

“The Devil Never Sleeps”

Gil Middlebrooks

Grace Ketron



THE DEVIL

LEARNING TO LIVE IN



NEVER

AN AGE OF DISASTERS



SLEEPS

JULIETTE KAYYEM



Left of Boom



Right of Boom

1. Detect outbreaks that occur anywhere in the world.
2. Protect the American people by stockpiling vaccines and antiviral drugs and by improving our ability to rapidly produce new vaccines.
3. Be ready to respond at the federal, state, and local levels.





- **President Obama at NIH
December 2, 2014:**
- **“five years from now or
a decade from now ”**





PLAYBOOK FOR EARLY RESPONSE TO HIGH-CONSEQUENCE EMERGING INFECTIOUS DISEASE THREATS AND BIOLOGICAL INCIDENTS

TABLE OF CONTENTS

CHAPTER I – EXECUTIVE SUMMARY

I. PLAYBOOK PURPOSE.....	PAGE 04
II. POLICY COORDINATION AND EXERCISING THE PLAYBOOK.....	PAGE 04
III. RISK ASSESSMENT DASHBOARD.....	PAGE 05
A. INTERNATIONAL.....	PAGE 06
B. DOMESTIC.....	PAGE 07
IV. SAMPLE PATHOGENS INVOLVED.....	PAGE 08
V. OTHER KEY CONSIDERATIONS.....	PAGE 11

CHAPTER II – PLAYBOOK: DECISION-MAKING RUBRICS

I. INTERNATIONAL.....	PAGE 14
II. DOMESTIC.....	PAGE 31

CHAPTER III – APPENDIX MATERIAL

I. DECLARATION AND MITIGATION OPTIONS.....	PAGE 42
II. KEY DEPARTMENTS AND AGENCIES.....	PAGE 46
A. INTERNATIONAL.....	PAGE 46
B. DOMESTIC.....	PAGE 52
III. SAMPLE EXERCISES.....	PAGE 62
IV. COMMUNICATIONS.....	PAGE 67
V. CONCEPT OF OPERATIONS FOR DOMESTIC RESPONSE.....	PAGE 68



Left of Boom



Right of Boom

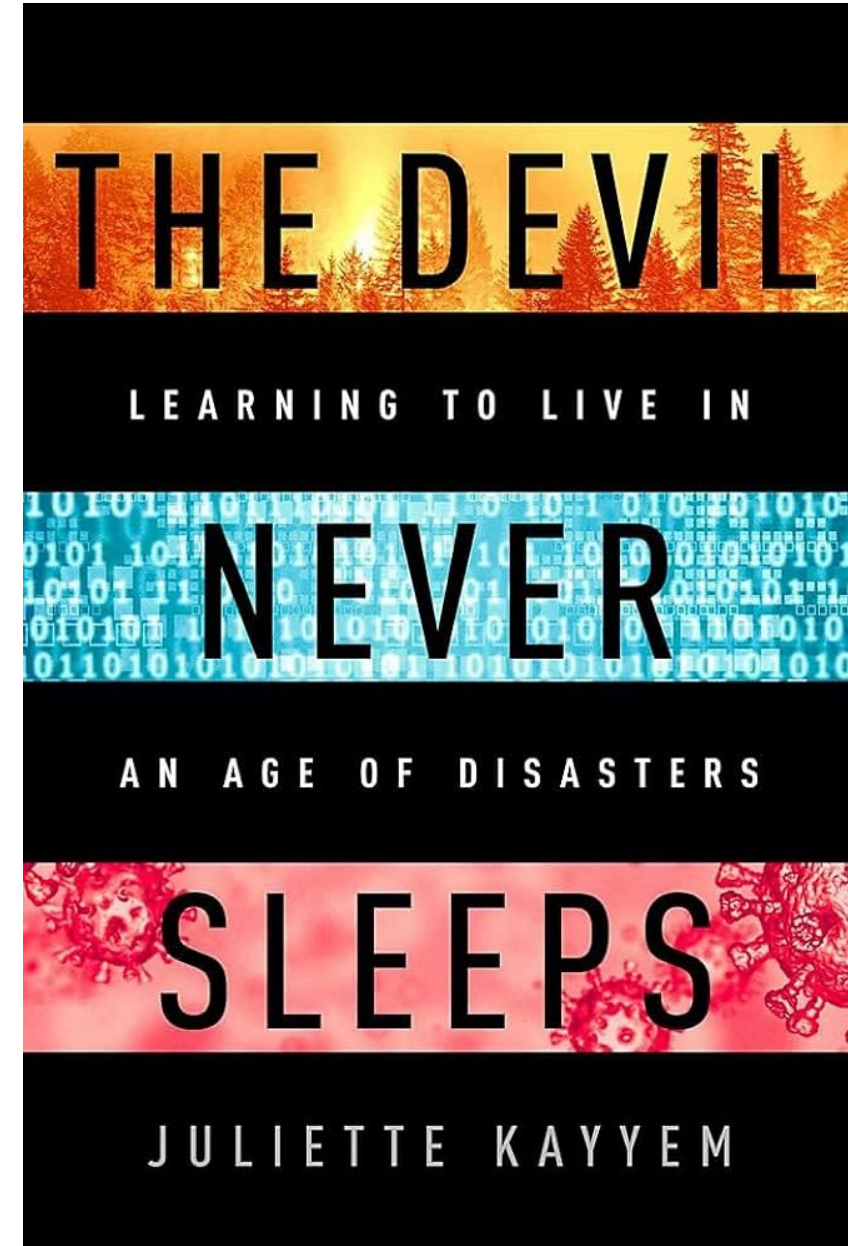
Consequence Minimization:

Did we do enough
so that our entry
to the right side of
the boom will
result in less
horror, not none?



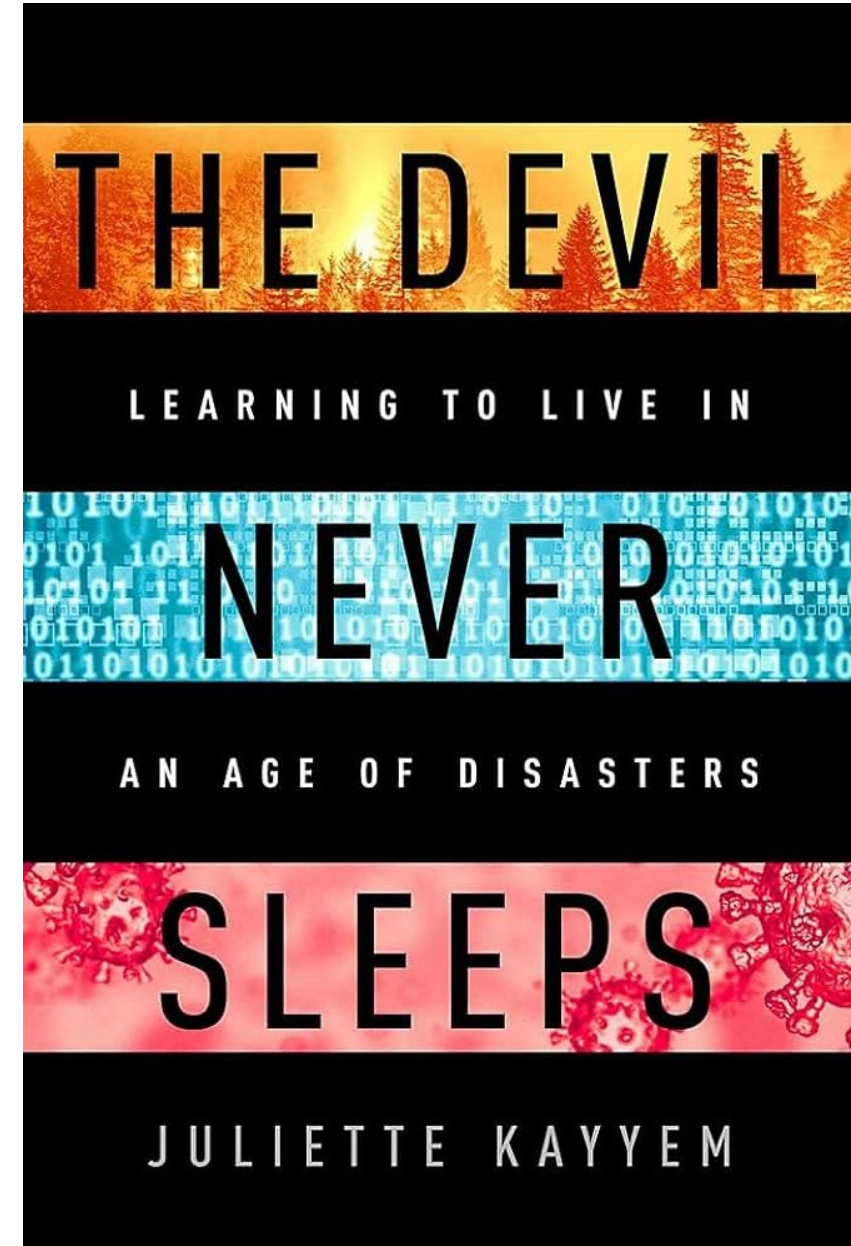
Preparing For The Boom

1. Acceptance that prevention will fail
2. Mechanisms to listen and communicate as the boom (and consequences) happen
3. Structures to enforce unity of efforts to respond



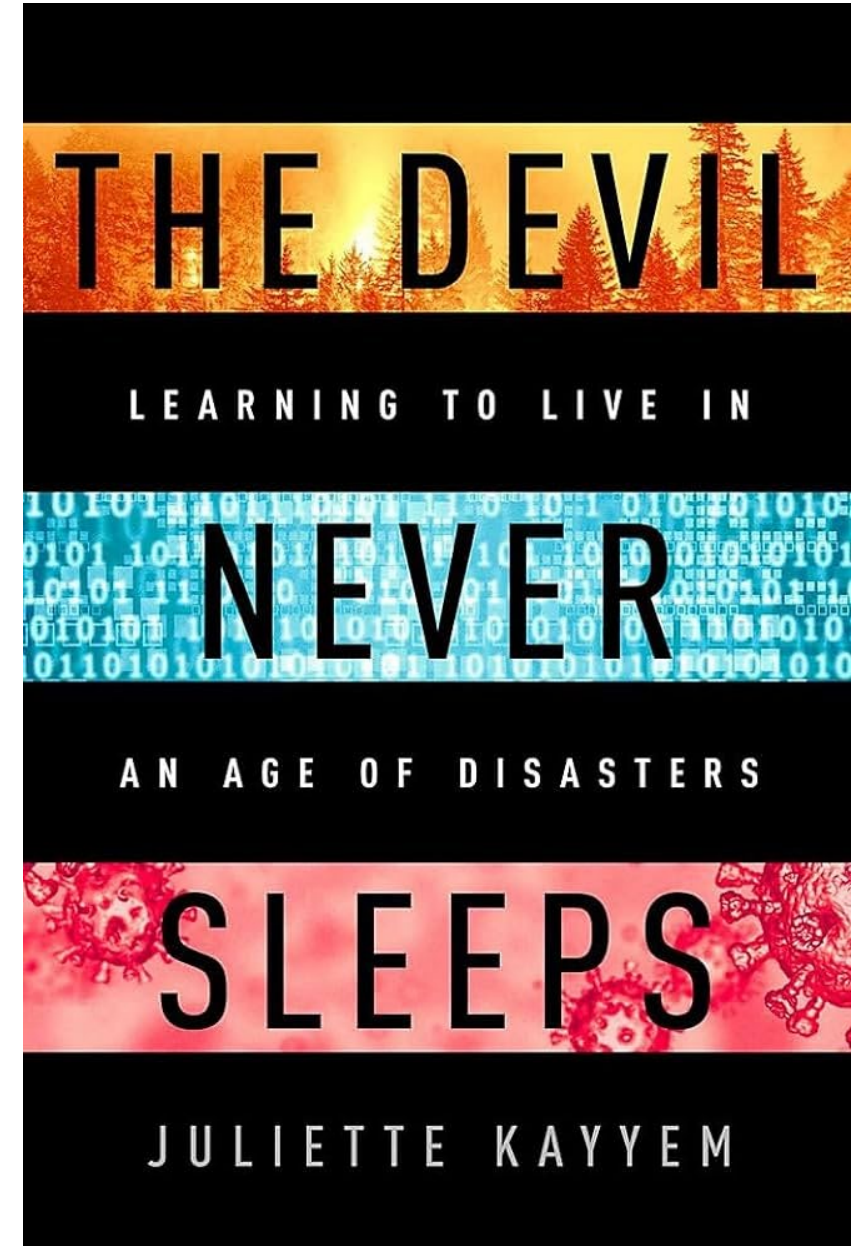
Avoiding Left Side Harms

4. Last Line of Defense Crutch
5. Constantly Testing Response Systems
6. Training How to “Stop the Bleed”

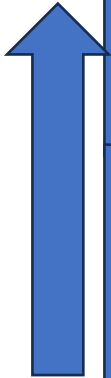


Right-Side Tactics

- 7. Pivoting in Real-Time
- 8. Learning for the Devil's Next Visit



Probability: Left Side of Boom



Car Accidents

Gray Rhino

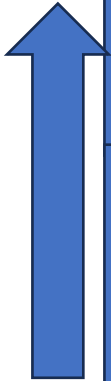
Selfie Stick Deaths

Black Swan



Consequence: Right Side of Boom

Probability: Left Side of Boom



Car Accidents



Gray Rhino

Selfie Stick Deaths



Black Swan



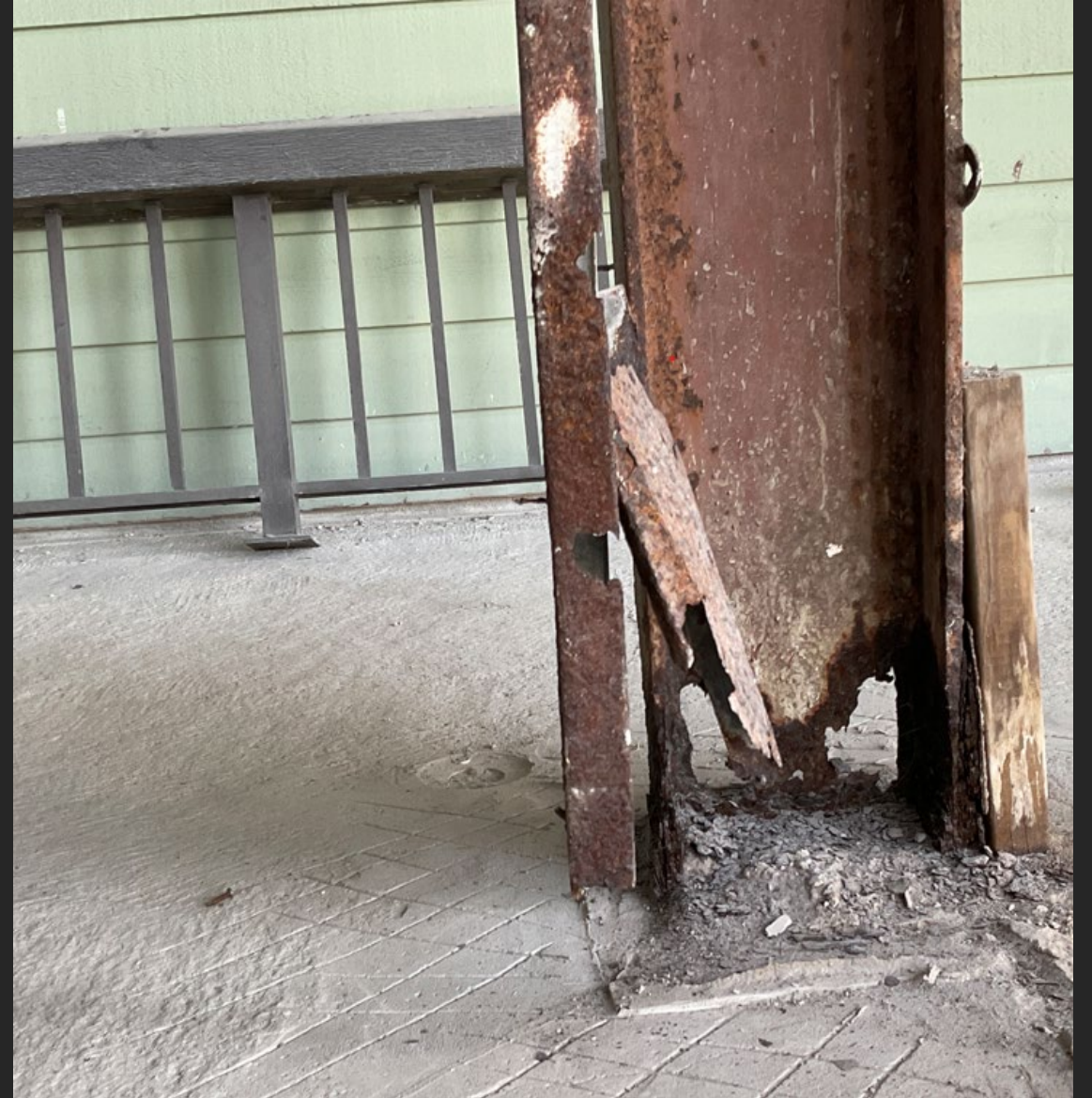
Consequence: Right Side of Boom

The devil only wins if we don't do better next time.

You are here.







Good
leadership is
knowing that a
crisis is coming



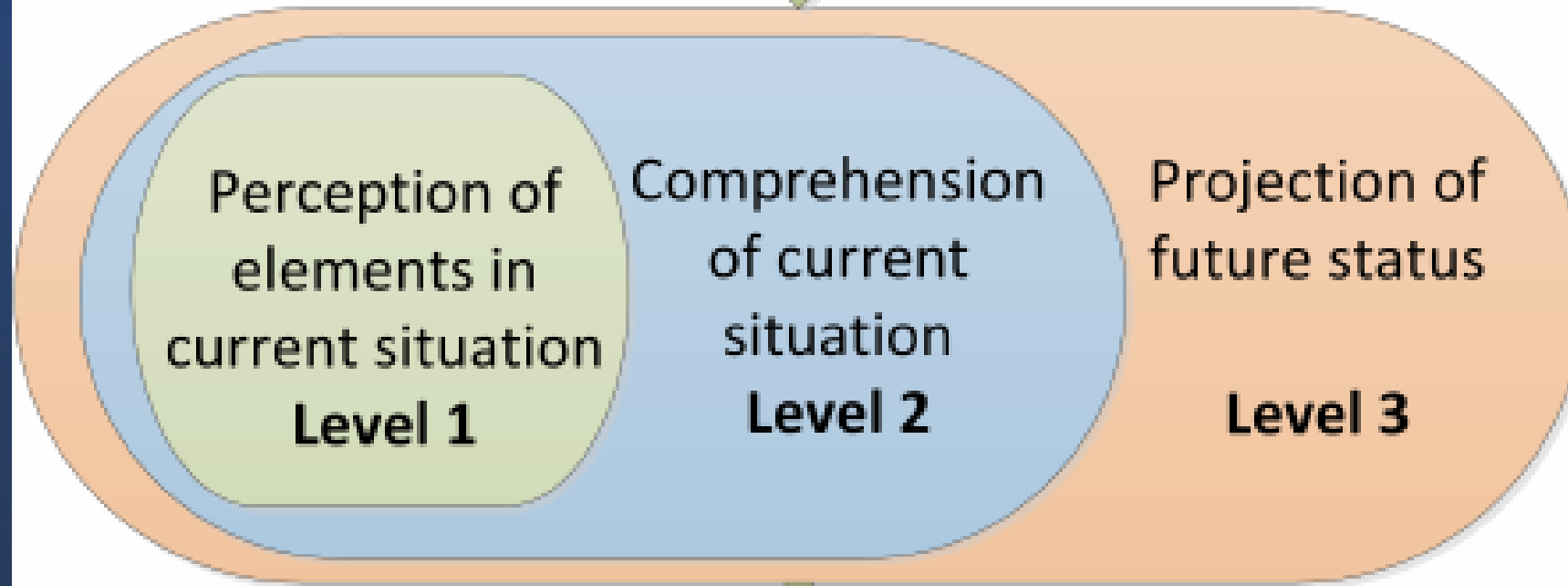


Know What Your Fire Is Doing
What's The Word?

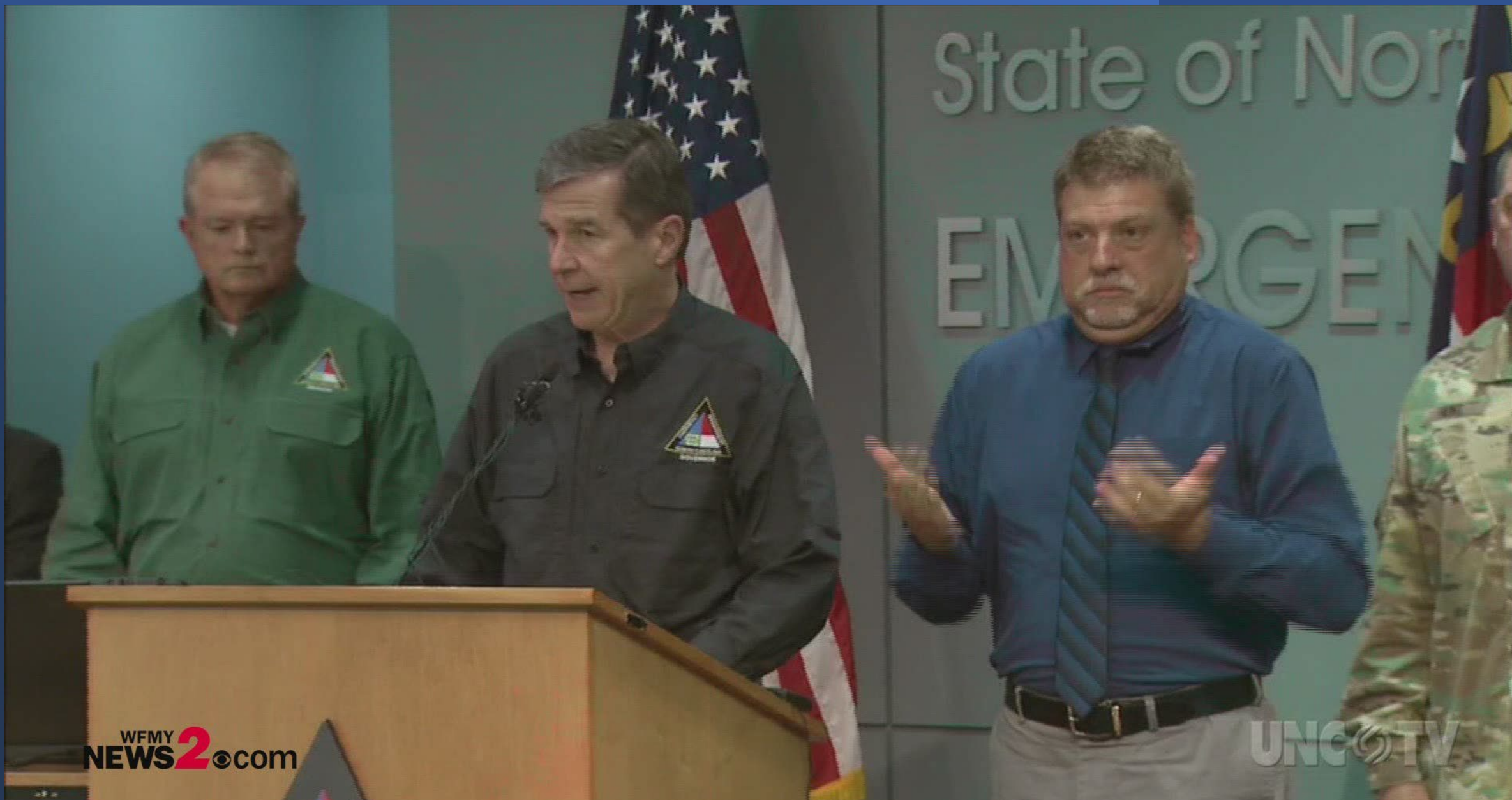


State of the Environment

Situation Awareness



Desicions





Avoid the Last Line of Defense Trap

- Recap: tomorrow is too late to start preparing.
- Single point of failure: mechanism that causes the whole system to falter when it goes down.
- The last line of defense is a trap for 3 important reasons.



Avoid the Last Line of Defense Trap

- First, the last line of defense provides a false sense that all is well if the last line of defense is not breached.
 - FEMA: failure mode and effects analysis



Avoid the Last Line of Defense Trap

- Second, the last line of defense puts a lot of pressure on that single defense.



Avoid the Last Line of Defense Trap

- Third, the last line of defense makes us assume that, once breached, that failure is a steady state.



Avoid the Last Line of Defense Trap

- Like layered defenses, layered responses will save lives and limit damage.
- The plan must assume that the last line of defense will fail, and the fire will come.
- Layered defenses should be separated so they are not impacted by each other's failures.



Avoid the Last Line of Defense Trap

- If the design is fundamentally flawed, start all over. If the devil is coming again and again, no amount of tinkering is going to fix a fundamentally flawed system.

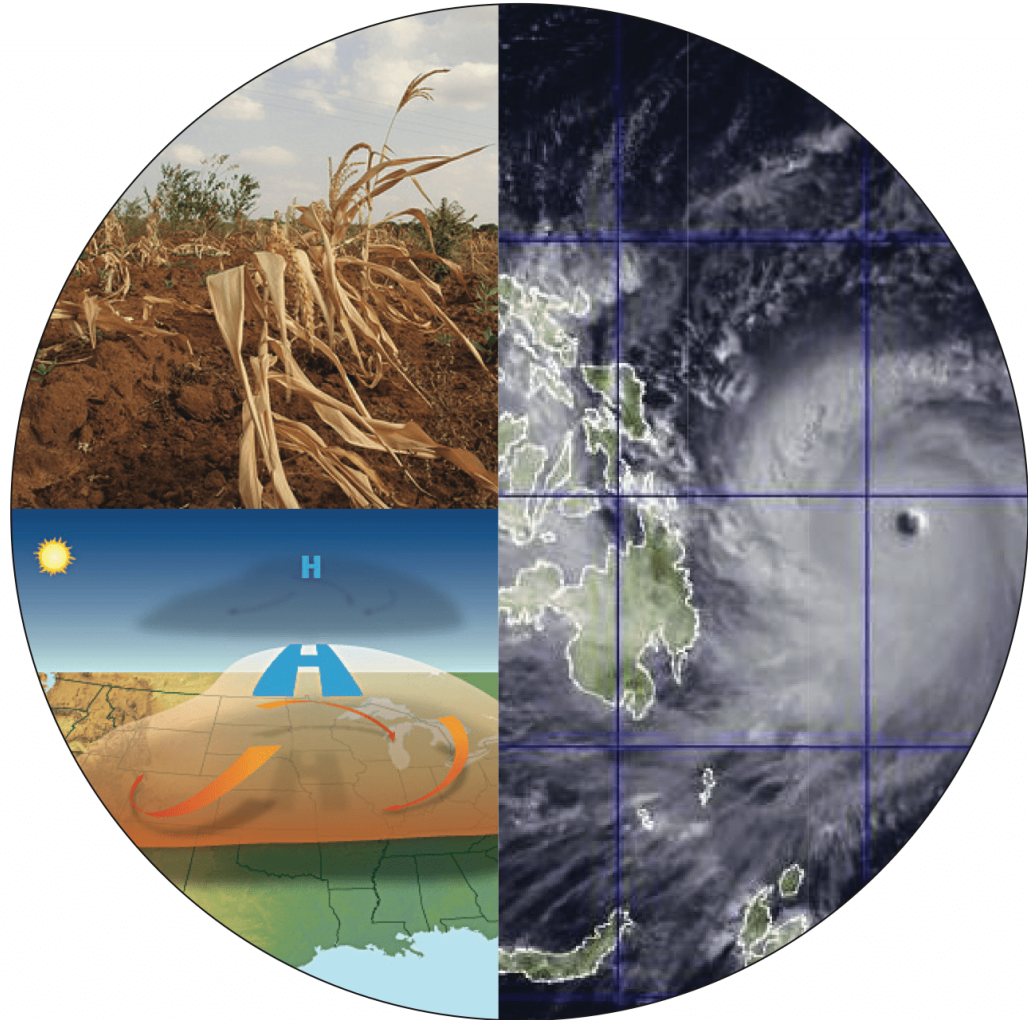


Avoid the Last Line of Defense Trap

- We need to accept that when a system's points of failure are ultimately so vulnerable that we should no longer move forward. There is risk in everything we do, and we will be judged if we dismiss it rather than manage it. But at some stage, the risks may become too great, too difficult to manage. That is when retreat may be the ultimate consequence minimization technique.

Avoid the Last Line of Defense Trap

- Less bad is our standard.



Stop the Bleed

- Think of a tourniquet.
 - Stop the bleed.
 - Minimize cascading losses.
- Don't assume that all disasters are an on/off switch between nothing happening (left of boom efforts were successful) and everything happening (the damage is catastrophic).



Stop the Bleed

- Cascading losses describe the phenomenon when the disaster's impacts flow and accumulate, exponentially increasing the harm.
- To minimize such disruptions, systems must be built that recognize that some harm may already have occurred, but more harm may follow.

Stop the Bleed

- Managing how we can slow cascading losses forces us out of the binary box of disaster management and focuses on how we might better fail safely.
- A fail-safe that limits cascading losses serves as a good analogy for disaster management planning in a world where disasters keep coming.



Stop the Bleed

- Learning from Zombies
- It is only when humans actually cooperate, recognize the disaster unfolding, and try to mitigate the harm that things begin to look better.
 - “There are only nine meals between mankind and anarchy.”



Buildings Aren't
Supposed to
Fall







The Near Miss Fallacy







“High dwellings are the peace and harmony of our descendants. Remember the calamity of the great tsunamis. Do not build homes below this point.”





**KEEP
CALM
AND
CARRY
ON**

The Now Normal



You are Here.