

Evacuation issues: Part I

In the first of two articles, a panel of emergency management specialists consider the issues involved in getting a major city ready for evacuation

THE UNITED STATES HAS FOCUSED sharply on evacuation from catastrophic events, particularly in major cities, since the experiences of the September 11 bombings in New York City and Washington, DC, and even more so since Hurricanes Katrina and Rita hit the southeast in 2005. A 2006 report by the US Department of Transportation and the US Department of Homeland Security questioned the evacuation readiness for catastrophic events of the 75 major urban areas in the United States.

The Ash Institute for Democratic Governance at Harvard Kennedy School convened a panel of emergency management specialists for a webcast discussion in March 2008 to consider the issues involved in getting a major city ready for evacuation. The following edited excerpts from that discussion are the first of two articles to appear in *CRJ*.

■ **Arnold (Arn) Howitt:** Getting ready for evacuation is a very complex challenge. And certainly, it's not a situation where one-size-fits-all. Some threats, like hurricanes, will give advance notice, perhaps a week, perhaps a few days. But other events, like earthquakes or terrorist attack, may be no notice events.

There's always a crucial question whether people should shelter in place or evacuate. Frequently, shelter in place will be the most sensible policy. But there will certainly be situations where evacuation is called for. Under these circumstances, government's role is going to be both facilitating the self-evacuation of many citizens who have access to automobiles or some other form of transportation, and providing aid to people whose circumstances make them much less mobile than those who have auto access.

PREPARATION

Evacuation also requires a very rich mix of operational capabilities, and the need for complex co-ordination. Not only within a given jurisdiction among the agencies that might be involved – police, fire, emergency management, transportation, public works and others – but also among adjacent jurisdictions and those that are further along the line.

Finally, evacuation involves intergovernmental relations – between local



Prior to 2005, with Hurricanes Katrina and Rita, some of the sheltering operations were very reluctant to accept, or had policies forbidding, pets or companion animals. This led to many pet owners refusing to evacuate. Pictured here is a New Orleans evacuee at a facility that welcomed pets

Liz Roll / FEMA

governments and the state, and between the state and the federal government.

So the question arises, how should we prepare for these kinds of situations? What do we need to do, both as governments and individuals, to be ready to handle these kinds of circumstances? And what obstacles are faced, as we make plans for them?

■ **Ellis Stanley:** As Arn indicated, there's not a one-size-fits-all in this process. (In Los Angeles, where earthquake is the major hazard we plan for) there is quite a bit of uncertainty. And you have to deal with it from the standpoint of having some type of emergency evacuation decision system. Because unlike hurricanes that typically are coming from one direction, there are many catastrophic events (for which we get no warning and have no way of knowing exactly where the danger will be located).

So we have to look at creating a way to determine the real-time traffic conditions,

the real-time demographics, the real-time weather situations, the damage to the freeways, and incorporate it into our processes.

In the planning phase, we need to be able to identify the evacuation scenarios. We do a lot of that through practising and simulation with our partners in preparedness, such as the universities, to bring good, strong simulation methodologies to the table. Second, control points: Where are we going to put people? And we look at different shelters, where we would be hosting and relocating people. Then support: Where do you stage people? If you've got everyone going in one direction, how do you get your emergency support vehicles and resources into place, command systems, etc.

One of the things that we learned is that evacuations are a regional concept. You're not in this by yourself. And it's important that you approach it from a regional perspective, especially when you consider that many of the aspects that you deal with are regional: railroads, metropolitan transit authorities and bus systems. Those are regional components in most instances. That's incorporated with those local or private resources that you would have.

Special needs population planning is very important, not only those that will be relocating, but those that have to be in place.

And then how do we make sure that the elected officials are part of that process, so that we don't have conflicting information, the mayor saying one thing, the governor something else?

It's important, as well, that we take those integrative tools that many cities have – such as traffic management centres – making sure they are incorporated into the process.

Finally, we have to make sure that we've put training in place, not only for our fire and law enforcement, but those other partners in preparedness, whether it's Department of Transport, public works, etc.

■ **Arnold Howitt:** I'd like to turn, now, to Mike Montgomery. The Houston area was a reception centre for evacuees from Hurricane Katrina and then experienced massive traffic tie-ups in evacuation from Hurricane Rita.

■ **Mike Montgomery:** One of the key things that we learned was we had three-times as many people on the road as we expected. More importantly, over five-times as many people evacuated as actually needed to evacuate. So getting the notification out and making sure that people clearly understand whether there truly is a need to evacuate is paramount to success. We also found out the need for things like additional lane openings, having additional fuel stations on designated routes, and comfort stations where people can relieve themselves.

PARTICIPANTS



Arnold M Howitt is executive director of the Ash Institute for Democratic Governance and Innovation and co-director of the Program on Emergency Preparedness and Crisis Management, both at the John F Kennedy School of Government, Harvard University.



Ellis M Stanley, Sr. is director of western emergency management services for Dewberry and Davis. He was general manager of the emergency management department of Los Angeles from 1997-2007 and previously served as emergency management director of Atlanta-Fulton County, Georgia.



Mike Montgomery is the fire marshal of Harris County, Texas (which includes the greater Houston area) and was previously the county's emergency management co-ordinator.



Andrew Velasquez III is director of the Illinois Emergency Management Agency and previously served as executive director of the Chicago Office of Emergency Management and Communications.

One of the things that we have really spent our time in Texas on is developing ways that we can feel confident that those of our citizens with special needs will be able to evacuate. And there are two key groups that we needed to focus on. First were those that just needed transportation in getting out of the danger zone. And second are those with medical conditions that would have an impact on their ability to evacuate. And also, we don't want to overlook those that have pets or companion animals. Prior to 2005, with Hurricanes Katrina and Rita,

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some of the sheltering operations were very reluctant, or actually had policies where they could not accept pets or companion animals.

So the State of Texas has grouped our special needs residents into six categories. The first of these, Level Zero, are those that simply need additional transportation assistance. Levels One through Five are for those that have varying degrees of medical conditions.

For Level Four/Level Five, those with severe medical needs – either chronic or acute –

ground or air ambulance is probably the most appropriate way to get these folks around. Some other alternatives may look good on paper. But these are fairly fragile folks, so we have to be very careful how we transport them. And then the thing is to make sure, in our special needs sheltering, that once we get people out of the danger zone, that we're putting them in a shelter that is conducive to their needs, and that we match those shelter requirements with the folks that are coming in.

■ **Arnold Howitt:** Andrew Velasquez, as executive director of emergency management in Chicago, was concerned not only with his own emergency plans, but also with their relationships with other communities in Cook County and the surrounding metropolitan area. Now as director of the Emergency Management Agency for the State of Illinois, he is looking at problems of co-operation across all the local governments of Illinois, and between those governments and the state.

■ **Andrew Velasquez:** Often we talk about the importance of having to evacuate large cities. But we don't think about where we are going to place these people. Are we going to have the appropriate plans in place to include sheltering locations or way stations to receive individuals who may need medical attention or be reunited with family members? The logistics of tracking and reunification of individuals will require massive cross-jurisdictional co-ordination.

RESOURCES

From the perspective of the State of Illinois, we are looking to enhance our inter-community linkages within the state and, at the same time, expand our base of regional co-operation beyond the state's borders. We need to ensure that a system is in place to link resources in communities to feed, care for, and shelter displaced individuals. The development of linkages has to occur within communities, among government, business, and non-governmental organisations, and between communities.

Horizontal and vertical linkages to accommodate the pressures of massive numbers of displaced persons are going to be critical. The regional collaboration component is the recognition that, while all disasters may start locally in our independent society, local disasters will soon be matters of regional concern, requiring regional solutions. So, to address our local problems, we are working with our partners at the Federal Emergency Management Agency (FEMA) Regional Office, to address some of those concerns.

We also look at this from a hub-and-spokes- ▶

► shelter approach. Hub processing centres will be organised in the largest shelter possible for that city. Hub centres may include arenas, convention centres, stadiums, university, buildings, and other large open-space facilities. The main goal for a hub or a processing centre is to evaluate evacuees for any special needs or sheltering issues.

We also have to make sure that we have the appropriate measures in place to receive individuals who have special needs. Once adequately evaluated, we may place that evacuee in a nearby shelter, to ensure that he or she resolves any situation or problems that occurred from the disaster or the evacuation.

It will be very important for institutional players to co-ordinate and address the many obstacles in planning for a mass evacuation. Each local state and federal representative will bring their areas of expertise, and create a response; a realistic response to an evacuation.

RESPONSIBILITIES

We've had a number of regional collaboration meetings. That has worked exceptionally well because we brought partners together from Cook County and a number of the other large counties within the State of Illinois to talk about the importance of evacuating folks out of the City of Chicago and even beyond areas within the State of Illinois.

Awareness of responsibilities and execution of those responsibilities will provide for a flexible response, ensuring mitigation measures at all levels. (This requires us to) establish an organisational structure for regional collaboration, identify key stakeholders that should be a part of that organisational structure, develop a governance structure, set organisational goals and objectives, and develop required agreements when we get to the area of communication.

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■ *The full discussion excerpted here can be accessed at: www.innovations.harvard.edu/xchat-transcript.html?chid=151.*

Top: "We have to look at creating a way to determine the real-time traffic conditions, the real-time demographics, the real-time weather situations, the damage to the freeways, and incorporate it into our processes," says Ellis Stanley Sr. Middle: An evacuation shelter at Norton Air Force Base held more than 3,000 evacuees following fires in Southern California. Often, shelter in place will be the most sensible policy, but sometimes evacuation is the safest policy. Right: It is vital to consider those who have medical conditions that would affect their ability to evacuate

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