NGA-East Workshop 2
Summary of Day 1

Oct 11, 2011

Finite-Fault Simulations (box E)

- Current plan only uses FFS for low freq
  - Misses method for high freq
  - Potential weakness of study
- Main budget issue is the volume of FFS needed and schedule for completion
  - Need enough methods to capture epistemic uncertainty
  - Need enough realizations for a robust median
- Consider revising project plan to reduce number of PS models for some FFS at high freq
  - Consider using stochastic Finite-fault methods

Testing (box I) based on MMI & Paleo-liquefaction data

- MMI and Paleo-liquefaction data
  - Large uncertainty
  - May provide weak constraints
  - Expand testing to comparisons with the underlying models rather than the GMPEs.
- Expand testing to include comparisons with compressional regimes
  - Use GMPEs to avoid large efforts for data sets

Point source model parameters

- Strong correlation of model parameters
  - Sensitivity shown
  - Difference between PS model parameters and physical parameters
- Possible changes
  - Freq dependent geometrical spreading
  - Magnitude dependent geometrical spreading

Empirical data

- CENA data set is complete
  - Most sites do not have measured site conditions
- Other SCRs (prioritize vs collection of site conditions at some sites, but need to consider the sigma needs)
  - Uses of the data
    - Sigma
      - Focus on eqk with Nsite>5 and stations with neqk>5
    - Median, but for limited distance range
      - Differences in crustal structure question value of comparison at large distances
    - Crossing boundaries (active to stable)
      - May help define transition
  - What data should be processed?
    - Process data with M>3?

Virginia Earthquake

- Stress-drop
  - 100-300 bars from GM data
  - 500-1000 bars from EGF
- Need to have stress-parameters that go with the point source model.

Ref Rock & kappa

- Ref Rock
  - Recommended value 3000 m/s
    - Testing of 2800 hypothesis
      - Consider epistemic unc & not normal distribution
  - Need to have a range defined
- Kappa
  - Recommended value of 0.006 sec
  - Need to have a range defined