

**CAN THE ZOMBIE APOCALYPSE HELP
YOU SURVIVE YOUR PROJECTS?**

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The content in this presentation is the sole responsibility of Hans Eckman.

Preparing for Any Project Demand



■ Why Zombies?

- Metaphor for the worse case scenario
- Model for transferrable skills
- Zombies are fun!
Creates an new way to develop/practice skills

■ Transferrable Skills

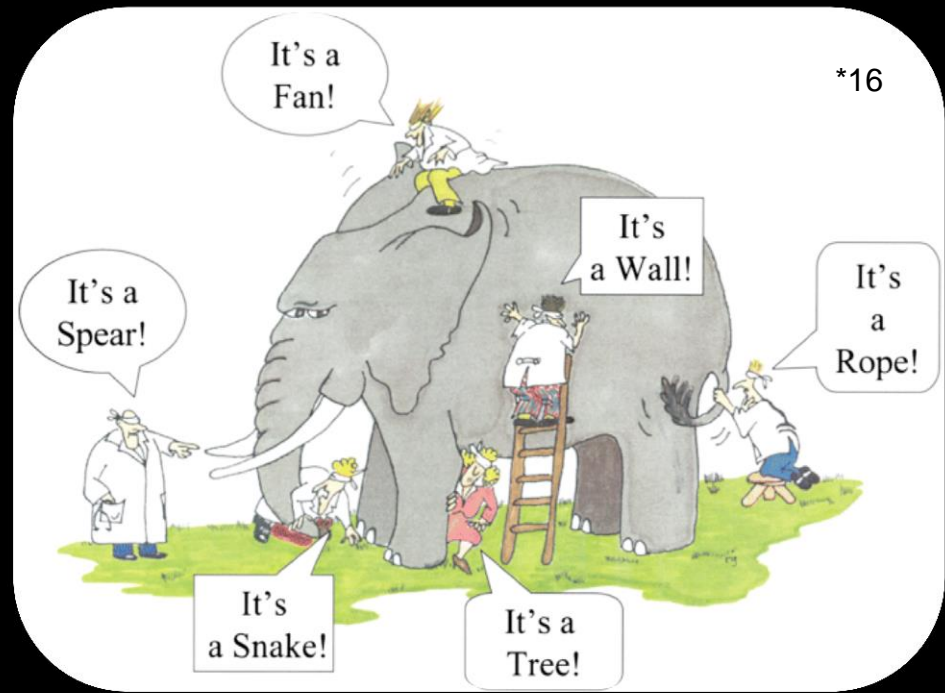
- Enterprise analysis
- Planning
- Change management
- Data analysis
- Solution validation
- Process decomposition

Lesson: Work skills can be developed through everyday activities.

Properly Defining Needs

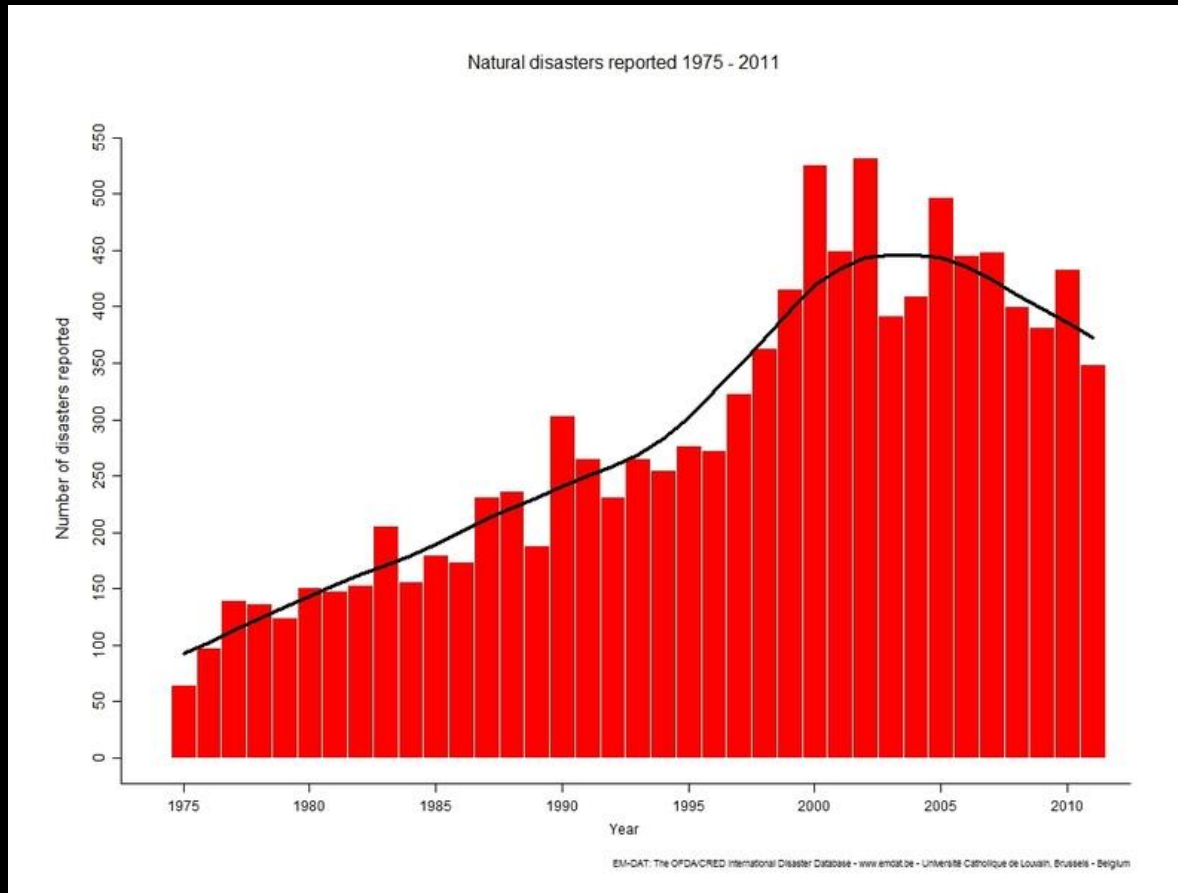


- Project approach
 - New goal
 - Market opportunity
 - Respond to threat
 - Start with solution



Lesson: How you define the needs or opportunity can radically affect the solution's value.

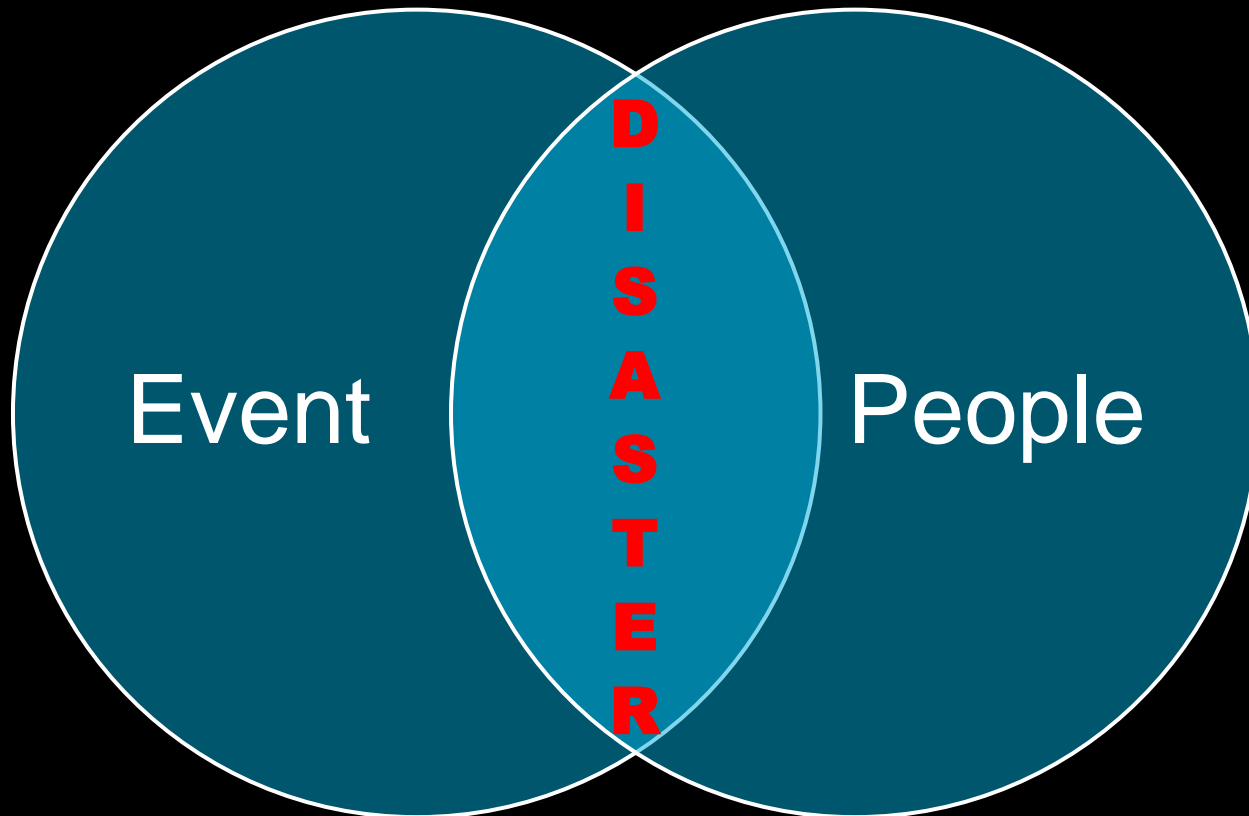
Natural Disasters Reported 1975-2011



Source: <http://www.emdat.be/natural-disasters-trends>

Lesson: Start with the data you have. Remember there is a big difference between data and knowledge.

What Causes a Disaster?



Miami Beach



1940s^{*14}



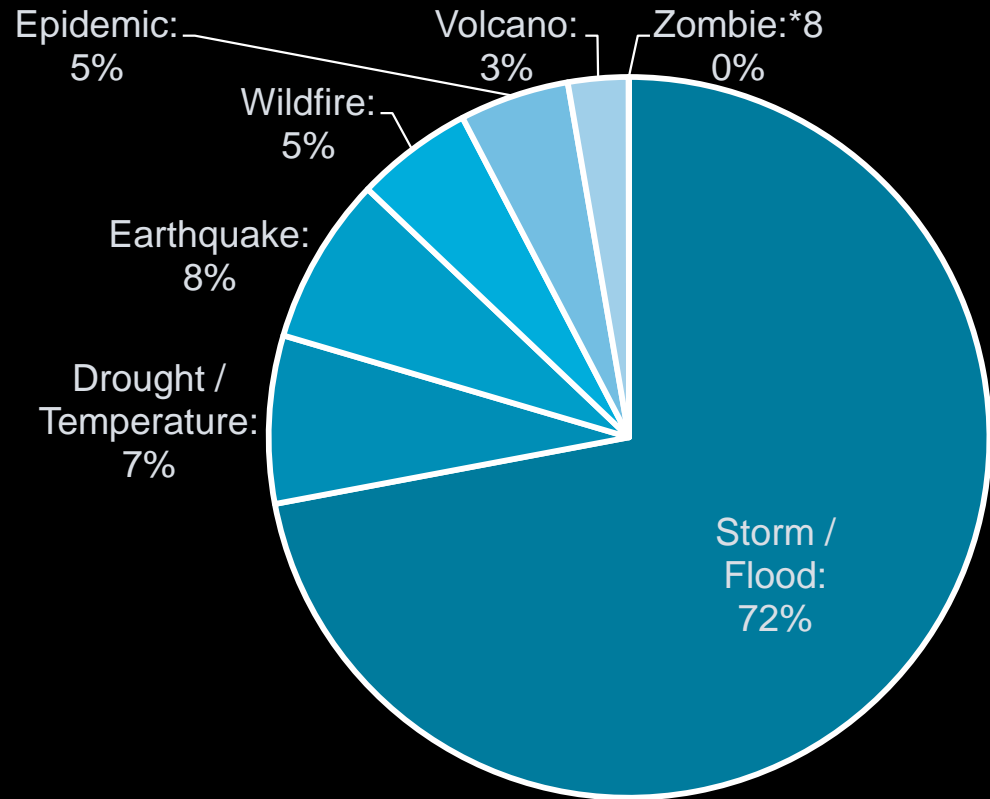
Today^{*15}

Lesson: Understand the context.

Distribution of Disasters in the Americas 1980 - 2008



Overview:	
Events:	2,101
People killed:	154,662
Avg. killed/year:	5,333
People affected:	165,729,935
Avg. people/year:	5,714,825



Source: http://www.preventionweb.net/english/countries/statistics/index_region.php?rid=2

Lesson: Decomposition is required in core areas. Helps prioritize needs, improve ROI and lower TCO.

Zombies, not likely... Potential Apocalypses?



Analysis and
Planning

Elicitation

Requirements
Management

Enterprise
Analysis

Requirements
Analysis

Solution
Assessment

- Spanish Flu – 1918*¹
 - 30% of the world's population infected
 - 3-6% of the entire global population died
- SARS: Severe Acute Respiratory Syndrome 2002*²
 - 8,273 cases and 775 deaths worldwide (9.6% fatality)
 - Only weeks to spread to 37 countries
- Hurricane Katrina– 2005*³
 - Displaced over 1 million people (Failure of levees)
 - Reduced Gulf oil production by 24% for 6 months

**Lesson: Past performance is not an indicator of future performance.
Reaction = Short term solutions; Root Cause = Long term solutions**

Our Fragile Society

(NFR, Process Analysis, External Entities)



- A Zombie outbreak would claim city of 500,000 in just 3 days^{*6}
- Most major cities have only a 3 day supply of food in stores and local markets
- A 3 day gas interruption after hurricane Katrina caused a 3+ week shortage in Georgia^{*11}
- 2003 power grid failure affected 45 million people^{*9}, and 700,000 without power during 2013 snow storm Nemo^{*10}
- In 2013, public statements from VP Biden on gun control caused a 9 month ammunition shortage

Lesson: To implement long term improvements, focus on the cause not the symptoms.

Redefining Project Scope and Outcome

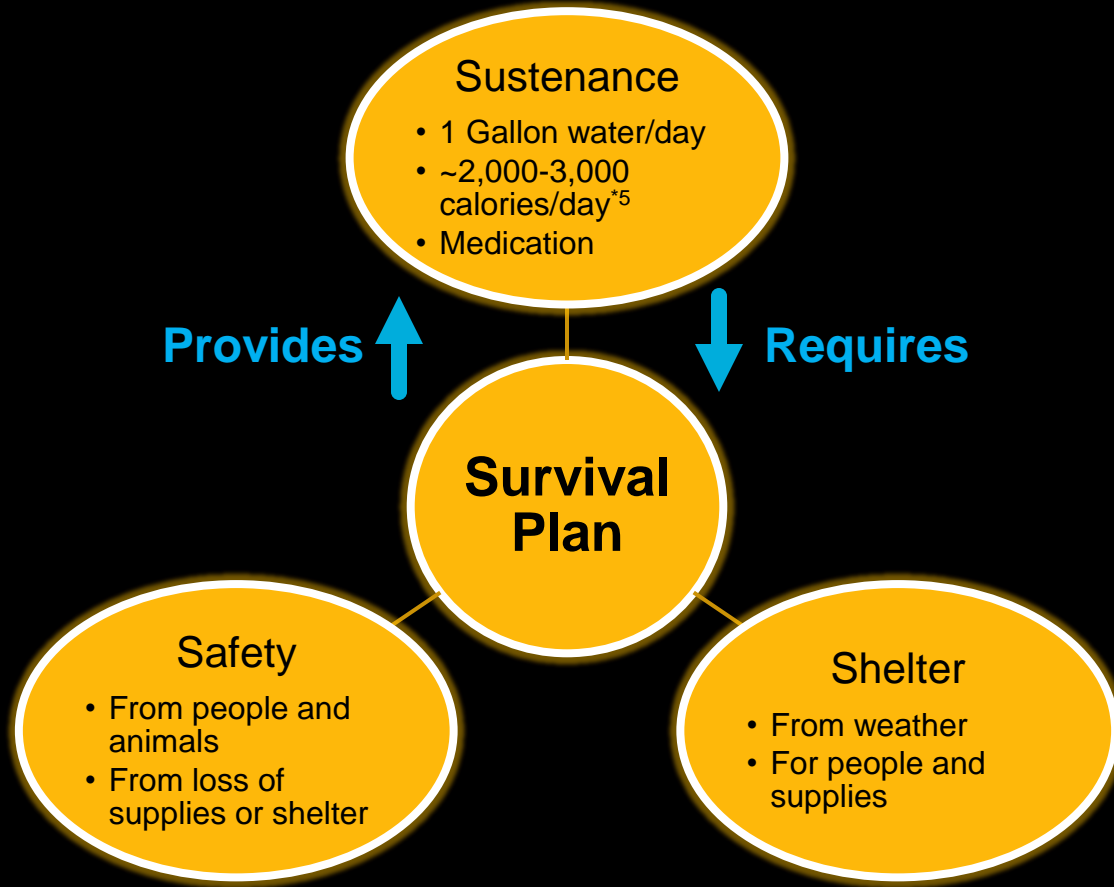


- Failed Scope / Needs Definition
 - Increasing frequency of threats
 - Type of threat:
 - Sorry, no zombies
 - Disease – High fear factor, lower probability
- New Scope
 - Create plan to cope with core needs during any disaster

Lesson: How you define the problem/outcome dramatically affects the value of the solution. Target individual symptoms or root cause for any situation.

Keys to Survival

(Business Context Diagram, Key Business Features)



Lesson: When in doubt, map with a context diagram.

Stages of a Disaster

(As Is Process Analysis, Requirements Approach)



**Stage 0
Before the Event**

**Stage 1
Disaster Strikes**

**Stage 2
Resupply**

**Stage 3
Secondary Collapse**

**Stage 4
Recovery**

- Use cases / Stories
- Non-functional requirements
- Models
- User experience
- Entities
- Detailed process decomposition

Lesson: Business Process Mapping can be a great structure for eliciting requirements and design.

Stage 0 – Before the Event

(Define Actors and Use Cases)



Public becomes aware of pending disaster.

- Actor: Unaware
 - Ignores warnings
 - Takes no action
- Actor: Unprepared
 - Rush, panic buying
 - Stays or flees area with no plan
- Actor: Prepared
 - Evaluates situation, updates and follows plan



Lesson: Define principal Actors; then refine scope and approach. Limit solution to primary Actors or required Actors.

Stage 1 – Disaster Strikes

(Process Analysis, Requirements)



Bugging In (Stay in Place)

- Local supplies depleted
 - Panic buying
 - Looting
- Temporary gas shortage
- Loss of power and water
- Private supplies dwindle

Bugging Out (Flee the Area)

- Traffic jams and blocked roads
- Conditions better/worse at destination
- Shortage of hotels
- Limited supplies
- Limited resupply

Lesson: 1. Don't forget to consider TIME as an Entity. 2. A Use Case is either static when executed or flexible to allow decisions.

Stage 2 – Resupply

(External Entities, Disaster Recovery)



- Companies are able to restock
- Supplies from relief groups or government
- Communities provide assistance
- Repairs to infrastructure restore services
- Supplies stolen from secondary sources
 - Non-retail businesses, warehouses, and public buildings
 - Residences and vehicles

Lesson: Don't stop at defining Inputs. Consider throughput and constraints as well.

Stage 3 – Secondary Collapse

(Process Analysis, NFRs, UAT)



- Hoarding creates artificial scarcity
- Additional infrastructure failures
- Disruption of public and private services
- People become more desperate leading to organized gangs
- Disease
- Starvation



*13

Lesson: When resources are scarce, hoarding often results. (Resources, funding, inaccurate estimates, missed dependencies, rejected requests)

Stage 4 – Recovery

(Disaster Recovery, Release Planning)



Restoration or replacement of:

- Food, clean water, and medical
- Power
- Transportation
- Sanitation
- Commerce
- Residences



Lesson: After a transformation, you are in the “new normal”. Do you stop, look for incremental improvements or start over.

Most Common Mistakes

(Negative Testing, Requirements Validation)



Survival Mistakes

- Waiting too late to prepare or take action
- Lone wolf: Works for short duration only
- Resupply: Retail or distribution center
- Underestimating consumption
- Loss of communications

Project Equivalent

- Start after business impact causes loss
- Cross-team collaboration required
- Surplus resources may be gone later
- Poor forecasting and planning
- Inadequate communication

Lesson: Analogies can often help work through problems, as long as the analogy does not create false constraints or dependencies.



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- The content in this presentation is the sole responsibility of Hans Eckman.
- No animals were harmed during the creation of this presentation. Please support your local rescue groups. (like Leftover Pets - <http://www.leftoverpets.org>)



SURVIVAL APPENDIX AND REFERENCES

Don't Fear the Zombies

- Zombies
 - No scientific basis for the animated dead being able to exist or persist
 - Encounter = Death, especially fast zombies
 - Survive 3-6 weeks, plague will burn out
- Stages of Decay*7
 - Rigor mortis after 3-24 hours, hardening of the body
 - After 36-72 hours, muscle tissue relaxes and tissue begins to decompose and liquify
 - Full skeletonization usually in 2 weeks to 2 years

Weapons for Survival

- Machete (not swords)
- Light weight pry bar (defense and entry)
- .22LR rifle with detachable or tube magazine (Ruger 10/22, Henry lever action)
- Pistol: .38 revolver, 9mm/.45 semi-auto, .22LR
- Shotgun: 12 or 20 gauge pump (Mossberg 500)
- Rifle: 30/30 lever, 30/06 or .308 bolt action
- Semi-auto Rifle: AR-15 semi-auto 5.56/.223
- Most common ammunition (resupply):
 - Government: 5.56x45 (.223), 7.62x52 (.308), 9mm
 - Private: .22, 30-30, 30/06, .223, .308, .38, 9mm, .45

Most Common Mistakes

- Waiting too late to prepare or take action
- Where to Bug Out: The mall, unfamiliar areas
- Lone wolf: Works for short duration only
- Weapons = Safety
- Resupply: Retail stores or distribution center
- Relying on government or relief groups
- Underestimating consumption
- Rural = Food
- Pharmacies/Hospitals for medical supplies (veterinarian offices)
- Loss of communications

3 Day Survival Pack

- Backpack
- MRE or Freeze dried food
- Flashlights
- Batteries
- Hand-crank radio
- Multi-tool
- Knives (folding and fixed)
- 550 paracord
- Clothes and shoes
- Water purification tabs or filter
- Multi-vitamins
- First aid kit
- Survival handbook
- Hygiene necessities
- Fire-starting materials
- Emergency blankets
- Bug repellent
- Compass
- Map
- Signal mirror
- Sun block
- Safety whistle
- Ziploc bags
- 150gr Alcohol
- Tarp
- Water bottles
- Moleskin
- Roll of duct tape
- Camp stove
- Can opener (small)
- Machete
- Prybar
- Folding shovel
- Saw
- Poncho
- Solar charging kit
- Cash
- Personal defense
- Medications
 - Anti-diarrhea medication
 - Anti-inflammatory
 - Pain
 - Decongestant
 - Prescription
 - Anti-fungal
 - Anti-itch
 - Honey

3 Weeks – 3 Months Survival

See Web Resources for detailed lists

- Expanded consumables
- Full backpack
- Solar recharger
- Water purification tablets, bleach and high flow water filter
- Camp toilet
- Cart, wagon, bike, etc. to collect/move supplies
- Firearms and ammunition (safety and barter)
- Improved shelter
- Water/rodent proof containers
- Sleeping bag
- Machete
- Prybar
- Extra boots
- Gas cans
- Fuel syphon or lightweight hose
- Alternate fuel supplies
- 2 way radios with multiple bands
- Handheld scanner
- Aluminum foil (cook, cover windows)
- Binoculars
- Night vision optics
- Additional medications

Web Resources

- ZombieSquad - <http://zombiehunters.org/>
- SurvivaBlog.com
- [Food Supply Guidelines for Survival Preparedness](#)

Bug Out Bag and Survival Lists

- <http://www.ready.gov/build-a-kit>
- <http://frugaldad.com/2010/02/10/bug-out-bag-essentials/>
- <http://www.survivalhour.com/Articles/bug-out-bag-checklist>
- <http://www.amazon.com/Bug-Out-Bag-Essentials/lm/R3GJVHW6V2NAZV>
- <http://www.howtosurvivestuff.com/survival-gear/bug-out-bag-checklist-essentials-for-your-tactical-supply-and-survival>
- <http://www.survivalblog.com/newbies.html>
- <http://www.thesurvivalistblog.net/category/bugging-out-bags-kits/>
- <http://inchsurvival.com/site/2012/12/bug-out-bag-checklist/>
- <http://www.bugoutbaglist.com/>

Reference Materials: Non-Fiction

- How to Survive the End of the World as We Know It: Tactics, Techniques, and Technologies for Uncertain Times by James Wesley Rawles
- Survival Wisdom & Know How: Everything You Need to Know to Thrive in the Wilderness by The Editors of Stackpole Books
- When There Is No Doctor: Preventive and Emergency Healthcare in Challenging Times by Gerard S. Doyle (Author)
- Medicine for the Outdoors: The Essential Guide to First Aid and Medical Emergency, 5th Edition by Paul S. Auerbac
- How to Shit in the Woods, 3rd Edition: An Environmentally Sound Approach to a Lost Art by Kathleen Meyer
- The Hot Zone: A Terrifying True Story by Richard Preston
- Parasite Rex: Inside the Bizarre World of Nature's Most Dangerous Creatures by Zimmer, Carl

Reference Materials: Fiction

Books

- World War Z: An Oral History of the Zombie War by Max Brooks
- The Zombie Survival Guide: Complete Protection from the Living Dead by Max Brooks
- One Second After by William R. Forstchen
- Rot & Ruin by Jonathan Maberry
- Patient Zero: A Joe Ledger Novel by Jonathan Maberry
- Apocalypse Z: The Beginning of the End by Manel Loureiro
- 77 Days in September by Ray Gorham
- The Moon Is a Harsh Mistress by Robert A. Heinlein
- Atlas Shrugged by Ayn Rand

Movies

- I Am Legend
- 28 Days Later
- Day of the Dead
- World War Z

Citations

- Zombie title slide image: http://artescritorio.com/wp-content/uploads/2011/01/zombies_by_sunnydarkside.jpg
- 28 Days Later Trailer, Source: <http://youtu.be/eunaclr-WgU>
- City background: <http://www.presidiacreative.com/wp-content/uploads/2010/04/apocalypse-37.jpg>
- 1. http://en.wikipedia.org/wiki/Spanish_flu
- 2. http://en.wikipedia.org/wiki/Severe_acute_respiratory_syndrome
- 3. http://en.wikipedia.org/wiki/Hurricane_katrina#Aftermath
- 4. http://www.nypost.com/p/news/international/building_full_of_miracles_in_chile_n4OiaxrN15kXQGV5C1yhJN
- 5. <http://www.cnpp.usda.gov/Publications/USDAFoodPatterns/EstimatedCalorieNeedsPerDayTable.pdf>
- 6. <http://www.wired.com/wiredscience/2009/08/zombies/>
- 7. <http://science.howstuffworks.com/body-farm1.htm>
<http://www.environmentalgraffiti.com/chemistry/news-afterlife-human-corpse-stages-decomposition?image=1>
- 8. <http://miami.cbslocal.com/tag/zombie-attack-florida/>
<http://www.ibtimes.com/another-zombie-attack-naked-florida-man-jeremiah-haughee-climbs-roof-bites-home-owner-and-cop-722177>
<http://www.nydailynews.com/news/national/florida-zombie-attack-naked-man-storms-girlfriend-house-bites-chunk-man-arm-article-1.1099760>
- 9. http://en.wikipedia.org/wiki/Northeast_blackout_of_2003
- 10. http://en.wikipedia.org/wiki/February_2013_nor'easter
- 11. http://money.cnn.com/2005/09/01/markets/gas_prices/
- 12. <http://www.vermonttimberworks.com/Web-Photos/Barns/Barn-Raising-hi-res.jpg>
- 13. <http://www.earthrights.org/blog/long-wait-over-un-general-assembly-resolution-establishes-human-right-access-water-and>
- 14. <http://www.myspace.com/alvininnaples/photos/15456183#%7B%22ImageId%22%3A15456183%7D>
- 15. <http://askaskowitz.com/about-miami-beach/>
- 16. <http://signature-strength.com/wp-content/uploads/2013/09/different-perspectives.gif>