



CAN THE ZOMBIE APOCALYPSE HELP YOU SURVIVE YOUR PROJECTS?

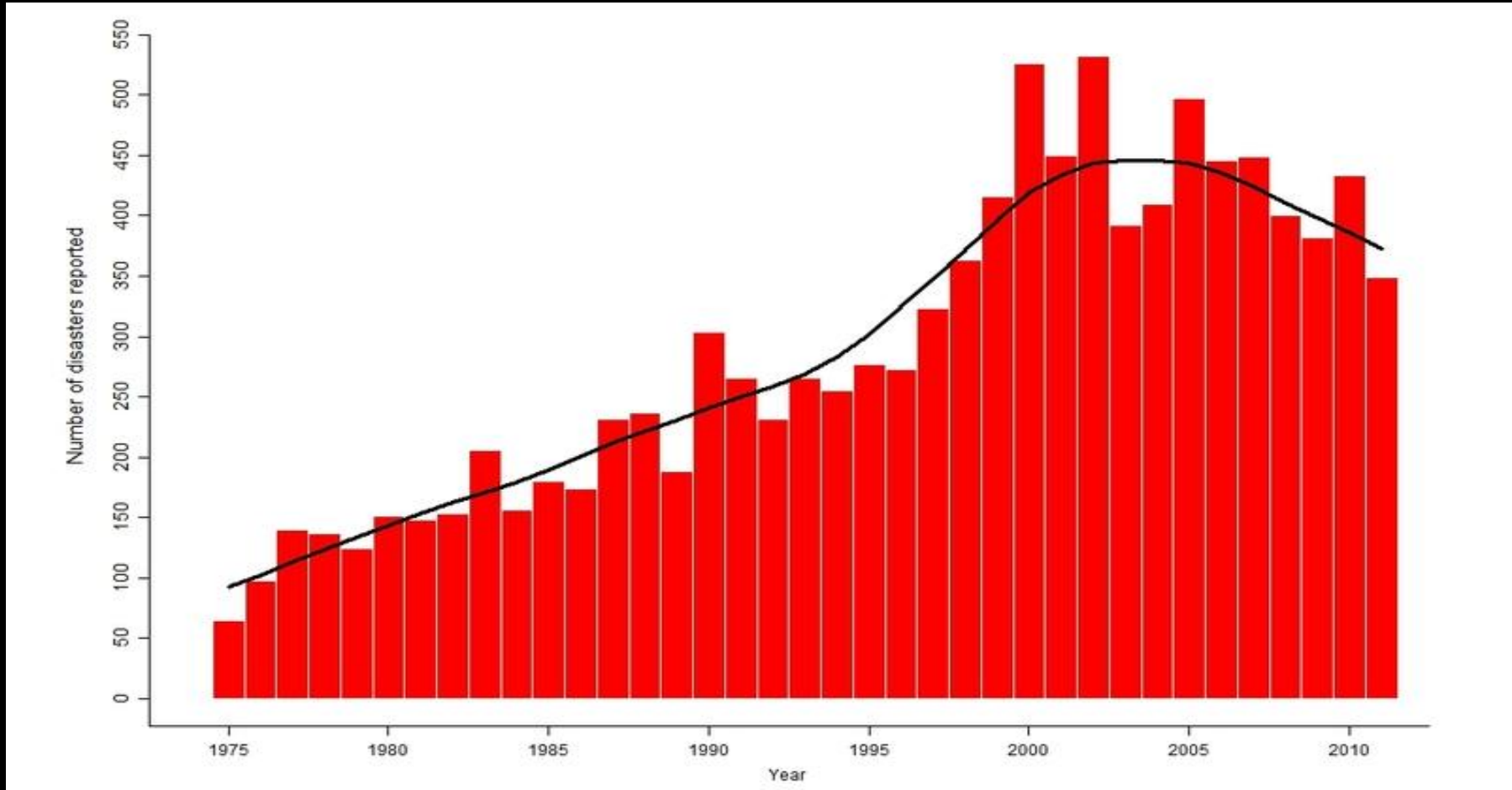
IIBA Minneapolis/St.Paul Chapter (IIBAMSP.org)
Skills for Success – Professional Development Day April 15, 2013
By Hans Eckman
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Scope and Goals



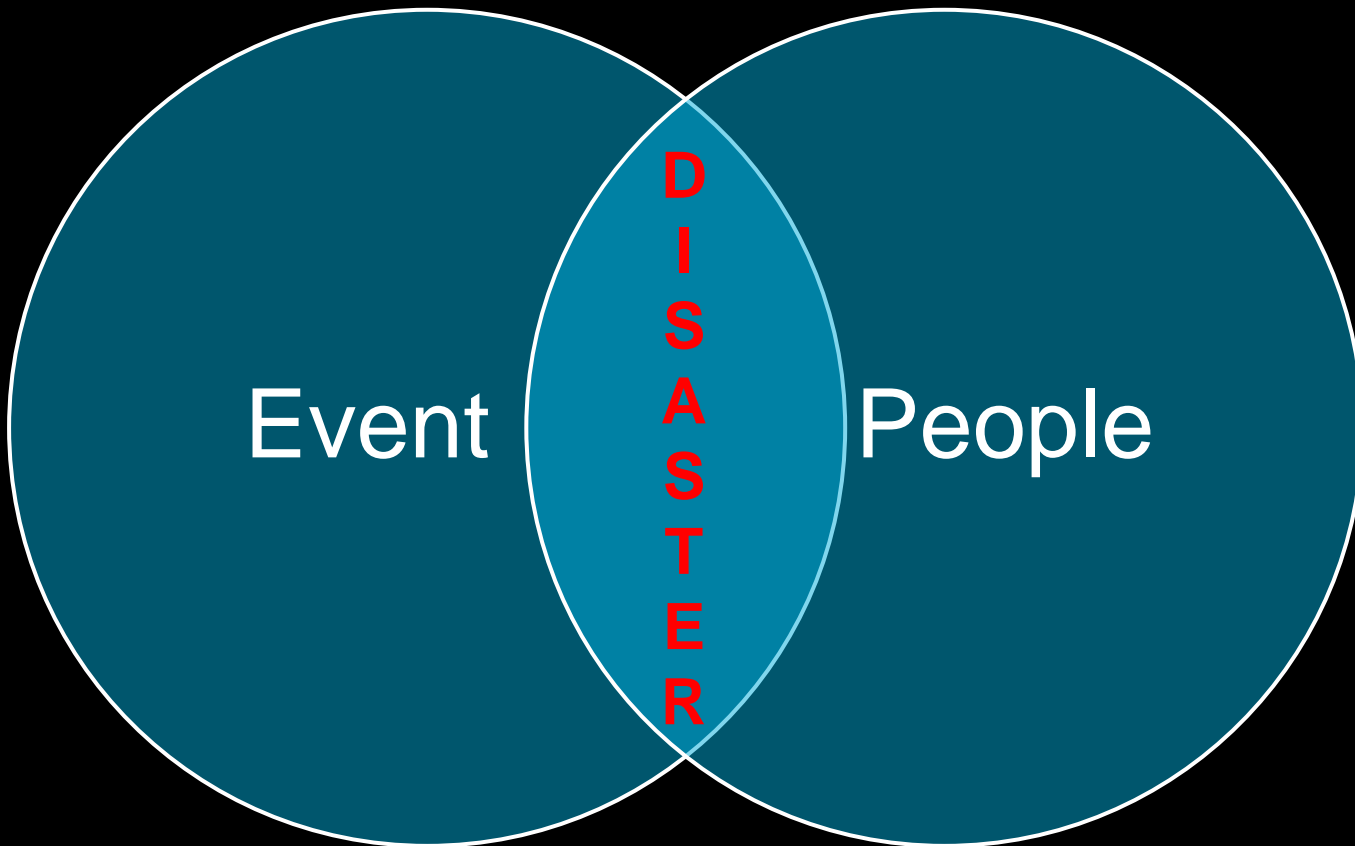
- Define high level requirements to survive each scenario (Business Features)
- Define sequence of events, survival scenarios and key threats for each scenario (Process Analysis)
- Create baseline requirements which can be continuously updated based on your preparation and likelihood of threats (Requirements Management, Requirements Analysis, Solution Assessment)
- Additional survival tips and tricks in appendix and as time allows (Requirements Package, Production Support Playbook)

Natural Disasters Reported 1975-2011



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

What Causes a Disaster?



Miami Beach



1940s^{*14}



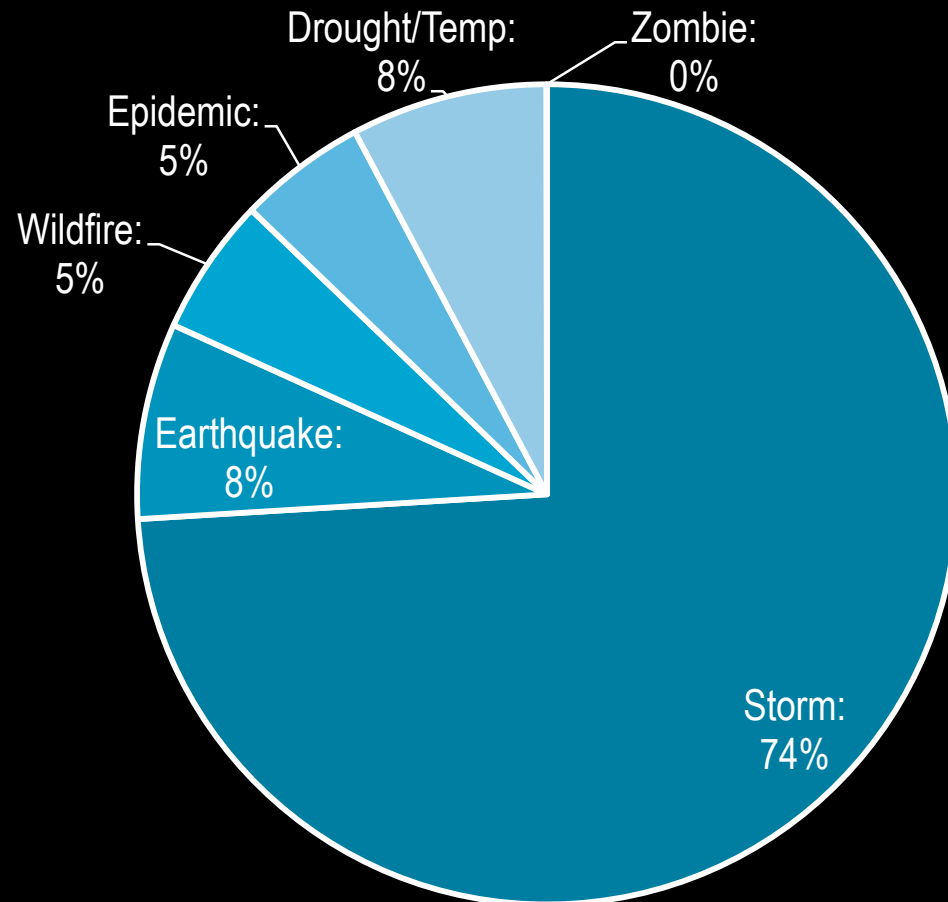
Today^{*15}

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

Average per Year:	
Storm:	26.59
Flood:	22.9
Earthquake:	5.17
Wildfire:	3.62
Epidemic:	3.38
Drought:	2.86
Temperature	2.31
Volcano:	1.86
Zombie: ^{*8}	0.01



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

Zombies, not likely...

Potential Apocalypses?



- 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

Our Fragile Society

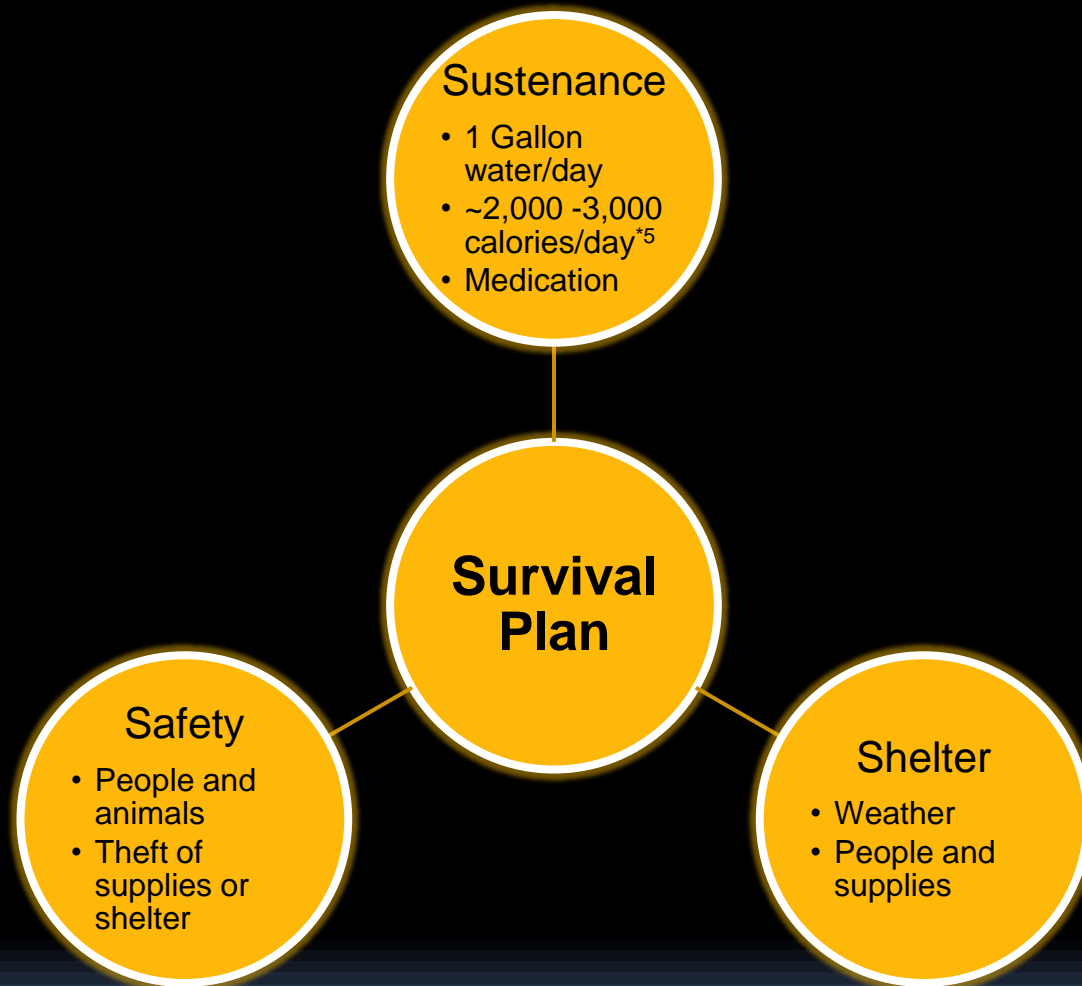
(NFR, Process Analysis, External Entities)



- 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

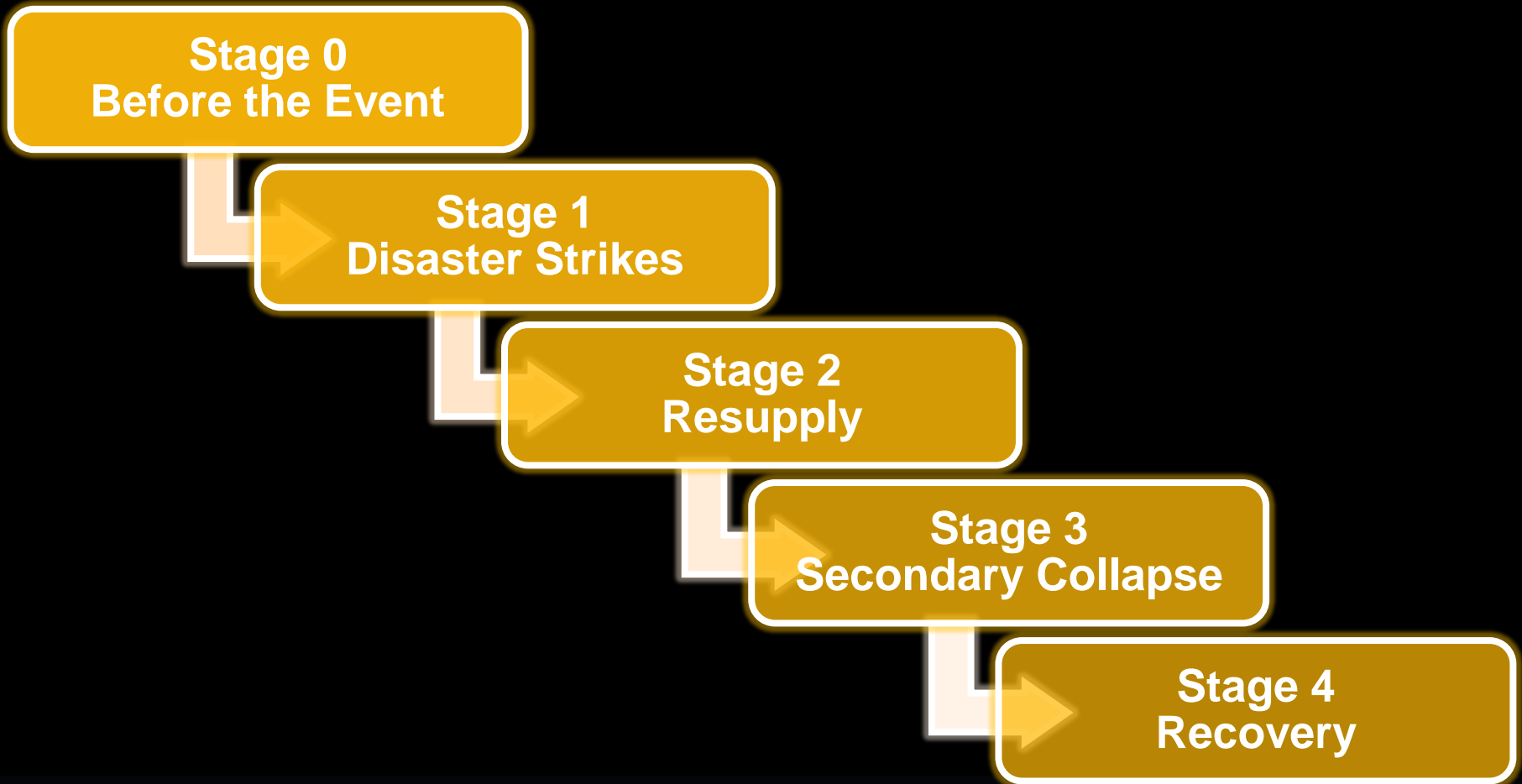
Keys to Survival

(Business Context Diagram, Key Business Features)



Stages of a Disaster

(As Is Process Analysis, Requirements Approach)



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



*4

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

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

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

Stage 4 – Recovery

(Disaster Recovery, Release Planning)



Restoration or replacement of:

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



*14

Most Common Mistakes

(Negative Testing, Requirements Validation)



1. Waiting too late to prepare or take action
2. Where to Bug Out: The mall, unfamiliar areas
3. Lone wolf: Works for short duration only
4. Weapons = Safety
5. Resupply: Retail stores or distribution center
6. Relying on government or relief groups
7. Underestimating consumption
8. Rural = Food
9. Pharmacies/Hospitals for supplies (vet offices)
10. Communication

Don't Fear the Zombies

(Non-functional Requirements)



■ 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



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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>)

A dark, atmospheric scene of a ruined city. The sky is filled with heavy, dark clouds, and a bright light source, possibly the sun or moon, is visible through a gap in the clouds, creating a dramatic silhouette effect on the skeletal remains of buildings and structures. The foreground is filled with debris and rubble, suggesting a scene of total destruction. The overall mood is somber and desolate.

SURVIVAL APPENDIX AND REFERENCES

Weapons for Survival

(Non-Functional Requirements)



- 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, .45
 - Private: .22, 30-30, 30/06, .223, .308, .38, 9mm, .45

3 Day Survival Pack

(Non-Functional Requirements)



- 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-inch
 - Honey

3 Weeks – 3 Months Survival

(Non-Functional Requirements)



See Web Resources for more 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

- SurvivaBlog.com
- ZombieSquad - <http://zombiehunters.org/>
- [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

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- 28 Days Later Trailer, Source: <http://youtu.be/eunaclr-WgU>
- City background: <http://www.presidiacreative.com/wp-content/uploads/2010/04/apocalypse-37.jpg>
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- 15. <http://askaskowitz.com/about-miami-beach/>