

Source-Side Shear Wave Splitting in the Carpathian Bend Zone, Romania, and Surroundings: Supplement

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Supplementary Information Table 1: Receiver-Side Splitting Corrections

Station	Latitude (°)	Longitude (°)	ϕ (°)	δt (sec)	Reference or note
ALE	82.503	-62.350	61±5	0.91±0.15	<i>Helffrich et al.</i> , 1994
BJI	40.040	116.175	73±3	0.29±0.17	<i>Iidaka & Niu</i> , 2001
BORG	64.747	-21.327	20±5	0.60±0.1	<i>Bjarnason et al.</i> , 2002
CCM	38.056	-91.245	34±3	0.73±0.06	<i>Barruol et al.</i> , 1997
ERM	42.015	143.157	26±20	1.25±0.55	<i>Savage et al.</i> , 1996
FFC	54.725	-101.978	47	1.08	<i>Evans et al.</i> , 2006
FURI	8.903	38.688	36±1	1.38±0.03	<i>Ayele et al.</i> , 2004
HIA	49.267	119.742	-20±5	0.70±0.15	<i>Sandvol et al.</i> , 1992
HRV	42.506	-71.558	86±5	0.99±0.11	<i>Barruol et al.</i> , 1997
INU	35.350	137.029	-85±22	1.13±0.35	<i>Barruol & Hoffman</i> , 1999
LSZ	-15.276	28.188	16	0.73	<i>Barruol & Ben Ismail</i> , 2001
LZH	36.087	103.844	-54	1.20	<i>Liu et al.</i> , 2008
MAKZ	46.808	81.977			uncorrected
MBAR	-0.6019	30.7382	4±22	1.48±0.5	<i>Walker et al.</i> , 2004
MBO	14.391	-16.955	82±10	0.70±0.2	<i>Russo & Silver</i> , 1994
MSEY	-4.674	55.479	32±3	1.02±0.11	<i>Behn et al.</i> , 2004
RSSD	44.120	-104.036	55±5	0.65±0.1	<i>Silver & Kaneshima</i> , 1993
SCP	40.795	-77.86	64±4	0.83±0.05	<i>Barruol et al.</i> , 1997
SFJ	66.996	-50.622			uncorrected
TIXI	71.649	128.867	-44	2.99	<i>Oreshin et al.</i> , 2002
TLY	51.681	103.644	70±10	1.00±0.2	<i>Barruol & Russo</i> , unpublished
TSK	36.211	140.110			uncorrected
ULN	47.865	107.053	52±12	0.60±0.1	<i>Liu et al.</i> , 2008
WFM	42.611	-71.491	98±9	1.12±0.15	<i>Barruol & Hoffman</i> , 1999
WMQ	43.821	87.695	72±5	0.46±0.19	<i>Iidaka & Niu</i> , 2001
WUS	41.199	79.218	36	1.10	<i>Li & Chen</i> , 2006
XAN	34.031	108.924	41±22	0.80±0.73	<i>Zhao et al.</i> , 2007
YAK	62.031	129.681	-34	1.24	<i>Oreshin et al.</i> , 2002

Supplementary Information References

- Ayele, A., G. Stuart, & J.-M. Kendall, Insights into rifting from shear wave splitting and receiver functions: an example from Ethiopia, *Geophys. J. Int.*, **157**, 354-362, doi:10.1029/2004GL020471 (2004).
- Barruol, G., & W. Ben Ismail, Upper mantle anisotropy beneath the African IRIS and Geoscope stations, *Geophys. J. Int.*, **146**, 549-561(2001).
- Barruol, G., & R. Hoffman, Upper mantle anisotropy beneath the Geoscope stations, *J. Geophys. Res.*, **104**, 10,757-10,773 (1999).
- Barruol, G., P.G. Silver, & A. Vauchez, Seismic anisotropy in the eastern United States: Deep structure of a complex continental plate, *J. Geophys. Res.*, **102**, 8329-8348 (1997).
- Behn, M.D., C.P. Conrad, & P.G. Silver, Detection of upper mantle flow associated with the African superplume, *Earth Planet. Sci. Lett.*, **224**, 259-274, doi: 10.1016/j.epsl.2004.05.026 (2004).
- Bjarnason, I.T., P.G. Silver, G. Rumpker, & S.C. Solomon, Shear wave splitting across the Iceland hot spot: Results from the ICEMELT experiment, *J. Geophys. Res.*, **107**, 2382 (2002).
- Evans, M.S., J.-M. Kendall, & R.J. Willemann, Automated SKS splitting and upper-mantle anisotropy beneath Canadian seismic stations, *Geophys. J. Int.*, **165**, 931-942, doi:10.1111/j.1365-246X.2006.02973.x (2006).
- Helffrich, G., P.G. Silver, & H. Given, Shear wave splitting variations over short spatial scales on continents, *Geophys. J. Int.*, **119**, 561-573 (1994).
- Iidaka, T., & F. Niu, Mantle and crust anisotropy in the eastern China region inferred from waveform splitting of SKS and *PpSms*, *Earth Planets Space*, **53**, 159-168 (2001).
- Li, A., & C. Chen, Shear wave splitting beneath the central Tian Shan and its tectonic implications, *Geophys. Res. Lett.*, **33**, doi:10.1029.2006GL027717 (2006).
- Liu, K.H., S. Gao, Y. Gao, & J. Wu, Shear wave splitting and mantle flow associated with the deflected Pacific slab beneath northeast Asia, *J. Geophys. Res.*, **113**, doi:10.1029/2007JB005178 (2008).
- Russo, R.M., & P.G. Silver, Trench-parallel flow beneath the Nazca plate from

seismic anisotropy, *Science*, **263**, 1105-1111 (1994).

Sandvol, E., J. Ni, S. Ozalaybey, & J. Schue, Shear-wave splitting in the Rio Grande Rift, *Geophys. Res. Lett.*, **19**, 2337-2340 (1992).

Silver P.G., & S. Kaneshima, Constraints on mantle anisotropy beneath Precambrian North America from a transportable teleseismic experiment, *Geophys. Res. Lett.*, **20**, 1127-1130 (1993).

Zhao, L., T.Y. Zheng, L. Chen, & Q.S. Tang, Shear wave splitting in eastern and central China: Implications for upper mantle deformation beneath continental margin, *Phys. Earth Planet. Int.*, **162**, 73-84, 10.1016/j.pepi.2007.1003.1004 (2007).