Break-out room discussion on Thursday

- Present and discuss progress with other students and instructors
- Prepare ~3 slides:
  - Where you are confident about your mapping
  - Where you have questions about your mapping
  - Something interesting
- Code of conduct
  - The objective of peer-review sessions is to promote an inclusive experience, targeted instruction based on individual student needs, and to also mirror experiences that will occur in employment.
  - Editorial comments provided by the instructors and students should be appropriate, relevant, and constructive.
  - Students will ideally feel comfortable presenting where they believed they have mapped well and where they are having difficulty. Students will offer constructive feedback to help improve mapping skill.

Source: **University of California Fault Displacement Hazard Initiative Project**

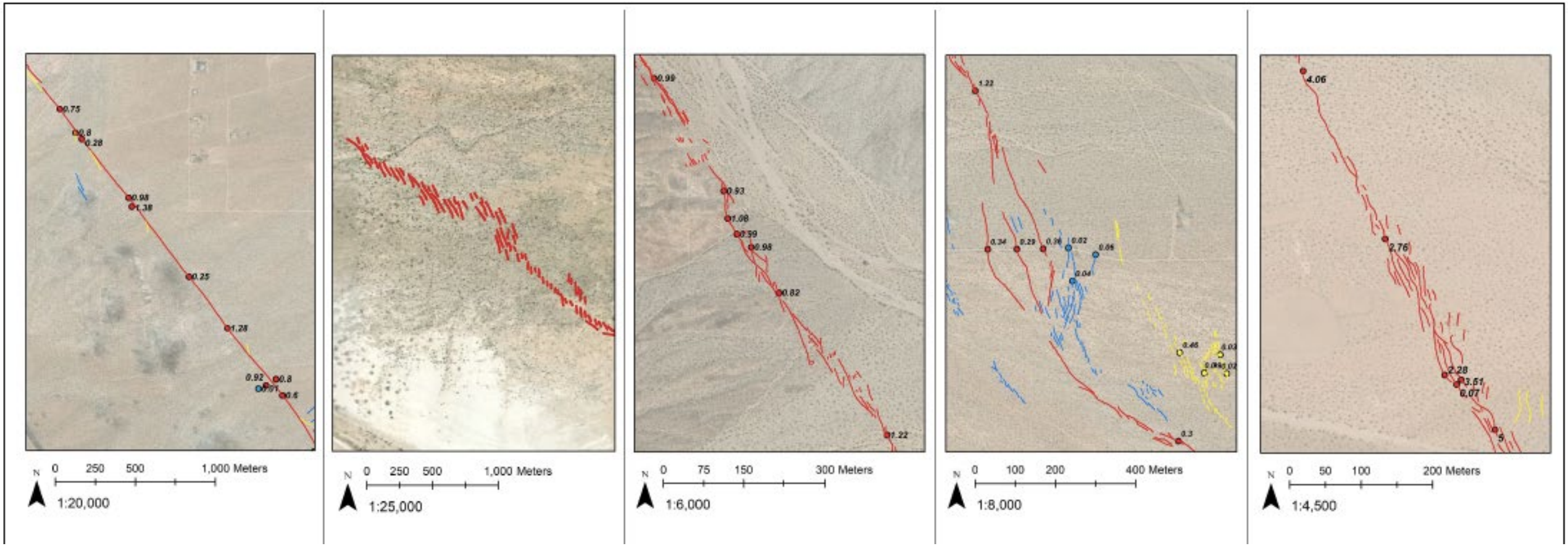
Principal

Main or principal through-going fault at depth that breaks the ground surface.

Principal ruptures can manifest on the ground surface in complicated ways, including: simple, curvilinear traces; segmented en echelon, anastomizing, branching, or moletrack zones; overlapping step-overs; flower or other slip-partitioning structures; or monoclinal warping

Distributed

Not the main fault; antithetic, spatially distributed, discontinuous



Curvilinear fault

En echelon

Branching

Tri-furcated branching

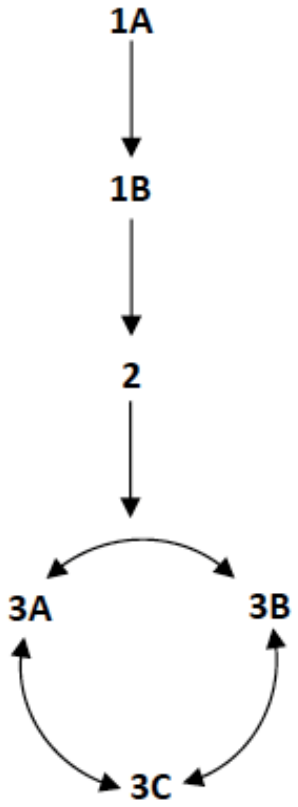
Anastomizing

Red - Principal fault,
Blue and Yellow – Distributed Slip

Determining if principal vs. distributed

Depends on fault properties, datasets, geologist's interpretations-> important to justify your reasoning

Workflow



Explanation

1. Determine Principal Rupture Extent

1A – Basic Criteria

- Literature review
- If candidate rupture trace (or "narrow zone" of traces) is "long & continuous" and Cat3 slips are "spatially associated" with candidate trace, RANK candidate rupture trace and measurement site as PRINCIPAL

1B – Advanced Criteria, Spatial

"Use judgment" to RANK rupture traces and measurement sites at the spatial extents (i.e., rupture ends) as PRINCIPAL, considering:

- Along-strike continuity
- Literature review, including known data gaps at rupture ends (if applicable)

2. Determine Simple Distributed Rankings

2 – Basic Criteria

- Literature review
- If candidate rupture trace is "not spatially associated" and not on-strike with defined Principal traces, and Cat1 slips are associated with trace, RANK candidate rupture trace and measurement site as DISTRIBUTED
- If candidate rupture trace or measurement site is "not spatially associated" and not on-strike with defined Principal traces, RANK candidate as DISTRIBUTED

3. Iterate Interpretations to Finalize All Rankings

3A – Principal Ranking Advanced Criteria, Spatial

"Use judgment" to RANK rupture traces and measurement sites as PRINCIPAL, considering:

- Unexpected gaps in defined Principal traces "spatially associated" with high Cat2 slips
- Unexpected gaps in defined Principal traces

3B – Principal Ranking Advanced Criteria, Structural

"Use judgment" to RANK rupture traces and measurement sites as PRINCIPAL, considering:

- en-echelon splays representing shallow continuous rupture below surface
- flower structures, localized push/pull-aparts indicating near surface complexity accommodating through-going rupture at depth
- conjugate faults
- parallel traces or mole tracks related to a single fault at depth

3C – Distributed Ranking Advanced Criteria, Structural

"Use judgment" to RANK rupture traces and measurement sites as DISTRIBUTED, considering:

- antithetic ruptures, hanging wall accommodation structures
- minor synthetic fault traces that are parallel but unconnected to main trace
- cracking that fans out from primary trace
- ground fractures related to shattering of surface units from energy release