date	time	Tx(GONG)	Ty(GONG)	Tx(HMI)	Ty(HMI)
2020-01-01	00:00:00	-737.5979823382	-446.0597267508	-701.379110656	461.6418605565
2020-01-01	06:00:00	-731.3280105905	-441.1921685944	-669.5716062384	473.1873315405
2020-01-01	12:00:00	-727.0740808528	-443.8204093348	-630.5731177698	497.3390503448
2020-01-01	18:00:00	-719.7030173908	-445.7573172586	-472.7542495357	815.0984878175
2020-01-02	00:00:00	-710.3709917271	-452.056563523	-464.2007553948	817.5253288033
2020-01-02	06:00:00	-687.5111629649	-460.7625805829	-451.9448762205	817.4669943522
2020-01-02	12:00:00	-686.386157007	-479.9763801942	-451.6906841623	821.6562698673
2020-01-02	18:00:00	-673.0451115698	-485.8005805999	-450.2099921193	828.9229614892
2020-01-03	00:00:00	-654.1778155528	-489.8437881935	-434.9540758161	842.0721118767
2020-01-03	06:00:00	-633.4086830299	-492.7837062898	-456.2671731426	849.3234682833
2020-01-03	12:00:00	-612.134273207	-494.7333707472	-481.476434343	839.9509764882
2020-01-03	18:00:00	-584.540000821	-496.5168974056	-551.2248323904	799.8449493814
2020-01-04	00:00:00	-556.9940057884	-497.5121136376	-594.1991570664	760.6640069311
2020-01-04	06:00:00	-528.7875616571	-498.7831887042	-608.6148156715	749.671669629
2020-01-04	12:00:00	-493.3805638005	-502.0634310364	-728.6679826221	631.2934384757
2020-01-04	18:00:00	-459.6099441987	-509.9347416007	-764.5209459374	578.8578831565
2020-01-05	00:00:00	-416.9706654735	-520.1803265624	-809.0956443048	508.7011747324
2020-01-05	06:00:00	-378.3112343431	-543.9604235829	-816.3270763368	486.9053088541
2020-01-05	12:00:00	-2044.4145860996	203.1506139748	-820.6204152668	476.1676992851
2020-01-05	18:00:00	-462.3755026986	847.3570572721	-809.8705538439	462.2952551385
2020-01-06	00:00:00	-462.9678199454	843.9618068432	-807.2405325458	453.2953245991
2020-01-06	06:00:00	-461.9797687042	840.3063248045	-797.4020631295	445.5692486235
2020-01-06	12:00:00	-640.476458207	688.1613465187	-792.6203774109	435.224651044
2020-01-06	18:00:00	-631.9282225249	690.5335592215	-785.1478847899	416.8304222487
2020-01-07	00:00:00	-614.7795971299	688.3607498209	-780.5868922721	411.1564362074
2020-01-07	06:00:00	-596.2542433541	696.0538889133	-766.5568732796	405.2710205399
2020-01-07	12:00:00	-566.2179385365	698.7541565135	-753.3456408223	402.9981328764
2020-01-07	18:00:00	-537.3558275444	718.8303506537	-740.1525343633	397.5468132771
2020-01-08	00:00:00	-361.2268959307	866.4499301666	-726.5876415351	411.3031557576
2020-01-08	06:00:00	-351.952203701	871.2556435411		423.6449831223
2020-01-08	12:00:00	-344.1714599526	882.2652785936	-682.4897715747	440.9552256553
2020-01-08	18:00:00	-324.4033548397	892.2326841406	-659.7921835177	461.9653936526
2020-01-09	00:00:00	-335.5595831452	898.606123441	-636.2488136685	475.3163919771
2020-01-09	06:00:00	-338.5474651717	896.6278065502	-634.8561080522	494.3465670592
2020-01-09		-358.7793480132	894.9193967975	-607.4969027452	523.5475868005
2020-01-09		-364.0616077306			611.7346212983
2020-01-10		-369.8082931102			
2020-01-10		-382.5263158365			
2020-01-10		-393.6185493383			
2020-01-10		-394.1166352362			
2020-01-11		-396.0561379853			
2020-01-11		-401.1975850123			
2020-01-11		-404.7471256377	882.8021370263		
2020-01-11		-414.7799644407	880.9211435222		
2020-01-12		-419.1175379416	873.7660004283		
2020-01-12		-429.9627047312			
2020-01-12		-432.2508141368			-361.1539384209
2020-01-12	18:00:00	-446.3299955733	865.8830751615	-824.5534270739	-349.1923041716

```
2020-01-13 00:00:00
                                       860.6364114093
                       -451.060140495
                                                        -816.2665389492 -346.2237170198
2020-01-13 06:00:00
                      -457.2928432627
                                       854.8788152162
                                                        -803.6360023085 -316.8128725924
2020-01-13 12:00:00
                      -474.6865927766
                                        847.297608803
                                                        -828.9069551949
                                                                         -345.168795825
2020-01-13 18:00:00
                       -493.859176239
                                        838.569857399
                                                        -805.7272791953 -354.6814259492
2020-01-14 00:00:00
                                                        -785.1619699644 -360.0096776225
                      -503.6723928836
                                       830.3030077453
2020-01-14 06:00:00
                      -513.8730368712
                                       822.4394356527
                                                        -762.2199093041 -363.9907874819
2020-01-14 12:00:00
                      -521.2272050898
                                       812.8418020452
                                                        -736.2294557595 -367.1860763306
                                       806.2527646704
2020-01-14 18:00:00
                      -521.8512838553
                                                        -716.0707049237
                                                                         -378.379030811
2020-01-15 00:00:00
                      -509.0934409227
                                       805.5882510912
                                                         -690.440733193 -401.8541651423
2020-01-15 06:00:00
                      -497.6912651032
                                       809.5243135047
                                                         -655.318799254
                                                                         -427.343294213
2020-01-15 12:00:00
                      -478.9368913199
                                       813.5996768841
                                                        -619.5049096344 -440.5323803067
2020-01-15 18:00:00
                      -461.0836138404
                                       819.2881315548
                                                         -590.376110377
                                                                          -464.901844183
2020-01-16 00:00:00
                      -443.9954483788
                                       828.3017393793
                                                        -537.3885118735 -544.0909981696
2020-01-16 06:00:00
                      -417.8321330394
                                       837.7809117697
                                                        -475.4952873702 -588.6217862118
2020-01-16 12:00:00
                      -390.6671008533
                                       850.3611967447
                                                        -582.8945475614 -606.5857447005
2020-01-16 18:00:00
                      -364.0985649028
                                                        -564.1732410232 -603.1075297726
                                       868.6355236857
2020-01-17 00:00:00
                      -364.8628749657
                                       870.3726562208
                                                        -506.6192746942 -639.1423239869
2020-01-17 06:00:00
                      -364.6314819027
                                       872.7296783811
                                                        -366.4106300992 -845.5018415943
2020-01-17 12:00:00
                      -362.0981182905
                                       878.9274427258
                                                        -568.0714183755 -692.4683562977
2020-01-17 18:00:00
                      -354.6981171416
                                       883.2699451463
                                                        -560.9957095452 -670.8851000742
2020-01-18 00:00:00
                      -351.0058555785
                                       887.4344095352
                                                        -536.2305486379
                                                                         -677.780649718
2020-01-18 06:00:00
                      -343.9043329372
                                       897.2833022395
                                                        -453.0365934852 -741.0585449846
2020-01-18 12:00:00
                      -332.5026193943
                                       899.3033144602
                                                        -414.5467250389 -779.9494716407
2020-01-18 18:00:00
                      -331.2460800631
                                       904.8033872277
                                                        -362.3698396115 -832.1314361537
2020-01-19 00:00:00
                      -342.6539912568
                                       909.7470504309
                                                         -362.886402946 -835.9457723255
2020-01-19 06:00:00
                      -354.0876351669
                                       903.4746905294
                                                        -415.0935521221
                                                                         -833.022753405
2020-01-19 12:00:00
                                       894.4405995323
                                                        -416.0002293692 -852.4399910575
                      -366.8196904932
2020-01-19 18:00:00
                      -363.6677187872
                                       893.9365565783
                                                        -449.3322385538 -827.0729949739
2020-01-20 00:00:00
                      -364.6210960385
                                       896.6372735438
                                                        -539.0398022339 -754.2207785363
2020-01-20 06:00:00
                                                        -561.1610394821 -721.5333364002
                      -378.6680586766
                                       888.9435896341
2020-01-20 12:00:00
                      -385.2940204004
                                       885.2447573574
                                                        -583.1880344362 -693.9030988577
2020-01-20 18:00:00
                                                        -575.9063638728 -684.5681533666
                      -373.5851825522
                                       889.7690447944
2020-01-21 00:00:00
                      -364.6491966867
                                       893.2361744685
                                                        -561.0326063442
                                                                          -680.036728114
2020-01-21 06:00:00
                      -361.4172005225
                                       895.7617550329
                                                        -538.9692615222 -677.4047790407
2020-01-21 12:00:00
                      -357.3990184998
                                       897.3398803197
                                                        -510.3066332289 -675.4170239528
2020-01-21 18:00:00
                      -342.2314453069
                                       897.2893481769
                                                        -438.4732053597 -702.5386591509
2020-01-22 00:00:00
                      -337.2991782236
                                                        -394.9661477217 -801.8335944306
                                       903.4532937057
2020-01-22 06:00:00
                      -336.0337453422
                                         907.65364159
                                                        -397.5528259866 -796.4697489766
2020-01-22 12:00:00
                      -338.4717554376
                                       903.5618402454
                                                         -378.231325492
                                                                         -793.595204684
                                                        -344.1572083507 -806.8423650268
2020-01-22 18:00:00
                      -349.9446037684
                                       899.4049570486
2020-01-23 00:00:00
                      -354.8008550499
                                                        -330.4446170365 -825.1096333219
                                       894.6940815761
2020-01-23 06:00:00
                      -355.4017303602
                                       896.5191397825
                                                        -356.4587428404 -824.2805493477
2020-01-23 12:00:00
                      -347.8993642032
                                                        -358.5717102445 -819.8907457352
                                       894.9890328131
2020-01-23 18:00:00
                      -338.6777978775
                                       895.1741653074
                                                        -354.0533179722 -822.4093586316
                                       896.5289808945
                                                        -355.1325222861 -823.5284089412
2020-01-24 00:00:00
                      -328.0993712307
2020-01-24 06:00:00
                      -316.2744806523
                                       898.6105894879
                                                        -359.6596570609 -824.9343954534
                                       895.7214820589
2020-01-24 12:00:00
                      -295.6587419373
                                                        -366.3804323259 -811.4470822945
2020-01-24 18:00:00
                      -281.4932191537
                                       898.9479022327
                                                        -359.0791298053 -808.5229595728
2020-01-25 00:00:00
                      -266.4036347347
                                       902.1889373617
                                                        -348.6743943978 -802.0996384471
```

```
2020-01-25 06:00:00
                      -243.2985283132
                                        901.0946467202
                                                         -337.1205998955 -795.9828167129
2020-01-25 12:00:00
                      -226.6256651422
                                        904.6490793179
                                                         -321.5423440728 -791.9979857369
2020-01-25 18:00:00
                                                         -303.7934803271 -790.8610944701
                     -1414.6148434817
                                        116.6907197533
2020-01-26 00:00:00
                     -1311.2003683096
                                                         -279.3908274763 -787.2544267274
                                        144.1221984827
2020-01-26 06:00:00
                     -1210.1457697579
                                        144.8471204829
                                                         -259.0142270036 -788.5121650777
2020-01-26 12:00:00
                      -304.0371761408 -788.7586736958
                                                         -232.3411360292 -786.2268544158
2020-01-26 18:00:00
                      -283.1047306594 -787.9819462899
                                                         -204.3727609427
                                                                           -783.915547293
2020-01-27 00:00:00
                      -252.3750677446 -785.1640946155
                                                         -174.8118432444 -781.5722656681
2020-01-27 06:00:00
                      -225.9026886758 -785.0584184897
                                                         -145.9025395599 -783.4119790599
2020-01-27 12:00:00
                      -191.0988954303 -783.2150998011
                                                         -110.3254888053
                                                                          -779.533457891
2020-01-27 18:00:00
                      -159.4216162972 -787.5995355426
                                                          -74.9365340099 -783.0568074386
2020-01-28 00:00:00
                      -119.1641526292 -785.1552935403
                                                          -34.8491067493 -787.0594517186
2020-01-28 06:00:00
                       -81.2054436235 -792.4806597429
                                                            4.8334520773 -792.7560331715
2020-01-28 12:00:00
                       -35.5456558685 -808.7295093381
                                                           47.9777651688 -802.3141096374
2020-01-28 18:00:00
                        38.2485642971 -826.9204047615
                                                           128.016346818
                                                                           -808.593852545
2020-01-29 00:00:00
                        86.3380387849 -832.3229837183
                                                          196.3218520247 -806.2813201749
2020-01-29 06:00:00
                       144.7595911151
                                        -834.337343009
                                                           249.176386414 -812.8325457845
2020-01-29 12:00:00
                       189.4273018503 -847.2322857892
                                                          331.1135658497 -813.8778549918
2020-01-29 18:00:00
                        268.891737938 -839.2959390792
                                                          386.6187418012 -796.2243057284
                                                          415.0186060132 -795.8795191745
2020-01-30 00:00:00
                       317.7945441553
                                        -836.927683004
2020-01-30 06:00:00
                       357.4043331213 -836.8082937833
                                                           431.263634299 -804.6040341185
2020-01-30 12:00:00
                       385.1258876521 -834.4816637082
                                                          567.5064361856 -753.7154465305
                       403.4527004073 -839.7171684462
2020-01-30 18:00:00
                                                          627.1753545918 -698.6915452504
2020-01-31 00:00:00
                       414.2243946753
                                         -844.63494426
                                                          641.5548946172 -705.6014919152
                                                          648.4961122162 -710.2662967223
2020-01-31 06:00:00
                       421.2854036697 -851.5883074928
2020-01-31 12:00:00
                       422.8802580624 -858.0066269599
                                                          647.2348690972 -717.7338671058
                                                          638.0410652185 -735.9992749629
2020-01-31 18:00:00
                    nan
                                      nan
2020-02-01 00:00:00
                                                           628.513416194 -748.6992829847
                    nan
                                      nan
2020-02-01 06:00:00
                    nan
                                                          615.1672679735 -760.7442429292
                                      nan
2020-02-01 12:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-01 18:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-02 00:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-02 06:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-02 12:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-02 18:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-03 00:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-03 06:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-03 12:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-03 18:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-04 00:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-04 06:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-04 12:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-04 18:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-05 00:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-05 06:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-05 12:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-05 18:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-06 00:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
2020-02-06 06:00:00
                    nan
                                      nan
                                                       nan
                                                                         nan
```

2020-02-06	12:00:00	nan	nan	nan	nan
2020-02-06		nan	nan	nan	nan
2020-02-07		nan	nan	nan	nan
2020-02-07		nan	nan	nan	nan
2020-02-07		nan	nan	nan	nan
2020-02-07		nan	nan	nan	nan
2020-02-08		nan	nan	nan	nan
2020-02-08		nan	nan	nan	nan
2020-02-08	12:00:00	nan	nan	nan	nan
2020-02-08	18:00:00	nan	nan	nan	nan
2020-02-09		nan	nan	nan	nan
2020-02-09		nan	nan	nan	nan
2020-02-09		nan	nan	nan	nan
2020-02-09		nan	nan	nan	nan
2020-02-10		nan	nan	nan	nan
2020-02-10		nan	nan	nan	nan
2020-02-10		nan	nan	nan	nan
2020-02-10		nan	nan	nan	nan
2020-02-11		nan	nan	nan	nan
2020-02-11		nan	nan	nan	nan
2020-02-11		nan	nan	nan	nan
2020-02-11		nan	nan	nan	nan
2020-02-12		nan	nan	nan	nan
2020-02-12		nan	nan	nan	nan
2020-02-12		nan	nan	nan	nan
2020-02-12		nan	nan	nan	nan
2020-02-13		nan	nan	nan	nan
2020-02-13		nan	nan	nan	nan
2020-02-13		nan	nan	nan	nan
	18:00:00	nan	nan	nan	nan
2020-02-14		nan	nan	nan	nan
2020-02-14		nan	nan	nan	nan
2020-02-14		nan	nan	nan	nan
2020-02-14		nan	nan	nan	nan
2020-02-15		nan	nan	nan	nan
2020-02-15		nan	nan	nan	nan
2020-02-15		nan	nan	nan	nan
2020-02-15		nan	nan	nan	nan
2020-02-16		nan	nan	nan	nan
2020-02-16		nan	nan	nan	nan
2020-02-16		nan	nan	nan	nan
2020-02-16		nan	nan	nan	nan
2020-02-17		nan	nan	nan	nan
2020-02-17		nan	nan	nan	nan
2020-02-17	12:00:00	nan	nan	nan	nan
2020-02-17	18:00:00	nan	nan	nan	nan
2020-02-18		nan	nan	nan	nan
2020-02-18		nan	nan	nan	nan
2020-02-18		nan	nan	nan	nan

2020-02-18	18:00:00	nan	nan	nan	nan
2020-02-19	00:00:00	nan	nan	nan	nan
2020-02-19	06:00:00	nan	nan	nan	nan
2020-02-19	12:00:00	nan	nan	nan	nan
2020-02-19	18:00:00	nan	nan	nan	nan
2020-02-20	00:00:00	nan	nan	nan	nan
2020-02-20	06:00:00	nan	nan	nan	nan
2020-02-20	12:00:00	nan	nan	nan	nan
2020-02-20	18:00:00	nan	nan	nan	nan
2020-02-21	00:00:00	nan	nan	nan	nan
2020-02-21	06:00:00	nan	nan	nan	nan
2020-02-21	12:00:00	nan	nan	nan	nan
2020-02-21	18:00:00	nan	nan	nan	nan
2020-02-22		nan	nan	nan	nan
2020-02-22	06:00:00	nan	nan	nan	nan
2020-02-22	12:00:00	nan	nan	nan	nan
2020-02-22	18:00:00	nan	nan	nan	nan
2020-02-23	00:00:00	nan	nan	nan	nan
2020-02-23	06:00:00	nan	nan	nan	nan
2020-02-23	12:00:00	nan	nan	nan	nan
2020-02-23	18:00:00	nan	nan	nan	nan
2020-02-24	00:00:00	nan	nan	nan	nan
2020-02-24	06:00:00	nan	nan	nan	nan
2020-02-24	12:00:00	nan	nan	nan	nan
2020-02-24		nan	nan	nan	nan
2020-02-25		nan	nan	nan	nan
2020-02-25		nan	nan	nan	nan
2020-02-25	12:00:00	nan	nan	nan	nan
2020-02-25	18:00:00	nan	nan	nan	nan
2020-02-26	00:00:00	nan	nan	nan	nan
2020-02-26	06:00:00	nan	nan	nan	nan
2020-02-26		nan	nan	nan	nan
2020-02-26		nan	nan	nan	nan
2020-02-27		nan	nan	nan	nan
2020-02-27		nan	nan	nan	nan
2020-02-27	12:00:00	nan	nan	nan	nan
2020-02-27	18:00:00	nan	nan	nan	nan

lon(GONG)	lat(GONG)	elon(GONG)	elat(GONG)	lon(HMI)	lat(HMI)
12.0141860726	•	•	10	17.7579605556	` '
	-28.2500027491	10	10	17.4697153081	26.9954552721
6.9914672143	-28.4816077638		10	17.1059255213	28.5194788088
4.5128758627	-28.6423586495	10	10	5.1474327829	54.4348351353
	-29.1726677737		10	2.9660415937	54.6289045523
	-29.7562200237	10	10	0.9963032152	54.8791337722
356.5313873728	-31.0534419319	10	10	356.509955253	55.4631073029
354.1069032186	-31.5943459992	10	10	352.9979159071	55.8651693105
352.6578261396	-31.9639991797	10	10	347.4843284357	57.9351701533
351.4689678682	-32.2448472053		10	338.351476628	58.5265366098
350.4483268581	-32.4044997359		10	330.8585081245	57.7858824751
349.4541414188	-32.7647707426		10	321.9429011937	53.8841510076
348.6150359681	-32.9914769463		10	319.8217627013	50.1439281936
	-33.1234573491	10	10	316.2026871287	49.0965153208
	-33.5274867883		10	309.5480737073	39.4923919461
	-34.0052461916		10	308.157682036	35.3562296441
346.8440161903			10	304.0809013673	30.5138950468
346.4223101142	-36.4622489591	10	10	302.6437685476	28.8415121559
316.0646746979	2.7366424664		10	301.4620602044	27.748106637
303.330441811	58.589446329		10	300.1362258603	26.9351963778
301.7856601735	58.0364923841	10	10	299.0566454838	26.0417313617
299.9624812948	57.6014399795		10	297.8282360816	25.4239953055
294.3258662702	43.2580982663		10	296.1280463963	24.6062912097
294.0485166518	42.8549883854		10	294.1562808965	23.4852315286
293.4290421883	42.6847828877		10	292.5201070061	22.8527163879
292.8051985089	42.9423294598		10	291.0608363501	22.4050957149
292.2498189904	43.4919734595		10	289.5998781335	22.1044917395
291.4153057784	44.8159779685		10	287.3999872257	21.8407399491
291.2117436367	59.9186654261	10	10	285.5107471883	22.5228990788
288.1620246463	60.6112703357		10	283.8923084785	23.2871632603
284.8376574047	61.489167868		10	282.258095785	24.3150685514
281.2187297524	63.309842437	10	10	280.7205737831	25.5140353535
275.1476590875	63.698685696		10	278.9864793877	26.4168589182
269.4633214699	64.2303308184	10	10		27.7470235413
264.5212783231	63.3498720124			273.7700267084	29.4244696928
259.8596777034	63.3793768493	10	10	272.9973543571	35.6157896878
254.8783436826	63.4910646401	10	10	270.8959738261	37.9903069808
249.3652487659	63.1822030413	10	10	267.8118959356	41.3462191123
244.7763009491	62.6378481483	10	10	265.3179587048	42.8502847944
240.9235398753	62.7324449881	10	10	263.8854537199	46.276007713
236.580640679	62.9131522365	10	10	261.2104991681	50.1798683265
232.1768113085	62.8311890899	10	10	255.9714038581	53.5327214982
228.1759542972	62.7396354661	10	10	232.4381415521	2.0372364047
223.7672765149	62.3365658252	10	10	216.2217341981	-26.0717751319
219.3940776114	62.1065025782		10		-24.3776985212
216.3390981694	61.3619432015	10	10	211.9100029568	-23.3782981509
212.9227193929	61.1219812667		10	210.7784504873	-23.0802542498
209.4075856862	60.3568363608	10	10	209.9915728782	-22.7040400785

205.7940772906	60.0031335023	10	10	209.0099848067	
201.9907989025	59.5874014143	10	10	207.9074765764	-20.985850405
197.6034234456	58.6165084318	10	10		-22.3721708067
194.5261015264	57.2620630687	10	10	199.4441684482	-23.222113931
192.2748181686	56.2486611395	10	10	198.913829617	
190.2264985105	55.1597358892	10	10	198.2586670769	-24.0999876965
188.5737206315	54.0362388832	10	10	197.3712059738	-24.5546697143
187.4392712369	53.1892533331	10	10	195.7944949076	
186.4226498704	53.1886582116	10	10	194.5821228012	
185.3933895262	53.2355395742	10	10		-28.7366131335
184.1782602894	53.7390706045	10	10	192.9617823872	-29.909578906
183.0985532392	54.1788698825	10	10	191.6814567852	
181.9350021236	54.6937512431	10	10	189.9728038729	
180.8633875413	55.7537609498	10	10	190.3961189573	-40.4987444065
179.4302610145	57.1674320152	10	10	174.3380543081	-41.2344729471
176.5125152254	59.425125874	10	10	173.942342323	
171.445644469	60.1685018238	10	10	174.7421787364	
168.0090487418	60.3089418814	10	10	163.7411738072	
164.6611339458	60.6839980774	10	10		-47.4043051795
160.3365502418	61.7178452426	10	10	154.6984541359	-46.0348215214
156.7921409587	62.1800843629	10	10	154.4902153407	-46.5863730518
153.1466952461	63.0622581634	10	10	154.1665364167	-52.4964485187
148.7810781682	64.2683881295	10	10	151.7726445079	-55.8192710792
143.8054882049	65.0248662835	10	10	147.5481999629	-61.0638765342
137.5009081632	65.2547037671	10	10	141.9931549664	
131.2635804332	65.1275006408	10	10		-60.5255705769
127.4352483015	64.2322800504	10	10		-62.8480085122
125.5518617197	64.0580480661	10	10	117.6150952978	-59.9233658238
120.1317769516	64.5966926553	10	10	116.3602195479	-52.4965674482
116.6528642483	63.5732665329	10	10	114.8069954893	-49.8531737952
115.2561965517	62.5771901988	10	10	112.5480021714	
113.5215207422	63.0041867239	10	10	111.7586359862	
111.23812082	63.3784673295	10	10	111.1640501561	-46.7122555224
108.4566584287	63.5034246399	10	10		-46.8276264341
106.012211744	63.552628364	10	10	110.8279446551	-47.1034189964
103.9750708015	64.1733102482	10	10		-49.7275609923
101.1057438116	64.5302861943	10	10	103.8635599506	
97.3863896548	64.8508183809	10	10	101.8348371645	
92.7677397238	64.9773859398	10	10	101.0778559155	
89.322320977	64.1566075519	10	10	100.5106513414	-59.5170979281
86.6951919325	63.511965952	10	10	96.453689389	-61.3266036359
85.1832555221	62.9484432104	10	10	90.1077140756	-60.6820603509
83.7944932722	62.7598414576	10	10	86.8649903047	-60.4026716131
82.668957346	62.6044765965	10	10	83.9381169065	-60.6479702953
81.6947655614	62.4737192884	10	10	80.6031762859	-60.6284108448
80.8117595524	62.3661309965	10	10	74.7372906062	-61.2614148145
80.1771899595	62.6588744211	10	10	73.1615258529	-59.8522771856
79.4612167329	62.5979214255	10	10	72.2393270638	-59.3695958214
78.7582516224	62.5502697151	10	10	71.2660259796	-58.9437592036

78.4188629633	62.8707538593	10	10		-58.5044656948
77.7868572657	62.8379707655	10	10		-58.2248575865
70.3968706659	-1.8390274297	10	10		-58.0551660984
69.7703231319	-1.3486335706	10	10		-58.2446354911
69.2912617409	-1.498583413	10	10		-58.0765185436
	-58.3112551006	10	10		-58.2306534529
58.6414876975	-58.1522139407	10	10	68.342635803	-58.3364289216
59.0633270713	-58.3183586706	10	10	68.5265186995	-58.3858285737
59.2709936564	-58.2226277949	10	10	68.9510927848	-58.0329380666
59.9413547345	-58.4841832997	10	10	69.4627453143	-58.3819841672
60.5942767813	-58.4496793143	10	10	70.2126120266	-58.4632822728
61.6881888988	-58.8688359284	10	10	71.3371383903	-59.0995272032
62.6200358765	-59.5276981689	10	10	72.5751634715	-59.6168880141
64.3832596133	-61.3572161398	10	10	74.4879910707	-60.7674340136
70.3618168131	-63.0452428199	10	10	81.2060845661	-61.2403009277
73.7745293406	-64.0205142944	10	10	86.1793681886	-60.5799010307
78.6245878496	-64.0498993196	10	10	90.5707961629	-61.0766018316
82.7800547996	-65.020040218	10	10	99.1070358981	-60.6122800465
91.2465053962	-64.0251683846	10	10	101.135221485	-58.4091863871
94.936161984	-63.1327061382	10	10	102.3412662131	-58.1187647323
97.5542889456	-62.4213513237	10	10	104.3672805976	-58.8645897438
99.4792730776	-62.0458699507	10	10	114.8269530888	-52.5132536226
100.5420022578	-62.0792155058	10	10	112.1376652188	-47.7590959739
101.555526489	-62.3832327098	10	10	111.9400649045	-47.6805246407
102.7424921725	-62.8202270818	10	10	112.3454534481	-47.7815827642
104.0455317683	-63.3886696054	10	10	113.1316256969	-48.2309571125
116.1525984866	-3.5172211938	10	10	114.0102591093	-49.3010721445
117.4156804016	-3.3834978743	10	10	114.6854017299	-50.035395813
118.3953030976	-3.2297146608	10	10	115.2905437445	-50.7953727781
119.0949502827	-3.3654619724	10	10	115.7949739597	-51.3859833547
117.1562474866	62.9743429308	10	10	115.7905266268	-51.5839830309
117.2785603756	63.3300907308	10	10	116.1547217534	-51.7110588724
117.2311700184	63.523728894	10	10	116.0736174195	-51.6668711468
117.0203876841	63.6239107469	10	10	115.9555981647	-51.5090117683
116.9260374392	62.8406199586	10	10	115.7923669002	-51.2076179749
116.5008297087	62.8787550684	10	10	115.1212375261	-50.4884533539
116.031465305	62.9284226002	10		114.8023560481	
115.8719600468	62.2065925655	10		114.0379511402	
115.3534986107	62.4116891445	10	10	113.1552441829	-48.1842995803
114.7407476226	62.7167513642	10	10	112.6591031298	-47.5869658878
114.0155060479	63.0596771197	10		112.1035037023	
113.3558013343	62.6668093186	10		111.8035795722	
112.226932716	63.0146370387	10	10	111.4852164097	-46.9952619046
110.908947673	63.2936647743	10	10	111.3812153843	
109.3323474468	63.4768796335	10	10	111.0233085952	
107.7026930916	63.5860238199	10	10		-47.0718933668
106.2376584702	63.6979557655	10		110.8629720857	
104.9250666762	63.8217955485	10		111.6714596194	
103.4384035288	64.0025229591	10		108.1527591745	
			_0		

101.4268669902	64.3392550133	10	10	103.9692230198	
98.852190651	64.7042900046	10	10	102.3262138957	
95.5976692817	64.8690638832	10	10	101.6529375757	
91.9692211664	64.9147841061	10	10	101.1742898496	-58.2375792334
89.1273747217	64.2904795106	10	10	100.1646681919	-59.5660896232
87.0828657189	63.4284204174	10	10	97.0552556883	-61.3092174179
85.2833138625	63.1869728336	10	10	90.7366277597	-60.8702822851
84.0964632525	62.7664331713	10	10	87.4341731231	-60.4803245873
82.8846466883	62.6670325942	10	10	84.715108936	-60.466829794
81.8126256588	62.6009733137	10	10	80.9243157458	-61.0838475081
80.8116823403	62.569321226	10	10	74.9697587642	-61.1324462782
79.8346306312	62.5759817865	10	10	72.932545489	-59.6962809418
78.8274827241	62.623208615	10	10	71.5326881968	-58.9065064755
77.7222787685	62.7371260348	10	10	70.0601722421	-58.1976631399
76.8220082406	63.3409388894	10	10	69.71179935	0.6317973749
75.173932955	63.8087291482	10	10	50.9042210084	59.4411346677
73.1182634497	64.3256841817	10	10	49.1012865241	58.6191523237
70.4740954524	64.3291214828	10	10	47.2412552284	58.2071562134
59.4785753089	0.3674222094	10	10	45.2932778674	57.4032202268
57.0995053629	0.9489068984	10	10	43.22679818	57.0664031477
28.9777578967	-53.9219770694	10	10	41.1014296756	56.6935177164
29.0950666102	-32.7267574811	10	10	38.8283479415	56.2650816506
28.7043589209	-32.090985968	10	10	36.2402611631	54.958808172
28.2651684321	-31.4616371438	10	10	34.3219661761	53.3298469846
28.0879715319	-31.1931062201	10	10	32.9095481029	49.5795161004
27.8634867529	-30.9543485229	10	10	32.4057514895	42.6666936854
27.6680996873	-30.7381273269	10	10	31.5749760647	41.5339810975
27.5404195748	-30.6812283043	10	10	30.752016042	41.1573505107
27.3866810907	-30.6319460877	10	10	18.759556038	27.8827194838
27.2389586148	-30.610372609	10	10	18.5216265654	26.834611368
26.8466915547	-30.7346820912	10	10	18.5086310078	26.6469303624
26.1568123071	-30.9863468003	10	10	18.3826315661	26.5008805276
18.0661715178	-31.4901276291	10	10	18.1677213222	26.3421849102
13.9552633847	-29.7580693245	10	10	17.9203805851	26.1746791699
11.7104439222	-28.6638611959	10	10	17.7275585022	26.4244994383
	-28.4571484544	10	10	17.4897613294	26.8829586565
7.7066816907	-28.6929524794	10	10	17.2141684774	28.0275140937
5.4987390776	-28.7638439911	10	10	3.5855593533	51.8429631786
	-29.1339717826	10	10	4.4916790678	54.4753450805
	-29.4734441992	10	10	2.4041740982	54.5102626385
0.6805286837	-29.908283982	10	10	0.9091388098	55.185458469
356.8448008047	-31.139788433	10	10	357.3395828312	55.2081709309
354.6300881707	-31.5790280084	10	10	354.3059862495	55.5625830725
353.3515409425	-31.8815088571	10	10	351.2056153215	56.5323465956
352.2780934732		10	10	345.1525373605	58.1443542119
351.3527458049		10	_	337.3581130762	58.78280133
350.5264018436		10		331.4332470928	57.7719111348
349.6879557409		10		323.2616734794	55.6648549579
349.0040097064		10	10	320.735682911	50.8297094743
·					

240 200 4001 61	00 001 005 7770	10	10	210 64745647	40 2050022470
	-33.0016257772	10 10	10	318.64745647	49.3256822178
347.9056179252		10	10 10	314.1027091458 309.4062726304	48.0296394416 38.8341187554
347.5527342721 347.2328992806	-34.0454081835	10		308.2992927634	35.2684077585
			10		
346.9334510687	-34.7786280696	10	10	304.7602342713	30.9129536651
346.6058332987	-35.7550509432	10	10	303.1645751627	29.1880365669
346.2538516295	-37.4690821718	10	10	302.2579282545	28.1676054051
345.2801164879	-41.0741932911	10	10	300.9429242766	27.3823426955
312.7049003891	1.40406152	10	10	300.0423586372	26.5657989764
301.9119157035	58.0850553531	10	10	299.1450572342	25.8801632415
300.3648114477	57.3005222672	10	10	298.2001252646	25.3826342486
294.5414873231	43.674256542	10	10	296.7755120218	24.7312918054
294.2188506819	42.8526415679	10	10	295.194181976	23.8777877222
293.8299708056	42.597159375	10	10	293.6115531433	23.0385151547
293.3370467184	42.5355545769	10	10	292.1712359483	22.5222005622
292.8372896303	42.7647634867	10	10	291.0414458886	22.2770919691
292.328484107	43.2557328238	10	10	290.0459586903	21.9096541038
291.5544210203	44.2474439796	10	10	287.9845364894	21.6693501761
293.0343803207	59.0032167823	10	10	286.4069016774	22.0644702531
289.716253333	59.9898326471	10	10	284.8983354517	22.6234101926
287.4889805678	60.8708099089	10	10	283.4843787435	23.4453642876
284.430401356	61.7988117668	10	10	282.0741527198	24.3735857973
280.8289165029	63.0556168796	10	10	280.6876697601	25.397930784
275.7012783146	63.9199493241	10	10	279.2494949217	26.1967417851
270.9975098281	64.4238159618	10	10	276.1677266123	27.4243572696
265.9720559748	63.6614737621	10	10	274.1303382433	28.5810489125
261.9753181699	63.6681849643	10	10	273.5122620186	30.6186109628
257.6565451783	63.8142147697	10	10	272.1501303059	36.576720314
253.1047237968	63.8704718911	10	10	270.0975297894	38.6832977247
248.0792119424	63.4214114808	10	10	267.2425862616	41.3953289333
244.4045496748	62.3745120254	10	10	265.1777102501	43.0696671771
240.9417135827	62.4881330031	10	10	263.9268641781	46.0257314593
237.0548285753	62.6817319072	10	10	261.6945992465	49.5302852746
233.1040765638	62.6849266988	10	10	257.1834611046	52.9642676834
229.3709943006	62.5895273	10	10	233.4595262894	1.8150698405
225.5246768687	62.3975760813	10	10	216.6163920914	-26.430475314
221.4743108739	62.4075546414	10	10	215.5796933795	-25.510526168

elon(HMI)	elat(HMI)
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	
	10
10	10

10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10

10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10 10 10	10 10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10

10	10
10 10	10 10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10 10	10 10
10	10
10	10
10 10	10 10
10	10
10 10	10 10
	10

10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10	10
10 10	10 10
10	10
TO	ΤO