Hurricane Isabel Crisis Communication Scenario GMU Center for Teaching and Faculty Excellence September 18, 2015 George Mason University David P. MacNeil; Katherine E. Rowan, Ph.D.; and Andrew S. Pyle, Ph.D.

# **Background**

In September, 2003, Hurricane Isabel made landfall in North Carolina and moved up the East Coast into Virginia. It was the biggest hurricane to hit the state in 60 years, and it caused storm surges of 4-6 feet along the northern Virginia coast. Twenty-five people died in Virginia from the storm, either directly or indirectly. Close to 2 million residents of the state lost power, because previous rainstorms had left the ground wet, making it easier for trees to topple over. The total damage estimate from Isabel to homes and property was over \$5 billion, of which almost \$1 billion was in Virginia.

Low-lying areas are particularly at risk from the storm surges that arise in the wake of hurricanes, and so it is not surprising that the waterfront community in and around Alexandria, Virginia, was especially hard hit by Isabel. In Old Town, the intersection of King and Union Streets was flooded with 5-6 feet of water, while, just south of Alexandria, in the Belle View neighborhood of Fairfax County, officials ordered a mandatory evacuation, but many residents refused to leave. One resident there chose to stay, since he said Isabel did not seem as dangerous as Hurricane Agnes in 1972, but his home suffered 3-4 feet of flooding.

There were other dangers, as well. As the Commonwealth of Virginia's service assessment team noted:

"In some areas no power meant contaminated water, loss of most forms of communications, activation of emergency back-up systems, and a rush to purchase generators, batteries, and portable radios. Despite warning labels and in some cases, information flyers sometimes distributed at the point of sale, people did not always follow safety precautions. Ignorance about the inherent dangers of generators and carbon monoxide poisoning contributed to three of the 34 (Virginia) hurricane-related deaths." (NOAA Service Assessment, p. 23)

# **Exercise**

Isabel has just moved out of the area, and the residents of Alexandria are suffering from the problems it left behind. The mayor and city council have called a meeting in city hall, which is not far from the waterfront, where flooding has been extensive.

Many residents are angry at officials for not doing enough to help them, while many political and emergency management officials are beleaguered and feeling overwhelmed in trying to help people recover. At the same time, members of the media are clamoring for information about

casualties from the winds and water, property damage assessments, and efforts to clean up and restore the city to normal.

Participants will choose to be in one of these four groups:

- Residents
- Political leaders
- Emergency responders
- Reporters

Each group will have different concerns and pressures, and often they will find themselves in conflict with members of other groups. You will gather for 15 minutes with other members of your group and discuss the scenario. Each group will be given further information about how its members would react in a situation like this, based what has happened in similar, real-life events.

- If you are in the political leaders group, you could represent the mayor, city manager, or city council member.
- If you are in the emergency managers group, you could represent the emergency management agency, the police department, the fire department, etc.
- If you are in the reporters group, you could represent any media organization.
- If you are in the residents group, you would represent any citizen of Alexandria.

Then everyone will come back together for 45 minutes and enact their roles, based upon the group discussions. The setting for the scenario will be a meeting at Alexandria City Hall, presided over by the political leaders (represented by two spokespeople) and emergency managers (represented by two spokespeople). However, all members of the political leaders and emergency managers groups will sit together, facing the residents and reporters, who will ask them questions. After the meeting there will be a 15-minute debriefing to discuss what happened and ways that similar role-plays can be useful in a variety of academic contexts.

## **Roles: Residents**

As residents, you are very scared and very angry. You became scared when you began to lose power, suffering with no electricity, lack of refrigeration for food and medicines, contaminated water, and often no way to communicate by landline, cell phone, or internet. You do not see emergency responders in your neighborhoods, and the ones you do see seem overwhelmed and not especially helpful. Those of you who own homes, have been sloshing through several feet of water in your basements, while business owners have been shut down for a long time while you clean your stores and restaurants. Mold, water damage, and structural problems will be long-term issues. Particularly vulnerable are children, senior citizens, and immigrant communities. The political leaders and emergency responders do not seem to know what is going on, and the only people who listen to you are the reporters.

You are angry with the politicians and emergency responders for their perceived lack of action.

### **Roles: Political leaders**

As political leaders, you are frustrated by your lack of ability to help the residents and are becoming increasingly upset with the emergency responders who are not showing up in neighborhoods as often as they should and with reporters who repeatedly ask questions you cannot answer. You are feeling a great deal of pressure from residents all over the city to help them. People living in the wealthier parts of Old Town are demanding relief from the effects of the flooding on their streets, help with problems in the historical old houses they live in, and clear answers to their questions about when emergency responders will be coming. People in the less affluent areas, on the other hand, often decided to stay at home to ride out the storm, not having many options about where to go that would not be equally bad. All of them are contacting City Hall by whatever means they can, demanding help as voters and taxpayers. At the same time many city staff are not able to get to work because of the flooded conditions and the poor quality of the roads.

As political leaders, you are angry with emergency responders for what seems insufficient activity to help residents, and you are irritated with the media for not seeming to understand the scope of the problems you face.

### **Roles: Emergency responders**

As emergency responders, you are becoming increasingly frustrated, both with the demands placed upon you by political leaders and residents and the lack of resources you have at your disposal. Because Isabel affected all of northern Virginia, and Alexandria above all, many of your colleagues are trapped in their homes or on the often impassable roads. Ever if you are available to help, often you cannot get to your supplies, or you cannot reach the residents who need help. Some people asked you to bring them ice, since the power outage caused their food and medicines to go bad, but it soon became clear that when you began providing ice, that activity prevented you from helping residents in more serious need. The mayor and members of the city council are calling by whatever means they can, demanding action on behalf of residents on this street or in that neighborhood, and it is becoming annoying to keep telling them that you are doing the best you can. You must deal with incessant questions from the media about the toll of the storm in terms of lives and property and what you are doing to get things back to normal.

As emergency responders, you are upset with the political leaders for not backing you adequately during the emergency, at the media for not seeming to understand the obstacles you face in protecting residents, and at the residents for not appearing to be grateful for the progress you have made in saving lives and property.

### **Roles: Reporters**

As reporters, you are getting frustrated. You see little cooperation among political leaders and emergency responders as they cope with the storm's effects on people's lives and property. You

often cannot reach your contacts in city government, and the people you do reach say they do not know the answers to your questions or they are too busy to talk. Similarly, emergency responders want you simply to be a conduit for repeated safety messages for the public – where emergency shelters are located, what numbers to call for help, stay calm – but not to give answers to the questions you think the public should know. When you can get around, you are talking to angry residents, and as people who live in the area, you are becoming angry, too.

As reporters, you are angry at the political leaders for not giving you access to information you think you deserve and at the emergency responders for not giving you access to many sections of the city. You see your job as holding officials accountable. The public has the right to know what their leaders are or are not doing for them.

### **Developing Challenging Simulations**

# Guidelines accompanying Preparing for the Worst: How to Use Simulations to Enhance Skill Acquisition and Retention

Interactive Presentation Session
1:00 to 2:30 p.m.
David P. MacNeil, Katherine E. Rowan, Andrew S. Pyle
Innovations in Teaching and Learning Conference
George Mason University
Fairfax, VA 22030
September 18, 2015

**Select learning objectives**. Simulations are ideal contexts for practicing recently learned skills. Use regular class sessions to teach skills, then use simulations to test them through role play. Contact professionals in relevant fields to identify skills and environments to use in simulations. Simulations should be problem-solving challenges that are enacted and then discussed.

**Research situations**. Simulations should be plausible versions of challenges students will face. To check accuracy and plausibility, research similar past events.

**Create tension or conflict in simulation and roles.** Participants should feel emotionally engaged in confronting tough situations by using recently taught skills.

Use heuristics. Heuristics are pithy, easy-to-remember guidelines for achieving specific goals. Two we employ:

A. Katherine Rowan's Three W's for Crisis Spokespersons

**WHAT HAPPENED**: Tell affected people what happened—simply.

**WHAT YOU ARE DOING:** Explain what those in authority are doing. Offer ways of monitoring officials' actions so that affected groups have some control in an uncertain situation.

WHAT THEY CAN DO TO HELP THEMSELVES: People find dangerous situations most upsetting when they feel helpless. Provide stakeholders with steps for monitoring the situation, officials' responses, and for protecting themselves from harm. Even symbolic steps provide a sense of control (after terror attack, respond by displaying U. S. flag). Explain why these steps will help and how to take them, especially if the steps are unfamiliar.

#### B. Andrew Pyle's PEACH Model

Partner with stakeholders. Earn confidence by listening, respecting others' expertise, and working together.

*Empathize with others*. Even if people's responses seem surprising or unfair to you, acknowledge that they feel as they do. Be respectful.

*Acknowledge uncertainty.* Tell people what is not known. Give a range of views: some experts think the hazard is somewhat dangerous and others think it is very dangerous, rather than saying "no one knows."

*Consider public outrage*. Expect that people will be angry, especially about the response to a crisis. Acknowledge that this response is understandable and offer the three W's listed above.

*Have a spokesperson.* In advance of a crisis, practice responding to crises through simulations. Note those in your organization who manage the spokesperson role well. Appoint these individuals to serve as spokespersons.

#### **Using Simulations in the Classroom**

For a risk or crisis communication course. The class first studies social science research on why emergency managers become defensive when criticized by stakeholders. During regular sessions, the class practices listening to understand and address stakeholders' concerns. Objective: To respond to upset stakeholders by listening and providing information they need to protect themselves, rather than criticizing or becoming angry with the public. Method: During the simulation, all students read a description of the disaster, but then they are divided into groups representing, e.g., spokespersons, emergency managers, journalists, or citizens and read a description of their own roles. The groups then engage with each other at a press conference or town meeting, and afterwards the whole class debriefs the exercise with the teacher.

For a health care course: Health education at all levels (high school, college, graduate school) employs simulations to provide more realism to the educational experience. *Objective*: To provide students with an understanding of the pressure of working on a "live" patient. *Method*: A class studying, for example, respiratory physiology may engage in a simulation of a patient suffering from asthma, pneumonia, or myocardial infarction, employing a specially designed mannequin programmed with human-like physiological responses. The case is overseen by both a classroom instructor and a clinical expert, the latter acting as a "consultant" when the students are stuck but otherwise not interfering with their deliberations. Students are encouraged to use prior knowledge they bring to the simulation, to work as a group, and to think creatively about solutions.

For an engineering/cybersecurity course. A cybersecurity course is designed to assist students in detecting and deflecting hacking into servers, websites, or applications. Objective: To detect encrypted "flags" (e.g., digital entities such as strings of numbers) hidden on servers, in encrypted text, or in applications. Method: The National Cyber League runs competitions in which individuals and groups participate in cyber security competitions. One scenario envisions tracking a signals intelligence (SIGINT) hacker who has gained control over the computer systems in a city, threatening to shut them down. A cyber security team is tasked with stopping the hackers and preventing the city from collapsing. The European Union has likewise run a continent-wide simulation in which all major internet connections between member countries are lost, causing widespread difficulty for governments, businesses, and individuals to access critical services.

For a science course. A science course includes many elements that may be the focus of a simulation. *Objective:* To illustrate relevant issues in a science curriculum. *Method:* One biology professor engaged her students on the topic of DNA by developing a crime scenario. In the scenario, a murder has taken place, and students are separated into three groups: the prosecution, the defense, and the jury. The students then decide which of them will play the part of lawyers, expert witnesses, the suspect, etc. They then conduct research about DNA methods and present it at a mock trial, over which the professor presides. Documents, such as a police report with a description of the victim, time and manner of death, and circumstances bearing on the "crime," are employed to add realism to the situation. After the verdict is given, each group must write a paper explaining how they came to their decision and the strengths and weaknesses of both the prosecution and the defense.

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