

Fault Directivity Adjustment

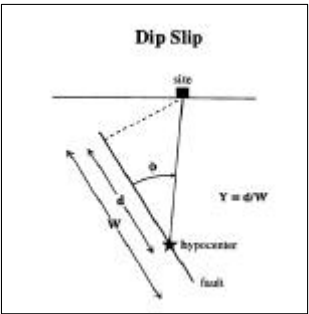
Location I-80

Use Directivity = 1
Vertical depth to base of fault (km) = 15
variance = 5

fault dip angle (deg) = 50
variance of dip angle (deg) = 20

distance from fault to site (km) = 2.5

1 = yes, 0 = no (remember to adjust regression chart below)



hypocenter middle
depth = 15
W d Y f
19.58 8.183585646 0.417932687 13.17125

hypocenter bottom
depth = 15
W d Y f
19.58 17.9741403 0.91793269 6.081813

hypocenter middle
depth = 15
W d Y f
30.00 12.83493649 0.427831216 5.562518

hypocenter bottom
depth = 15
W d Y f
30.00 27.8349365 0.92783122 2.571288

hypocenter middle
depth = 15
W d Y f
15.96 7.126282935 0.446434366 18.24518

hypocenter bottom
depth = 15
W d Y f
15.96 15.1076162 0.94643437 8.838696

hypocenter middle
depth = 10
W d Y f
13.05 4.920067422 0.376899031 21.26822

hypocenter bottom
depth = 10
W d Y f
13.05 11.4471039 0.87689903 9.497677

hypocenter middle
depth = 10
W d Y f
20.00 7.834936491 0.391746825 9.064678

hypocenter bottom
depth = 10
W d Y f
20.00 17.8349365 0.89174682 4.009142

hypocenter middle
depth = 10
W d Y f
10.64 4.465838504 0.419651549 27.74639

hypocenter bottom
depth = 10
W d Y f
10.64 9.78672737 0.91965155 13.49804

hypocenter middle
depth = 20
W d Y f
26.11 11.44710387 0.438449515 9.497677

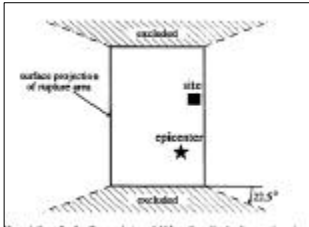
hypocenter bottom
depth = 20
W d Y f
26.11 24.5011768 0.93844952 4.469383

hypocenter middle
depth = 20
W d Y f
40.00 17.83493649 0.445873412 4.009142

hypocenter bottom
depth = 20
W d Y f
40.00 37.8349365 0.94587341 1.892264

hypocenter middle
depth = 20
W d Y f
21.28 9.786727366 0.459825774 13.49804

hypocenter bottom
depth = 20
W d Y f
21.28 20.4285051 0.95982577 6.560068



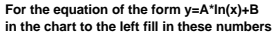
Regression Coefficients

period	C ₁	C ₂
0.6	0	0
0.75	-0.045	0.008
1	-0.104	0.178
1.5	-0.186	0.318
2	-0.245	0.418
3	-0.327	0.559
4	-0.386	0.659
5	-0.431	0.737

			middle						bottom						max. w/directivity					
			13		15		17		13		15		17							
w/o basin			30	50	70	30	50	70	30	50	70	30	50	70	30	50	70			
period	A&S		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

Directivity Adjustment (max)

Plot of Directivity Adjustment (%) as a function of period



A = 14.733
B = 6.9121