

**Supplementary materials for "A new GPS velocity field for the Pacific Plate, Part 1:
Constraints on plate motion, intraplate deformation, and the viscosity of Pacific basin
asthenosphere"**

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1 Summary

This supplementary document tabulates 21 horizontal offsets that were estimated at 13 of the Pacific plate GPS stations during inversions of the station position time series. Best-fitting slopes estimated during the same inversions are given in Table 1 of the main document for all of the Pacific plate sites. Eight of the 21 offsets coincide with GPS receiver and/or antenna changes listed in the station logs. Thirteen of the offsets have unknown causes, none of which coincide with earthquakes. The offsets are included for completeness and are not otherwise used for the analysis. Estimated offsets smaller than 1 mm are considered unresolvable with the observations and are set to zero.

Table 1: Station offset information

Site	Date Mo-Dy-Yr	Cause	Estimated offset		
			E (mm)	N (mm)	V (mm)
CHAT	11-28-2001	Hardware	7.3	6.1	9.6
CKIS	10-04-2011	Hardware	3.7	1.9	0.0
HILO	10-17-2006	Unknown	-4.1	0.0	0.0
KIRI	11-20-2011	Hardware	-1.8	-4.1	0.0
KOKB	10-15-2000	Unknown	0.0	0.0	-4.1
"	08-07-2002	Unknown	-22.2	-38.2	20.8
"	01-23-2004	Unknown	-7.4	-3.4	0.0
"	05-16-2004	Unknown	26.5	41.9	24.0
MAJU	03-25-2012	Unknown	5.3	-4.0	2.2
"	08-01-2013	Unknown	-5.9	3.4	0.0
MAUI	04-20-2012	Hardware	0.0	1.7	0.0
MKEA	10-15-2006	Unknown	-13.5	3.6	3.9
NAUR	04-01-2007	Unknown	-3.9	0.0	2.3
"	01-01-2010	Unknown	2.2	2.2	126.0
POHN	10-19-2006	Hardware	0.0	-2.9	-2.2
"	06-30-2009	Unknown	0.0	-1.8	7.7
"	01-11-2011	Unknown	2.3	3.3	-11.0
"	12-07-2011	Hardware	7.2	0.0	0.0
SAMO	08-02-2007	Hardware	-2.6	0.0	-6.0
THTI	01-12-2004	Hardware	0.0	3.0	0.0
UPO1	11-01-2006	Unknown	-3.8	-2.4	7.0