Evaluation of Operational Ze-S Relationships in Marquette, Michigan

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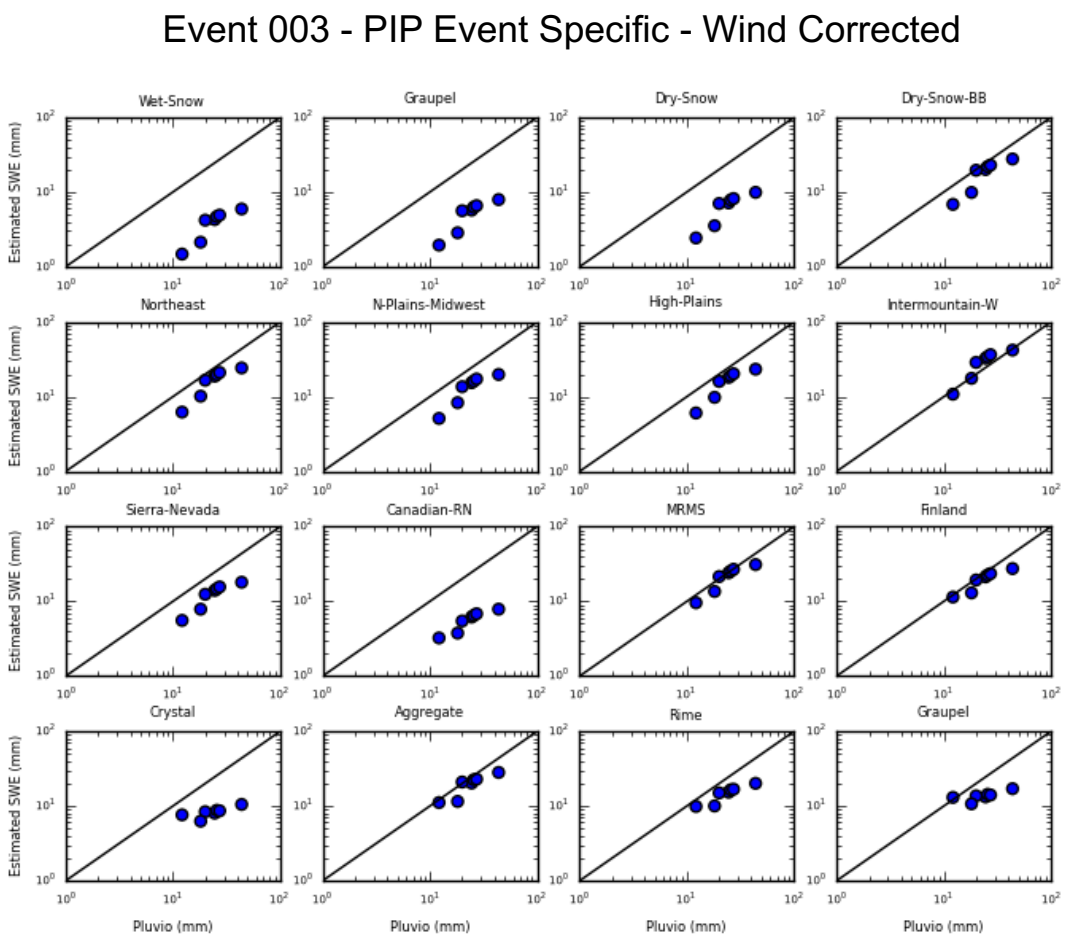

- Accurate ground-based radar snow estimation is an integral component of NASA's Global Precipitation Measurement (GPM) mission validation network over the United States. This study aims to provide guidance on which reflectivity - snow water equivalent relationship to use given specific atmospheric conditions.
- 32 operational, habit, and event based Ze-S relationships were compared in 3 events
- Based on the percent absolute bias calculated from wind corrected gauge measurements, the following was found:
  - Bohm Method derived relationships are typically the event-based relationship with the lowest % absolute bias for all 4 events.
  - Among the NWS phase-based relationships, Dry-Snow-BB was the best
  - For habit-based relationships, crystal and aggregate were the best