

The Manageable Future: Envisioning the End State¹

by
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“As for the Future, your task is not to foresee, but to enable it.”¹

Late in January 1994, the Los Angeles County Emergency Operations Center was still in full-swing recovering from the Northridge Earthquake. It was becoming obvious however, that the operation was winding down. But when one senior commander was asked, “Sir, when do you want to resume normal operations?” he shrugged his shoulders and laughingly replied, “When everything is back to normal.” The response was immediate. “Sir, it’s *never* going to be normal.” And so it was. The future had been indelibly altered. The after shocks and after effects continued for months and years. Bridges were down and roads remained impassable. Buildings were condemned and boarded up. Traffic patterns were altered and houses were unlivable. Peoples lives had been forever changed.

But the immediate question demanded an answer. When *would* normal operations resume? There was a lot at stake. Hundreds and thousands of workers had been reassigned to the stricken area and normal duties had suffered. Refugee centers were designed to be temporary at best. The transportation grid had been brought to a standstill and alternate means of transportation had to be established. Damaged buildings would have to be repaired and roads made passable or bypassed. Not all of these things could be accomplished simultaneously and some would compete with others for the same resources. Prioritization would be necessary. A plan would be needed. Before any planning could occur however, an “end state” was required to provide focus and direction. What would a desirable future look like? How could it be achieved?

While most people would probably not think of law enforcement officers as futurists, it is a critical aspect in operational planning, particularly in responding to major disasters with their rapidly unfolding and ambiguous circumstances coupled with far reaching consequences. The following material is taken from a handout provided for training supervisors and managers assigned to handle major disasters and other emergency situations. It describes a method for envisioning an end state by using a combination of identifying the event horizon and a scenario review. These techniques provide a means for emergency managers to quickly identify the manageable future without time consuming and labor intensive analyses. While it is written for law enforcement officers, it has applications for anyone tasked with responding to rapidly unfolding events.

Mankind’s earliest efforts in attempting to influence the future were almost certainly in a hunt. Experience with prey, knowledge of the terrain, available weapons and the skills of other hunters all played a part in the undertaking. The first debriefings

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were probably just tales around a campfire. But, as man continued to hone skills in stalking quarry, the significance of critical factors became more and more apparent. The more successful clans exploited the lessons learned and skilled hunters were held in high esteem by the tribe. They gained stature and recognition. More success led to bigger and faster game and eventually animals could be captured rather than merely killed for food. Thus began the domestication of animals and the beginnings of an agricultural society. Eventually, clans began fighting with each other and the skills learned during the hunt were easily transferred over to the defense of the clan as well as the exploitation of weaker tribes.

The ability to work together and maximize the lessons learned served to encourage the formation of armies and government. Down through history, armies gained fame for their innovations in warfare and conquered vast areas of the world. As time has passed, the effort to reduce uncertainty and apply scientific principles to achieve tactical success has grown into a large body of doctrine. It is from this doctrine that sound plans can be drawn.

The most fundamental principle for understanding planning is that it *always* attempts to alter the future in some manner. If the future is immutable, planning would be pointless. For better or worse, we would be doomed to accept our fate. Because we *are* able to change the future, we expend great effort at influencing those factors that are the most likely to yield a more desirable outcome. Thus, an axiom is revealed which states that “all planning is future oriented.”

Likewise, the future is plural because there must always be more than one possibility. There is a future that will occur without our intervention. There is a future that will occur if our intervention is effective, and still another that will occur if it is not. Depending upon how effective our efforts are, there must also be an infinite number of possibilities in between. This conceptual framework provides a foundation for an understanding of how successful tactical interventions are conceived and implemented.

Because all plans are future oriented and designed to bring about a more desirable outcome, any method which makes the future more predictable becomes a valuable aid in planning. Although the future is fraught with uncertainty, it is not equally distributed. For example, the closer to the present, the more certain we can be of oncoming events. Contrary, the more distant into the future, the more difficult it is to imagine the impact of our actions.

Since absolute certainty is an impossibility, we must accept that there will always be some degree of ambiguity. However, the more this ambiguity can be reduced, the more reliable we can conceive and implement an effective intervention. This quest for certainty relies heavily upon a great amount of reliable and current information. Although obtaining this information is possible, it has one major flaw—it takes time. Since the time that is necessary to approach certainty is never available in tactical operations, the organization which is attempting to intervene must react in one of two ways—it can either increase its information processing capacity or it can operate on the basis of less information. Both of these approaches have merit and are used by tactical units throughout the world.

The solution for those who attempt to achieve certainty is to add another headquarters, use faster computers or employ more information gatherers. This approach is called “deterministic.” An organization that employs this method tends to centralize all

information by funneling it upward to a central processing point where decisions are made. The operational skills necessary for these types of organizations are viewed as a science where results are highly predictable and based upon proven principles.

The opposite approach is called “probabilistic.” An organization which attempts to resolve a problem in this manner tends to view operational skills as an art. Personnel must be prepared to live with abstractness and operate in an environment of extreme uncertainty. Furthermore, the commander must be willing to accept considerable risk and take bigger chances. Persons noted for attributes such as intuition, ingenuity and initiative are sought out and valued in these types of organizations.

A more modern view supports a position somewhere between the two extremes. While recognizing that certainty is never completely attainable, sound decisions can still be made based upon the best information available. This balanced approach advocates using scientific skills to obtain and evaluate information to the maximum extent possible, while recognizing that time constraints will not allow an exhaustive search for a conclusive picture. At some point, a decision will have to be made based upon the information available.

Regardless of the approach used, commanders must develop some idea of what they wish the end state to look like in order to develop an effective plan. Attempts can then be made to identify those actions which will have a positive influence on the ultimate resolution and to implement them in a timely manner.² Without a clear vision of the desired end state, a commander’s directions are aimless and devoid of a cohesive strategy.

The end state describes the desired result or final outcome of a tactical operation. It is *never* a return to the way it was before because any situation which requires an intervention to achieve a resolution has already indelibly altered the future. Thus, it is impossible to return to an identical previous state. Consequently, a commander must develop a clear picture of what will be necessary to achieve a satisfactory end state in order to provide a focal point for directing efforts to attain it. Without this vision, the operation will run on its own inertia, lacking both guidance and impetus. The operation becomes an “end in itself,” neither efficient nor effective.

Because the end state may be hours, days, weeks or even months in the future, a clear vision is always clouded with a certain amount of vagueness and ambiguity. Although it is impossible to completely remove this vagueness, it is not wholly impossible. While no one can flawlessly predict the future, we can certainly limit the possibilities to a range of likely outcomes. The more precisely defined this range can be established, the more focused our efforts can be to achieve a favorable future. This has momentous implications for strategic planning.

For our purposes, defining a future involves two discrete steps. These are identifying the “event horizon” and then using scenarios to eliminate the most unlikely possibilities. The first step is to identify the event horizon. The event horizon describes that portion of the future in which the consequences of our actions can be reasonably anticipated. This is the part of the future where we are most apt to be successful in shaping a desirable outcome. It is a valuable planning aid in that it provides guidance to integrate our decisions and actions into a viable strategy.

Since the consequences of our actions are relative, so too is the event horizon. Some actions, of necessity, must be anticipated relatively close to the present, while

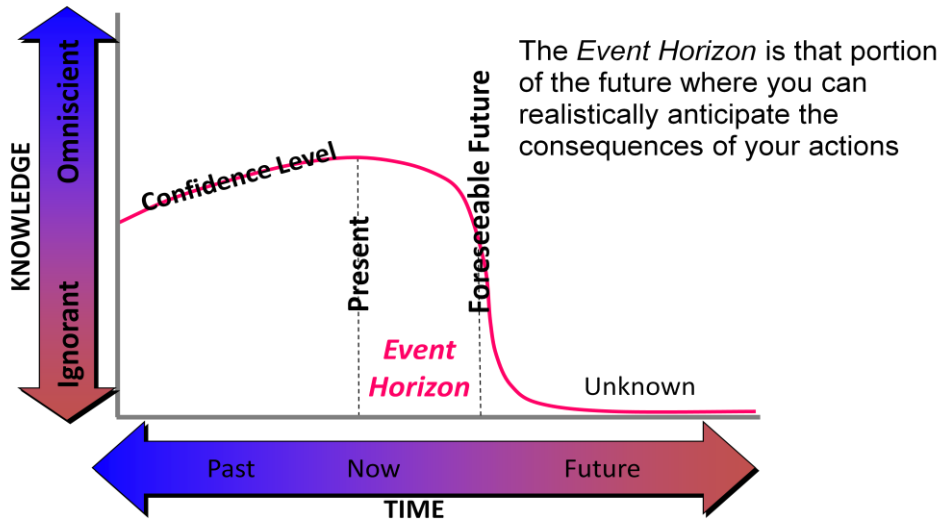
others may have far reaching effects. Generally, the higher up the organization a commander is assigned, the farther into the future the event horizon needs to be oriented.

To better understand the implications of the event horizon, consider a common activity such as driving. A driver continually makes decisions regarding steering, braking and accelerating. These decisions and actions yield consequences that are only seconds or even split seconds into the future. If a passenger is navigating, decisions made pertaining to routes and fuel or rest stops may not yield consequences for hours. Likewise, the outcome of decisions made by the owner regarding the purchase, reliability and resale value of the vehicle may not come to pass for months or years. Each of these sets of decisions have their own criteria and a different event horizon.

In the same manner, the decisions made in a tactical scenario are also relative. A sergeant is likely to be concerned with the detailed deployment of his officers and their immediate well being, while a lieutenant may be considering rest periods or shift changes, twelve or more hours into the future. In the same fashion, a captain may be considering actions which will ensure the eventual success of the operation several days into the future, while the chief of police may be looking at ways to enhance the abilities of the department for similar operations in the months and years to come.

The event horizon provides a means of identifying that portion of the future which we can realistically influence and so becomes a foundation for planning. If we could display this concept, it might be as depicted in Figure 1.

Identifying the Range



Event Horizon

Figure 1

The Y-axis (vertical arrow) represents knowledge and runs the gamut from complete ignorance to omniscience. The X-axis (horizontal arrow) represents time and extends into both the past and future. The “confidence level” is depicted by a line which

represents the degree of assurance that a commander may anticipate the consequences of his actions. As can be seen, the commander is never completely ignorant nor all knowing, and the level of confidence gradually increases the closer it approaches the present. Factors such as memory lapse and incomplete information always make the past somewhat less sure, while the future is never completely reliable. In fact, commanders will never be more sure of a decision than at the moment they make it, thus the level of confidence is always highest at the present. After a decision is made, the level of confidence begins to drop off more steeply because it is impossible to precisely determine what the future holds. Eventually, it reaches a point where the impact of the decision can no longer be reasonably anticipated and the level of confidence drops dramatically. This defines the farther limit of the event horizon.

Generally, the closer a commander orients his decisions to the present, the less efficient they are in achieving the ultimate objective. These lackluster actions often result from an overcautious and anxious commander and are not usually bold enough to alter the future sufficiently to achieve a successful resolution. A commander who fails to implement actions to achieve his end state surrenders the initiative and remains in a reactionary posture. This results in the situation being “driven by events.”³

This close limit of the event horizon is located at the present and is called the “timid line.” A plan oriented too close to the timid line is usually ineffectual. Contrary, plans which are oriented so far into the future as to make the consequences unpredictable are reckless because the plan relies more on guesswork than sound reasoning. An indifferent disregard for the consequences can result in catastrophic repercussions. This distant limit is referred to as the “rash line.”

Besides the event horizon, the future can be further refined by eliminating those possibilities which are so remote that they do not merit serious consideration. This is the second step in the process and is called a “scenario review.” A scenario is simply an outline or model of a set of expected or supposed sequence of events. The premises which support a scenario are taken from the situation at hand and will provide some idea of the best, worst and most likely things that can happen.

When considering everything that *could* happen, the best case scenario is the absolute upper limit if everything goes right. This scenario takes all factors into account and assumes effective actions and favorable influences. It provides the upper limit of the potentialities but stops short of the miraculous. The worst case scenario is the absolute lower limit and describes the worst possible outcome. Like the other, this scenario takes all factors into account but assumes that actions will be minimally effective and unfavorable influences are present. It provides the lower limit of the potentialities but stops short of unreasonable, catastrophic consequences. The most likely scenario describes that outcome which, based upon all known factors, is most likely to occur. This scenario always lies somewhere between the best and worst case scenarios. Not surprisingly, the farther away from the most likely scenario a plan is oriented, the more unpredictable its outcome. The most likely scenario is primarily used to provide direction and focus of effort while not ignoring the best and worst case possibilities.

As portrayed in Figure 2 the “consequence line” depicts the chain of events as to their effects (and anticipated effects) on our desired end state. The lower it moves, the more undesirable the consequences, while the higher it goes, the more desirable they are. In contrast with the “confidence level” used in defining an event horizon, the

Limiting the Scope

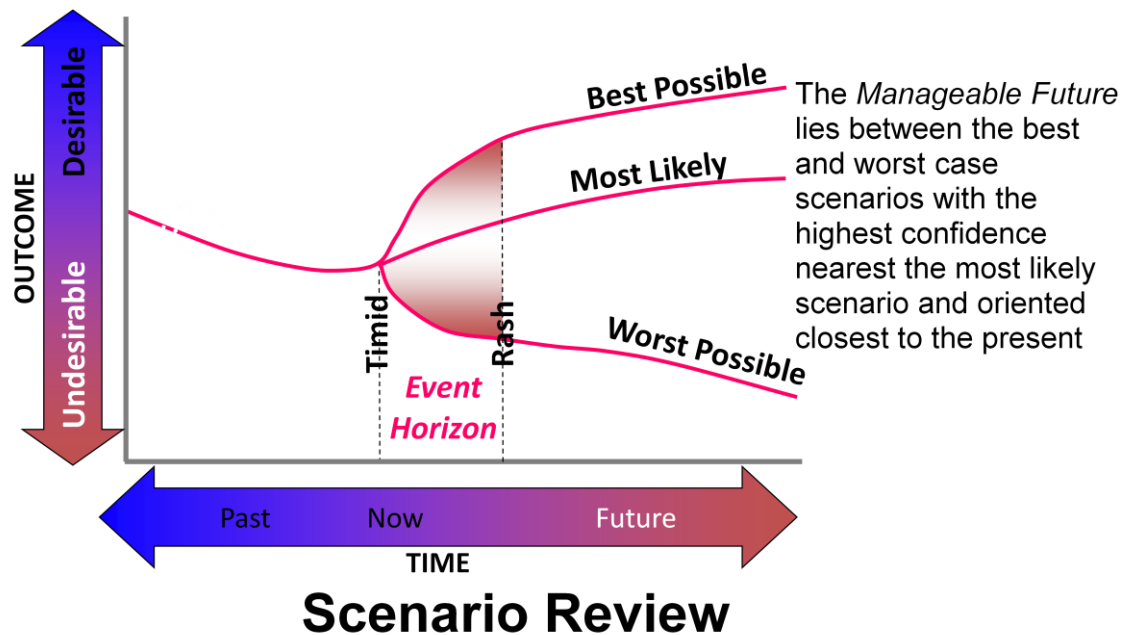


Figure 2

consequence line is almost always descending from the past to the present. If it were ascending (improving) the need for intervention may not be necessary. Also, as it continues to move forward in time through the present, it reflects not what *has* happened but what *could* happen. Thus, when the line moves into the future it becomes a forecast; that is, what we *think* is going to happen based upon our assessment. Accordingly, it forks into a forecast of the three scenarios.

When the scenario review process is used in conjunction with the event horizon, it can be readily seen that the manageable future lies between the present and the event horizon and the best and worst case scenarios. The most likely course of events lies closest to the present and along the most likely scenario line.

By now it should be obvious that the indefinable future is not quite so uncertain and can be given limitations. The possibilities are no longer as daunting, nor nearly so ambiguous. When decisions and actions are oriented within these limitations, consequences are not only more predictable, but their aggregate provides guidance for a favorable outcome. The commander who recognizes and exploits those factors that can be influenced can then formulate a scheme for achieving it. An end state can be envisioned.

¹¹ Saint-Exupéry, *The Wisdom of the Sands*, 1948, p50, translated by Stuart Gilbert

² Conversely, it may be just as effective to inhibit negative influences to avoid their consequences.

³ “Driven by events” is a term that describes a condition in which the organization is responding or reacting to events rather than managing them.