

Joplin Tornado 2011

Lessons Learned



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EM Attending

Residency Program Director

Freeman Health System

Objectives

- Discuss effect of tornado on Joplin
- Discuss effect of tornado on St John's
- Discuss effect of tornado on Freeman
- Discuss effect of tornado on our ED practices

Joplin

- 1873
- 50,000 → 270,000 → 40/400,000
- 2000 hotel rooms
- 150 restaurants
- Springfield 75
- Tulsa 90
- KC 150



Joplin

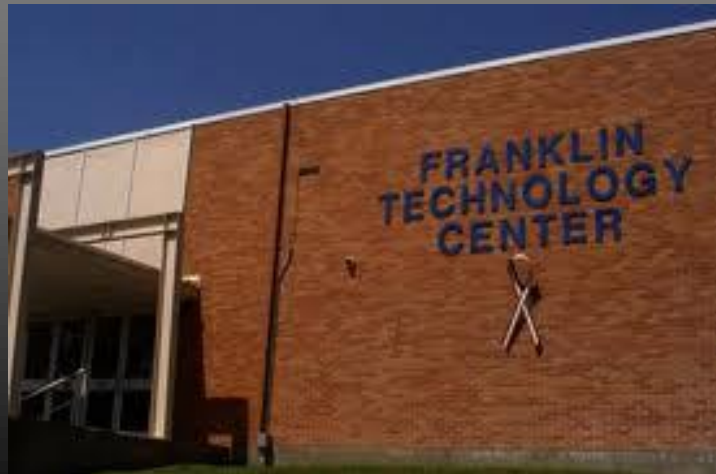
- Schools

Public, Private, Parochial

JHS Graduation – 7000

Colleges

MSSU, OCC, Messenger, Vatterott, Franklin
Tech, WTI



Joplin

- Mother Road Marathon
- BoomTown 1/2 Marathon

- Parks
- Biking trails
- Running trails



Joplin

- St John's
 - 357 beds
 - 15,651 admits
 - 2,562 inpt surg
 - 4,350 outpt surg
 - 43,376 ER visits
- Freeman
 - 350 beds
 - 17,229 admits
 - 4976 inpt surg
 - 8842 outpt surg
 - $\approx 50,000$



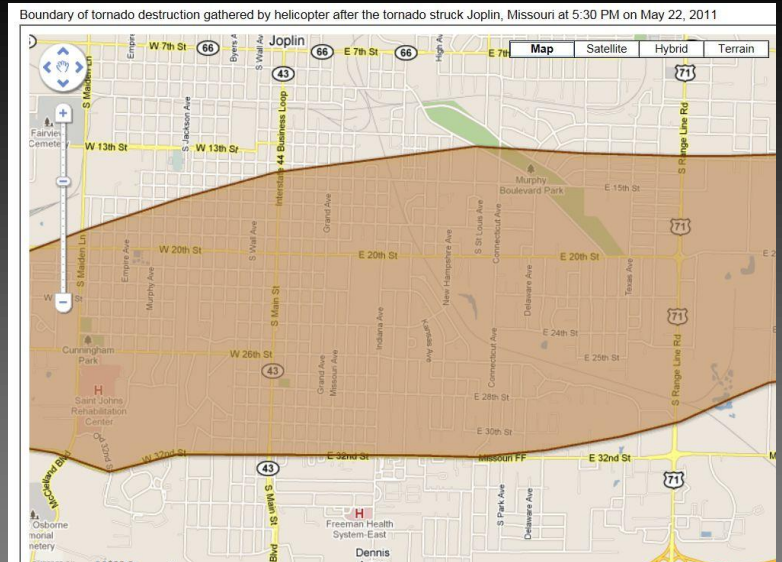
Sunday, May 22nd, 2011



Insert video

EF5

- 6/13 miles
- $\frac{3}{4}$ mile wide
- Deadliest on record
- Winds 200mph
- Too slow
- 20 minutes

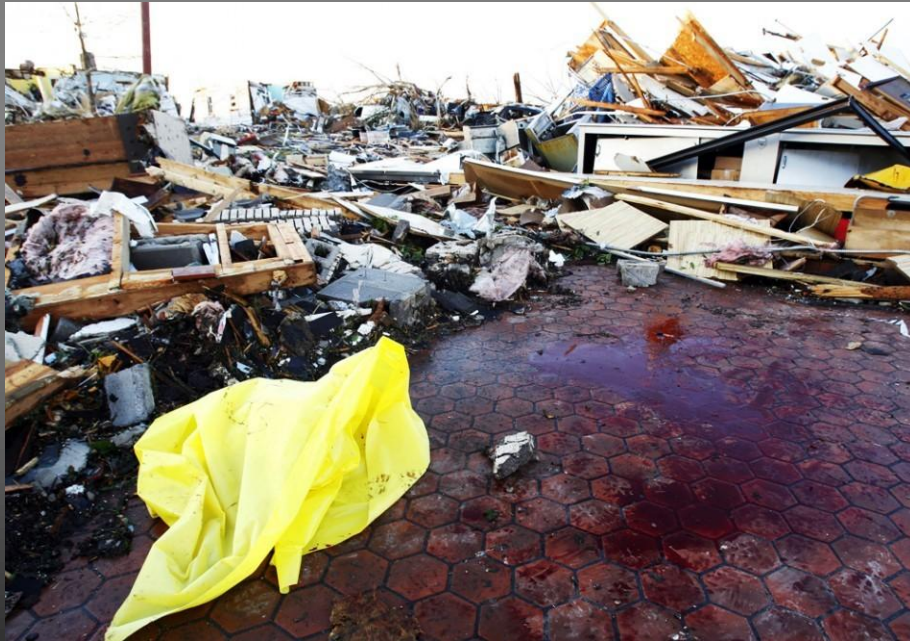


EF5



Joplin after...

- 145 dead (6/8/11)
- Thousands injured



Joplin after...

- 25,000 buildings → 10,000 damaged



Joplin after...

- Up to \$3 billion in damage



Joplin after...

- Churches
 - St Mary's, 4/8 Assemblies of God, St James UMC, St Pauls UMC...



Joplin after...

- Schools
 - 4800/7747 displaced
 - JHS, Franklin Tech, others
 - Public \$151 million



Joplin after...

- Sewer lines → boil order
- Cells down
- Power outage
- Mail – 3 days
- Pets
 - Humane Society/ASPCA/Pet Smart
- Landfill/Disposal



Joplin after...



Joplin after...



Joplin after...



Survivors...



Victims

- Chris Lucas (27)



Victims

- Dee Ann Hayward (47)



Victims

- Grace Aquino (46)



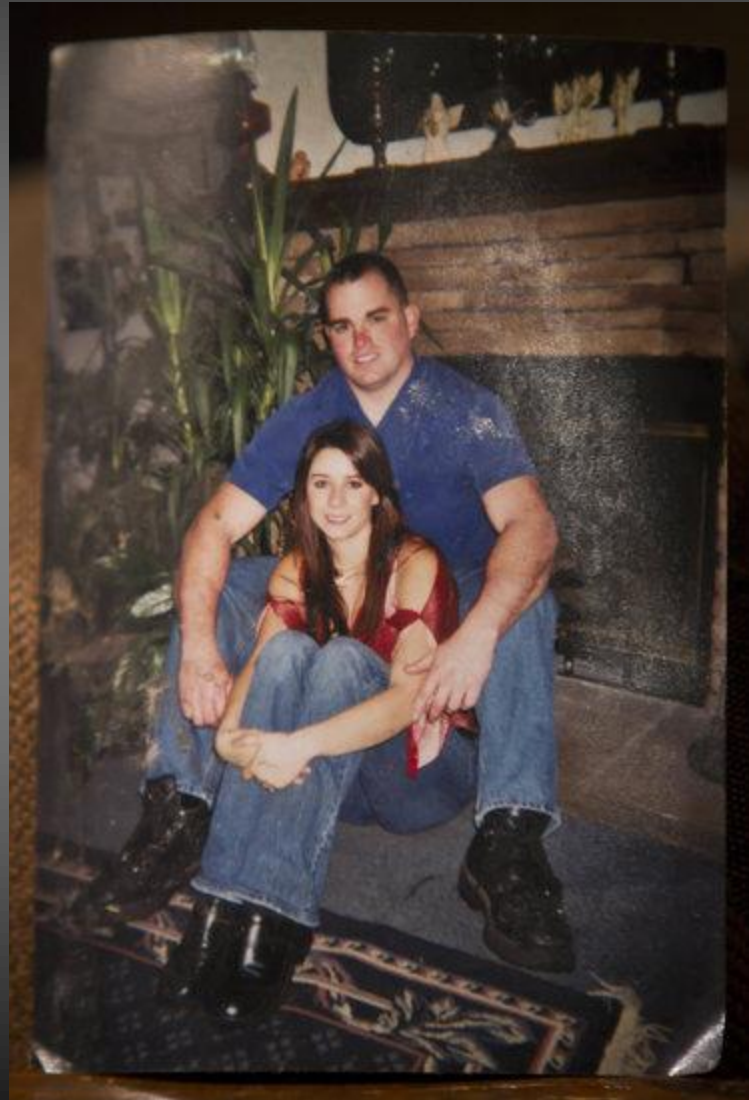
Victims

- Kayleigh Tear (16)



Victims

- Don Lansaw (31)
- *Bethany



Victims

- Rusty Howard (29)
- Harli Howard (5)
- Hayze Howard (19mo)
- *Edie



Victims

- Shyrell Cranor Smith(68)



Victims

- Steven Stephens (28)



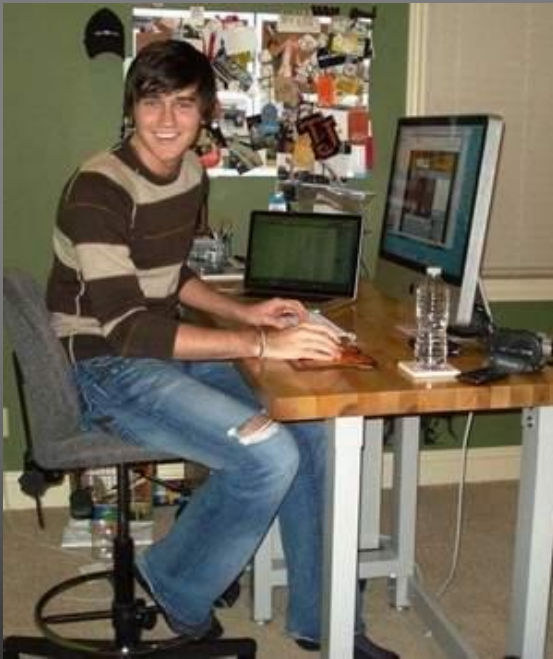
Victims

- Darian “Dee” Vanderhoofven (44)
- Joshua Dean Vanderhoofven (14mo)
- David*



Victims

- Will Norton (18)

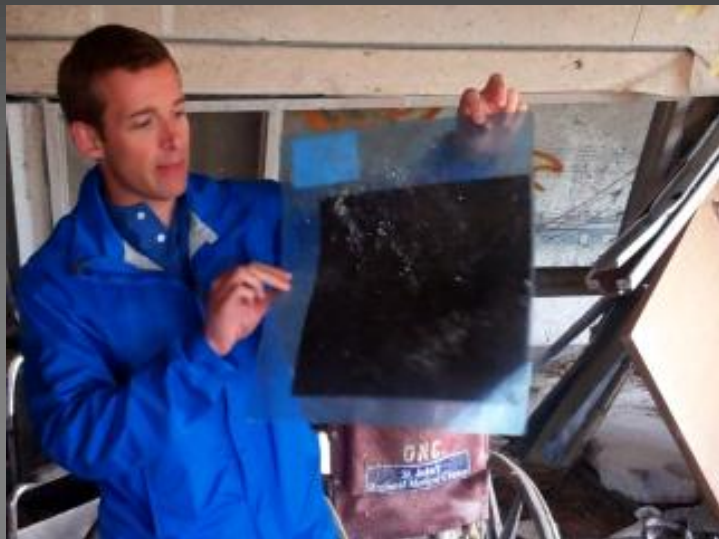


St John's after...

- 183 evacuated
- 5 pt's dead
- 1 visitor dead
- Structure → 4"



St John's after...



Freeman after...

5:42pm

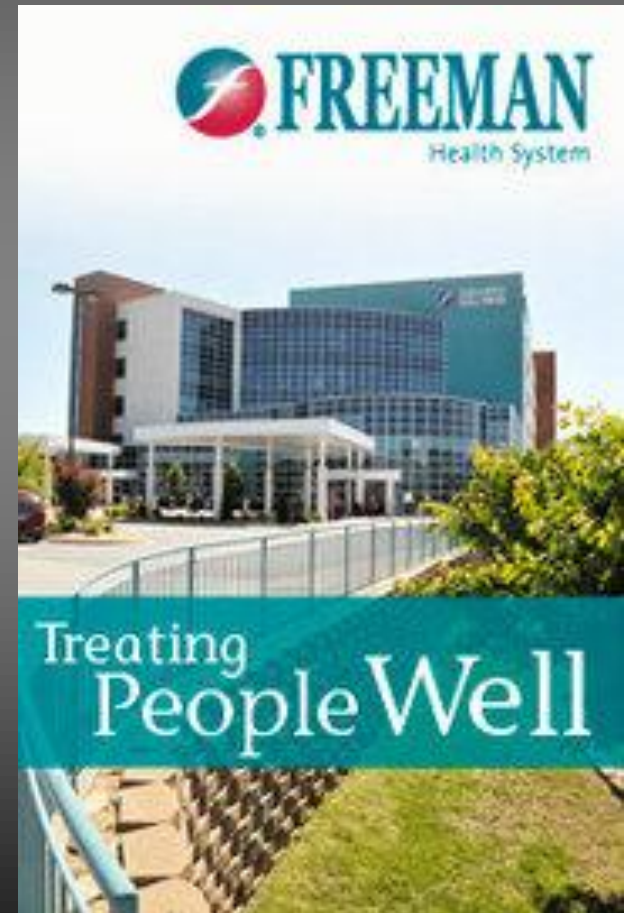


Freeman after...



Freeman after...

- 300-500 first few hours*
- 916 pts reg
- 11 dead in ED*
- 288 beds – 407 in beds
- 22 surgeries



Freeman after...

- 309 employees lost property
 - 2 dead
- 135 staff responded
- Ozark Center for Autism lost
- Ozark Center Ψ calls
 - Pre $\rightarrow$ 500/mo
 - Post $\rightarrow$ 100/day

Regional response...

- McCune-Brooks (Carthage) 200-300
- Integris Reg MC (Miami) 91
- Via Christi MC (Pittsburg) 76
- Freeman Neosho 39
- BCMH (Lamar) 23
- Nevada Reg MC 5
- Cox Monett 5
- Cox MC (Springfield) 90
- St John's Regional MC (Springfield) 60
- St Francis (Tulsa) 6
- St John's MC (Tulsa) 2

Lessons learned...

- Drills → Punched
- Logistics
 - Vital equipment*
 - Human resources
 - Food
 - Staging
 - Runners
 - Over engineer

Lessons learned...

- Communications
 - No EMR
 - No phones
 - “Disaster closet”
- Identification
 - Numbers
 - Triage level
 - Lab, radiology