

File: daves_notes_compare_park04_anza_bbc_yl_psa.doc
Date: 06 December 2005

Addition on 24 August 2006: I include here some text from
daves_comments_on_several_issues_23sept05.doc:

2. "broadband" data. I don't know if I am the source for this term, but if so, I apologize. The data that I used for Anza, Big Bear City, and Yorba Linda are ALL accelerograph data (in spite of what Jack Boatwright said in one of our meetings--- see Vladimir's email from yesterday; Jack was mistaken). The data were NOT derived from velocity sensors. Just because the data don't come from the USGS or CGS does not make the data any different. According to the SCSN web site (<http://www.trinet.org/instr.html#analogvsdig>), the accelerograph data come from K2 accelerographs.

I compare here pgv, pga, and PSA for 0.1, 0.2, 1.0, and 3.0 sec for Parkfield 2004 (M=6.0), Anza 2001 (M=4.92), Big Bear City 2003 (M=4.92), and Yorba Linda (M=4.27). The distance for Park04 is rjb and for the others is rep. No site correction has been applied to Park04, but the data for the other quakes has been corrected to V30=760 m/s using BJF97 amp factors (no nonlinear correction). The ground-motion intensity measures from the two horizontal components have NOT been merged--- the plots show both the intensity measures for both components for each station.

The data gathered by Linda Seekins for Jack Boatwright for the three small events is from low gain stations; no velocity sensor data were included. I used the data collected by Linda in my analysis of attenuation. Here is her email (she only mentions Anza, but what she says in the email applies to the BBC and YL quakes as well):

*From: "Linda Seekins" <seekins@usgs.gov>
To: "Dave Boore" <dboore@yahoo.com>
Subject: Re: Anza et al data
Date: Thursday, September 15, 2005 8:55 AM*

Dear Dave,

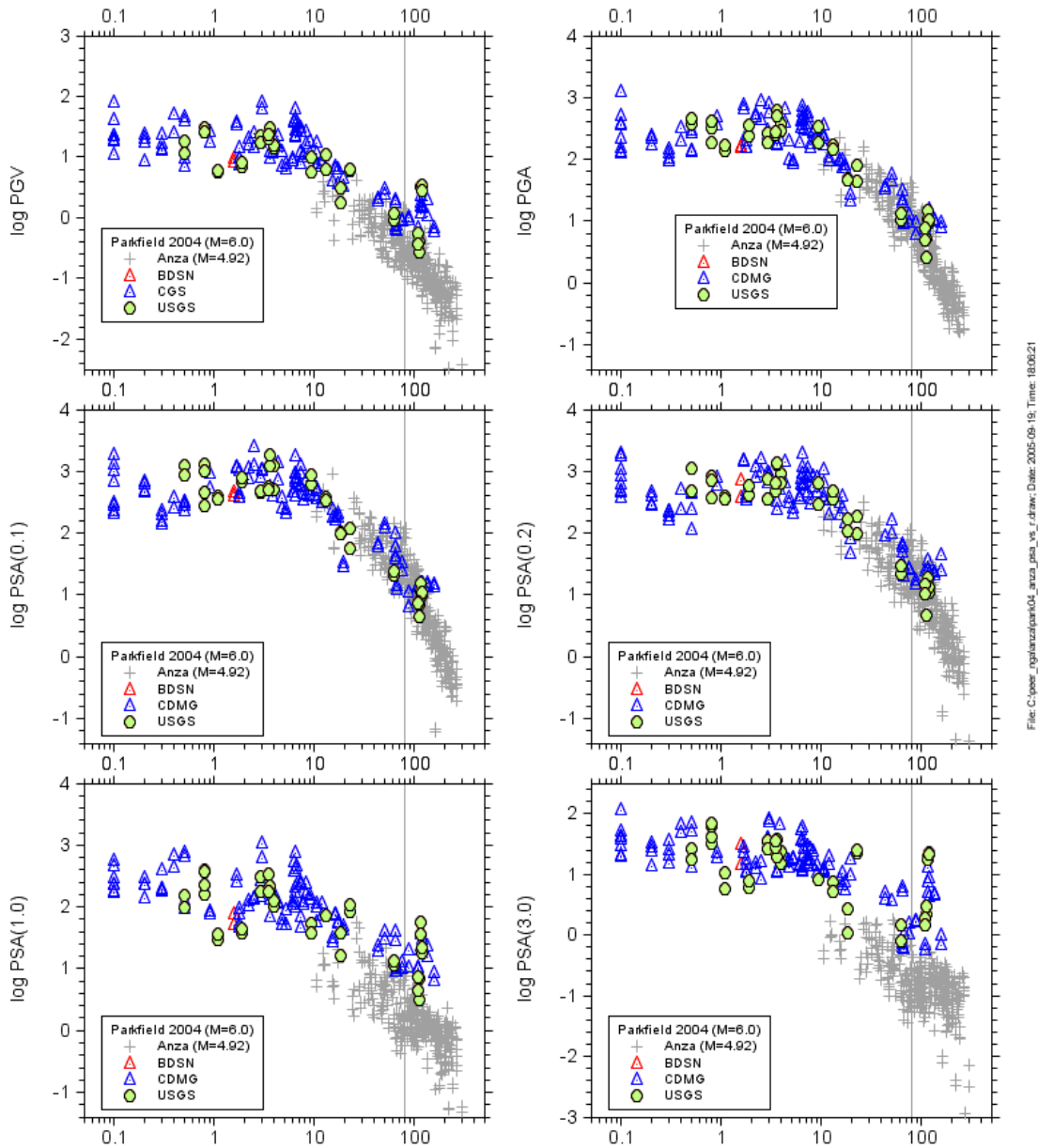
All of the data from the Anza earthquake that I generated for Jack from the SCEC database was from the HLE and HLN recorders. They are low gain accelerographs.

Quit working while you're on vacation!

Linda

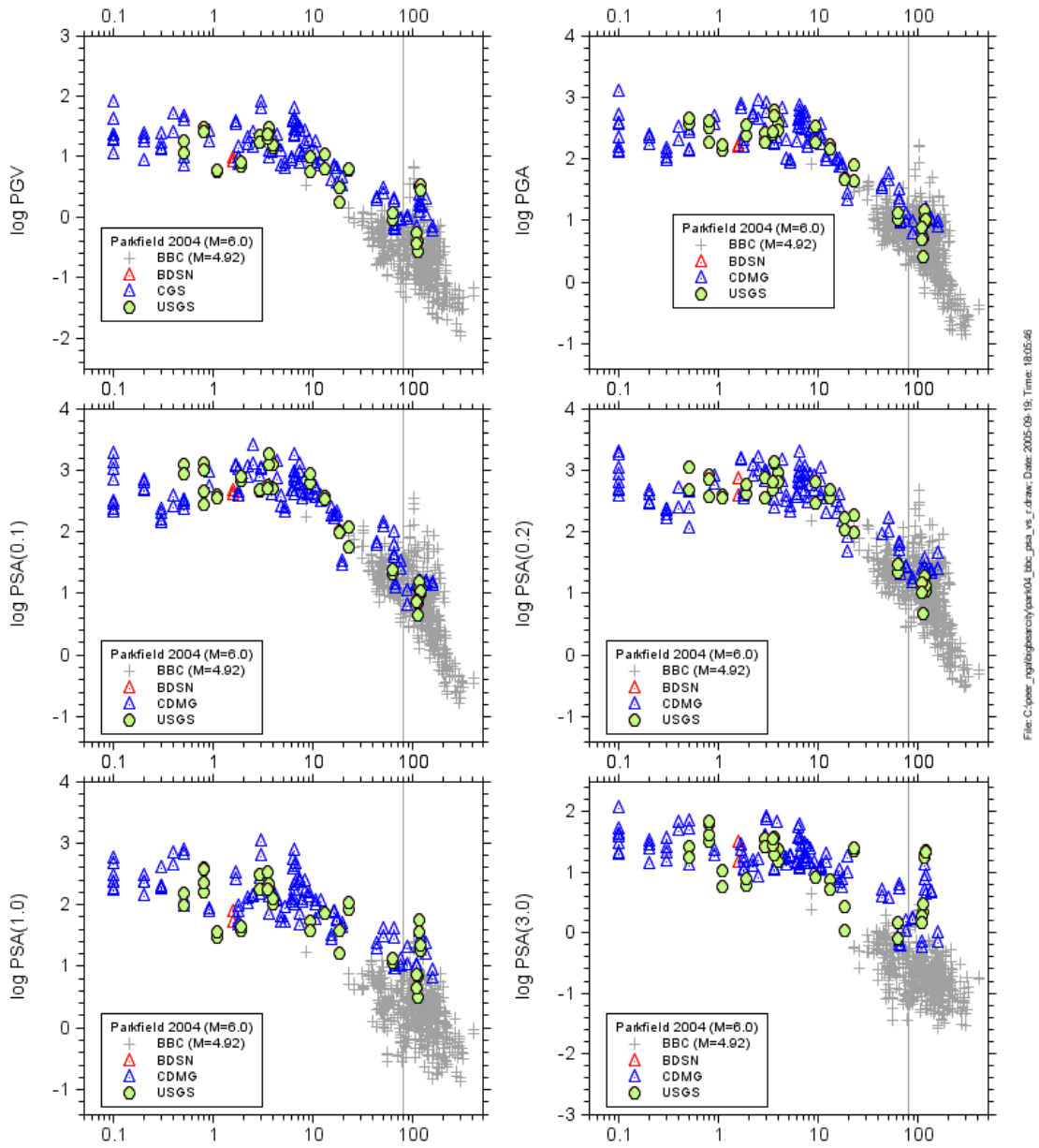
I see nothing strange in the distance decay of the three smaller events, compared to the Parkfield data, although it is interesting to note that the level of motions at high frequency for Anza and BBC are comparable to Parkfield, although the magnitudes are quite different.

Here are the plots:



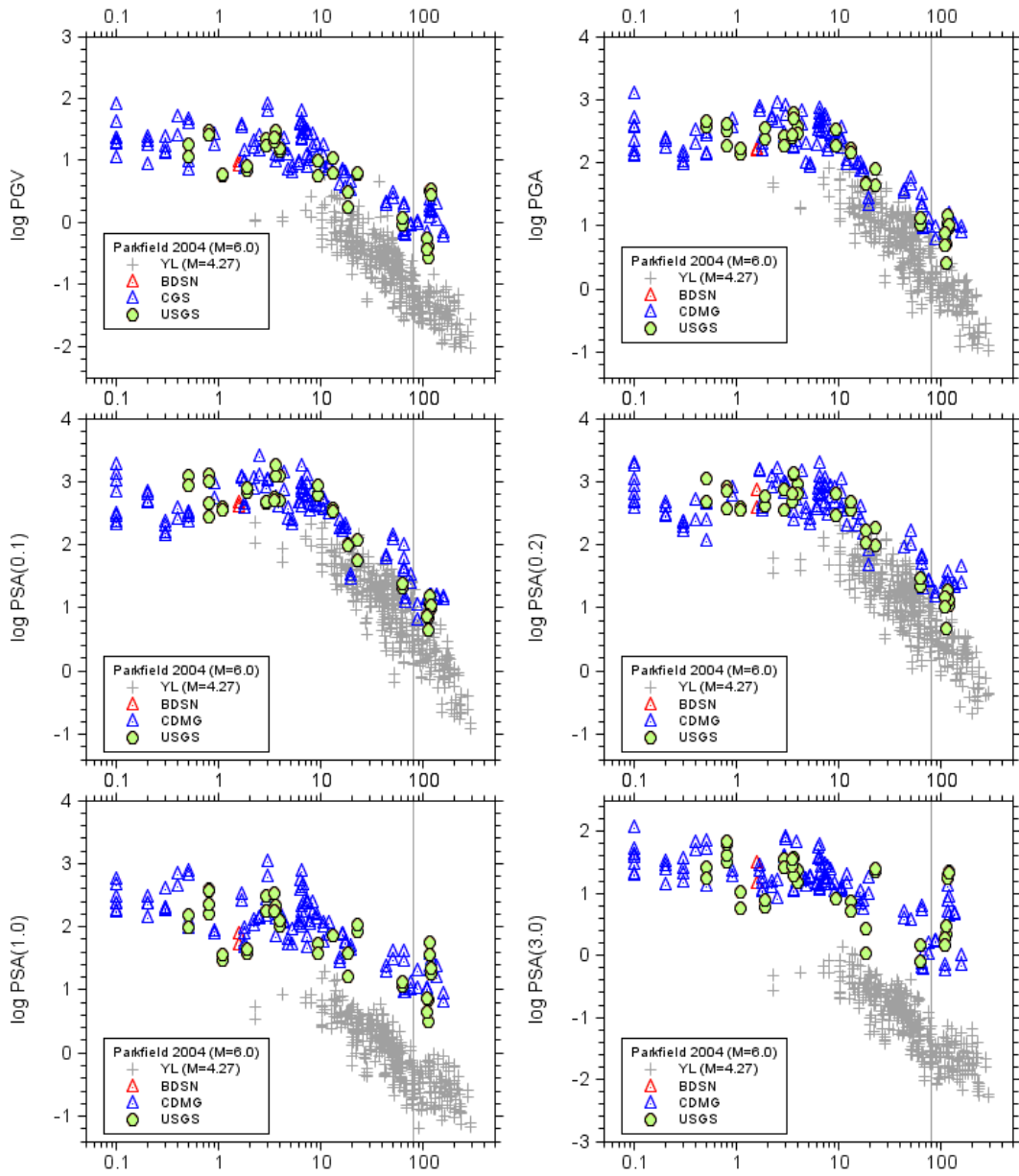
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Figure 1. Anza and Parkfield data.



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Fig. 2. BBC and Parkfield



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Fig. 3. YL and Parkfield