

## Scenario-based Planning

### *Five Rules for More Effective Contingency Planning*



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**R**eaders of my book, *Emergency Management: Concepts and Strategies for Effective Programs*, know that I am a firm believer in functionally-based all-hazards planning and not scenario-based contingency planning. My attitude has always been that an emergency plan is a toolbox. Anyone who has used tools will tell you that there are times when a tool is not used for what it was intended: a wrench becomes a hammer and a screwdriver a pry bar.

It's the same with an emergency plan – sometimes the functions you need are not what you planned, so you improvise. There's a case study in my book that highlights this flexibility. On the morning of September 11<sup>th</sup>, the responders in Washington, DC modified existing plans for other events to cope with the crisis.

To continue the tool analogy, a scenario-based plan is a specialized tool with limited uses. Try using a set of calipers as a wrench and you won't get very far. In essence, the all-hazards plan focuses on response-generated needs – those things that are common from event to event. The scenario-based plan, however, considers agent-generated needs –

requirements specific to a particular type of event.

The problem with scenario-based planning is this specificity. There is a very real risk in being too specific in planning. In *Managing the Unexpected: Assuring High Performance in an Age of Complexity* researchers Karl Weick and Kathleen Sutcliffe suggest that contingency planning restricts our attention to what we expect and limit our view of our current capabilities, ultimately precluding improvisation (Weick & Sutcliffe, 2001). Improvisation, of course, is at the heart of one of the Principles of Emergency Management – that of flexibility.

So is scenario-based planning a “bad thing”? The answer, of course, is no. Scenario-based planning is not inherently evil – it is simply a tool in the emergency manager's toolbox. Like many things in emergency management, the effectiveness of scenario-based contingency planning depends on how the tool is used.

Let's begin by examining the specificity required for contingency planning. Many contingency plans go off the rails because the authors make assumptions about the event for which they are planning rather than using a factual basis



that a tropical storm was inbound. As the plans chief, I was charged with creating a contingency plan for the Federal Coordinating Officer.

Anyone who has had any experience with tropical storms can tell you that they don't always do what they are predicted to do. Consequently, my team focused on identifying timelines for key decisions and used a technique called "reverse-planning". We identified the times required to perform key tasks, then worked backward from the predicted landfall of the hurricane to identify the times by which critical decisions had to be made by the FCO. If the predicted landfall time changed, we could quickly revised the plan.

Our list of critical decision points can be seen in Figure 2. These decision points formed the basis for the formal written plan that was signed by the FCO. Each decision drove actions by the Emergency Response Team and the plan identified the lead agencies for those actions.

Tropical Storm Pablo Critical Decision Points 7 October 1995	
Assumption: Based on the 5pm October 7th projection, the 34 KT winds will arrive at St. Thomas at approximately 3 am Tuesday, October 10th. The closest point of approach is 40 miles south of St. Thomas at 12 am Tuesday.	
Sunday October 8	
0800	Decision to approve and implement contingency plan
	Decision to approve the establishment of VITEMA EOC within DFO
1500	Decision to discontinue service on phone banks and move to safe location
1900	Review and approve final contingency plan
Monday October 9	
0700	Decision to begin delivery of commodities to shelters instead of distribution sites
1700	Decision to disestablish communications systems and move to safe locations
	Decision to close DFO Tuesday
2100	Decision to release all staff not billeted at the DFO

Figure 2 Decision Points for TS Pablo

Note that in this last example we allowed for the unpredictability of the event and for improvisation. An important caveat to contingency planning is that one can never assume that the crisis will unfold exactly as your plan expects. Contingency plans allow you to position yourself for a more effective response; they cannot dictate how you actually respond. There is a reason that flexibility is included in the Principles of Emergency Management.

So let's identify some basic ground rules for scenario-based contingency planning:

1. Contingency planning should focus on a specific, credible scenario
2. The scenario should have sufficient detail to allow for effective planning
3. Contingency plans should be used in conjunction with functionally-based all-hazards plans
4. Contingency plans should allow for the unexpected and for improvisation
5. Contingency plans should not drive response operations

Contingency plans are a valuable tool for emergency managers. However, they carry considerable risk if they are based on assumptions rather than a credible risk analysis.

## Works Cited

Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the Unexpected: Assuring High Performance in an Age of Complexity*. San Francisco: Jossey-Bass.

