

# Fort Calhoun (41.52° N, 96.08° E), Control Point Hazard

SA (g)	AFE 0.5 Hz	AFE 1 Hz	AFE 2.5 Hz	AFE 5 Hz	AFE 10 Hz	AFE 25 Hz	AFE 100 Hz
0.001000	4.194964e-03	6.119390e-03	8.442813e-03	8.852061e-03	8.908758e-03	8.749199e-03	8.128727e-03
0.001122	4.192787e-03	6.119377e-03	8.442811e-03	8.852061e-03	8.908758e-03	8.749199e-03	8.128727e-03
0.001259	4.136701e-03	6.116140e-03	8.442776e-03	8.852061e-03	8.908758e-03	8.749199e-03	8.128727e-03
0.001413	4.050074e-03	6.068399e-03	8.442301e-03	8.852061e-03	8.908758e-03	8.749199e-03	8.128727e-03
0.001585	3.928487e-03	5.963259e-03	8.438934e-03	8.852060e-03	8.908757e-03	8.749199e-03	8.128727e-03
0.001778	3.797971e-03	5.779706e-03	8.425625e-03	8.852059e-03	8.908561e-03	8.749196e-03	8.128727e-03
0.001995	3.646531e-03	5.540393e-03	8.393662e-03	8.852050e-03	8.903947e-03	8.748816e-03	8.128727e-03
0.002239	3.479811e-03	5.288326e-03	8.339235e-03	8.851990e-03	8.882821e-03	8.735040e-03	8.128701e-03
0.002512	3.312248e-03	5.036291e-03	8.259928e-03	8.851579e-03	8.842668e-03	8.652997e-03	8.124262e-03
0.002818	3.147118e-03	4.787133e-03	8.151304e-03	8.848558e-03	8.774991e-03	8.532830e-03	8.065576e-03
0.003162	2.983372e-03	4.541695e-03	8.012595e-03	8.833304e-03	8.677708e-03	8.396167e-03	7.895444e-03
0.003548	2.820582e-03	4.300252e-03	7.846843e-03	8.791760e-03	8.558184e-03	8.238694e-03	7.663616e-03
0.003981	2.657544e-03	4.062876e-03	7.655955e-03	8.720419e-03	8.418448e-03	8.058349e-03	7.410338e-03
0.004467	2.493999e-03	3.829200e-03	7.440396e-03	8.621714e-03	8.256784e-03	7.855028e-03	7.132549e-03
0.005012	2.329082e-03	3.598905e-03	7.201424e-03	8.497878e-03	8.071771e-03	7.627788e-03	6.830867e-03
0.005623	2.162928e-03	3.371248e-03	6.941503e-03	8.350360e-03	7.862276e-03	7.376183e-03	6.507354e-03
0.006310	1.995475e-03	3.145655e-03	6.663403e-03	8.179441e-03	7.627609e-03	7.100063e-03	6.163878e-03
0.007079	1.827414e-03	2.921354e-03	6.369542e-03	7.984705e-03	7.367413e-03	6.800845e-03	5.802514e-03
0.007943	1.659866e-03	2.697985e-03	6.061906e-03	7.765504e-03	7.082134e-03	6.480169e-03	5.426376e-03
0.008913	1.494514e-03	2.475370e-03	5.742228e-03	7.521315e-03	6.772869e-03	6.140408e-03	5.039603e-03
0.010000	1.333545e-03	2.253857e-03	5.412178e-03	7.252051e-03	6.441365e-03	5.784863e-03	4.646782e-03
0.011220	1.179212e-03	2.034346e-03	5.073505e-03	6.958069e-03	6.090173e-03	5.417062e-03	4.252743e-03
0.012589	1.032394e-03	1.818184e-03	4.728121e-03	6.640254e-03	5.722484e-03	5.041857e-03	3.862768e-03
0.014125	8.943636e-04	1.607414e-03	4.378181e-03	6.300026e-03	5.342325e-03	4.663590e-03	3.481878e-03
0.015849	7.670791e-04	1.404266e-03	4.026149e-03	5.939468e-03	4.954088e-03	4.287667e-03	3.115152e-03
0.017783	6.504438e-04	1.211892e-03	3.674808e-03	5.561397e-03	4.562779e-03	3.918164e-03	2.766764e-03
0.019953	5.449279e-04	1.033413e-03	3.327250e-03	5.169413e-03	4.173302e-03	3.559953e-03	2.440348e-03
0.022387	4.502292e-04	8.707770e-04	2.986818e-03	4.767874e-03	3.790720e-03	3.216256e-03	2.138291e-03
0.025119	3.671392e-04	7.254577e-04	2.656992e-03	4.361752e-03	3.419578e-03	2.890452e-03	1.862284e-03
0.028184	2.953579e-04	5.968476e-04	2.341212e-03	3.956557e-03	3.064108e-03	2.584257e-03	1.611242e-03
0.031623	2.344203e-04	4.845242e-04	2.042764e-03	3.557966e-03	2.727600e-03	2.297386e-03	1.371884e-03
0.035481	1.834631e-04	3.880238e-04	1.764664e-03	3.171594e-03	2.412754e-03	2.004004e-03	1.137043e-03
0.039811	1.417140e-04	3.066089e-04	1.509399e-03	2.802559e-03	2.120895e-03	1.691773e-03	9.314194e-04
0.044668	1.080657e-04	2.390069e-04	1.278556e-03	2.455300e-03	1.848928e-03	1.410858e-03	7.594901e-04
0.050119	8.140331e-05	1.838538e-04	1.072875e-03	2.133201e-03	1.594880e-03	1.168034e-03	6.174144e-04
0.056234	6.061465e-05	1.396340e-04	8.925192e-04	1.838623e-03	1.362066e-03	9.604486e-04	5.010272e-04
0.063096	4.464326e-05	1.048879e-04	7.368116e-04	1.572702e-03	1.151491e-03	7.847918e-04	4.062192e-04
0.070795	3.254443e-05	7.801734e-05	6.040425e-04	1.334876e-03	9.654776e-04	6.376040e-04	3.293401e-04
0.079433	2.349455e-05	5.754788e-05	4.919333e-04	1.123006e-03	8.047691e-04	5.153929e-04	2.671302e-04
0.089125	1.685452e-05	4.212289e-05	3.981138e-04	9.360367e-04	6.676432e-04	4.147999e-04	2.168029e-04
0.100000	1.204108e-05	3.070136e-05	3.202516e-04	7.738035e-04	5.515775e-04	3.326437e-04	1.760144e-04
0.112202	8.573668e-06	2.236284e-05	2.561357e-04	6.352500e-04	4.540088e-04	2.659856e-04	1.424033e-04
0.125893	6.088473e-06	1.631758e-05	2.037753e-04	5.185053e-04	3.725008e-04	2.121449e-04	1.134018e-04
0.141254	4.319010e-06	1.193258e-05	1.614109e-04	4.211741e-04	3.047799e-04	1.687655e-04	8.841332e-05
0.158489	3.062037e-06	8.761851e-06	1.274590e-04	3.407378e-04	2.487447e-04	1.338840e-04	6.859623e-05

0.177828	2.170940e-06	6.486929e-06	1.004809e-04	2.747712e-04	2.025135e-04	1.059433e-04	5.298906e-05
0.199526	1.539809e-06	4.857893e-06	7.918706e-05	2.209939e-04	1.644446e-04	8.360793e-05	4.063784e-05
0.223872	1.093992e-06	3.684149e-06	6.244589e-05	1.772818e-04	1.330738e-04	6.573373e-05	3.082928e-05
0.251189	7.813939e-07	2.832208e-06	4.928766e-05	1.417177e-04	1.071257e-04	5.140850e-05	2.311379e-05
0.281838	5.617799e-07	2.206412e-06	3.891364e-05	1.127547e-04	8.563355e-05	3.993511e-05	1.718023e-05
0.316228	4.079414e-07	1.741001e-06	3.070389e-05	8.927163e-05	6.797406e-05	3.080894e-05	1.265048e-05
0.354813	2.998697e-07	1.388685e-06	2.418635e-05	7.037246e-05	5.364870e-05	2.359764e-05	9.202476e-06
0.398107	2.234487e-07	1.117361e-06	1.898329e-05	5.522784e-05	4.211200e-05	1.793669e-05	6.587322e-06
0.446684	1.687592e-07	9.044269e-07	1.481143e-05	4.310978e-05	3.284705e-05	1.352902e-05	4.637453e-06
0.501187	1.289730e-07	7.342046e-07	1.149812e-05	3.344378e-05	2.541642e-05	1.012660e-05	3.216606e-06
0.562341	9.949043e-08	5.964739e-07	8.912940e-06	2.577024e-05	1.947918e-05	7.509821e-06	2.189431e-06
0.630957	7.725297e-08	4.839250e-07	6.903111e-06	1.969922e-05	1.479478e-05	5.491040e-06	1.459014e-06
0.707946	6.022319e-08	3.912876e-07	5.321838e-06	1.492527e-05	1.115408e-05	3.941967e-06	9.540183e-07
0.794328	4.703710e-08	3.148106e-07	4.068596e-06	1.121822e-05	8.337099e-06	2.774164e-06	6.141385e-07
0.891251	3.678046e-08	2.518257e-07	3.083131e-06	8.366921e-06	6.150608e-06	1.909829e-06	3.888591e-07
1.000000	2.876924e-08	2.003808e-07	2.320887e-06	6.170607e-06	4.460507e-06	1.281889e-06	2.415578e-07
1.122019	2.247232e-08	1.589275e-07	1.738908e-06	4.473457e-06	3.174349e-06	8.359638e-07	1.477736e-07
1.258925	1.750681e-08	1.259520e-07	1.296335e-06	3.175396e-06	2.212017e-06	5.276441e-07	8.945291e-08
1.412538	1.358137e-08	9.992557e-08	9.605226e-07	2.207440e-06	1.502561e-06	3.209935e-07	5.359113e-08
1.584893	1.047544e-08	7.938745e-08	7.073220e-07	1.504578e-06	9.905088e-07	1.878292e-07	3.177945e-08
1.778279	8.028422e-09	6.308562e-08	5.182851e-07	1.004321e-06	6.320935e-07	1.050494e-07	1.862806e-08
1.995262	6.117390e-09	5.004991e-08	3.785281e-07	6.546324e-07	3.898010e-07	5.468408e-08	1.069842e-08
2.238721	4.631302e-09	3.955212e-08	2.756192e-07	4.154522e-07	2.320289e-07	2.523420e-08	5.939369e-09
2.511886	3.473521e-09	3.105597e-08	1.997528e-07	2.564851e-07	1.332844e-07	9.790964e-09	3.085983e-09
2.818383	2.569563e-09	2.417142e-08	1.437000e-07	1.543607e-07	7.386676e-08	3.071280e-09	1.376309e-09
3.162278	1.871290e-09	1.861808e-08	1.022952e-07	9.091421e-08	3.929695e-08	7.359472e-10	4.605649e-10
3.548134	1.344270e-09	1.419189e-08	7.198779e-08	5.258248e-08	1.994582e-08	1.079733e-10	1.019282e-10
3.981072	9.552168e-10	1.071851e-08	5.022824e-08	2.998453e-08	9.636473e-09	7.628596e-12	1.226245e-11
4.466836	6.721280e-10	8.025096e-09	3.478360e-08	1.697366e-08	4.451065e-09	2.282970e-13	5.566609e-13
5.011872	4.681881e-10	5.953328e-09	2.371815e-08	9.591350e-09	1.926467e-09	2.735630e-15	7.243378e-15
5.623413	3.439751e-10	4.556961e-09	1.700078e-08	6.265481e-09	1.052130e-09	1.367829e-15	3.621699e-15
6.309573	2.197621e-10	3.160593e-09	1.028340e-08	2.939612e-09	1.777925e-10	2.798993e-20	1.965413e-20

## Fort Calhoun (41.52° N, 96.08° E), Response Spectra

Frequency (Hz)	UHRS 1E-4 (g)	GMRS (g)	UHRS 1E-5 (g)
0.500000	0.046099	0.054046	0.106499
0.561009	0.050632	0.059474	0.117251
0.629463	0.054773	0.064392	0.126972
0.706269	0.057898	0.068091	0.134280
0.792447	0.060261	0.070915	0.139870
0.889140	0.062150	0.073341	0.144754
0.997631	0.064233	0.076257	0.150737
1.000000	0.064278	0.076321	0.150870
1.122019	0.067080	0.083104	0.166032
1.258925	0.072692	0.094468	0.191004
1.412538	0.084021	0.114645	0.234643
1.584893	0.100008	0.141605	0.292516

1.778279	0.113707	0.166307	0.346339
1.995262	0.127952	0.193230	0.405642
2.238721	0.150459	0.226072	0.473986
2.500000	0.178241	0.257204	0.533835
2.805046	0.206857	0.292878	0.604995
3.147313	0.236428	0.324654	0.665522
3.531344	0.251712	0.351595	0.723832
3.962233	0.278519	0.381563	0.781725
4.445698	0.293729	0.393776	0.802391
4.988156	0.299021	0.406417	0.830998
5.000000	0.299257	0.406779	0.831760
5.610092	0.301760	0.406214	0.828590
6.294627	0.288756	0.389274	0.794324
7.062688	0.272967	0.378426	0.777606
7.924466	0.270790	0.373177	0.765680
8.891397	0.264400	0.360903	0.738727
9.976312	0.260199	0.359828	0.738931
10.000000	0.260237	0.359943	0.739198
11.220185	0.247978	0.338195	0.692096
12.589254	0.226502	0.309499	0.633676
14.125375	0.207796	0.284959	0.583956
15.848932	0.196154	0.268949	0.551124
17.782794	0.188135	0.260493	0.535105
19.952623	0.185577	0.254918	0.522612
22.387211	0.182891	0.246759	0.503621
25.000000	0.177920	0.238051	0.484832
28.050461	0.178596	0.233486	0.472791
31.473135	0.178479	0.229345	0.462407
35.313439	0.176972	0.226717	0.456762
39.622330	0.175924	0.223449	0.449213
44.456985	0.174787	0.219755	0.440663
49.881558	0.173814	0.216428	0.432945
55.968028	0.171000	0.211586	0.422590
62.797161	0.167046	0.206314	0.411873
70.459573	0.162206	0.200852	0.401227
79.056942	0.156148	0.194287	0.388581
88.703347	0.149175	0.187440	0.375807
99.526793	0.142360	0.181366	0.364887
100.000000	0.133433	0.170906	0.344303