire to the Illinois Weather Wire.

The technique is extremely simple and very inexpensive. No additional equipment is required at the National Weather Service Office and the commercial broadcaster makes only a one-time low-cost expenditure for an alert receiver and the wiring necessary to place the receiver in the

audio control system of the station. An external antenna may be required in some areas for better reception.

Typically the Warning Alarm Radio is located near the audio engineer in the TV master control room or near the news announcer or engineer in the radio station.

One version of the simulcast procedure employed by several National Weather Service offices and cooperating broadcasters is as follows:

Once the alarm receivers have been activated by the warning alarm frequency, an abbreviated form of the Watch or Warning message is broadcast live, followed by a 30-second pause. Besides giving the necessary pieces of information to all listeners, this abbreviated message gives the engineer or news announcer at the cooperating radio or TV station the information needed to decide whether to switch the upcoming broadcast of the complete message into the station's audio system for simultaneous broadcast, to tape it for future use, or to ignore it, depending on pre-set criteria, such as the type of watch or warning, the area affected, etc. One station may choose to carry only the more urgent, short-fused severe weather warnings, while another may wish to broadcast all watches and warnings issued with the NWR warning alarm. The 30-second pause also gives time for choosing appropriate visual or audio aids. Some TV stations equipped with radar superimpose the current radar picture during the broadcast.

Simulcast has caught on in many locations besides the St. Louis area, but mainly in the Midwest. In Des Moines, for example, the technique has been applied to virtually all mass dissemination and governmental public safety systems.

The local county Civil Defense agency developed an interface which automatically transmits weather radio warning alarm messages through its indoor radio warning system and over county public safety frequencies. The local cable TV system carries the weather radio as the audio portion of all channels in the event of a warning. All commercial radio and TV broadcasters in the nine-county area served by the Des Moines weather radio, with the exception of two, have the ability to re-broadcast the weather radio to their listeners. Of the two stations not using the method, one is a fully automated FM station and the other is an educational TV station.

After the first severe weather season with weather radio in the Fargo, North Dakota area, radio station KFGO wrote to the Meteorologist in Charge at WSO Fargo and said, "KFGO's tie-in to WXX-42 has cut several minutes from tornado warning time. It is a system that works." Broad-

casters in the Minneapolis area found the method so effective they provided members of their own staff to write script and record material to be broadcast over the radio during severe weather and at other times to help promote weather radio and the services of the National Weather Service. One interesting side note is that even with the extensive use of weather radio, there has been no loss in weather wire subscribers. To the contrary, some additional subscribers have been added.

In a November 1977 letter from the Meteorologist in Charge at the National Weather Service Forecast Office in Indianapolis, Central Indiana broadcasters were encouraged to set up simulcast systems. WISH-TV in Indianapolis was the first commercial station in Central Indiana to use the technique. Its first live broadcast was the blizzard warning prior to the storm which paralyzed Indiana for three days in late January 1978.

WRTV in Indianapolis and WIPB-TV in Muncie set up similar facilities for the 1978 severe weather season, and many other television and radio stations in Indiana are planning simulcast systems as the number of NWR stations operated by the National Weather Service Forecast Office at Indianapolis grows to three. The Indianapolis office has adopted warning forms specifically designed for easy reading during live broadcasts.

Weather Radio may be one of the most efficient means of rapid warning dissemination, but the live simulcast link, besides saving the time required for recording and often re-recording, can put NWR broadcasts of warnings into remote, sparsely populated areas outside of NWR range by virtually doubling the broadcast range of the 1 KW NWR transmitters. The system is capable of reaching extremely large percentages of the population, especially during commercial TV's "prime time" and heavy commuter periods, typically commercial radio's secondary peak listening period. This aspect becomes more significant considering that these periods often coincide with maximum severe weather activity in much of the country. In addition, the immediate live broadcast of complete warnings furnishes listeners with all they need to know about the hazardous weather situation within one to at least three minutes from the time a warning is composed, thus sparing those outside the path of the hazard from being overwarned by re-recorded, general warning messages often used while detailed warnings are recorded or typed for transmission on the Weather Wire.

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