DaVinci’s Horse #6
Part 2

At Five Years:
Unconventional Crises, Narrative Rationality, Sense-making, and the Readiness Factor

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We have asked these questions:

• How do we become better prepared for predictable events but have extreme possibilities, or ready for the unpredictable uncertain outlier “Black Swans?”

• Why are unconventional crises so different and how do they drive leadership and learning requirements?

• What if nothing that many of our leaders have ever been taught or experienced is sufficient to the problem?

• What type of organizations are capable of operating at the necessary decision cycle tempos?

• How can community leaders make better decisions faster?

• What are the key concepts that must be incorporated?

• What do concepts such as the Observe-Orient-Decide-Act (OODA Loop), Recognition Primed Decision Making, and Team of Leaders offer of real significance?

• How can the community learn and implement these concepts?

In Part #2, we ask you to reflect on the Readiness Factor
Part #2 Introduction

In review of the five years of Project White Horse 084640 (see Part #1) every article and comment offered critical insight and unique perspective based on the experience of the authors which varied from military Flag officers, to police officers in the field to senior firemen at the battalion chief level, to educators and good old citizens. Indeed, those thoughts are embedded within the idea of the Readiness Factor model as a critical thread for resilient communities and a Culture of Preparedness. That said, the following are considered the essential core elements of knowledge of the Readiness Factor concept.

- **The environment: Unconventional Crisis and “Negative Start OODA Loops”**
- **Organizational structure**
  > those that have:
  >  - Created a High reliability Organization
  >  - Recognized the power of the Team mind
  >  - Embedded a Team of Leaders approach
  >  - Engrained high OODA tempo learning

- **Capabilities necessary to generate actionable understanding**
  - OODA understanding & implementation
  - Recognition Primed Decision Making
  - Sense-making – the Cynefin Framework
  - Rapid Reflection “What-if” teams
  - Snowmobile building

- **Mindset necessary**
  - Leadership in light of and in recognition of crisis generating processes
  - Theme of Vitality & Growth
  - Culture of Preparedness
THE PLAYING FIELD: UNCONVENTIONAL CRISIS

Catastrophes generally exhibit a high level of uncertainty about just what the outcomes will be and a high degree of contingency - significant variability in the possible outcomes that may result under different choices of action. Much is at stake, and the results will depend on what we do—but we do not know for certain the best course of action.
The unconventional crises perspective [Dr. Erwan Lagadec, Leadership in Unconventional Crisis]

These events are distinguished from more familiar or routine emergencies and conventional disasters by the presence of significantly new circumstances and different kinds of intellectual challenges, thus the use of the terminology unconventional crises.

The main characteristic of unconventional events is that they are exceedingly difficult to map. This can be due to (a) the technical complexity of response efforts; (b) an unusually complex geography of affected areas; (c) the potential for a crisis suddenly to affect systems and interests that initially seemed remote; (d) a bewildering kaleidoscope of stakeholders; or (e) confusing, overwhelming, or, conversely, insufficient information. With high degree of difficulty in "mapping" the operational environment, we now require decision making under circumstance with hyper complex characteristics or parameters:

1. Most or all of the community built structure is heavily impacted. In addition, in catastrophes, the facilities and operational bases of most emergency organizations are themselves usually hit.
2. Local officials are unable to undertake their usual work role, and this often extends into the recovery period. Local personnel specializing in catastrophic situations are often unable for some time, both right after impact and into the recovery period, to carry out their formal and organizational work roles. Many leadership roles may have to be taken by outsiders to the community.
3. There may not be a "ground zero" with an unscathed reasonable proximity "outside" from which response can be safely organized. Help from nearby communities would not be available. Many nearby communities not only cannot contribute to the inflow, but they themselves can become competing sources for an eventual unequal inflow of goods, personnel, supplies and communication.
4. Most, if not all, of the everyday community functions are sharply and concurrently interrupted.

5. The presence of significant novelty implies that understanding of the situation, at least at the outset, will be relatively low, and that there will be no executable playbook/script or routine that is known or identifiable and that provides a comprehensive, reliable, and fully adequate response. Existing routines are inadequate or even counter-productive.

   Dealing with an unconventional crisis thus means that the response will necessarily operate beyond the boundary of planned and resourced capabilities. It will necessarily be unplanned (or, at least, incompletely planned), and the resources and capabilities will generally be (or seem) inadequate.

6. By their inherent nature – high stakes, urgency, and associated fear and stress—unconventional disaster events are necessarily political as well as operational matters. All disasters of course involve, at a minimum, local political considerations, but here the political and mass media arenas become even more important.

   In addition, it is a radically different situation when the national government and the very top officials become directly involved. Diffusion of rumor is high, organizational weaknesses of responding organizations surface and questions of "who's in charge?" reiterated. In significant crisis events, both political and operational officials will have important—and different—roles to play.
Hyper complex unconventional catastrophe events, in which the operational decision makers and responders are operating beyond the bounds of what they have planned, practiced, and are resourced for—will necessarily confront senior decision makers with conflicts of values. Values are intrinsically political in nature and should involve determinations by people with the political legitimacy to authorize, warrant, and defend the choices made.

7. If the true nature of the crisis is emergent vice immediately recognizable – difficulty in recognizing the novelty and therefore a break from normal operating pattern required – responders and decision makers may fail to note serious inadequacies or need for assistance. Not only will all the other factors impact the decision/response process but the emergent challenges arise in context of organizations and teams that are already deployed within the operational response.

**Negative start OODA Loop perspective**

The goal in warfare as researched and discussed by John Boyd in *Patterns of Conflict* was:

*Diminish adversary’s capacity for independent action, or deny him the opportunity to survive on his own terms, or make it impossible for him to survive at all.*

One of the purposes of *Patterns* then was to show one scheme for ensuring that victory at the tactical level - you win the battles - also led to success at the strategic level - you win the war. He of course addressed the capability necessary as the ability to:

*Observe-orient-decide-act more inconspicuously, more quickly, and with more irregularity as basis to keep or gain initiative as well as shape and shift main effort: to repeatedly and unexpectedly penetrate vulnerabilities and weaknesses exposed by that effort or other effort(s) that tie-up, divert, or drain-away adversary attention (and strength) elsewhere.*
Now reflect for a moment on any of the previously presented seven characteristics or parameters (say, #5) defining the operational environment for decision making under unconventional or hyper complex circumstance:

The presence of significant novelty implies that understanding of the situation, at least at the outset, will be relatively low, and that there will be no executable playbook/script or routine that is known or identifiable and that provides a comprehensive, reliable, and fully adequate response. Existing routines are inadequate or even counter-productive.

It would seem that our defined environment of interest is most similar to the one Boyd offered as the one we should be trying to create for an adversary. Indeed, after the initial attacks of September 11, 2001 and Hurricane Katrina in 2005, we found ourselves on the wrong side of the observe-orient-decide-act decision making process. We were experiencing a negative OODA Loop start. This context was presented at the very beginning of PWH as being reflected by the Relative Superiority graphic borrowed from SPEC OPS - Case Study in Special Operations Warfare: Theory and Practice by CDR (now Admiral) William McRaven.

(Now a four star admiral and commander of U.S. Special Operations Command, McRaven is credited with organizing and executing Operation Neptune's Spear, the special operations raid that led to the death of Osama bin Laden.)

Relative Superiority is defined by McRaven as the condition that exists when an attacking force, generally smaller, gains a decisive advantage over a larger or well-defended enemy:

- Achieved at the pivotal moment in an engagement
- Probability of success outweighs probability of failure
- Once achieved, must be sustained to guarantee victory
- If lost, most difficult to regain
In our *unconventional crisis* situation, rather than a special ops force, the “attacking force” could represent either a Mumbai-type terrorist raider team, or it could represent the “assault” by an act of nature, overwhelming for the moment all community response capability. The “threat” then has gained the upper hand in regard to time, situation and control (or created loss of control) of the event. The community is not superior to the circumstance - having lost superiority relative to their immediate environment. Referring to the graphic McRaven developed to help illustrate why certain missions succeed or fail, it is not difficult to characterize a terrorist attack in this manner or even to characterize the pre and early hours of a natural disaster such as Hurricane Katrina as a struggle to regain relative superiority – or to initiate recovery from a negative OODA Loop start.
In anticipation of the possibility of this type occurrence and the needs for survival, the community at large will require thinking, learning, and planning that differentiates between preparedness and readiness:

- **preparedness** - the availability of all resources, both human and physical, necessary for the management of a specific disaster type - one that can be predicted
- **readiness** - instantaneous ability to respond that is based on the locally available/un-prepositioned and un-mobilized countermeasure resources to a suddenly arising major crisis - the Black Swan - either in severity outside that normally expected or in rareness

As indicated by this distinction, preparedness is certainly a critical element of disaster management. Without preparedness, the chances of success are indisputably zero. But when “what comes” is either outside the realm of our prior experience or of what we foresaw as highly probable, the calamity strikes with severe force. Noted as “worst cases,” or here as hyper-complex, or unconventional crisis, or negative start OODA events, these occurrences - defined by inconceivability, uncontrollability, and social identification (relevance of suffering of victims to our own experience) - take on, and therefore require a very different perspective.
ORGANIZATIONAL DEMANDS

Worst cases are, indeed, a different species. The CAT 5's require a different mindset – not only for operations, but for education, training, and planning.

It is most certain that responding organizations will require the ability to make sense out of uncertainty, be extremely adaptive, and operate in a high tempo operational manner. And they will require leadership that transcends normal political, operational, and functional boundaries.
When “five” is appended after the terms level, force, category, planning and preparation at lower levels does not migrate or extrapolate upward well. Survival, the necessary defining concept of a resilient community, will require that the remnants of the first responder/emergency personnel AND the community – in a non-victim manner – come together to regain situational awareness and act in concert.

These extreme outlier occurrences, where infrastructure, communication, planning, trained-for-response, and even availability of expected emergency personnel are rapidly fading images in the rear view mirror, are truly “edge of the envelop” operational situations.

Given that the goal of emergency and crisis response (and its leadership) is to reduce output variability in a context in which inputs are highly variable; to that end, crisis response is, in part, about creating an orderly arena within a chaotic environment. One must then ask, what actually defines a necessary organizational response structure and a complimentary resilient community, are there quantifiable ingredients, what is the make up of this culture, and not least, how is it to be led?

As a starting point for perspective on organization and leadership aspects of “readiness,” consider the table below which provides a contrast between “routine” emergencies and those we label unconventional crisis as they effect various elements of organizational make-up and functionality.
<table>
<thead>
<tr>
<th>Response Attribute</th>
<th>Routine/Emergencies Conventional/Disasters</th>
<th>Unconventional Hyper-complex Disaster/Catastrophes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Situational Awareness</td>
<td>High; well-defined</td>
<td>Low; many unknowns</td>
</tr>
<tr>
<td>Playbooks/Scripts</td>
<td>Comprehensive</td>
<td>Fragmentary</td>
</tr>
<tr>
<td>Customization</td>
<td>Limited and modest</td>
<td>Necessary/Critical</td>
</tr>
<tr>
<td>Skills</td>
<td>Comprehensive</td>
<td>Partial, undefined</td>
</tr>
<tr>
<td>Leadership • Understanding Phase</td>
<td>Authority-based</td>
<td>Collaborative</td>
</tr>
<tr>
<td>• Design Phase</td>
<td>Authority-based</td>
<td>Collaborative</td>
</tr>
<tr>
<td>• Execution Phase</td>
<td>Authority-based</td>
<td>Authority-based</td>
</tr>
<tr>
<td>Command Presence • Understanding Phase</td>
<td>High</td>
<td>Modest</td>
</tr>
<tr>
<td>• Design Phase</td>
<td>High</td>
<td>Modest</td>
</tr>
<tr>
<td>• Execution Phase</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Decision Making</td>
<td>Recognition Primed</td>
<td>Cognitive</td>
</tr>
<tr>
<td>Organizational Structure • Understanding Phase</td>
<td>Hierarchy</td>
<td>Flattened</td>
</tr>
<tr>
<td>• Design Phase</td>
<td>Hierarchy</td>
<td>Flattened</td>
</tr>
<tr>
<td>• Execution Phase</td>
<td>Hierarchy</td>
<td>Hierarchy</td>
</tr>
<tr>
<td>Defining Competence</td>
<td>Routine execution of trained and practiced playbooks</td>
<td>Recognition of novelty; creative improvisation of response; execution of untested actions</td>
</tr>
</tbody>
</table>

From the table, the defining competence is: Recognition of novelty; creative improvisation of response; execution of untested actions. So our question becomes “what kind of organization encompasses this competence... and ... can operate at the appropriate tempo?” With no intent to offer that this is a comprehensive approach, the following concepts are offered as the defining necessary organizational characteristics:

- Those that can be considered **High Reliability Organizations** (HRO)
- Those that incorporate the power of **the Team Mind**
- Those which incorporate the **Team of Leaders** (TOL) construct
- *Those which can operate at high Observe-Orient-Decide-Act* tempo

**High Reliability Organizations** [Ref: Dr. Karlene Roberts, UC Berkeley]

Research on **High Reliability Organizations** (HROs) has suggested that some complex, hazard-managing organizations, for which failure is not an option - such as U.S. Navy aircraft carrier crews conducting flight operations at sea - are remarkably capable of operating under the most extreme conditions in the least stable environment, and with the greatest tension between preserving safety and reliability. Operating closest to the "edge of the envelope," they consistently attain maximum operational efficiency. They do this through a process of relentless preoccupation with failure and ongoing training for the unexpected.

So, what is a High Reliability Organization? It is an organization conducting relatively error free operations, over a long period of time, making consistently good decisions resulting in high quality and reliable operations.
To translate its capability to response for a hyper complex crisis, an HRO must develop and sustain a mindset that has the following characteristics:

- **Observes and tracks small failures and anomalies**  
  - Worry chronically about errors; Assume each day is a bad day; Collective bonds among suspicious people; Difficult to do

- **Resists oversimplification**  
  - Organizations must ignore many things ... doing so may force them to ignore key sources of problems; Restrain temptations to simplify; Use checks and balances, adversarial reviews, and multiple perspectives.

- **Remains sensitive to operations**  
  - Pays close attention to operations; Everyone values organizing to maintain situational awareness; Use resources so people can see and comprehend what is happening.

- **Maintains capabilities for resilience**  
  - Anticipate trouble spots; Capability to improvise; Improve capacity to; Do quick studies; Develop swift trust; Engage in just-in-time learning

- **Looks to expertise not rank to inform decisions**  
  - Let decisions “migrate” to those with expertise to make them; Avoid rigid hierarchies.

Observations of HROs provide an important bridge between traditional organizational leadership and decision-making under complex conditions and further, those with the extraordinary complexity of a Hurricane Katrina or of a transboundary event such as a pandemic.
Organizations with the Power of the Team Mind [Ref: Dr. Gary Klein, Sources of Power]

The power of the team mind is to create new and unexpected solutions, options, and interpretations, drawing on the experience of all the team members to generate products that are beyond the capabilities of any of the individuals.

Team decision making includes properties that we might never predict if we study only individuals—for example, the ability of a team to come up with ideas that are beyond the skills of any single team member.

The team mind develops basic competencies and routines, forms a clear identity, learns to manage the flow of ideas, and learns to monitor itself to adjust its thinking when necessary. Good teams manifest these traits:

- Members have significant Individual skill levels and are concerned with impact if members change?
- Experienced teams have Integrated identities
- Situation understanding shared to high degree
  - Major effort to anticipate problems
  - Keeps track of gaps and ambiguity
  - Manages uncertainty
- Flow of ideas managed
  - Able to detect strains in the other competencies
  - Understands that the purpose of the concept of a team mind is to help us see the team and not be distracted by the individuals.
Leader Teams [Ref: Brig Gen Zeb B. Bradford, Lt. Gen Frederic J. Brown, America’s Army]

Hyper complexity makes it near impossible for “traditional” leaders to plan, let alone coordinate response efforts. During major catastrophic events where, despite Presidential Directives containing instructions for the relevant agencies to “coordinate their efforts” and “collaborate,” leadership is severely challenged when chaos reigns. Within the vast number of the involved organizations, individual tasks are handled with expertise. Yet, the cumulative effect of these actions is an ever growing disorganization: there are no generalist-leaders able to coalesce the fragmented assembly of actors into a task force which can be rapidly deployed and employed with maximum ground utility.

Leading the response to hyper-complex unconventional crisis creates unique challenges as they bring together teams of other leaders that cross multiple boundaries and attempt to operate at high performance levels. Within cross organization hastily formed teams, obtaining high-performance is much more difficult than say, for a traditional military organization due to the added complication of diversified backgrounds, agendas, perspectives, and situational understanding, all of which can significantly complicate leader-team formation and render some traditional teams dysfunctional.

The term Teams of Leaders (ToL) describes the approach used to generate high-performing leader-teams quicker than conventional methods. This approach is intended to rapidly develop the shared vision/purpose, trust, competence, and confidence required for high performance. It leverages information management (IM) technologies, effective knowledge management (KM), and learning strategies to communicate and collaborate across time and space boundaries. It includes a Leader Team Exercise (LTX) concept for building understanding of the operational situation and team requirements.

Leader-teams are comprised of members from different organizations, cultures, agencies, or backgrounds joined to accomplish a mission or task.
In the face of catastrophic events, these teams may come into existence across all levels of government, the military, industry, academia, and in our neighborhoods. Each member brings specific skills, knowledge, and attitudes to the team to help accomplish an objective and each “leader” is part of a greater organization that the leader-team member can reach back to for expertise and support. Rather than a team consisting of clearly defined leaders and subordinates focused on task proficiency, the team is transformed into one of peer leaders or a leader-team, where the relationship among members is the cornerstone to achieving high-performance. These teams do not follow a hierarchical organizational model, but rather operate as a network within the hierarchy. At any time, any member of the team may be placed in a lead role for a project or objective.

Unlike traditional military teams that focus on task-mastery, the ToL approach is to zero in on the process of teaming. It is a streamlined approach designed to break through barriers and boundaries that stagnate team development and ultimately performance.

The LTX is the “driver” that propels and accelerates the team of leaders though the natural team development stages, helping it achieve high-performance, exhibiting actionable understanding more quickly. The LTX should be conducted in an operational setting as a way to think through a situation and build actionable understanding. These exercises develop the “art” of adaptive thinking and learning. This advanced methodology develops clear and shared understanding, critical-thinking and reasoning skills, and promotes adaptive behaviors, not conditioned responses.
The leader-team exercise, done in the context of the current mission and situation, results in an accelerated maturation of the four shared qualities: vision, trust, competence, and confidence. They help the team develop understanding with respect to the purpose, situation, conditions, and decisions as well as how to work around obstacles together. These mental exercises apply available IM and KM enablers and improve the leader-team’s ability to effectively communicate and collaborate across organizational boundaries, time zones, and cultures. Using the technique of facilitated discussion, leader-team members gain shared insights by accelerating a process that normally transpires over a long period of time and becomes evident through real world interactions.

The ToL approach is about capacity building for non-routine situations that demand rapid and creative solutions. It is a new, adaptive way of teaching leaders how to observe, think, and act in high stakes, highly complex situations, intended to achieve higher performance faster than traditional teaming practices.
Organizations able to operate at high Observe-Orient-Decide-Act tempo [Dr. Chet Richards, Crisis Management: Operating Inside Their OODA Loops]

The last of the discussions on the characteristics of organizations incorporating the readiness factor comes most appropriately from the ideas of Col John Boyd. This should be of no surprise since from the earliest days of Project White Horse 084640, the effort and concepts of Boyd have provided a major underpinning for our dialogue on decision making in severe crisis.

In the 8th Edition article, in discussing Boyd’s work and applicability, Chet Richards posed this question: “What type of organizations operate at rapid OODA loop tempos?”

The answer is an organization that embodies a climate for growing and focusing creativity and initiative. This is a “practice of breeding and cultivating a culture in which there is an unending quest for perfection. It is ingrained throughout teams, starts at the top, and pervades every level of the chain of command.” That climate is established by leadership focusing on these four qualities:

- **Superb competence**, leading to a Zen-like state of intuitive understanding. Ability to sense when the time is ripe for action. Built through years of progressively more challenging experience.

- **Common outlook** towards problems. Has the connotation of "mutual trust." Built through shared experience. Superb competence and intuitive understanding at the organizational level.

- **Stated focus and direction** concept for our efforts. In ambiguous situations, answers the question, "What do I do next?” Key function of leadership.

- **Accountability**, understood and agreed to. Conveys to team members what needs to be accomplished, gets their agreement to accomplish it, then holds them strictly accountable for doing it - but doesn’t prescribe how. Requires very strong common outlook.
Since this “climate” permeates the organization, it tends to accelerate OODA loops (particularly the time to reorient) from top to bottom. This is far more likely to produce a competitive organization than trying to identify OODA loops one at a time and then devising new processes to speed them up. One foolproof way to tell that people have “taken ownership” of a process is that they’re spending time and energy to improve it.

One last aspect of Boyd’s organizational climate should be emphasized: a different way of looking at Common Outlook or in other words similar implicit Orientation:
Without a common outlook superiors cannot give subordinates freedom-of-action and maintain coherency of ongoing action. The implication is that having a common outlook possessed by a team represents a unifying theme that can be used to simultaneously encourage subordinate initiative yet realize superior intent. True organizational readiness for the unconventional crisis will be difficult, if not impossible without the incorporation of the following four qualities encompassed by Common Outlook.

- **Values** - Shared code of moral and ethical behavior
- **Doctrine** - Agreed framework for how things are done
- **Teamwork** - Base of experience working together
- **Mission** - Common appreciation of leadership’s overall goals ("commander’s intent") and progress towards reaching those goals

**Qualities for understanding a fast-developing world while there’s still time to do something about it**
CAPABILITIES NECESSARY TO GENERATE ACTIONABLE UNDERSTANDING

This third section of discussion of the Readiness Framework provides for consideration, capabilities necessary in the process to gain actionable understanding, re-orient, and then regain relative superiority from a severe negative set of initial OODA conditions.
Negative start OODA Loop Response [Dr. Chet Richards, Crisis Management: Operating Inside Their OODA Loops]

The work of John Boyd has been used and discussed extensively throughout the last five years on the PWH website and the reader is referred to the Boyd Compendium for detail. As a quick lead-in, the “loop” is not a simple loop. Boyd’s OODA representation included over 30 arrows for feed forward and feedback and included both implicit and explicit guidance flowing out of “orientation” to observation, decision and action. When Boyd talks about “faster OODA loop speed.” he means the entire loop – all 33 or so arrows.

Now to OODA for unconventional crisis. The key to quickness turns out to be the two “implicit guidance and control” arrows at the top. In other words, most of the time people and groups do not employ the explicit, sequential O-to-O-to-D-to-A mechanism. Most of the time, they simply observe and act. (Klein’s RPD model discussed in next piece)

This is significant for response in a severe crisis where, as we just noted, you begin by being “disoriented” in the uncertain and chaotic circumstance of a just emerging catastrophic incident. While first responders, emergency managers, and community leaders desire to “fix the problem” (elected officials particularly want to be seen to do so immediately), action without real knowledge and understanding can actually make things much worse. Research shows that when dealing with a new, complex, and confusing situation, good leaders (and effective teams) begin by carrying out lots of small experiments (decisions/actions) at a high tempo. They act so as to learn. Orientation then, creates mental images, views, or impressions, hence patterns that match with observed activity of the environment. You correct your orientation and take action to exploit the new situation while there’s still time to do something meaningful, hence the OODA Loop representation as act to learn:
1. Quickly understand what’s going on

2. Know what to do

3. And be able to do it

Observe

- Unfolding Circumstances
- Implicit Guidance & Control

Orient

- Observations
- Feed Forward
- Implicit Guidance & Control

Act

- Implicit Guidance & Control

Action (Test)

- Unfolding Interaction With Environment

4. Goal: Learn

Shared values
Common experiences
Commander’s intent

Richards used Rommel to represent Orientation because the general believed that in the subsequent unpredictable fighting, the training of his troops and his own quickness of mind would bring victory.

Douglas Fraser, Knight’s Cross

Note that in consistency with our discussion, neither the decision function itself or the feed forward/feedback or explicit direction connectivity from orientation to action are included.
We desire that most decisions be made this way—intuitively, and communicated *implicitly*, so that actions flow smoothly from *orientation*. In the case of unconventional crisis, the ability to do so reflects the idea of well-formed teams incorporating the factor of *readiness*. Two items must be kept in mind: 1) the teams must be developed and practiced; 2) the severity of the incident may have destroyed most if not all capability to command control *explicitly*. If the team is simply not ready to operate at the needed level, or the *negative-start* novelty is such that chaos and uncertainty still masks the ability to comprehend, then the “*decision/hypothesis*” link *must come into play*, indicated in the graphic below. The intuitive driven action has hopefully created learning. Given the severely stochastic or indeterminate nature of the situation, focus is first, on manipulation of the initial state to achieve the highest possibility for favorable outcomes, or the lowest probability of unfavorable ones; and second, on proceeding intuitively with actions more designed to learn about the situation than control it.
Novelty then becomes the driving factor for dealing with a negative start OODA environment. The novelty of the situation implies that there is less than complete understanding of the circumstances—or even of which circumstances are relevant. Responders do not necessarily know which facts and observations are relevant and, therefore, which to collect. Note, that for Boyd’s purposes, conflict was a competition between novelty-generating systems, or equivalently, learning systems. For our discussion, unconventional crisis creates the novelty for which learning is imperative.

Scripts developed for routine situations may be applicable, but, by definition, there is no comprehensive "playbook" from which the response can be directed; The existence of significant novelty implies that significant customization or improvisation is likely to be needed.

Given the uncertainties born of novelty and the corresponding lack of available comprehensive routines, decisions cannot reliably be driven by pattern recognition (because, by definition, the patterns are not available). Decision making must proceed through a standard analytical process: the identification of objectives, the development of alternatives, the prediction of likely results from different approaches, and the choice of a best action.

Because newly improvised approaches or previously untried combinations of existing routines may be implemented, execution is likely to be much less precise than in routine circumstances. This indicates a need for more tolerance of imperfections and errors in execution.

Since new actions may be taken, skills will not have been comprehensively developed for either the design or the execution of the required response. While training in the skills necessary to use existing routines as elements of the newly developed response will be useful, the need for the relevant skill base for components of what is being invented and improvised cannot reasonably have been foreseen and will not be available. Adaptability will be THE key skill required for both operational and political actors (including departmental participants in EOCs, etc) – a learning requirement.
The leadership approach must be generally oriented to producing collaboration that works for directing both the development of understanding, and also the design through invention and improvisation of a new approach – bricolage, if you will — followed by an authority-driven approach during the execution phase.

The following pieces discuss both intuitive and cognitive approaches for reorientation and development of actionable understanding after a “negative –OODA” starting environment.

**Recognition Primed Decision Making (RPD)** [Dr. Gary Klein, *Sources of Power*]

One of the most respected concepts concerning decision making in critical circumstances is the RPD model. It differs from traditional, analytical models of decision making insofar as RPD emphasizes situation assessment rather than the comparison of options, and would therefore seem to fit perfectly with the previous graphics reflecting intuitive action. The RPD model falls under the rubric of Naturalistic Decision-making, a school of thought that pushes the study of decision-making outside the controlled environment of the laboratory and “into the wild” where decisions are made under uncertain conditions, with incomplete information, severe time pressure and dramatic consequences.

The RPD model explains how people can use their experience to arrive at good decisions without having to compare the strengths and weaknesses of alternative courses of action. The claim is that people use their experience to “size up” a situation, and thus form a sense of “typicality,” which amounts to the recognition of goals, cues, expectancies and a course of action (COA). Where classical decision theories postulate an analytical agent who carefully considers a host of alternatives, often against a background of perfect information, the RPD model postulates an agent poised to act who depends on his expertise to assess the available information and identify the first workable alternative. The following figure shows the flow of activities in the RPD model.
We can summarize the key features of the RPD model in comparison to the standard advice given to decision makers. For experienced decision makers:

> Focus is on the way they assess the situation and judge it familiar, not on comparing options.
> Courses of action can be quickly evaluated by imagining how they will be carried out, not by formal analysis and comparison.
> Decision makers look for the first workable option they can find, not the best option.
> Since the first option they consider is usually workable, they do not have to generate a large set of options to be sure they get a good one.
> They generate and evaluate options one at a time and do not bother comparing the advantages and disadvantages of alternatives.
> By imagining the option being carried out, they can spot weaknesses and find ways to avoid these, thereby making the option stronger. Conventional models just select the best, without seeing how it can be improved.
> The emphasis is on being poised to act rather than being paralyzed until all the evaluations have been completed.
The Cynefin Framework [Dave Snowden and Mary Boone, A leader’s Framework for Decision Making]

As noted previously in the table Summary of Contrasting Features of Routine and Unconventional Crises, unconventional crisis present a multitude of problems and can destabilize a whole community, to include first responders and public safety management/leadership. The uncertainty of cause/effect relationships and/or potential for hidden problems to emerge constitute what is known as wicked problem sets. Pre-planned “playbooks” – the very effort intended to facilitate the decision process - may be not only un-implementable because planned for resources and responders are unavailable, but also attempting to execute may cause more harm than good.

Severe crisis may require significant expertise from multiple disciplines or functional organizations. Indeed, a single decision maker could be well beyond their depth. Here the idea of effective observation to action with minimal orientation and implicit deciding would seem most difficult. The uncertain and chaotic nature of the event may be such that realistic decisions based on “recognition” may not be possible. As reflected in the table on the “Decision Making” attribute line, the required characteristic may move from recognition primed to cognitive. Here is the context of sense-making.

The issue of recognition or actionable understanding in a hyper-complex situation brings us to a thread of interest concerning the initial action required as a function of whether through observation one can determine accurately an ordered, or unordered, or disordered environment. For most crisis or disaster events, the first observation is in all likelihood “sensing” not active observing. As initial situational awareness is gained to whatever degree possible and some orientation is begun, decisions are made and first response to mitigate begins. This leads to a first real directed “observation.” But what if, as noted above, that playbook driven action is in effect severely inappropriate, and in addition, that first sensing is entirely mischaracterized and/or misleading?

The concept of sense-making or linkage of whether an incident is ordered, unordered, disordered with what the appropriate first response should be, was introduced in the November 2007 Harvard Business Review in “A leader’s Framework for Decision Making” by David Snowden and Mary Boone.
Excerpts of this article are provided as part of Edition #11. The following provides a summary in context of this discussion on the Readiness Factor.

The **Cynefin Framework** helps leaders determine the prevailing operative context so that they can make appropriate choices. Each domain requires different actions. The framework breaks “ordered” into *simple* and *complicated* events and “unordered” into *complex* and *chaotic* events.

*Simple* and *complicated* contexts assume an *ordered* universe, where cause-and-effect relationships are perceptible, and right answers can be determined based on the facts. *Complex* and *chaotic* contexts are *unordered* — there is no immediately apparent relationship between cause and effect - the way forward is determined based on emerging patterns. The *ordered* world is the world of fact-based management; the *unordered* represents pattern-based management.

The very nature of the fifth context— disorder — makes it particularly difficult to recognize when one is in it. Here, multiple perspectives jostle for prominence, and cacophony rules. The way out of this realm is to break down the situation into constituent parts and assign each to one of the other four realms. Leaders can then make decisions and intervene in contextually appropriate ways.
Simple contexts are characterized by stability and clear cause-and-effect relationships. Here, leaders assess the facts of the situation, categorize them, and then base their response on established practice. Leaders in a simple context sense, categorize, and respond to a situation. Note that the simple domain lies adjacent to the chaotic. The most frequent collapses into chaos occur because success has bred complacency. This shift can bring about catastrophic failure. First action—categorize.

Complicated contexts may contain multiple right answers, and though there is a clear relationship between cause and effect, not everyone can see it. – Leaders must sense, analyze, and respond. Complicated context calls for investigating several options, so good practice, as opposed to best practice, is more appropriate. First action—analyze.

In a complex context, right answers can’t be ferreted out. We can understand why things happen only in retrospect. Instructive patterns can emerge if the leader conducts experiments that are safe to fail. Leaders must patiently allow the path forward to reveal itself. First action - probe first, then sense, and then respond.

In a chaotic context, searching for right answers would be pointless: Relationships between cause and effect are impossible to determine because they shift constantly and no manageable patterns exist—only turbulence. In the chaotic domain, a leader’s immediate job is to act to establish order, then sense where stability is present and where it is absent. He then responds by working to transform the situation from chaos to complexity, attempting to identify emerging patterns. Communication of the direct top-down or broadcast kind is imperative; there’s simply no time to ask for input. In a highly stochastic environment first action – act so as to limit damage but also to gain sufficient knowledge upon which to base more appropriate action. This is the realm of the severe "negative OODA" start. The implication is that different initial situations drive the first real “action” stemming from the OODA process. The table provides a detailed summary.
<table>
<thead>
<tr>
<th>CONTEXT CHARACTERISTICS</th>
<th>THE LEADER’S JOB</th>
<th>DANGER SIGNALS</th>
<th>RESPONSE TO DANGER SIGNALS</th>
</tr>
</thead>
</table>
| **SIMPLE** | Repeating patterns and consistent events  
Clear cause-and-effect relationships evident to everyone; right answer exists  
Known knowns  
Fact-based management | **Sense, categorize, respond**  
Ensure that proper processes are in place  
Delegate  
Use best practices  
Communicate in clear, direct ways  
Understand that extensive interactive communication may not be necessary | Complacency and comfort  
Desire to make complex problems simple  
Entrained thinking  
No challenge of received wisdom  
Overreliance on best practice if context shifts | Create communication channels to challenge orthodoxy  
Stay connected without micromanaging  
Don’t assume things are simple  
Recognize both the value and the limitations of best practice |
| **COMPLICATED** | Expert diagnosis required  
Cause-and-effect relationships discoverable but not immediately apparent to everyone; more than one right answer possible  
Known unknowns  
Fact-based management | **Sense, analyze, respond**  
Create panels of experts  
Listen to conflicting advice | Experts overconfident in their own solutions or in the efficacy of past solutions  
Analysis paralysis  
Expert panels  
Viewpoints of non-experts excluded | Encourage external and internal stakeholders to challenge expert opinions to combat entailed thinking  
Use experiments and games to force people to think outside the familiar |
| **COMPLEX** | Flux and unpredictability  
No right answers; emergent instructive patterns  
Unknown unknowns  
Many competing ideas  
A need for creative and innovative approaches  
Pattern-based leadership | **Probe, sense, respond**  
Create environments and experiments that allow patterns to emerge  
Increase levels of interaction and communication  
Use methods that can help generate ideas: Open up discussion (as through large group methods); set barriers; stimulate attractors; encourage dissent and diversity; and manage starting conditions and monitor for emergence | Temptation to fall back into habitual, command-and-control mode  
Temptation to look for facts rather than allowing patterns to emerge  
Desire for accelerated resolution of problems or exploitation of opportunities | Be patient and allow time for reflection  
Use approaches that encourage interaction so patterns can emerge |
| **CHAOTIC** | High turbulence  
No clear cause-and-effect relationships, so no point in looking for right answers  
Unknowables  
Many decisions to make and no time to think  
High tension  
Pattern-based leadership | **Act, sense, respond**  
Look for what works instead of seeking right answers  
Take immediate action to reestablish order (command and control)  
Provide clear, direct communication | Applying a command-and-control approach longer than needed  
“Cult of the leader”  
Missed opportunity for innovation  
Chaos unabated | Set up mechanisms (such as parallel teams) to take advantage of opportunities afforded by a chaotic environment  
Encourage advisers to challenge your point of view once the crisis has abated  
Work to shift the context from chaotic to complex |
Unconventional Crisis Cells – Rapid Reflection Force [Dr. Erwan Lagadec, Leadership in Unconventional Crisis]

Leadership structures should not be left in a splendid isolation when making critical decisions with imperfect information — whether this isolation is self-imposed, the result of leaders’ ill-advised belief in their own omniscience, or derives from other stakeholders’ self-serving wish to wash their hands of such decisions and let leaders alone sink with the ship if they make the wrong call. In too many exercises or real-life situations, a leader’s performance in unconventional environments becomes “a reflection on their entire character; the notion being that ‘you’re really good at it, or you’re not.’” Rather than conjuring heroic figures — also “villains” or “incompetent frauds” when facing unconventional crises (9/11’s Rudy Giuliani and Katrina’s Michael Brown respectively come to mind), organizations and public opinion should realize that the quality of response will rather depend on intelligent structures that will support leadership in chaotic environments.

In the referenced 2008 report, the unconventional crisis cell that Electricité de France (EDF) has set up to train for and confront unusual disruptions is described at some length. Its name, a spin on the mantra of Rapid Reaction Forces, hints at its underlying paradigm: namely that when confronting the unconventional, rapidity and reaction are not enough — indeed can be self-defeating — if not
underpinned by a deliberate process of equally unconventional analysis and horizon-scanning. In such circumstances, instead of rushing towards premature or inopportune action, based on mistaken assumptions and inadequate plans, and papering over the cracks of angst-inducing loss of bearings among decision makers, the genuine priority is to think on one’s feet, be imaginative, ask the right questions — and do so under considerable time pressure.

Within this framework, the RRF has been a pool comprising about thirty members who have exhibited the capacity to confront unconventional, potentially traumatic situations with a stiff upper lip, while also being available at short notice. They combine a variety of profiles, which exist in every large company of this type: including sociologists, communication experts, former directors of local sites, accountants, etc. Among them, five or six will be called upon in a given situation: so that the exact makeup of each team is never the same — yet always strikes a balance among imaginative “thinkers,” and pragmatists who can translate their intuitions into workable proposals.

Their collective purpose is to feed into other crisis cells a different outlook, one which transcends the pressures of operational crisis management, and eschews traditional processes and approaches whose validity is questionable when facing unconventional events. They ensure that the head of crisis response efforts retains an awareness of the “big picture”— which overwhelming demands on his/her time and leadership would otherwise preclude — based on the paradigm that an organization cannot successfully respond to or recover from unconventional crises if its field of vision does not include a system-wide appreciation of challenges “beyond the horizon.”
In other words, the RRF is a spur that will prod crisis leadership to *keep moving*, keep thinking, never indulging in trench warfare against unconventional disruptions — as such events will instantly overwhelm or turn round all attempts to draw static lines of defense or restore intellectual comfort zones. With this objective in mind, the critical weapon in the RRF’s arsenal turns out to be insightful questions, rather than preformatted answers, which are the building blocks of artificial certainty, the Trojan horses of instant collapse.

An analytical and strategic framework of the following four questions has emerged from the RRF’s experience:

- What is the essence of the crisis?
- What are the critical pitfalls?
- Who are the unconventional stakeholders?
- What game-changing initiatives can be taken to recover traction on events?

*** Insight ***

**Facing a Negative OODA: Capabilities for actionable understanding**

The message from a severely negative OODA Loop set of initial conditions should be apparent: to discern what is happening, and act while we still can, we must interact in a variety of ways with the unfolding event, looking at the uncertain environment from numerous perspectives so as to generate mental images or impressions, and gain situational awareness and orientation that corresponds with, “what’s happening now and in what context?”
To be successful in creating actionable understanding within this hyper-complex or wicked problem set, we must not only be in the process of consistently observing our situation, but we must be pulling things apart (analysis) and putting them back together (synthesis) in new combinations based on those dynamic conditions and our evolving sense-making.

Enlightened comprehension and correction of error from original impressions of the crisis cannot always arise from new discovery within an accepted conceptual system. Sometimes our notions of anticipated response – our going in theory based on past experience and planning - has to crumble first, and a new framework of thinking – orientation - adopted, before the crucial facts can be seen at all. This is why creative new options - change - can be so difficult. It always seems to require a destructive phase, where previous experiences (reflected in things like existing processes and practices) are broken up and become less relevant. This process was Boyd’s “building a snowmobile” model of destruction/creation ... analysis/synthesis.

The OODA loop as an “act to learn” model incorporating analysis and synthesis in creation of crisis relevant “snowmobiles” is indeed a concept for manipulating time. With a time advantage you can:

- Try more things
- Leverage experience and intuition
- Make quicker sense out of uncertain environments
- Create actionable understanding
- Learn more quickly and recover from mistakes with less harmful impact
- Make opponents react to you or prioritize your action better in natural disasters
- Shape the situation
Everyday life and particularly catastrophic events will present never ending cycles of increasing mismatches between what we observe and the models of response we have developed. As this occurs, our response must be founded in a continuing wide search for knowledge and expansion of our capability to adapt - stating a thesis, developing a contradictory antithesis, and combining and resolving into a coherent synthesis – a continuous effort to survive and improve one’s capacity for independent action.

John Boyd
MINDSET OF READINESS

So far we have discussed the framework of hyper-complex or unconventional crisis as being significantly different than routine emergencies – even those where loss of life or destruction is high. We have offered characteristics of organizations that could be considered “ready” and capabilities those organizations will need to create actionable understanding when faced with the unexpected, unplanned-for catastrophe. This final few pages provides discussion on the mindset considered necessary to implement those elements, nurture the organization and people, and then act when required by “knowing what to do.”

We once knew what that meant and how to go about it.
Three ideas constitute the **readiness factor** mindset:

First, it is necessary to see severe crisis not only as an exceptional event, but also as the culminating point of long term organizational imperfections and indeed, managerial ignorance. *Crisis has a timeline that exists long before the triggering event.* Therefore we can address not only the response or right side, but also the left side of the event occurrence.

Second, permeating organizations, teams, and citizens alike, we must have, in John Boyd’s words, “A grand ideal, an overarching theme, or noble philosophy that represents a coherent paradigm within which individuals as well as societies can shape and adapt to unfolding circumstances—yet offers a way to expose flaws of threatening or competing or adversary systems.”

Third, we must recognize the importance of and then think and act in accordance with a *culture of preparedness* where culture is defined as “the predominating attitudes and behavior that characterize the functioning of a group or organization.” While we have defined preparedness and readiness as having distinct meaning, in the context of culture offered here, “readiness” is a critical aspect that can and must be addressed on the left hand side of the equation of the flow of a catastrophe or unconventional crisis.
Crisis as a process of incubation starting long before the triggering event

[Christophe Roux-Dufort, *Is Crisis Management (Only) a Management of Exceptions*

In the sixth edition article, Christophe Roux-Dufort proposed an extended conceptual background that necessitates a conceptualization of crisis that recognizes not only the properties of *exceptional events* but also the intrinsically *processual nature of crises and therefore the possible existence of pre-crisis stages*. His focus was to lay the ground work for tying research on crisis to main stream organizational theory, but even to the level of current study, the basic concept is critical to the idea of a readiness factor as necessary within a culture of preparedness.

Building a theory of crisis includes looking at the crisis/catastrophic event as a trigger or as the starting point for an event-centered (an exception) approach, and the point of arrival of a destabilizing process for a processual approach. The precipitating event therefore becomes crucial to our understanding of crisis because it encompasses both the errors of the past, the drama of the present and the possibilities of the future.

So while from one perspective, severe crisis can lead to a collapse of sense-making (Mann Gulf incident discussed in Part #1), because the triggering event suspends time – revealing the impossible and the unthinkable – the crisis also provides a surge of meaning.

Of particular interest is the potential characterization of crisis-fostering environments and on the processes of weakening of organizations. Two complementary phenomena are worth consideration as essential to the construction of a theory of crisis:

- organizational imperfections
- managerial ignorance.
The notion of organizational imperfection serves to describe a cumulative crisis-conducive process. *Organizations are generators of imperfections* because any development, progress or growth generates its own weaknesses. In this regard, crisis is inherent to any evolution process.

A crisis is never exceptional but it reveals a stage of development beyond which the organization can no longer operate on the same basis as before. It is therefore necessary to explore a complementary concept: *managerial ignorance*.

This concept of ignorance points to useful directions concerning the processes of attention developed by managers. Top managers structure decision situations to fit their view of the world. They therefore simplify the world in order to understand it and make decisions. We see ignorance as the result of a difference between the complexity of situations and what managers retain of those situations.

The question remains of why and how they define what is important and what is not, and of how they focus their attention on certain elements rather than others. In terms of crisis, the question is to know why and how executives concentrate on certain vulnerabilities rather than others. And organizational imperfections potentially endanger the stability and regularity of the organization. More specifically, and considering the demands made on executives in terms of efficiency and performance stability, their self-esteem might be affected when anomalies or weaknesses concern areas for which they are responsible. This self-esteem is regulated narcissistically by activating defense mechanisms... Organizations serve as means of reinforcing individual defense mechanisms - an addition or subtraction from concrete reality that inhibits detection and correction of errors as well as detection of the unawareness that the actions are defensive.
We are here at the core of *managerial ignorance*. It is only when management allows ignorance about the evolution of weaknesses and imbalances into crises to exist that crisis conducive environments can grow and intensify. The more established the dysfunctions and weaknesses the thicker the veil of ignorance.

The vulnerability of an organization does not so much reside in its actual weaknesses as in the ignorance of these weaknesses, an ignorance that is activated by defense mechanisms that regulate the managers’ threatened self-esteem and may lead them unconsciously to favor laissez-faire over correction. The more entrenched the imperfection, the more likely it is to lead to a disruption and the more prohibitive the psychological and sometimes economic cost of a correction.

The mindset of an organization and teams that encompasses the factor of readiness, will not only have educated themselves for appropriate sense-making in uncertain environments, developed tools for agility and adaptability, they will also have developed a perspective of crisis response that is complemented by understanding of crisis generating processes.
John Boyd’s research and his persistent teaching focused on war and warfare, but his thoughts have been adapted to other realms - to business by his long time friend, White Horse advisor Dr. Chet Richards and to law enforcement by website contributor Lt. Fred Leland. While most noted for the OODA Loop, Boyd’s focus was much deeper and I believe applies significantly to the Readiness Factor model. Consider this from Boyd:

“... for success over the long haul and under the most difficult conditions, one needs some unifying vision that can be used to attract the uncommitted as well as pump-up friendly resolve and drive and drain-away or subvert adversary resolve and drive. In other words, what is needed is a vision rooted in human nature so noble, so attractive that it not only attracts the uncommitted and magnifies the spirit and strength of its adherents, but also undermines the dedication and determination of any competitors or adversaries.

Moreover, such a unifying notion should be so compelling that it acts as a catalyst or beacon around which to evolve those qualities that permit a collective entity or organic whole to improve its stature in the scheme of things. Put another way, we are suggesting a need for a supra-orientation or center-of-gravity that permits leaders, and other authorities, to inspire their followers and members to enthusiastically take action toward confronting and conquering all obstacles that stand in the way.”

Boyd’s own portrayal of such a scheme would seem to reflect an appropriate perspective for our idea of a **readiness factor** as crucial for resilient communities and a **Culture of Preparedness**:
The Readiness Factor - Boyd’s Theme for Vitality and Growth

Unifying vision
- A grand ideal, overarching theme, or noble philosophy that represents a coherent paradigm within which individuals as well as societies can shape and adapt to unfolding circumstances—yet offers a way to expose flaws of competing or adversary systems.

Ingredients needed to pursue vision
- **Insight**
  
  Ability to peer into and discern the inner nature or workings of things.

- **Initiative**
  
  Internal drive to think and take action without being urged.

- **Adaptability**
  
  Power to adjust or change in order to cope with new or unforeseen circumstances.

- **Harmony**
  
  Power to perceive or create interaction of apparently disconnected events or entities in a connected way.

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Editors’ note: In later versions, Boyd listed the ingredients as “IOHAI”: insight, orientation, harmony, agility, and initiative. “Agility” means to operate inside an opponent’s OODA loop. For “orientation,” see pages 12-17 of Organic Design.
Culture of Preparedness [Lt. General Russel Honoré, Survival; How a Culture of Preparedness can save you and your family from disasters]

Culture of Preparedness is the term General Russ Honoré uses to describe his future effort for America. “It’s time for America to wake up to this reality. Our task as Americans is to be ready. We need to create a culture of preparedness in America. Our forefathers knew how to take care of themselves, their families, and the communities in which they lived. As citizens, we need to be prepared to do that same – we cannot wait on the federal government to do it for us.”

There’s so much of import in Honoré’s book, there’s no way to do it justice in a few paragraphs, so let me offer a few telling pieces:

0930, 31 Aug, 2005: “... we had no access to video and did not realize how desperate the situation had become for tens of thousands of people in one of America’s most popular and unique cities. That came the next morning, when the havoc that Katrina had wrought and the enormity of the need to do something about it, and to do it quickly, became all too evident. I flew into downtown New Orleans and was confronted with what had all the makings of a third-world disaster in a first-world nation.

The slate-gray navy SH-60 Seahawk helicopter came in fast and low over New Orleans. Rushing beneath me were rivers of dark, stagnant water that three days earlier had been the streets and alleys of this vibrant city. In some areas only the roofs of houses were visible
above the waterline. Elevated portions of Interstate 10 rose out of the murky water like the bleached spine of some elongated humpbacked sea serpent. People who had been chased from their homes by the floodwaters were scrambling to reach the highest levels of the highway over-passes in search of islands of dry concrete. It was shortly after 9:30 A.M. on Wednesday, August 31, and what could be seen from the air was not good. But much worse was waiting just a few minutes away at the Louisiana Superdome. As the helicopter approached the business district of downtown New Orleans and the hulking round mound of concrete and glass that is the Superdome, thousands of people packed together and looking up at the helicopter from the upper plaza level outside the building that bills itself as “Louisiana’s Most Recognizable Landmark” came into view. Just a few feet below the crowd, at street level, were the rising waters flowing into the city from nearby Lake Pontchartrain.

My initial reaction to the scene was to mutter to myself, “Oh, my God!” This was my first view of the situation here. All my knowledge to this point had come from reports written by my staff. Their words failed to describe adequately the magnitude of the disaster that Katrina inflicted on New Orleans. But, in their defense, no one could have done justice in words to what was unfolding that morning.

2230, 31 Aug, 2005: .... After meeting briefly with the mayor and explaining what would happen the next morning when the buses started arriving, he agreed to the plan and we returned to the Superdome. I talked again with National Guard officials to make sure we were all on the same page, then shortly before 10:30 got back into the helicopter for the return flight to Camp Shelby and a few hours of sleep.
As the helicopter sliced through the thick night air, ... I ran through the events of the day in my head. It was clear that no one, least of all the people most affected, had been prepared for the wrath of Katrina. The storm had overwhelmed the ability of both the system and the people to deal with it. Whatever any government agency or individual had put in place to cope with storms such as Katrina had simply been overmatched. Some families had prepared, but their preparations usually had not been sufficient to deal with this storm. The governments of Louisiana and New Orleans had talked about the worst-case scenario but prepared for the best-case scenario. The people had thought about the worst-case scenario, but few had actually prepared for it.

In order to change that, in order to mitigate the effects of storms like Katrina or other disasters, there would have to be a cultural shift in how governments, businesses, the education system, and individuals prepared for them. Preparation would have to become as important as response. It was something that had been bred into me growing up on a subsistence farm in central Louisiana. Disaster was always one storm, one bad crop, one untimely death away. But how well we survived that disaster was in direct relation to how we prepared for it.”

**May 2009:** “Governor, if the phone tree works you have an inconvenience, you don’t have a disaster. In a disaster the phones don’t work.”

“...When states do their disaster readiness exercises, they seldom if ever worst-case any of the scenarios...they assume the telephones are going to work and the computers are going to work and that all other communications systems will be functioning. That’s because most politicians won’t buy into planned failure in a training exercise.

At the present time preparedness is embedded with and competes with response resources. Most of the preparedness money is being spent on “stuff.” It is not being used to coach, train, and teach to produce this cultural shift where people are thinking more about preparedness than response.”
Conclusions for the Readiness Factor

As the story of “Project White Horse” evolved – as discussed in DaVinci’s Horse #6, Part 1 – it became increasingly obvious that the operational thread – culture of preparedness - of General Honoré’s book was the underpinning of what the website was about. Indeed, it mirrors the early PWH statement that *once disaster strikes, you’ve lost 90% of your opportunity to make a difference.* If there’s one thread that runs consistently through the general’s book it’s “pushing effort to the left.”

The use of the word “counterfactual” usually is taken as “what if;” but the connotation of “if only” is also correct, and Russ’s narrative of his observations not only as he entered New Orleans, but also as the days, frustrations, and successes transpired, bear witness to the *oh, so many “if onlies”* that would have made so much real difference: – if only leaders at multiple levels from the parishes to the seat of U.S. government had given more consideration to the ideas of being ready than to how to respond and recover; - if only citizens had paid more attention to what they could do, vice what the cavalry was supposed to do for them.

*Survival* is not just a story, it’s a reference for survival and a mandate. As presented, Culture of Preparedness is the overarching *mindset*. While we have differentiated between “preparedness” and “readiness,” the intention of the *Readiness Factor* is to be complimentary to that concept of a *preparedness culture*. To reiterate, if one assumes that “playbooks” and having given survival some thought, or having done “nobody-fails” exercises is sufficient, then they’re not ready for the unconventional or severe negative start OODA occurrences – not by a long shot.

* Jim Petroni
In looking to leverage the effort of Project White Horse 084640, this fifth anniversary issue has offered the **Readiness Factor** as a prototype model or snowmobile as a complimentary aspect of General Russ Honoré’s **Culture of Preparedness**. Returning to the “retrospective” context from Part 1, it remains through analysis and synthesis to determine the merit of the model.

We conclude with some words from Dr. Lagadec’s **Leadership in Unconventional Crisis**:

“It seems to me that the crucial issue in preparing leaders is precisely that unconventional crises trigger enormous discomfort among those in charge of response. As soon as crisis erupts, collective intelligence somehow finds itself paralyzed; and communication becomes impossible, while leadership vanishes.

Officials grab for dear life onto basic tools that they were taught would work. This reflects the prevalent tendency in the training of leaders: as their teachers adopt a magisterial posture, claiming to hold, and divulge, all the right answers, the right tools, ‘what you are going to do.’ And then leaders go home with a thick file of ‘best practices,’ and they think ‘it’s all in there’: but it doesn’t work! — because these ready-made tools will be circumvented and made irrelevant by crisis.

Instead, the priority should be to prepare leaders to confront the unknown, tackle complexity: and not to be paralyzed or stunned by it. And if we don’t do this, if we stick to conventional academic teaching, or conventional training practices, then as soon as you’re hit by a Katrina, the reaction among leaders is: ‘I don’t have a roadmap to do anything about this; let’s wait until it conforms to my niche.’ We have to develop a different form of training: train people for the unknown, and not for what we know.”

... the definition of what “a beautiful mind” is needs to shift, and insist upon intellectual creativity, audacity, curiosity, rather than the capacity to learn and regurgitate static bodies of knowledge, with impeccable clarity matched by equally impeccable lack of originality”
Organizational structure

High reliability Organization
Team mind
Team of Leaders
High OODA tempo learning

Capabilities
Snowmobile building
OODA understanding & implementation
Recognition Primed Decision Making
Sense-making – the Cynefin Framework
Rapid Reflection “What-if” teams

Mindset necessary
Culture of Preparedness
Recognition of crisis generating processes
Theme of Vitality & Growth

The Readiness Factor

Unconventional Crisis

Negative OODA Initial Conditions

Doing what you know

Preparedness

Knowing what to do

Loss of Relative Superiority

Readiness

Loss of Relative Superiority
“...Then there are sheepdogs," he went on, "and I'm a sheepdog. I live to protect the flock and confront the wolf."

If you have no capacity for violence then you are a healthy productive citizen: a sheep. If you have a capacity for violence and no empathy for your fellow citizens, then you have defined an aggressive sociopath—a wolf. But what if you have a capacity for violence, and a deep love for your fellow citizens? Then you are a sheepdog, a warrior, someone who is walking the hero's path. Someone who can walk into the heart of darkness, into the universal human phobia, and walk out unscathed.

This business of being a sheep or a sheepdog is not a yes-no dichotomy. It is not an all-or-nothing, either-or choice. It is a matter of degrees, a continuum. On one end is an abject, head-in-the-grass sheep and on the other end is the ultimate warrior. Few people exist completely on one end or the other. Most of us live somewhere in between. Since 9-11 almost everyone in America took a step up that continuum, away from denial. The sheep took a few steps toward accepting and appreciating their warriors, and the warriors started taking their job more seriously.

The degree to which you move up that continuum, away from sheep-hood and denial, is the degree to which you and your loved ones will survive, physically and psychologically at your moment of truth.

Sheepdogs
Acknowledgements

The introductory note that the **Readiness Factor** model is based on the thoughts of all of Project White Horse’s authors was not just one of courtesy, it is fact. They are listed at the end of DaVinci’s Horse #6, Part 1 with my gratitude.

Throughout the last five years and in some cases much longer, several people have provided great insight, assistance, support and patience and taught persistently. Time, number of words or articles, e-mails, or phone calls varies, with a note that some of the shortest being so point-on and incisive as to have completely redirected emphasis and research direction. Single Malt Scotch awaits you all:

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- **Lieutenant General Fredric Brown**, United States Army (Ret)
- **Rear Admiral Walter Lewis Chatham**, United States Navy (Ret)
- **Battalion Chief Ranger Dorn**, Ventura County Fire Department
- **Lieutenant General Russel Honoré**, United States Army (Ret)
- **Lieutenant Fred Leland**, Walpole Police Department
- **Captain Charlie Meinema**, Tacoma Police Department (Ret)
- **Mr. Jim Petroni**, California Specialized Training Institute (Ret)
- **Commander Dick Purnell**, Ventura County Sheriff’s Department (Ret)
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- **Dr. Dag Von Lubitz**, Central Michigan University, Her Majesty’s Navy (Ret)

**In memory of some whose actions and words still impact:**

- **Colonel John R. Boyd**, United States Air Force
- **Colonel Rick Rescorla**, United States Army
- **Vice Admiral James Bond Stockdale**, United States Navy
- **Colonel Jerry Hess**, United States Marine Corps
- **Rear Admiral George Strohsahl**, United States Navy
This website is dedicated to those who choose to go in harm’s way as their brother’s keeper…

to those who must lead….

And to the families who wait, sometimes in vain, for their return from the charge into the fire.

JEB

20 October, 2011