

**Changes in ETMX before to after three earthquakes:
EQ2, 6 July 2017, is the Montana 5.8M**

drives			
	EQ1	EQ2	EQ3
	22-Jan-2017	6-Jul-2017	29-Jul-2017
	1169095218	1183356758	1185394818
ETMX M0 OPTICALIGN P OFFSET	0	0	0
ETMX M0 OPTICALIGN Y OFFSET	0	0	0
ETMX M0 MASTER OUT F1	-415	-303	-411
ETMX M0 MASTER OUT F2	-505	-326	-443
ETMX M0 MASTER OUT F3	-87	-23	-30
ETMX M0 MASTER OUT LF	0	2	-1
ETMX M0 MASTER OUT RT	-2	-3	0
ETMX M0 MASTER OUT SD	-8	-4	-11
ETMX L1 MASTER OUT UL	1141	-2614	1370
ETMX L1 MASTER OUT LL	-1031	2368	-1239
ETMX L1 MASTER OUT UR	-1146	2627	-1377
ETMX L1 MASTER OUT LR	1030	-2368	1239
ETMX L2 MASTER OUT UL	3033	-371	-623
ETMX L2 MASTER OUT LL	-1797	-5	52
ETMX L2 MASTER OUT UR	2048	8	-44
ETMX L2 MASTER OUT LR	-3129	343	576

sensors				changes	effect of changes
	EQ1	EQ2	EQ3		
	22-Jan-2017	6-Jul-2017	29-Jul-2017		
	1169095218	1183356758	1185394818		
ETMX OPLEV P	0	-58	0	large change in pitch	
ETMX OPLEV Y	1	2	2		
ETMX OSEM M0 F1	0	0	0		change only in RT
ETMX OSEM M0 F2	0	0	0		
ETMX OSEM M0 F3	0	0	0		
ETMX OSEM M0 LF	0	2	0		
ETMX OSEM M0 RT	6	66	5	large change only in RT	
ETMX OSEM M0 SD	1	-4	1		
ETMX OSEM L1 UL	0	6	0		diagonal change
ETMX OSEM L1 LL	3	154	6	large change in LL	
ETMX OSEM L1 UR	1	-122	1	large change in UR	
ETMX OSEM L1 LR	0	3	0		
ETMX OSEM L2 UL	1	-91	3	large change in UL	can account for change in OpLev P
ETMX OSEM L2 LL	1	4	1		
ETMX OSEM L2 UR	0	-58	0	large change in UR	
ETMX OSEM L2 LR	1	2	2		

sensors - drives				changes	effect of changes
	EQ1	EQ2	EQ3		
	22-Jan-2017	6-Jul-2017	29-Jul-2017		
	1169095218	1183356758	1185394818		
ETMX M0 F1	416	303	411		change in F2 and F3 ignored significant change in RT
ETMX M0 F2	505	326	443	consistant change in F2 and F3 in ALL EQs	
ETMX M0 F3	87	23	30		
ETMX M0 LF	0	0	1		
ETMX M0 RT	8	68	5	large change only in RT	
ETMX M0 SD	9	0	12		
ETMX L1 UL	-1141	2620	-1370		no significant change
ETMX L1 LL	1033	-2214	1245		
ETMX L1 UR	-1147	-2749	1378		
ETMX L1 LR	-1030	2370	-1239		
ETMX L2 UL	-3032	280	627	all values change	inconsistant change in values at this levels, smallest absolute value is 9, largest absolute value is 342
ETMX L2 LL	1798	9	-51		
ETMX L2 UR	-2048	-66	44		
ETMX L2 LR	3130	-342	-574		

Changes in ETMY before to after three earthquakes:
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drives			
	EQ1	EQ2	EQ3
	22-Jan-2017	6-Jul-2017	29-Jul-2017
	1169095218	1183356758	1185394818
ETMY M0 OPTICALIGN P OFFSET	0	0	0
ETMY M0 OPTICALIGN Y OFFSET	0	0	0
ETMY M0 MASTER OUT F1	-8	-544	-856
ETMY M0 MASTER OUT F2	308	-414	-432
ETMY M0 MASTER OUT F3	304	128	427
ETMY M0 MASTER OUT LF	0	-1	-1
ETMY M0 MASTER OUT RT	-1	0	-1
ETMY M0 MASTER OUT SD	-18	-57	-16
ETMY L1 MASTER OUT UL	-4365	242	504
ETMY L1 MASTER OUT LL	4002	-230	-465
ETMY L1 MASTER OUT UR	4205	-232	-485
ETMY L1 MASTER OUT LR	-3820	220	444
ETMY L2 MASTER OUT UL	-2826	-774	456
ETMY L2 MASTER OUT LL	5110	427	-547
ETMY L2 MASTER OUT UR	145	723	523
ETMY L2 MASTER OUT LR	-2214	-364	-505

sensors				changes	effect of changes
	EQ1	EQ2	EQ3		
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	1169095218	1183356758	1185394818		
ETMY OPLEV P	-3	-38	1	large change in pitch	
ETMY OPLEV Y	-2	5	1	small change in yaw	
ETMY OSEM M0 F1	-1	-1	0		change only in RT no significant change in alignment
ETMY OSEM M0 F2	0	0	0		
ETMY OSEM M0 F3	0	1	0		
ETMY OSEM M0 LF	0	-1	0		
ETMY OSEM M0 RT	0	-61	9	large change only in RT	
ETMY OSEM M0 SD	-1	3	0		
ETMY OSEM L1 UL	-1	-2	-2		change only in LL no significant change in alignment
ETMY OSEM L1 LL	-1	-131	30	large change in LL	
ETMY OSEM L1 UR	0	-14	1		
ETMY OSEM L1 LR	-1	-6	-3		
ETMY OSEM L2 UL	3	-156	3	large change in UL	can account for large change in Oplev P can account for small change in Oplev Y
ETMY OSEM L2 LL	4	-24	-3	medium change in LL	
ETMY OSEM L2 UR	-3	-38	1	medium change in UR	
ETMY OSEM L2 LR	-2	5	1		

sensors - drives				changes	effect of changes
	EQ1	EQ2	EQ3		
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	1169095218	1183356758	1185394818		
ETMY M0 F1	7	543	856		change in RT and SD may indicate a change in alignment
ETMY M0 F2	-308	414	432		
ETMY M0 F3	-305	-127	-426		
ETMY M0 LF	0	0	1		
ETMY M0 RT	1	-61	11	large change only in RT	
ETMY M0 SD	17	60	17	large change only in SD	
ETMY L1 UL	4365	-244	-506		change only in LL no significant change in alignment
ETMY L1 LL	-4003	99	495	inconsistent change in LL	
ETMY L1 UR	-4205	218	487		
ETMY L1 LR	3820	-226	-447		
ETMY L2 UL	2829	618	-453		no significant change
ETMY L2 LL	-5106	-452	544		
ETMY L2 UR	-148	-761	-522		
ETMY L2 LR	2212	369	506		