Quick Response Teams

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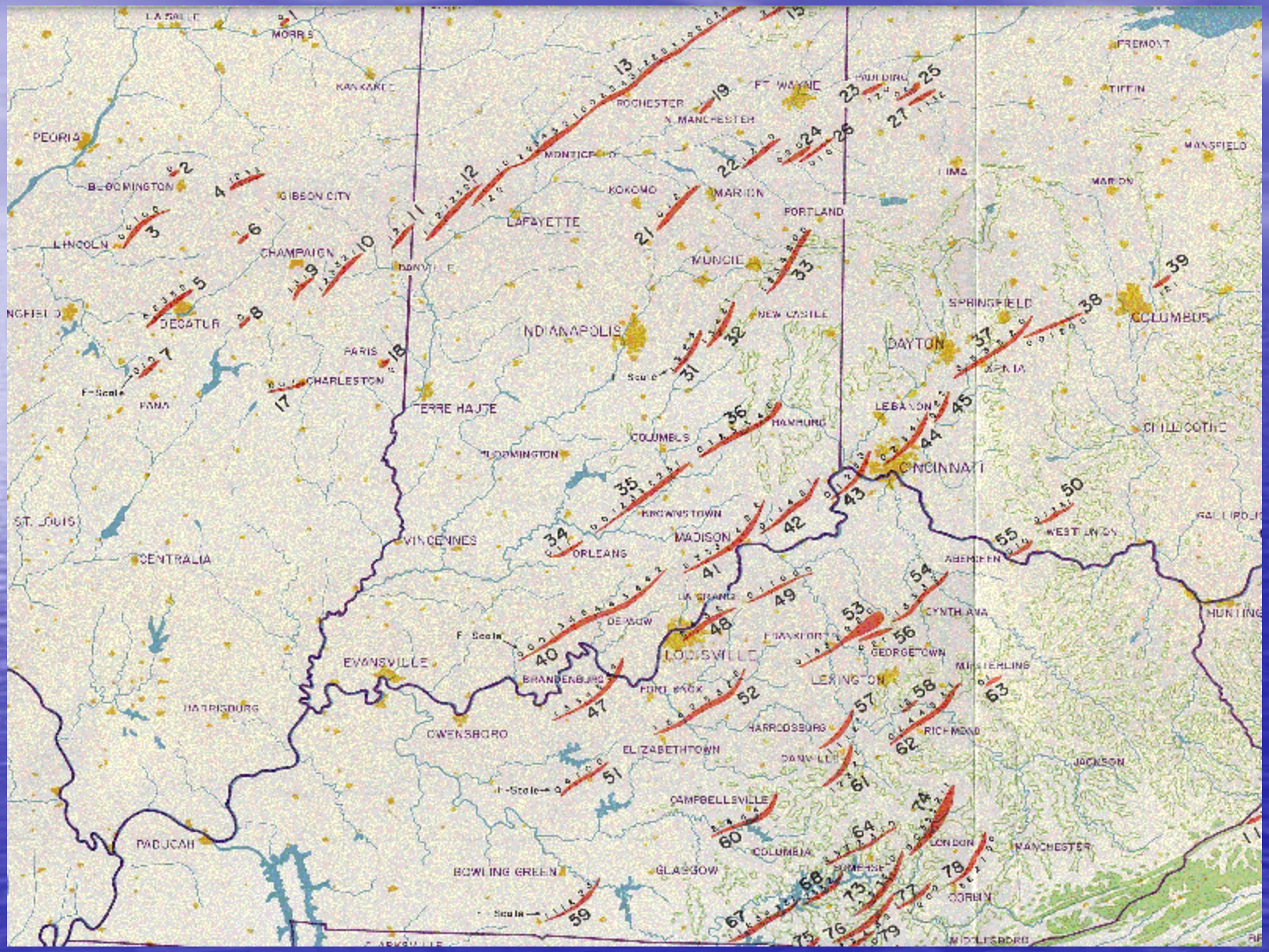
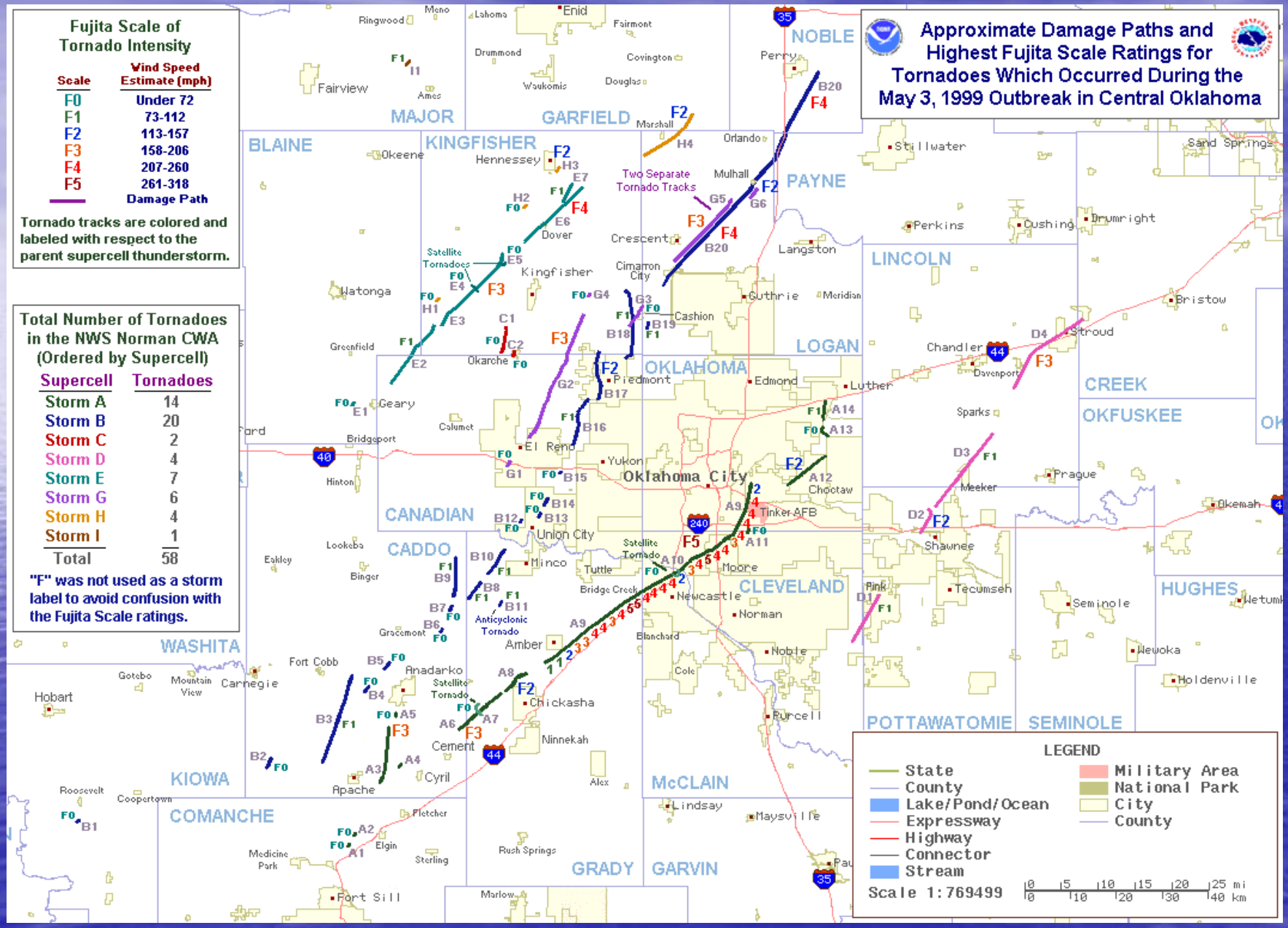
History of QRT's

- Used for hurricanes and major events for years
  - '74 Super Outbreak (Fujita)
  - Hurricane Andrew
  - May 3, 1999 Kansas/Oklahoma outbreak
- Sporadic and ad hoc



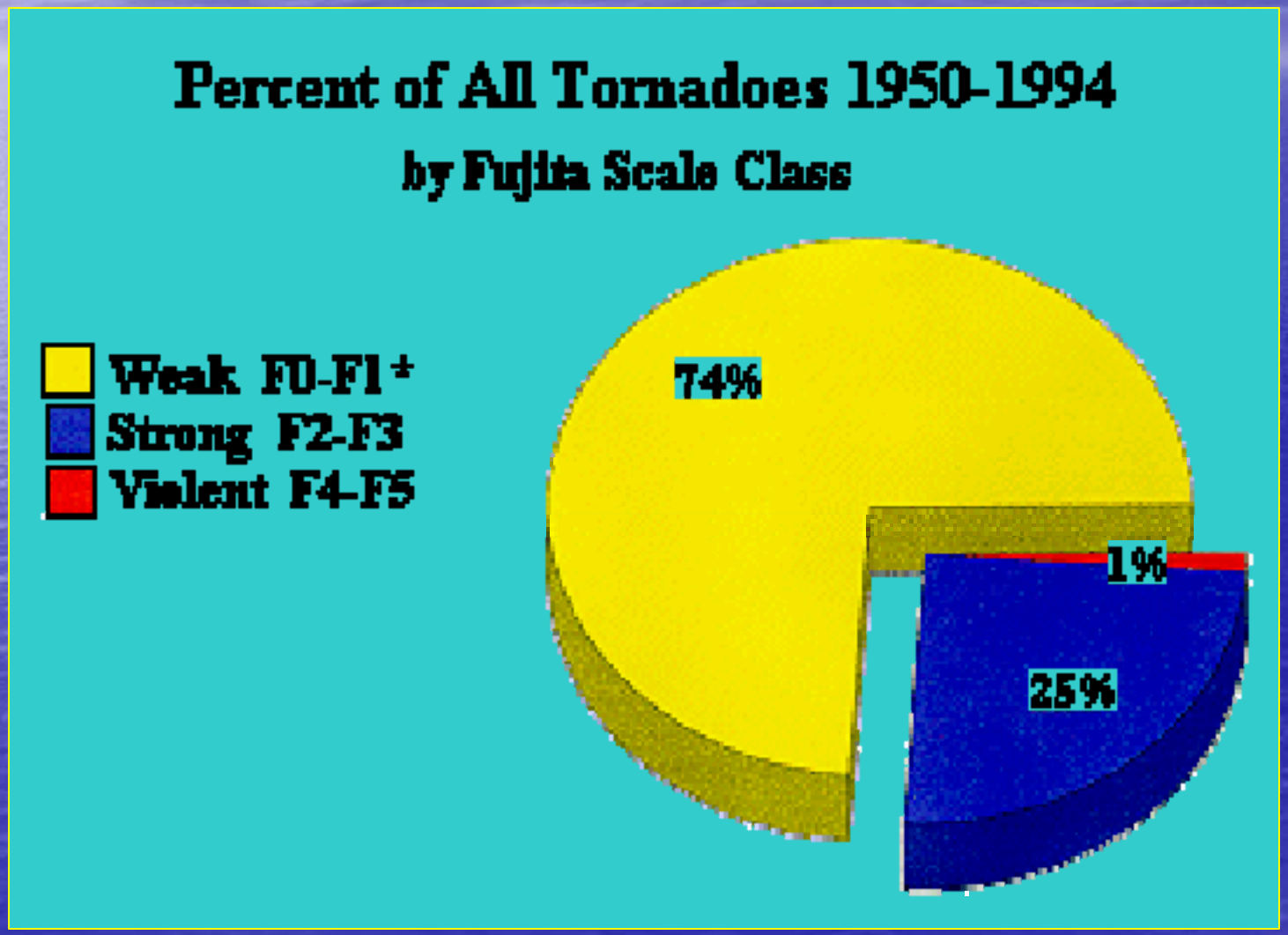
LA SALLE
MORRIS
KANKAKEE
PEORIA
BLOOMINGTON
GIBSON CITY
LINCOLN
CHAMPAIGN
DANVILLE
DECATUR
PARIS
CHARLESTON
PANA
TERRE HAUTE
ST. LOUIS
CENTRALIA
VINCENNES
EVANSVILLE
HARRISBURG
OWENSBORO
PADUCAH
BOWLING GREEN
GLASGOW
LAFAYETTE
ROCHESTER
N. MANCHESTER
MONTICELLO
KOKOMO
MARION
PORTLAND
MUNCIE
NEW CASTLE
INDIANAPOLIS
COLUMBUS
BLOOMINGTON
BROWNSTOWN
MADISON
ORLEANS
DEPAUW
BRANDENBURG
FORT BACK
LOUISVILLE
ELIZABETHTOWN
CAMPBELLSVILLE
COLUMBIA
HARRODSBURG
DANVILLE
LEXINGTON
FRANKFORT
GEORGETOWN
MINSTERLING
RICHMOND
CYNTHIANA
ABERDEEN
WESTFUNION
HUNTING
CINCINNATI
LEBANON
HAMBURG
DAYTON
SPRINGFIELD
COLUMBUS
CHILLICOTHE
LIMA
MARION
MANSFIELD
TIFFIN
FREMONT
FT. WAYNE
PAULDING
LONDON
MANCHESTER
CORBIN
MIDDLESBORO
F-Scale


Approximate Damage Paths and Highest Fujita Scale Ratings for Tornadoes Which Occurred During the May 3, 1999 Outbreak in Central Oklahoma
Fujita Scale of Tornado Intensity
Scale | Wind Speed Estimate (mph)
F0 | Under 72
F1 | 73-112
F2 | 113-157
F3 | 158-206
F4 | 207-260
F5 | 261-318
Damage Path
Tornado tracks are colored and labeled with respect to the parent supercell thunderstorm.
Total Number of Tornadoes in the NWS Norman CWA (Ordered by Supercell)
Supercell | Tornadoes
Storm A | 14
Storm B | 20
Storm C | 2
Storm D | 4
Storm E | 7
Storm G | 6
Storm H | 4
Storm I | 1
Total | 58
"F" was not used as a storm label to avoid confusion with the Fujita Scale ratings.
LEGEND
State
County
Lake/Pond/Ocean
Expressway
Highway
Connector
Stream
Military Area
National Park
City
County
Scale 1:769499
0 5 10 15 20 25 mi
0 10 20 30 40 km
NOBLE
MAJOR
GARFIELD
BLAINE
KINGFISHER
PAYNE
LINCOLN
LOGAN
OKLAHOMA
CREEK
OKFUSKEE
CANADIAN
CADDO
CLEVELAND
HUGHES
WASHITA
KIOWA
COMANCHE
McCLAIN
GRADY
GARVIN
POTTAWATOMIE
SEMINOLE
Oklahoma City
Two Separate Tornado Tracks
Satellite Tornadoes
Anticyclonic Tornado
Satellite Tornado
Enid
Perry
Stillwater
Sand Springs
Perkins
Cushing
Drumright
Langston
Guthrie
Meridian
Bristow
Stroud
Chandler
Davenport
Luther
Edmond
Piedmont
Cashion
Cimarron City
Crescent
Mulhall
Orlando
Marshall
Hennessey
Okeene
Fairview
Watonga
Greenfield
Okarche
Geary
Calumet
Bridgeport
Hinton
El Reno
Yukon
Union City
Minco
Tuttle
Bridge Creek
Newcastle
Moore
Norman
Blanchard
Cole
Noble
Purcell
Tinker AFB
Choctaw
Meeker
Sparks
Prague
Okemah
Shawnee
Tecumseh
Seminole
Wewoka
Holdenville
Pink
Amber
Chickasha
Ninnekah
Anadarko
Fort Cobb
Carnegie
Gotebo
Mountain View
Hobart
Gracemont
Cement
Cyril
Apache
Roosevelt
Coopertown
Fletcher
Elgin
Sterling
Medicine Park
Fort Sill
Rush Springs
Marlow
Lindsay
Maysville
Alex
Ringwood
Meno
Lahoma
Fairmont
Drummond
Covington
Waukomis
Douglas
Ames
Dover
Kingfisher
Lookeba
Binger
Eakley
Ford
Pau

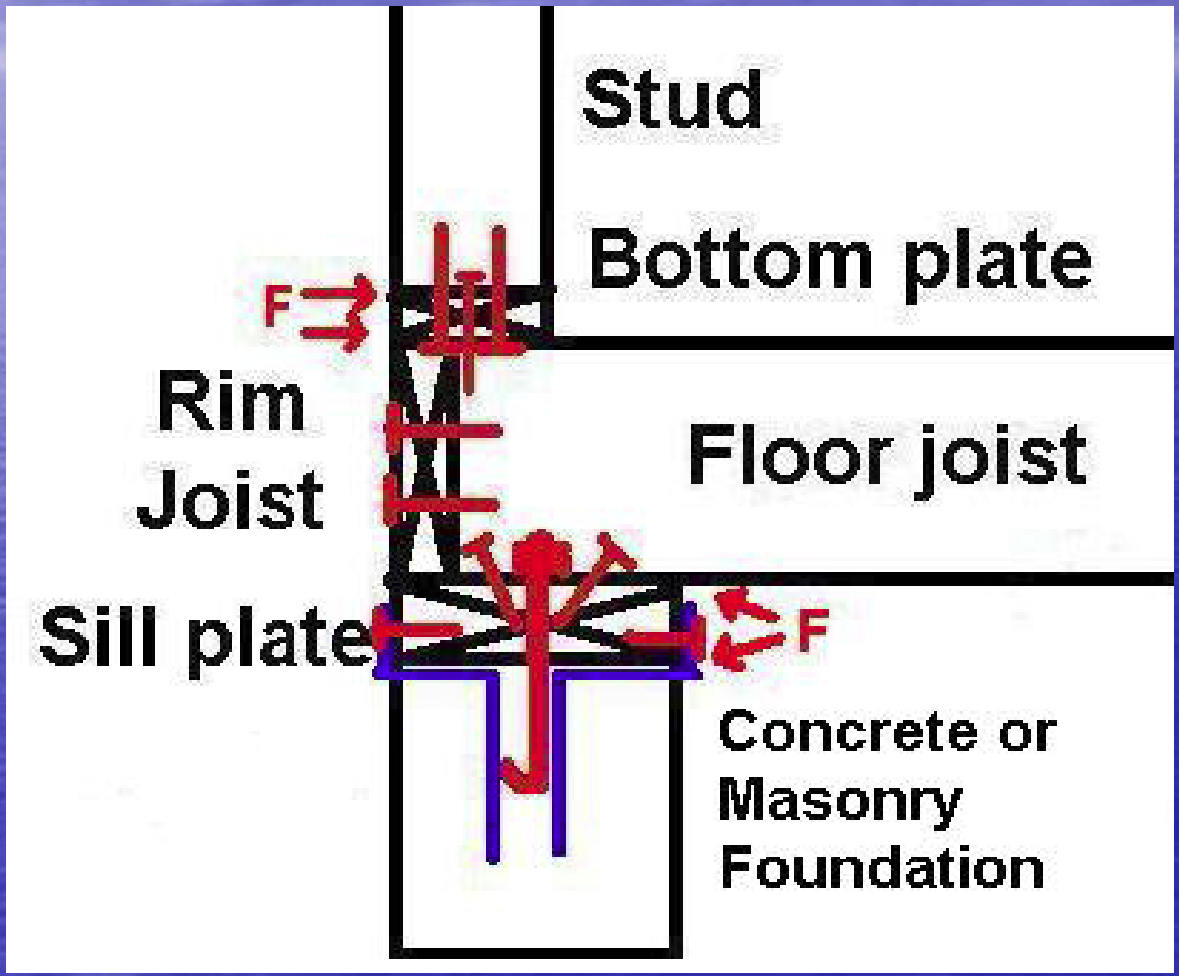
Why QRT's are Needed

- Training is rare and difficult in a classroom
- Inexperience in high end events
- Lack of structural engineering knowledge

Inexperience in high end events



Structural Engineering Knowledge



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Metal straps had been installed on top of this concrete masonry basement wall but were not bent and secured to the sill plates. Therefore, this home was not attached to its foundation.

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This poorly anchored home slid off its foundation into a ravine. Mailboxes remained intact, indicating winds were probably less than 100 m.p.h.

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Split-level home on concrete masonry basement wall fell into ravine as rear wall collapsed.

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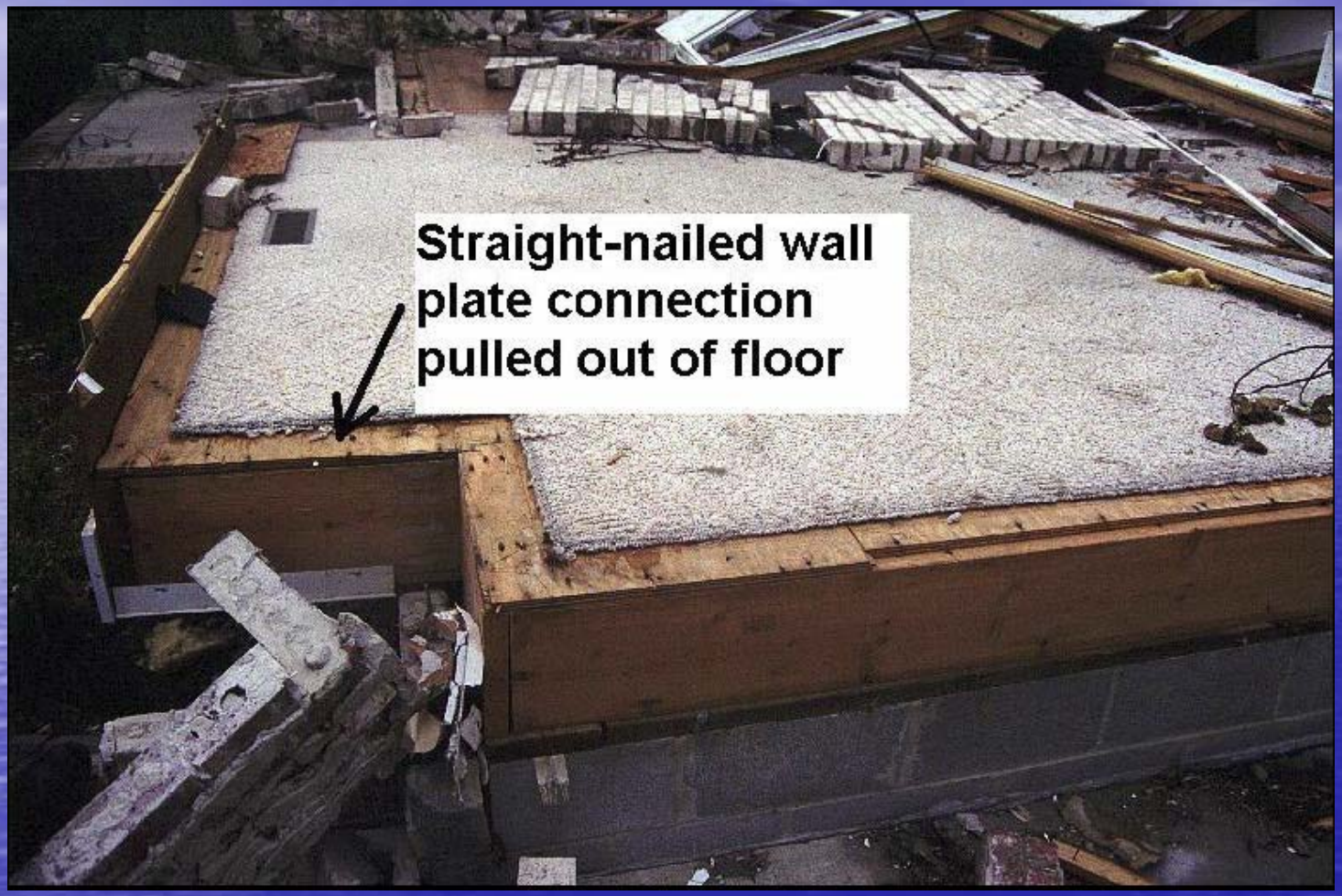

This home slid off its foundation when the straight-nailed bottom plate pulled out of floor. The sill plate was attached to the foundation with straps.

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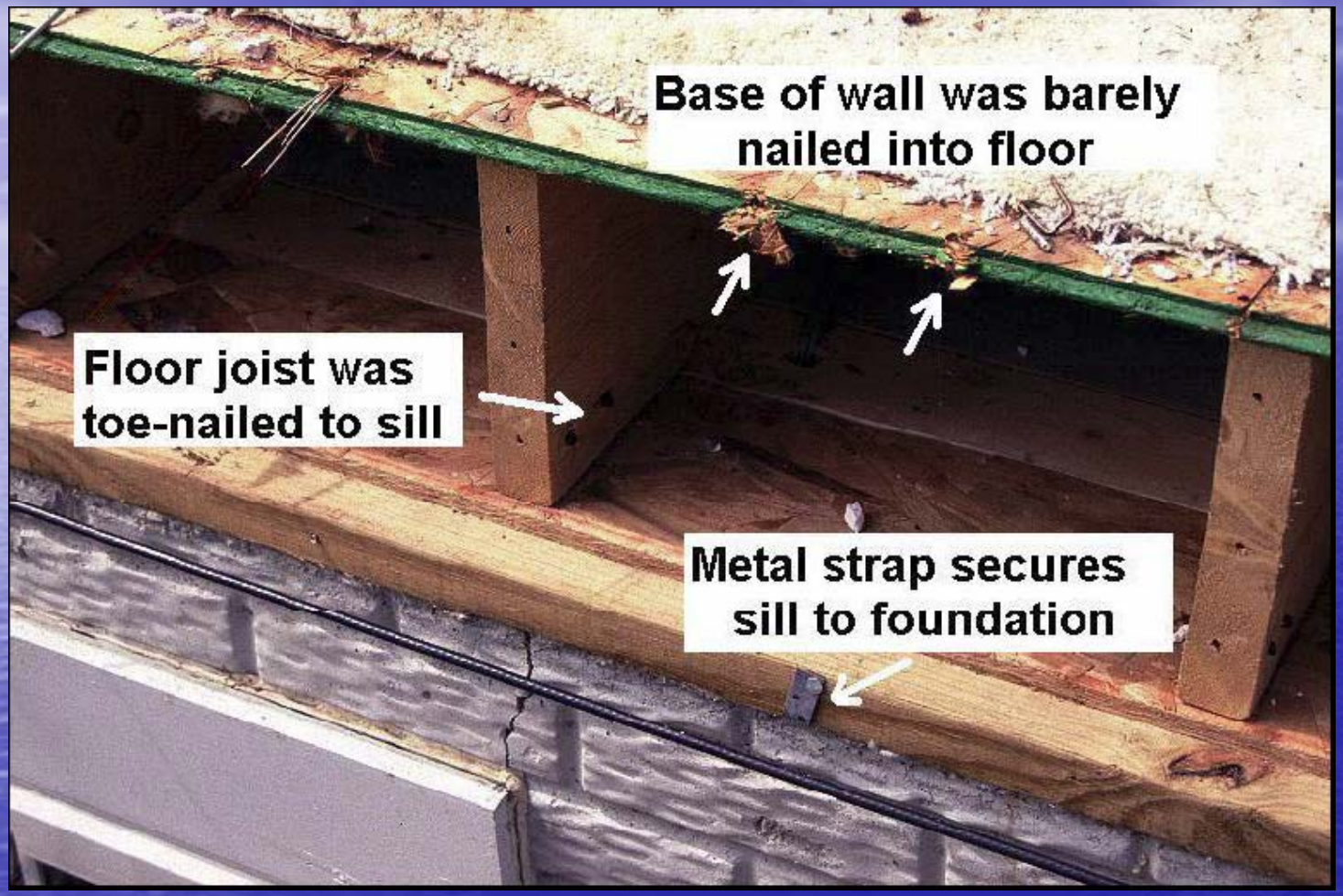

This floor remained on the concrete foundation while the rest of the home slid way. The sill plate was anchored to the concrete foundation wall with metal straps.

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A two-story home was reduced to one story as first story walls simply rotated and pulled out the straight-nailed connections between the bottom plate and floor.

When to field a QRT

- Tornado or wind damage possibly greater than F3,
- Large number of deaths,
- Catastrophic damage,
- Profound coastal or inland flooding.
- Scientific interest

How to Request a QRT

Call Central Region

- Local Offices/Local Offices initiate a "first review" of an significant weather/hydrometeorological event. In a "first review," the local meteorologist in charge (MIC) or their designated representative goes to the site, surveys the damage, and obtains over flight capabilities through contact with state or county police, national guard, and other local resources.
- If they believe the situation is of national importance (e.g., a service assessment team may be funded or the survey of the damage will have significant scientific interest) they should request their Region to recommend the activation of an OFCM PSDA QRT.
- If emergency management personnel or media coverage indicates an extreme event (e.g., F4 or F5 tornado, catastrophic damage, or large number of deaths) the MIC should notify regional of possible activation of a OFCM PSDA QRT prior to completing a site survey.

Questions??

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