

### 3.3-P38. Waveform Correlation Effectiveness During High Analyst Workload Sequences

Waveform correlation used as a signal detector not only produces much higher quality signal detections (including reliable phase identifications) than traditional methods (e.g., STA/LTA), but also provides immediate information about corresponding events including estimates of location, magnitude, and source type. As a result, both the quality of the automatically built events and of the associated signals are higher; hence the amount of analyst time needed to review and correct automatically built events should be significantly reduced. The goal of this study is to assess whether waveform correlation can indeed provide value in the times when analysts are most taxed. We estimate analyst workload for all events in the Late Event Bulletin (LEB), and identify source regions and time periods that required significant analyst effort. We then create template libraries for key IMS stations for these regions/time periods and set appropriate thresholds to achieve a desired false alarm rate. Finally, we re-process the historic waveform data with our template libraries and compare our waveform correlation results with those produced by the IDC's traditional signal processing. We present our results and discuss the potential for waveform correlation to decrease analyst workload during the most time-consuming event sequences.

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