

RDD Scenario: Events and Communications of the First 7 Days

This scenario involves the detonation of a “dirty bomb” in a west coast city. It represents one interpretation of how emergency response and communication might unfold during the first week¹. The primary decision makers and communicators are as follows:

Mayor (M)
Office of Emergency Services (OES)
City Police (P)
City Fire (F)
Governor (G)
Department of Homeland Security-National (DHS)

The communication exercise consists of four rounds with each representing a certain time period. During each round, first read through the script of events to get an idea of the context, and then find the section relevant to your role (e.g., M). As a group write a few lines that convey the appropriate message from the perspective of your role. Take about 10 minutes to do this and then have one person prepare to read it aloud. Obviously the message will be far from perfect, the idea though is to see what we all would say and receive some feedback. *All messages are intended for the public.*

¹ The radiological levels reported here are ballpark estimates benchmarked against other RDD scenarios and are not based on simulations unique to this scenario.

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I. First Round of Message Assessments

DAY 1

- 9:00 AM It is an early morning workday in a midsized city on the west coast. The skies are clear, the temperature is 65⁰F and there is a mild wind blowing in a northeasterly direction.
- 9:30 AM A large explosion occurs outside a high-rise office building in the downtown area. The building is on fire. Debris covers nearby streets and a cloud of dust quickly envelops a several block area.
- 9:32 AM Security is reporting countless victims on the scene. A flood of 911 calls have been received from those in the vicinity of the blast.
- 9:40 AM Law enforcement, fire, Emergency Medical Services (EMS) and HAZMAT teams arrive at the site. A monitor detects radiation. The surrounding area is immediately blocked off as rescue efforts begin and firefighters deal with the blaze.
- 9:45 AM A HAZMAT team conducts an assessment and discovers radiation four blocks east of the site. Media are on the scene and local TV news is providing live reports and interviewing bystanders. There is wide spread speculation about the cause of the blast.
- 9:50 AM Officials are still waiting for a critical report on the direction of the plume and degree of radioactivity before issuing sheltering or evacuation instructions. Reporting a radiation release sparks intense debate. Some argue the public needs to be told immediately. Others want to hold off mentioning radiation until they have more definite information. It is decided that their message should focus on efforts to rescue victims and to control fires. However, they want people to move indoors immediately and stay tuned for further information. Offices at the local, state, and national levels are being asked by reporters for their reaction to this emergency. ***Craft a message to address these issues. M, F, P, OES, G, DHS***

~End of Round 1~

II. Second Round of Message Assessments

- 9:55 AM National news networks have interrupted their programming. One reporter on the scene is asking about a possible radiation release and whether the explosion was intentional. The Genie may now be out of the bottle!
- 10:10 AM Reports are currently predicting the plume could spread several miles downwind. Preliminary readings appear not to exceed 1 rem/hr. near the blast and seem to drop off sharply several blocks away. The Mayor is advised that structures in the downtown area offer good protection but those further out are largely wood and offer limited shielding. Officials decide to alert the public that radiation has been detected and that they are investigating the cause. They are recommending that all people within a 2 mile radius of the blast should shelter-in-place immediately. After heated discussion of the pros and cons, the Mayor decides to recommend people outside this area, but within 10 miles in the direction of the plume, begin evacuating. All others in the city are asked not to evacuate their homes or leave jobs early. ***Craft a message to address these issues. M, F, P, G***
- 10:25 AM Media are interviewing experts from governmental agencies and universities around the nation. Some are questioning the order for certain sections of the city to evacuate, claiming it may actually increase their exposure and encourage others to leave their shelters. There is also mounting concern in nearby towns downwind from the release about what they should do. Nationwide there is growing alarm about possible causes of the explosion and whether other cities will experience similar events.
- 10:45 AM In a joint statement, the Department of Homeland Security (DHS), FBI and Environmental Protection Agency (EPA) address the nation. They are certain Cesium 137, a radioactive material used in certain medical procedures, is involved but most likely at low levels (source up to 10,000 curies with a reading of 1 rem/hr. 10 meters from source). They also have examined plume model projections and feel confident nearby cities are not at risk for radiation. They believe the long-term risk for additional cancer deaths is small if recommendations are followed but it is not zero. The evidence suggests the explosion was intentional, an act of terrorism. The FBI is following up several leads. EPA and DHS hope to both inform and calm the nation. ***Craft a message to address these issues. DHS***
- 11:30 AM Thousands of children are in schools and daycare centers throughout the city. Parents are seeking word of their children's safety. Cell phones are jammed completely. School superintendents brief the Mayor about how children are being protected and cared for. Essentially, children and minors are being kept inside and told that a city emergency could delay their parents' arrival at school or at home. No one will be allowed to leave until a parent or pre-approved person arrives. Schools and daycare centers have emergency provisions and are handling the crisis appropriately. Those within 2 miles of the explosion are instructed to continue to shelter. The Office of Emergency Services is asked to issue a statement. ***Craft a message to address these issues. OES***

~End of Round 2~

III. Third Round of Message Assessments

- 1:30 PM Most people in the immediate downtown area are now off the street and people in the direction of the plume have been evacuating. Unfortunately, many other people in the city have ignored recommendations and are leaving as well. Traffic is congested and the going is very slow. Some have abandoned their cars and are walking along the highways. Those sheltering in place are wondering how long before they can leave.
- 1:45 PM City officials decide to publicly emphasize why it's important for people in the downtown area to remain inside and wait to evacuate. Attempting to leave now would increase the risk or exposure to radiation and also add to the traffic problems. Walking outside in the vicinity of the blast would stir up radioactive dust increasing health risks significantly. It could be several hours before the highways are passable but they are in no immediate danger. Despite slow traffic, those evacuating should stay in their cars to minimize their exposure. ***Craft a message to address these issues. OES***
- 5:00 PM The roads are now largely clear. Hundreds near the blast site are being escorted by fire and law enforcement teams out of the area. All cars within a several block perimeter have been marked as unsafe to drive and must be left. Those asked to evacuate are now arriving at their destinations.
- 7:00 PM The city has come through what looks to be the worst of the crisis. Trauma victims are being treated. Ninety five people have now died from the blast and there are hundreds with serious injuries from fragmentation. Most who were in the near vicinity have undergone decontamination procedures at HAZMAT triage stations and local hospitals. No one appears to be at risk from acute radiation poisoning. Emergency rooms have been stretched beyond their capacity with hundreds of "worried well" seeking immediate medical attention. The American Red Cross has set up shelters for those without a safe place to go. Radiation levels throughout the city are being monitored. Much of the downtown within several blocks of the blast has now been blocked off. There is worry that regions in the path of the radioactive cloud may be unsafe. However, of immediate concern is a relatively small section near the blast with some areas showing readings of about 100 mrem/hr. Officials at the local, state and national level would like to issue a statement updating citizens about the crisis and advising them about the best course of protective action. ***Craft a message to address these issues. M, F, P, G, DHS***

~End of Round 3~

IV. Fourth Round of Message Assessments

DAY 2

- 9:00 AM An assessment of the city reveals both bad news and some good news. A twenty block area is showing pockets with ground shine readings of 100 mrem/hr. or higher on city streets and inside several buildings in the vicinity of the blast. These levels are judged unacceptably high. Police and fire crews have completely cordoned off the area to the public. This section of the city includes a high concentration of businesses, shopping areas, residential apartments and governmental office buildings. Preliminary estimates suggest that many structures will have to be demolished and cleanup of this locale could take months or longer. Transportation throughout the city will be severely disrupted as bus and rail routes are altered and highways and streets are closed. Fortunately, radiation levels outside this perimeter are considerably lower at 5-15 mrem/hr. Beyond two miles, radiation appears to be negligible. Levels are at most 100 mrem/yr, much less than predicted. Fire officials and the Office of Emergency Services would like to communicate this assessment and advise the public of what lies ahead. ***Craft a message to address these issues. F, OES***
- 9:15 AM Local and national news reporters as well as a number of citizen groups are seeking details about causes and motives of this crime. One reporter asks whether there is a connection between recent thefts of hospital equipment containing radioactive material and this incident.
- 9:45 AM Some details of the crime are beginning to emerge. It is true, that over a two month period 3 different medical facilities were burglarized in adjoining states. It's believed that this may have been the source of the Cesium 137, but this connection has not been confirmed. In any case, the possibility raises unsettling questions about security throughout the nation's hospitals and medical research facilities. Several trauma victims near the blast report seeing two men park what appeared to be a delivery van in front of the building less than five minutes before the explosion. Investigators are seeking more details about these two men and the truck they used. Police officials want to inform the public about where the investigation is going and also seek the public's help tracking down leads. ***Craft a message to address these issues. P***

DAY 3

- 6:00 PM One of the state's largest cities and a tourist destination has been devastated by what some experts are calling "a remarkably low-tech and repeatable act of terror". The city's and state's resources have been taxed to the limit. At the Governor's request, the National Guard and a number of federal agencies have been deployed and are ubiquitous throughout the city. Thousands have been displaced from jobs and homes. Many citizens believe they face an uncertain future in terms of their health. Estimates put economic losses easily in the billions of dollars as residents and businesses consider relocation. The city and state could be stigmatized for years. The Mayor and Governor want (*continued*)

to acknowledge the difficult challenges ahead but also outline steps to recovery for this city and the state. *Craft a message to address these issues.* **M, G**

DAY 7

5:00 PM As the Department of Homeland Security prepares to address the nation it takes note that citizens across the country realize a chilling threshold has been crossed. The event of a week ago was not spectacular in its orchestration. It required not years but months to plan. This was not Wall Street but Main Street. The public needs to know what this disaster portends for the *War on Terrorism*. How vulnerable are we? What tradeoffs must we consider? *Craft a message to address these issues.* **DHS**

~END~

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