

Tapered Gutenberg-Richter Frequency-Magnitude Distributions by Plate Boundary Class:

Monte Carlo set #1 of subcatalogs

(All ranges are 95%-confidence limits.)

Abbreviation	CCB	CTF	CRB	OSR		OTF			OCB	SUB	INT
Class	Continental Convergent Boundary	Continental Transform Fault	Continental Rift Boundary	Oceanic Spreading Ridge		Oceanic Transform Fault, by plate velocity, mm/a:			Oceanic Convergent Boundary	SUB-duction zone	plate INTerior
				normal	other	3-39	40-68	69-263			
Harvard CMT catalog (1977.01.01-2002.09.30)											
threshold, m_t	5.66	5.66	5.33	5.33	5.33	5.50	5.50	5.50	5.66	5.66	5.66
all earthquakes*	313*	288*	345*	464*	101*	420*	435*	397*	144*	2734*	535*
excluding orogens	242	205	283	427	83	393	402	367	129	2056	199
slope, β	.61 $\pm .10$	.65 $\pm .12$	.62 $\pm .10$	.87 .55-1	.83 .61-1	.63 $\pm .08$	.65 $\pm .11$	.75 $\pm .11$	.55 $\pm .13$	.64 $\pm .04$	.69 $\pm .13$
corner magnitude, m_c	7.49 7.18-?	8.02 7.50-?	7.52 7.10-?	5.83 5.68-6.03	7.44 6.72-?	7.98 7.42-?	6.57 6.4-6.82	6.83 6.59-7.67	7.78 7.42-?	8.22 7.97-9.13	8.23 7.60-?
<i>Pacheco & Sykes</i> [1992] catalog (1900-1975) + <i>Ekström & Nettles</i> [1997] catalog (1976): $M_s \geq 7$											
threshold, m_t	7.10	7.10	7.10	7.10		7.10	7.10	7.10	7.10	7.10	7.10
all earthquakes*	31*	43*	11*	2*		4*	3*	3*	20*	275*	77*
excluding orogens	20	39	9	2		4	3	3	18	216	14(3?)
three catalogs merged (1900-2002): $M_s \geq 7$											
threshold, m_t	7.10	7.10	7.10			7.10			7.10	7.10	
all earthquakes*	42*	54*	13*			6*			29*	387*	
slope, β	[.61]	[.65]	[.62]			[.63]			[.55]	[.64]	
corner magnitude, m_c	8.53* 8.16-?	7.97* 7.77-8.37	7.60* 7.37-8.19			8.22* 7.73-?			8.07* 7.83-8.66	9.57* 9.13-?	

*including earthquakes in the 13 orogens.

[] copied from CMT results