

Correlation of Measured Waveform Penalties with Equalizer Lengths

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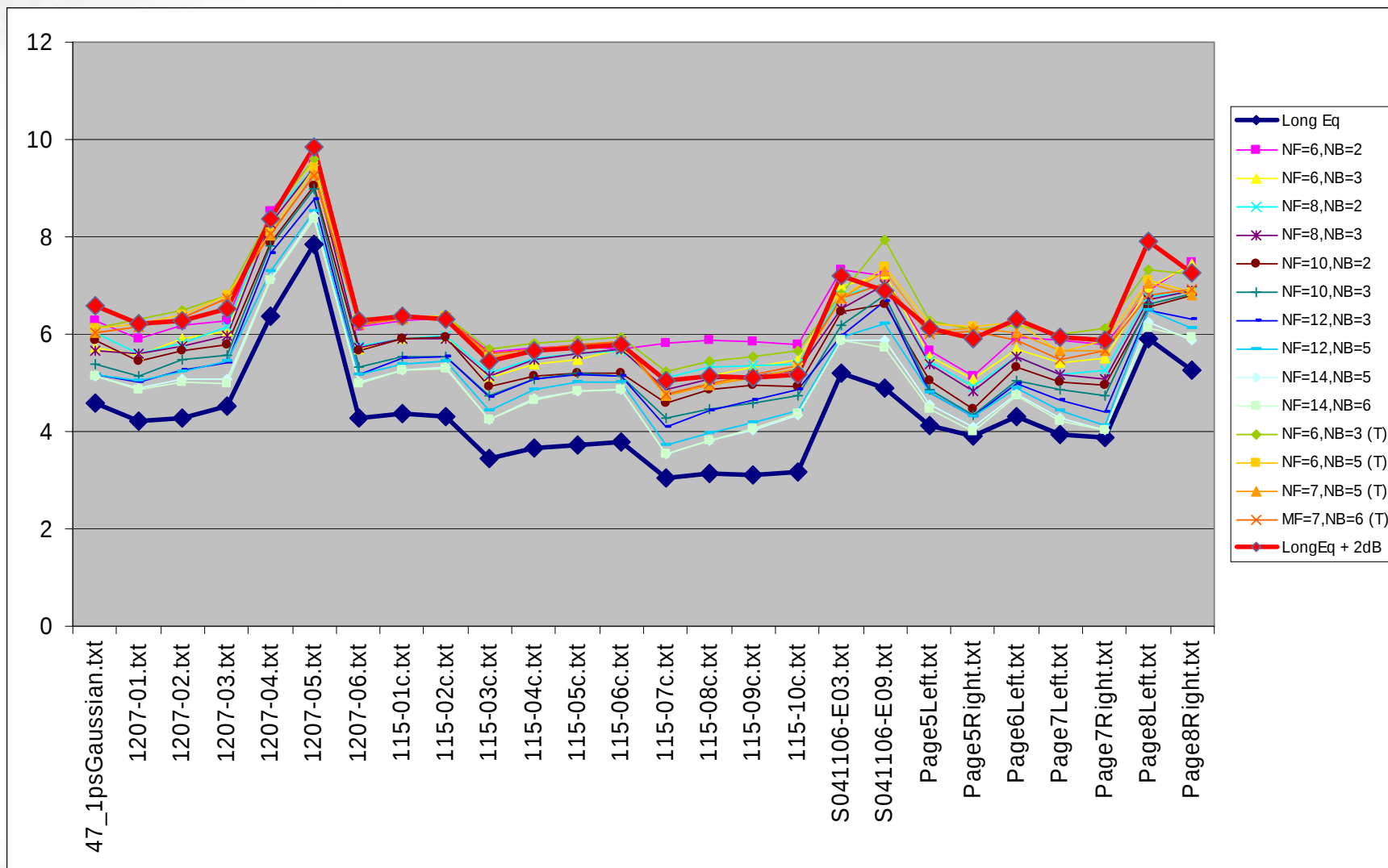
July 12, 2005

- Action item from June 23 meeting: “Study earlier results of TWDP results to quantify correlations among EQ length and measured waveforms”
- Results for range of T/2-spaced equalizers and T-spaced equalizers

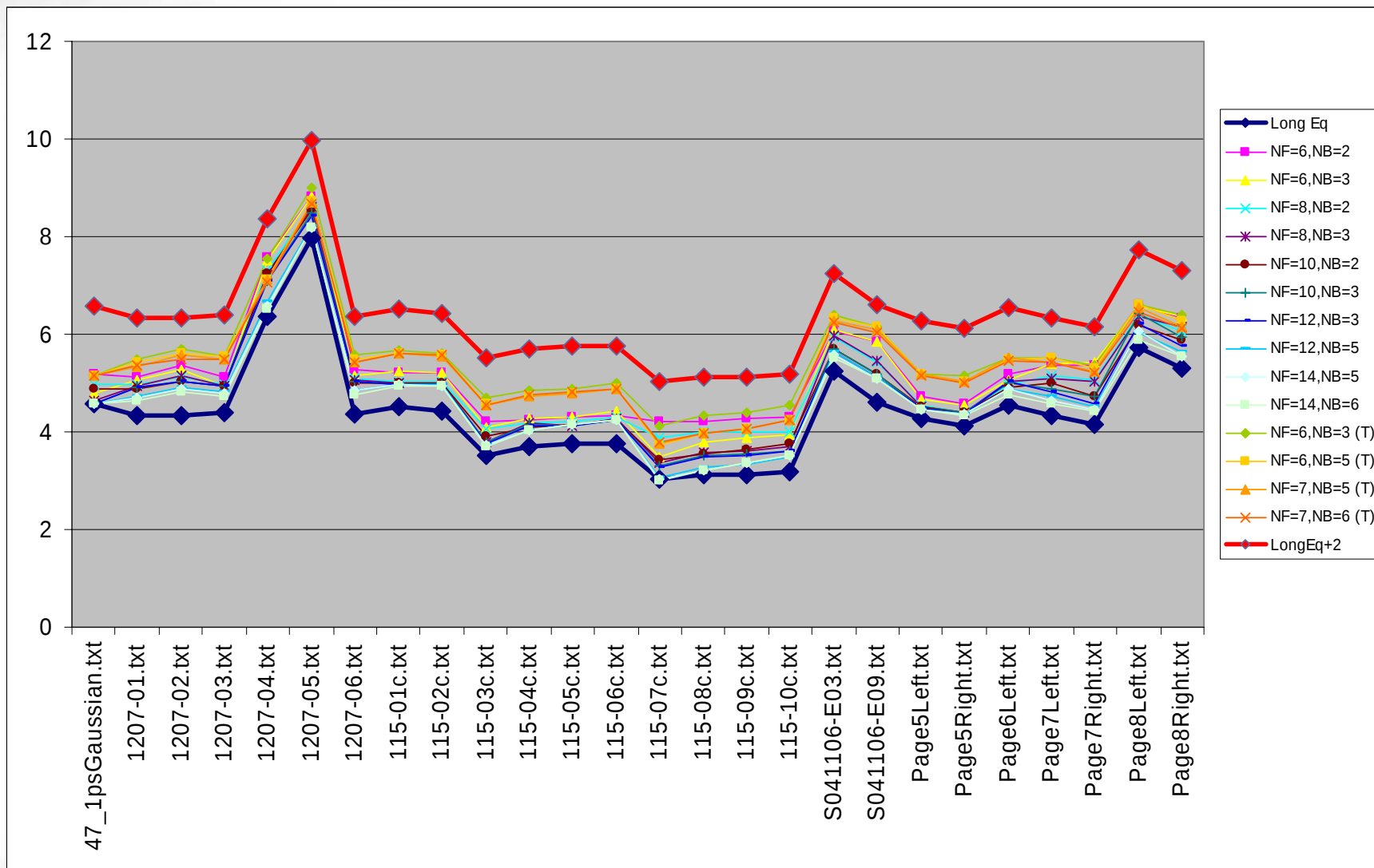
Plot Parameters

- Based on MATLAB code similar (but not identical) to TWDP core
- Stressors from John Ewen's TP3 stressor Excel spreadsheet (4/7/05), with PIE-D approx. equal to 4.5 dB
- X axis corresponds to 26 measured waveforms
- Y axis is TWDP, dBo
- Each trace corresponds to a different Equalizer structure

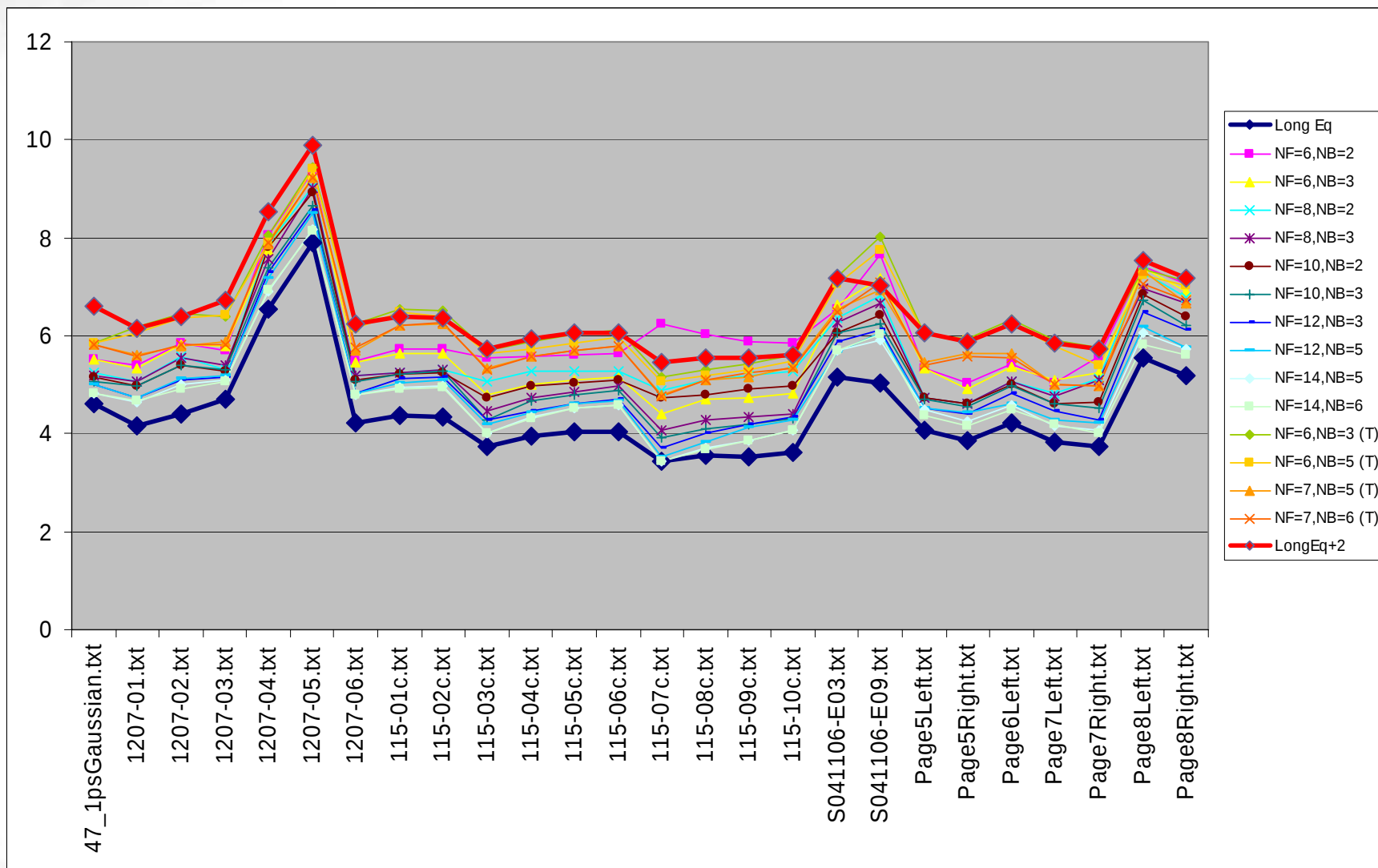
Precursor Stressor



Postcursor Stressor



Split-Symmetric Stressor



Conclusions

- TWDP of almost all equalizer structures shows very good correlation across all measured waveforms
- Exceptions are
 - Very short (6,2) T/2 equalizer
 - Very short T-spaced equalizers $< (6,5)$
- Most equalizer structures result in TWDP that lies within 2dBo of the TWDP of a Long Equalizer (NF=100, NB=50)