

# AS THINGS FALL APART: ADAPTIVE STRATEGIES DURING A CATASTROPHE

by

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The purpose of this paper is to summarize the results of a constructed dialogue on catastrophic planning between selected regional planners from the United States and leading emergency management leaders from New Zealand. The exchange occurred on September 18 and 19, 2012, as part of a 2-day conference entitled Building Regional Resiliency, held in Seattle, Washington.<sup>1</sup> The session organized for this dialogue was entitled, Resilience: Anticipating Our Planning Limits.

## INTRODUCTION

Catastrophic planning is almost an oxymoron. Planning presumes control, which is possible only on the edges of a catastrophe. Resilience begins on that edge, when and where planning assumptions fail in an unexpected way and new efforts to establish stability and control emerge.

The purpose of the discussions planned for this conference is to examine collectively the limits in existing regional catastrophic plans by focusing on when, how, and under what conditions the plans' fundamental assumptions may fail or prove insufficient. The discussions focus on 3 broad questions.

What types of surprises in how a catastrophe occurs may be anticipated?

How might the planned response to a catastrophe be overwhelmed, and with what consequences?

Under what conditions might the response behavior of institutions, governments, communities and citizens occur in very different ways than those anticipated, and with what consequences?

The discussions held on September 18 and 19 involved comparative exchanges among the regional catastrophic planning groups, with commentary provided from emergency management colleagues in New Zealand. The intent was to challenge participants to think beyond their own plan and planning assumptions and to imagine circumstances

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<sup>1</sup> The conference was sponsored and hosted by the Puget Sound Regional Catastrophic Planning Team, chaired by Barb Graff, Director of the Seattle Office of Emergency Management.

that would require alternate, adaptive efforts and strategies in responding to the catastrophe.<sup>2</sup> What if, for instance, the logic of these plans is right, but is still insufficient to handle a catastrophe. What happens “when things fall apart”? Imagine, what then?

Much of emergency planning focuses on smaller scale disasters, the ones that are tragic and disruptive but can be handled within the general frameworks of effective plans. Recent attention has turned to the exceptional events, so-called Maximum of Maximums incidents, that have caused emergency response systems to strain to their limits and, in some cases, fail.

Japan’s recent misfortunes provide a number of examples. Virtually any after action report from the combination of events tells the story. For instance, according to reports, many people died even though they had successfully evacuated to the appropriate centers built to receive them. The Centers had been constructed to proper standards and they withstood the force of the earthquake and tsunami. The standards, however, required each Center to be built to 3 and 4 stories. The tsunami surge surprised everyone. To be safe, the Centers would have needed 6 or 7 stories. The building standards were met; the emergency plans were well designed. Still, they proved insufficient as things fell apart.

The intent and purpose of the planned dialogue was to focus on the assumptions and logic of current catastrophic plans and try to identify when, even if they are right, could prove insufficient.

## **METHOD**

As the result of a series of Federal grants to ten regions, teams from those areas prepared plans to address catastrophic incidents. On Sept 18-19, the Seattle group pulled the ten groups together for cross-regional exchanges and learning. As part of that agenda, we prepared a session that would take place over the two consecutive days. On day one, the regional teams met in ten breakout groups of fifteen participants each to discuss a set of questions (see Appendix).

Overnight, a summary of their discussions was sent to three of the national emergency management leaders in New Zealand who were, and still are, directly involved in the series of tragic earthquakes that continue to shake the Christchurch area. Using the time difference, the New Zealand officials responded to each of the questions that arose from the US participants’ prior discussions.

For the second day, we prepared a summary of the New Zealand comments and present them to the US participants, who then took them back to their breakout groups

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<sup>2</sup> This exchange is part of the Bilateral Memorandum of Understanding between the United States and New Zealand governments. FEMA’s Office of International Affairs helped to make this constructed dialogue possible.

for discussion. The questions used in this second round of breakout groups are also listed in the Appendix. US participants gathered a final time as a group to report back for each breakout group at least one major idea from the 2-day dialogue that would affect, cause reconsideration of, or possibly change their existing catastrophic plans.

The intent of this discussion was not to reach a conclusion but to generate new questions. It was to test the limits of the plans, their logic, their assumptions, and even some of the experiences planners drew on to produce their current plans.

## THE DIALOGUE

This section provides an account of the dialogue between the US participants and three senior emergency management officials in New Zealand.<sup>3</sup> The following is not an exact account. Although we summarized the discussions from participants in the US and in New Zealand, the following provides considerable detail of the actual exchange. The questions and comments, however, cannot be attributed to any particular individual.

In the following exchange, the italicized passages summarize comments from the New Zealand participants. Our summary of the US participants' questions and observations are in regular type.

### I. OVERALL REFLECTIONS

The New Zealand officials had two overall comments on their experiences. They urged US planners to imagine a variety of possibilities from the outset, and expect adaptations. *At the onset and in early stages of a large scale emergency, anticipate that the impact and consequences are greater than they appear initially.*

*The key adaptation during the February 2011 Christchurch response, they reported, was the integration of the national, regional and local response efforts into one operational center – the Christchurch Response Centre. This was not planned for nor envisaged by standard arrangements, but rather dictated by circumstances. It worked very well in Christchurch.*

### II. ASSUMPTIONS ABOUT HUMAN BEHAVIOR

Many of the comments from the US participants during their first breakout sessions fell into categories that referred to assumptions about human behavior, of leaders as well as the public. The resulting questions asked how these assumptions affected the emergency response in Christchurch, if they did.

#### A. Communities want to help, but planning for it is a challenge

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<sup>3</sup> For contact with the New Zealand participants, please write to Dr. Ljubica Mamula-Seadon at [Ljubica.Mamula-Seadon@dia.govt.nz](mailto:Ljubica.Mamula-Seadon@dia.govt.nz). She works with the Ministry for Civil Defense and Emergency Management in Wellington, New Zealand.

*We (NZ) believe this is a correct assumption. In our case we had not planned sufficiently for the extent to which communities wanted to and did help. We could have accommodated a greater degree of organised volunteering, and were able to do this although this after a few days.*

*A distinction may be useful between building a degree of flexibility and adaptability into the planning process and plans compared to the ability to integrate spontaneous community action into the on-the-ground response.*

*Either way, expect community groups and volunteers from all walks of life to emerge and to play a very useful role in an organised way. Create mechanisms to facilitate their contribution, or ignore them at your peril!*

B. Authorities may assume they have control of and/or the trust of the affected population.

*Probably yes in smaller communities; in larger urban centres with heterogeneous population this might not be the case. We found it was dangerous to assume the whole community trusted the response. You have to work at messaging and contacts to ensure the various elements of the community are covered. Those that feel they have been ignored quickly become vocal and negative.*

C. People are able to take care of themselves (e.g., shelter in place) for a significant period.

*New Zealand has always tried to ensure people shelter in place until that situation is untenable. Our NZ assumption is that they will stay at home but we will provide emergency shelter for small numbers that need assistance. By and large this worked in Christchurch and can be attributed to the relatively good condition of large numbers of residential houses post-quake due to the application of building codes.*

*Christchurch eastern suburbs were on their own and took care of themselves, but they went out and connected with neighbours and wider communities and self organized (the strength of which was a pleasant surprise).*

*CDEM organized for airlift of Christchurch citizens out of the city in those first days following the February quake. This included not only tourists / visitors and disabled, but whoever wanted. It was intended to move non-residents to offload services. It was a mistake (and costly) to provide the service for residents and there should have been more controls in place.*

D. "Expectation management" is critical to an effective plan and response, but is difficult to plan for.

*Yes, balancing expectations is critical. We faced expectations from the Government and Ministers, Departments and agencies, the public and international players (particularly those nations who had lost citizens). A good way is to maintain an ongoing two-way communication with affected communities and stakeholders at all times. It is not about promises but about real commitment.*

*Expect to establish a mechanism(s) to communicate with affected communities on a daily basis. Tell them what is known, what is being done and when they can expect what. Tell them how to communicate needs/problems with the response structure. Information must be basic in format, current and to the point; this is not the time for flash or generic material and it is not just about media conferences: they have to be backed up by a more direct contact with affected communities.*

*Keep in mind that they (affected communities) will determine whether we succeed and their opinion will become the 'official' one, what we think of our effort is not going to change that!*

### III. ASSUMPTIONS ABOUT THE NATURE OF PLANS

E. Assumes that viable means of communication remain available, even though one or another mechanism may be out.

*Yes, it was our experience. The ability of the cellular system to re-establish quickly was a surprise and might be attributed to measures put in place after the earlier 04 Sep quake with extra battery capacity and a plan to deploy generators to cell sites.*

F. Assumes leadership is intact, functioning, and able to direct assets.

*The plans assumed there was leadership in place even though it might be an alternative. In our case all senior emergency managers and Controllers were in Wellington at the emergency management conference when the February earthquake occurred. In those first critical hours the response was managed by junior staff (apart from the Mayor!) while the local leadership returned some three hours after the shock. Leadership has to be prepared.*

G. Assumes comprehensive situational awareness is knowable.

*No, it has not been our experience that it is. The lesson for NZ is that establishing situational awareness as quickly as possible is critical to the management of the response and to assuring the public and the government that the situation is under control. The challenge faced will be how to make decisions when information is lacking. How prepared is the leadership to implement assumption based planning and adjust the decisions as information changes?*

#### IV. ASSUMPTIONS ABOUT RESOURCE DEPLOYMENT

H. Obstacles to delivery of basic goods in the short-term occur, but is it fair to assume the following:

A degree of social and economic stability will permit the delivery of basic goods.

*Yes, the key is transportation – its availability and appropriateness for access to the area.*

I. Agencies will be able to gather and exchange information effectively.

*No, they were not exchanging the information effectively in all instances. We were hampered by having no integrated IT systems in the alternate local ops centre, which resulted in silos of information.*

J. What else should we consider?

Are existing financial delegations appropriate to the scale of the response?

*Demolitions (for safety purposes): Expect difficulties in tracing property owners and expect them to seek compensation for perceived unwarranted damage.*

*If casualties involved, expect identification to be a very slow process and expect frustration from families, foreign governments (representing deceased) and even own government in this regard. Have a mechanism to brief them and to support the families of deceased coming into the area (from their point of arrival).*

K. Requested mutual aid will arrive from neighboring jurisdictions.

*Yes, also international assistance particularly from Australia (but still three hours flying time away) arrived quickly and was able to be deployed rapidly because of existing relationships and arrangements at the border.*

*Expect that offers of assistance by foreign governments will exceed the needs by far. Have an understanding of the context of foreign relations and subsequent pressures on own state department to accept offers, even when they are not required.*

#### V. HOW WILL GOVERNMENT AND POLITICAL PROCESS WORK

L. Assume government agencies will work together effectively.

*No, at least not in the beginning largely due to the unique and unpracticed nature of the national state of emergency.*

*Expect an initial lack of recognition among government stakeholders of the lead agency concept (and who the lead is). Expect all to go full-out to fix their portfolios, leading to directions and priorities that will likely be out of sync with the official action plan directed by the lead agency.*

*Expect the 'powers in place' (government/ministers) to demand an adjustment to the established concept of operations. Government will always want to be seen to take charge, and want to demonstrate that in different ways.*

*Expect a demand for involvement by local politicians (all parties). After all, they were elected by their local constituents to make a difference; when people feel their needs are not being addressed they will go to their elected members. Find ways to keep the local political representatives informed and even involved. This involves more than just a person at the other end of a phone.*

M. Is the emergence of "independent" actions and groups (e.g., volunteers) helpful or counterproductive in a large-scale, catastrophic event?

*Societal expectations have changed and it will be an imperative to acknowledge that. This can be approached from a positive perspective. Spontaneous volunteers are going to be a fact of life in an emergency. It is also a fact of life that many volunteers will not take to being directed by the authorities but they will expect the support and praise from the authority. That being the case it is best we think about it before and have in place mechanisms that will assist voluntary groups contribute in a positive manner. In Christchurch we were poorly prepared for this.*

*Do not underestimate the importance of the business sector in the wider community wellbeing. Business outage = loss of jobs/pay = increased welfare pressures/psycho-social consequences. Be prepared to provide for extraordinary measures/support to assist business (small to medium) to keep going or to start up again.*

N. Leadership: the question may be "who should step forward to lead, not who does." How did government interact with local community leaders in a mutually constructive way?

*We acknowledge that leaders emerge. It is perhaps not so difficult to manage in the New Zealand environment. Still, we are looking at how best to embrace it and make it an integral part of the response.*

## INITIAL INSIGHTS AND LESSONS

The US participants spent about an hour in breakout groups on the second day of the conference discussing the New Zealand observations and comparing them to some of their own assumptions, concerns, and interests. In the final plenary discussion, each group contributed one idea heard during the 2-day dialogue that would add value to their current catastrophic plan. Of course, each group and participant had many thoughts and this report back to the whole group was only the beginning of the process. As the session broke up and in subsequent weeks the conversations have continued.

The final observations clustered around five ideas.

1. The New Zealand observations about the significance of international assistance, how it is organized, and what value it actually adds, prompted a spirited response. Several of the regional planning teams acknowledged that they had not considered international assistance in their plans, either as needed assets or as an issue that would compel their management attention.
2. The unanticipated need in Christchurch, due to circumstances, to combine national, regional and local operations center caught several groups by surprise. Their planning assumptions, like those in New Zealand, had explicitly designed a coordinated network of physically separate centers. If they too had a need to combine them, several groups recognized they had not considered the adjustments that would be required.
3. The equity issues raised by the New Zealand comments were not a complete surprise to most participants, but several groups identified the consequences could be much greater than their plans had considered. In the large mega-cities that these planners represent, the numerous ways in which equity concerns could become evident and influence response efforts added broader concerns to a reconsideration of plans.
4. Comparing their own discussion of the limits of their planning assumptions with those raised by colleagues in New Zealand helped clarify and add support to the US planners' current plans. The participants found commonalities supportive of their efforts. However, they also recognized that, while many of the concerns about limits and surprises were in their plans, few had engaged in a process that would determine priorities if several of the limits were breached simultaneously. Cascading interdependencies may have been identified, but which intervention would receive the greatest attention still needed consideration.



5. The US participants welcomed the observations about the different forms of leadership that converged and emerged in Christchurch during the earthquakes. The cautionary suggestions about anticipating a greater than expected turnout by organized volunteers and the challenges raised by the emergence of spontaneous leaders and supporters struck home. The appropriate organization of political leaders' involvement was of particular interest. The US participants discussed the comment about crafting an appropriate role for local elected officials apart from technical operations so that they could legitimately support those who they represent. They also took note of their colleagues' observation that senior government officials will expect and need some adjustment to current plans. Even though it may appear meddling, it helps them communicate their involvement in the response operations and secure the cooperation and support of other agencies whose leaders may not understand emergency response needs.

## Concluding Remarks

We want to thank our colleagues in New Zealand for their exceptional cooperation in responding so extensively in such a compressed time frame. The US participants were also marvelous contributors, sharing their thoughts and questions freely. We also thank the conference organizers who had faith in our ability to pull this international dialogue off in such a fashion. We hope that all of you benefitted from the exchange.

We would like to hear from you if, now that the conference is complete, you have additional thoughts. In particular, if you have used an idea or two gathered from this session to alter your catastrophic plans, please let us know. In the end, as you know, the collective task is to have an impact and improve the ways in which we may save lives and protect our well-being.

Please send any comments to Bob Bach at [rbach20010@aol.com](mailto:rbach20010@aol.com) and we will share them, as appropriate, with the group.

# APPENDIX: CONFERENCE SESSION QUESTIONS

## RESILIENCE: ANTICIPATING OUR PLANNING LIMITS

The purpose of the discussions is to examine collectively the limits in existing regional catastrophic plans by focusing on when, how, and under what conditions the plans' fundamental assumptions may fail or prove insufficient. The discussions will focus on 3 broad questions.

What types of surprises in how a catastrophe occurs may be anticipated?

How might the planned response to a catastrophe be overwhelmed, and with what consequences?

Under what conditions might the response behavior of institutions, governments, communities and citizens occur in very different ways than those anticipated, and with what consequences?

The discussions will involve comparative exchanges among the regional catastrophic planning groups, with commentary provided from emergency management colleagues in New Zealand, to challenge participants to think beyond their own plan and planning assumptions and to imagine circumstances that would require alternate, adaptive efforts and strategies in responding to the catastrophe.

### SESSION ONE

- a. Identify several fundamental assumptions in existing plans and assess how significant they are to the success of the entire plan.
- b. Describe potential scenarios in which these assumptions or parameters could become insufficient or surpassed by the catastrophic events.
- c. List potential situations and/or activities that may emerge as groups and institutions adapt to unanticipated or surprise circumstances.
- d. Imagine what groups and leaders may step forward to organize and help the whole community adapt to these catastrophic surprises. Discuss how these adaptive or emergent groups and leaders may form, organize, and engage in response activities.
- e. Collate and summarize similar and unique regional perspectives to report back to the plenary group.

### SESSION TWO

- a. Discuss the "lessons offered" from colleagues in New Zealand and how they may inform US regional catastrophic planning.
- b. Assess the original list of disruptive surprises developed by the entire group from Tuesday's plenary session: Add to the list, recast some of the items, subtract from the list.
- c. Identify new ideas from the entire exchange - Tuesday's group discussion, the New Zealand comments, and the Wednesday discussion. How might the planning process and products change to include anticipated and disruptive surprises? How might the original plans be recast or supplemented to include adaptive strategies recognizing that control over the environment will not exist? What could be the consequences of these adaptive strategies?