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SEVERE WEATHER PREPAREDNESS  
DOES THE PUBLIC REALLY KNOW WHAT TO DO?

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1. Introduction

During Severe Weather Preparedness week in Iowa, the National Weather Service Office in Waterloo set up an information booth at a local shopping mall. The WSO handed out NOAA brochures on severe weather, while answering various questions. Also, a questionnaire (see attachment) dealing with severe weather preparedness was handed out to 100 people who agreed to take the time to answer the questions. Many respondees personally discussed their answers with the booth attendant. The results were used to decide how much information the public in Waterloo knew about severe weather and preparedness. However, after tabulating the results, it was decided to write a report on the findings since the answers probably represent the typical knowledge of Central Region's populace as a whole. This paper presents the answers that were received to each of the questions. A few suggestions will be offered on what can be done to increase public knowledge about severe weather episodes.

2. The Questionnaire

The first two questions dealt with differences between watches and warnings and what precautions should be taken when a warning is issued. The majority of the people answered the questions correctly. However, more than a third said a warning is issued when conditions are favorable for severe weather to occur while slightly less than a third said to continue normal activities. These answers provide continued evidence that people have problems discerning the differences between the two. This is an alarming fact! When a warning is issued the possibility exists that one out of three people could be injured or killed because they don't know the proper precautions to take.

Questions three and nine dealt with safety when in the basement. These two questions posed quite a few problems for people mainly because of earlier recommendations for appropriate action by the National Weather Service. Eighty-three people believed that the corner of the basement you're in makes a difference when it comes to personal safety. Out of that number, 54 still think the southwest corner is the safest. These old recommendations have been changed, but as can be seen not all of the public knows this. This problem is easily corrected



if, for example, a tape on NOAA weather radio could specifically address these changes. It wouldn't reach everyone, but it at least would reach some of the public. This is just one example. There are, of course, many other ways of accomplishing this goal. Although many people believe the corner choice makes a difference, half (50) of those surveyed also realize they should get underneath something sturdy, such as a workbench.

The people were asked if it was wise to keep matches and candles in their shelter for light. A surprisingly high number (77) said one should. This could be due to the possibility that these people use electricity instead of natural gas. However, it seems that natural gas is becoming more popular with increasing fuel costs. When a gas leak occurs, the gas seeps into the basement since it's heavier than the air creating an explosive situation if a match was ever lit. Many of the people said they didn't even think about that. Flashlights were recommended to these people.

As previously mentioned, earlier NWS recommendations probably played a large role in the responses to this survey. This can be seen once again with the responses concerning opening windows when a tornado is approaching. Over half (52) thought windows should be open so the air pressure can equalize thereby reducing the property damage. Recent research has shown that opened or closed windows have no bearing on the amount of property damage that occurs. However, not all of the public was aware of this new information. The positive side of this issue is that 48 people answered the question correctly. This suggests that the word is getting out to the people, but perhaps not fast enough.

Some aspects of preparedness have stood well against the test of time. This is noticeable in the responses to questions four, seven, and eight. Nearly everyone answered these questions correctly. The fact that these recommendations haven't changed over the years contributed to the results. Almost everyone realizes that mobile homes and vehicles are dangerous to be in during a tornado. There are, and always will be, a few people that think they will be able to outrun a tornado, or survive one in a mobile home. But by continuing to get information out to the public about the dangers, the number of these people should continue to decrease. The public also realizes that a radio or television (battery-operated) is needed in their shelter in order to keep abreast of the latest weather information.

The last question asked was how they received the latest weather information. Slightly less than half said by NWS weather broadcasts on either a NOAA weather radio or cable television. This number has risen in recent years due both to the increased popularity of NOAA weather radio and because cable companies throughout the area are allocating a channel just for radar displays and weather broadcasts. This allows weather information to reach a great number of people. In past years, many individuals listened to radio or television for the watches and warnings because only a select few had heard of NOAA weather radio. This answer underlines the fact that people listen to these broadcasts and rely on them for up to date and accurate information.



### 3. Conclusions

The purpose of this questionnaire was to find out how much the public knew about severe weather preparedness. This was more than accomplished. Some of the results were expected, but more often than not the responses were surprising. The fact that many people still don't know the difference between a watch and a warning say something about these "WA-WA" words. All the technology coming into the field won't make a bit of difference if the people don't understand the watch/warning system.

This conclusion can be extended to cover the entire topic of preparedness. As was seen with a few of the questions, some people still believe outdated concepts that could jeopardize their safety. A bold effort should be made towards educating more of the public on severe weather preparedness before the new technology reaches the field. That way preparedness and proper action will make the severe weather program even better, and the number of fatalities should continue to drop. This goal can be accomplished in many ways such as putting specific severe weather safety tips on NOAA weather radio, or having them displayed on a public access channel on television. Also, severe weather tips could be printed in the newspaper from year to year. Perhaps each office should set up an information booth in a public place to field questions about severe weather. In any event, as the task of better educating the public is accomplished, it makes the job of the forecaster easier since they are aware that the public knows what to do when severe weather threatens them.



SEVERE WEATHER PREPAREDNESS QUESTIONNAIRE

1. When is a warning issued?  
(35) A. When weather conditions are favorable for severe weather to occur  
(65) B. When severe weather is imminent
2. What action should be taken when a warning is issued?  
(77) A. Take cover immediately  
(23) B. Continue normal activities, but keep abreast of the latest weather information
3. If you have a basement, where is the safest place to be during a tornado?  
(9) A. NE corner of the basement  
(50) B. Under something sturdy, such as a workbench  
(41) C. SW corner of the basement
4. It's best to have a battery-operated radio or TV in your shelter.  
(100) A. True (0) B. False
5. It's best to keep matches and candles in the shelter for light in case a tornado knocks out the power.  
(77) A. True (23) B. False
6. It's best to open windows when a tornado warning has been issued.  
(52) A. True (48) B. False
7. What should you do when you're in a vehicle and a tornado is approaching?  
(98) A. Abandon the vehicle and lie flat in a ditch or culvert  
(0) B. Try and outrun the tornado  
(2) C. Stop the vehicle and let the tornado pass
8. If you're in a mobile home, what should you do if a tornado is approaching?  
(0) A. Seek shelter in any room of the mobile home  
(100) B. Evacuate the mobile home and go to the designated shelter
9. What corner of the basement is the safest?  
(8) A. Northwest  
(54) B. Southwest  
(15) C. Northeast  
(6) D. Southeast  
(17) E. None of the above
10. How do you get the latest weather information, such as watches and warnings?  
(40) A. Television  
(12) B. Radio  
(48) C. The Weather Service via NOAA weather radio or cable TV

ALWAYS REMEMBER TO COVER YOUR HEAD!!!

Please return this to the Weather Service employee and if you have any questions or comments on the above situations, please feel free to ask him!

THANK YOU!!!