

# EASE-Grid (2.0) Tile Locations and Bounding Coordinates for MODIS and VIIRS Sea Ice Products

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## EASE-Grid Projections and Tile Locations

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The MODIS Terra/Aqua Daily 1 km Sea Ice Day and Night (M[O|Y]D29P1D and M[O|Y]D29P1N) and the VIIRS NPP/JPPS-1 Daily 375 & 750 m Sea Ice Day and Night (V[NP|J1]29P1D, V[NP|J1]30P1D, and V[NP|J1]30P1N) products are distributed in  $10^0 \times 10^0$  tiles mapped to the EASE-Grid (for MODIS) and EASE-Grid 2.0 (for VIIRS) North and South Polar Lambert Azimuthal Equal-area projections. Visit the [NSIDC EASE-Grid website](#) for more information on these projections.

Each hemisphere is covered by 313 non-fill tiles. The figures below illustrate the tile locations using horizontal and vertical numbering of the tile grid. For the Northern hemisphere (Figure 1), the tile coordinate system starts at (0,0) (horizontal tile number, vertical tile number) in the upper left corner. The tile in the bottom right corner is (18,18). For the Southern hemisphere (Figure 2), the tile coordinate system starts at (0,20) in the upper left corner, with the bottom left corner at (18,38).

### Tile dimensions and spatial resolution

Individual tiles vary in size and resolution depending on the product. In the MODIS products, tiles are 951 x 951 pixels with a spatial resolution of 1 km. In the VIIRS sea ice cover products (V[NP|J1]29P1D), tiles are 2,720 x 2,720 pixels with a spatial resolution of 375 m. In the VIIRS sea ice surface temperature products (V[NP|J1]30P1D and V[NP|J1]30P1N), tiles are 1,360 x 1,360 pixels with a spatial resolution of 750 m.



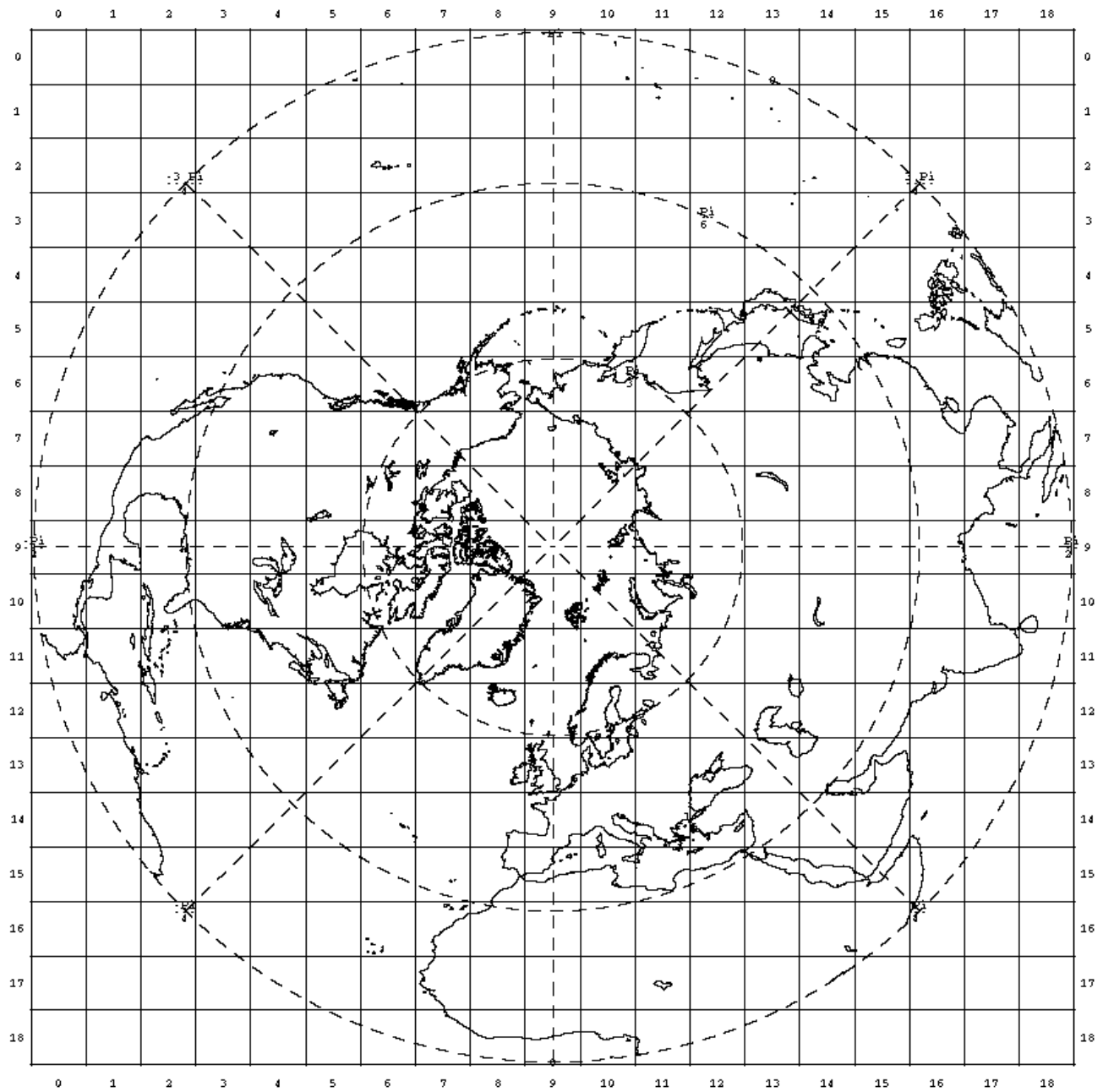


Figure 1. Northern Hemisphere Tile Locations

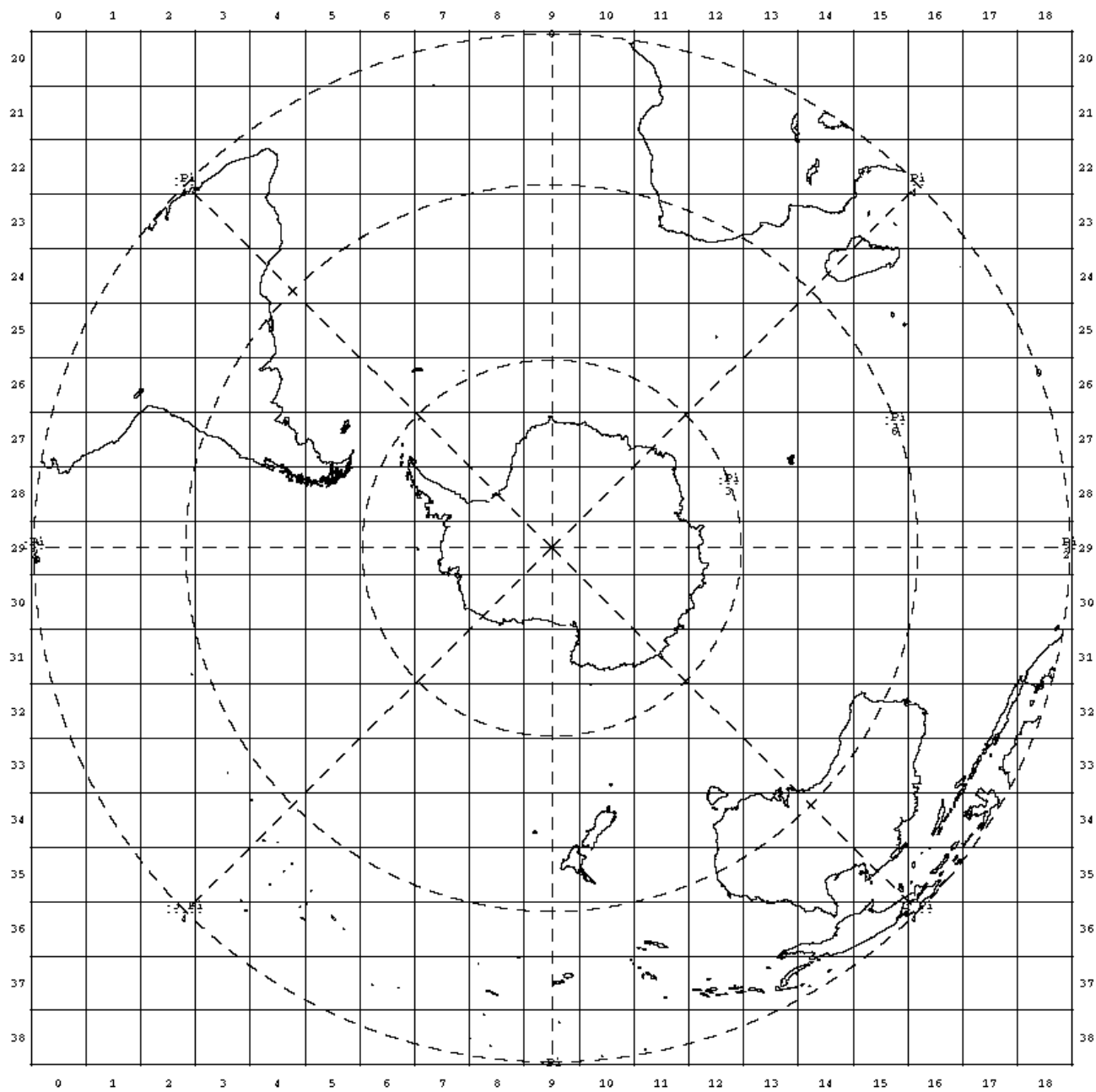


Figure 2. Southern Hemisphere Tile Locations

# Bounding Coordinates

## Northern Hemisphere

Table 1. Northern Hemisphere Sea Ice Tile Bounding Coordinates

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
0	5	0	3.071324	-115.896348	-111.740861
0	6	0	6.937151	-112.380135	-105.341883
0	7	0	9.531018	-106.38954	-99.134166
0	8	0	10.83504	-100.00798	-93.033258
0	9	0	10.998429	-93.366461	-86.633539
0	10	0	10.83504	-86.966742	-79.99202
0	11	0	9.531018	-80.865834	-73.61046
0	12	0	6.937151	-74.658117	-67.619865
0	13	0	3.071324	-68.259139	-64.103652
1	3	0	1.786689	-127.462264	-125.59639
1	4	0	8.231961	-126.253838	-118.44015
1	5	0	13.460975	-120.963757	-112.380135
1	6	3.071324	17.456672	-115.016893	-106.38954
1	7	6.937151	20.168702	-108.434949	-100.00798
1	8	9.531018	21.542174	-101.309932	-93.366461
1	9	10.83504	21.714757	-93.814075	-86.185925
1	10	9.531018	21.542174	-86.633539	-78.690068
1	11	6.937151	20.168702	-79.99202	-71.565051
1	12	3.071324	17.456672	-73.61046	-64.983107
1	13	0	13.460975	-67.619865	-59.036243
1	14	0	8.231961	-61.55985	-53.746162
1	15	0	1.786689	-54.40361	-52.537736
2	2	0	3.071324	-136.533174	-133.464338
2	3	0	10.83504	-135	-126.253838
2	4	1.786689	17.456672	-130.236358	-120.963757
2	5	8.231961	22.928772	-124.695154	-115.016893
2	6	13.460975	27.180035	-118.300756	-108.434949
2	7	17.456672	30.105181	-111.037511	-101.309932
2	8	20.168702	31.600239	-102.994617	-93.814075
2	9	21.542174	31.788791	-94.398705	-85.601295
2	10	20.168702	31.600239	-86.185925	-77.005383
2	11	17.456672	30.105181	-78.690068	-68.962489

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
2	12	13.460975	27.180035	-71.565051	-61.699244
2	13	8.231961	22.928772	-64.983107	-55.304846
2	14	1.786689	17.456672	-59.036243	-49.763642
2	15	0	10.83504	-53.746162	-45
2	16	0	3.071324	-46.535662	-43.466826
3	1	0	1.786689	-144.402282	-142.535859
3	2	0	10.83504	-143.746162	-135
3	3	3.071324	18.807221	-139.763642	-130.236358
3	4	10.83504	25.746324	-135	-124.695154
3	5	17.456672	31.600239	-129.289407	-118.300756
3	6	22.928772	36.241567	-122.471192	-111.037511
3	7	27.180035	39.493594	-114.443955	-102.994617
3	8	30.105181	41.177386	-105.255119	-94.398705
3	9	31.600239	41.390883	-95.194429	-84.805571
3	10	30.105181	41.177386	-85.601295	-74.744881
3	11	27.180035	39.493594	-77.005383	-65.556045
3	12	22.928772	36.241567	-68.962489	-57.528808
3	13	17.456672	31.600239	-61.699244	-50.710593
3	14	10.83504	25.746324	-55.304846	-45
3	15	3.071324	18.807221	-49.763642	-40.236358
3	16	0	10.83504	-45	-36.253838
3	17	0	1.786689	-37.464141	-35.597718
4	1	0	8.231961	-151.559758	-143.746162
4	2	1.786689	17.456672	-149.036243	-139.763642
4	3	10.83504	25.746324	-145.304846	-135
4	4	18.807221	33.1197	-140.710593	-129.289407
4	5	25.746324	39.493594	-135	-122.471192
4	6	31.600239	44.683778	-127.874984	-114.443955
4	7	36.241567	48.416946	-119.054604	-105.255119
4	8	39.493594	50.389365	-108.434949	-95.194429
4	9	41.177386	50.641668	-96.340192	-83.659808
4	10	39.493594	50.389365	-84.805571	-71.565051
4	11	36.241567	48.416946	-74.744881	-60.945396
4	12	31.600239	44.683778	-65.556045	-52.125016
4	13	25.746324	39.493594	-57.528808	-45
4	14	18.807221	33.1197	-50.710593	-39.289407

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
4	15	10.83504	25.746324	-45	-34.695154
4	16	1.786689	17.456672	-40.236358	-30.963757
4	17	0	8.231961	-36.253838	-28.440242
5	0	0	3.071324	-158.258385	-154.101001
5	1	0	13.460975	-157.619865	-149.036243
5	2	8.231961	22.928772	-154.983107	-145.304846
5	3	17.456672	31.600239	-151.699244	-140.710593
5	4	25.746324	39.493594	-147.528808	-135
5	5	33.1197	46.518278	-142.125016	-127.874984
5	6	39.493594	52.44752	-135	-119.054604
5	7	44.683778	56.887169	-125.537678	-108.434949
5	8	48.416946	59.316235	-113.198591	-96.340192
5	9	50.389365	59.632091	-98.130102	-81.869898
5	10	48.416946	59.316235	-83.659808	-66.801409
5	11	44.683778	56.887169	-71.565051	-54.462322
5	12	39.493594	52.44752	-60.945396	-45
5	13	33.1197	46.518278	-52.125016	-37.874984
5	14	25.746324	39.493594	-45	-32.471192
5	15	17.456672	31.600239	-39.289407	-28.300756
5	16	8.231961	22.928772	-34.695154	-25.016893
5	17	0	13.460975	-30.963757	-22.380135
5	18	0	3.071324	-25.898999	-21.741615
6	0	0	6.937151	-164.65764	-157.619865
6	1	3.071324	17.456672	-163.61046	-154.983107
6	2	13.460975	27.180035	-161.565051	-151.699244
6	3	22.928772	36.241567	-158.962489	-147.528808
6	4	31.600239	44.683778	-155.556045	-142.125016
6	5	39.493594	52.44752	-150.945396	-135
6	6	46.518278	59.316235	-144.462322	-125.537678
6	7	52.44752	64.796076	-135	-113.198591
6	8	56.887169	68.002223	-120.963757	-98.130102
6	9	59.316235	68.434573	-101.309932	-78.690068
6	10	56.887169	68.002223	-81.869898	-59.036243
6	11	52.44752	64.796076	-66.801409	-45
6	12	46.518278	59.316235	-54.462322	-35.537678
6	13	39.493594	52.44752	-45	-29.054604

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
6	14	31.600239	44.683778	-37.874984	-24.443955
6	15	22.928772	36.241567	-32.471192	-21.037511
6	16	13.460975	27.180035	-28.300756	-18.434949
6	17	3.071324	17.456672	-25.016893	-16.38954
6	18	0	6.937151	-22.380135	-15.34236
7	0	0	9.531018	-170.86527	-163.61046
7	1	6.937151	20.168702	-169.99202	-161.565051
7	2	17.456672	30.105181	-168.690068	-158.962489
7	3	27.180035	39.493594	-167.005383	-155.556045
7	4	36.241567	48.416946	-164.744881	-150.945396
7	5	44.683778	56.887169	-161.565051	-144.462322
7	6	52.44752	64.796076	-156.801409	-135
7	7	59.316235	71.731669	-149.036243	-120.963757
7	8	64.796076	76.409355	-135	-101.309932
7	9	68.002223	77.109819	-108.434949	-71.565051
7	10	64.796076	76.409355	-78.690068	-45
7	11	59.316235	71.731669	-59.036243	-30.963757
7	12	52.44752	64.796076	-45	-23.198591
7	13	44.683778	56.887169	-35.537678	-18.434949
7	14	36.241567	48.416946	-29.054604	-15.255119
7	15	27.180035	39.493594	-24.443955	-12.994617
7	16	17.456672	30.105181	-21.037511	-11.309932
7	17	6.937151	20.168702	-18.434949	-10.00798
7	18	0	9.531018	-16.38954	-9.13473
8	0	0	10.83504	-176.966433	-169.99202
8	1	9.531018	21.542174	-176.633539	-168.690068
8	2	20.168702	31.600239	-176.185925	-167.005383
8	3	30.105181	41.177386	-175.601295	-164.744881
8	4	39.493594	50.389365	-174.805571	-161.565051
8	5	48.416946	59.316235	-173.659808	-156.801409
8	6	56.887169	68.002223	-171.869898	-149.036243
8	7	64.796076	76.409355	-168.690068	-135
8	8	71.731669	83.933484	-161.565051	-108.434949
8	9	76.409355	85.711326	-135	-45
8	10	71.731669	83.933484	-71.565051	-18.434949
8	11	64.796076	76.409355	-45	-11.309932

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
8	12	56.887169	68.002223	-30.963757	-8.130102
8	13	48.416946	59.316235	-23.198591	-6.340192
8	14	39.493594	50.389365	-18.434949	-5.194429
8	15	30.105181	41.177386	-15.255119	-4.398705
8	16	20.168702	31.600239	-12.994617	-3.814075
8	17	9.531018	21.542174	-11.309932	-3.366461
8	18	0	10.83504	-10.00798	-3.033567
9	0	0	10.998429	176.633539	-176.633539
9	1	10.83504	21.714757	176.185925	-176.185925
9	2	21.542174	31.788791	175.601295	-175.601295
9	3	31.600239	41.390883	174.805571	-174.805571
9	4	41.177386	50.641668	173.659808	-173.659808
9	5	50.389365	59.632091	171.869898	-171.869898
9	6	59.316235	68.434573	168.690068	-168.690068
9	7	68.002223	77.109819	161.565051	-161.565051
9	8	76.409355	85.711326	135	-135
9	9	83.933484	90	-180	180
9	10	76.409355	85.711326	-45	45
9	11	68.002223	77.109819	-18.434949	18.434949
9	12	59.316235	68.434573	-11.309932	11.309932
9	13	50.389365	59.632091	-8.130102	8.130102
9	14	41.177386	50.641668	-6.340192	6.340192
9	15	31.600239	41.390883	-5.194429	5.194429
9	16	21.542174	31.788791	-4.398705	4.398705
9	17	10.83504	21.714757	-3.814075	3.814075
9	18	0	10.998429	-3.366461	3.366461
10	0	0.000032	10.83504	169.99202	176.966433
10	1	9.531018	21.542174	168.690068	176.633539
10	2	20.168702	31.600239	167.005383	176.185925
10	3	30.105181	41.177386	164.744881	175.601295
10	4	39.493594	50.389365	161.565051	174.805571
10	5	48.416946	59.316235	156.801409	173.659808
10	6	56.887169	68.002223	149.036243	171.869898
10	7	64.796076	76.409355	135	168.690068
10	8	71.731669	83.933484	108.434949	161.565051
10	9	76.409355	85.711326	45	135



Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
10	10	71.731669	83.933484	18.434949	71.565051
10	11	64.796076	76.409355	11.309932	45
10	12	56.887169	68.002223	8.130102	30.963757
10	13	48.416946	59.316235	6.340192	23.198591
10	14	39.493594	50.389365	5.194429	18.434949
10	15	30.105181	41.177386	4.398705	15.255119
10	16	20.168702	31.600239	3.814075	12.994617
10	17	9.531018	21.542174	3.366461	11.309932
10	18	0.000032	10.83504	3.033567	10.00798
11	0	0	9.531018	163.61046	170.86527
11	1	6.937151	20.168702	161.565051	169.99202
11	2	17.456672	30.105181	158.962489	168.690068
11	3	27.180035	39.493594	155.556045	167.005383
11	4	36.241567	48.416946	150.945396	164.744881
11	5	44.683778	56.887169	144.462322	161.565051
11	6	52.44752	64.796076	135	156.801409
11	7	59.316235	71.731669	120.963757	149.036243
11	8	64.796076	76.409355	101.309932	135
11	9	68.002223	77.109819	71.565051	108.434949
11	10	64.796076	76.409355	45	78.690068
11	11	59.316235	71.731669	30.963757	59.036243
11	12	52.44752	64.796076	23.198591	45
11	13	44.683778	56.887169	18.434949	35.537678
11	14	36.241567	48.416946	15.255119	29.054604
11	15	27.180035	39.493594	12.994617	24.443955
11	16	17.456672	30.105181	11.309932	21.037511
11	17	6.937151	20.168702	10.00798	18.434949
11	18	0	9.531018	9.13473	16.38954
12	0	0	6.937151	157.619865	164.65764
12	1	3.071324	17.456672	154.983107	163.61046
12	2	13.460975	27.180035	151.699244	161.565051
12	3	22.928772	36.241567	147.528808	158.962489
12	4	31.600239	44.683778	142.125016	155.556045
12	5	39.493594	52.44752	135	150.945396
12	6	46.518278	59.316235	125.537678	144.462322
12	7	52.44752	64.796076	113.198591	135

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
12	8	56.887169	68.002223	98.130102	120.963757
12	9	59.316235	68.434573	78.690068	101.309932
12	10	56.887169	68.002223	59.036243	81.869898
12	11	52.44752	64.796076	45	66.801409
12	12	46.518278	59.316235	35.537678	54.462322
12	13	39.493594	52.44752	29.054604	45
12	14	31.600239	44.683778	24.443955	37.874984
12	15	22.928772	36.241567	21.037511	32.471192
12	16	13.460975	27.180035	18.434949	28.300756
12	17	3.071324	17.456672	16.38954	25.016893
12	18	0	6.937151	15.34236	22.380135
13	0	0.000012	3.071324	154.103652	158.256023
13	1	0.000032	13.460975	149.036243	157.619865
13	2	8.231961	22.928772	145.304846	154.983107
13	3	17.456672	31.600239	140.710593	151.699244
13	4	25.746324	39.493594	135	147.528808
13	5	33.1197	46.518278	127.874984	142.125016
13	6	39.493594	52.44752	119.054604	135
13	7	44.683778	56.887169	108.434949	125.537678
13	8	48.416946	59.316235	96.340192	113.198591
13	9	50.389365	59.632091	81.869898	98.130102
13	10	48.416946	59.316235	66.801409	83.659808
13	11	44.683778	56.887169	54.462322	71.565051
13	12	39.493594	52.44752	45	60.945396
13	13	33.1197	46.518278	37.874984	52.125016
13	14	25.746324	39.493594	32.471192	45
13	15	17.456672	31.600239	28.300756	39.289407
13	16	8.231961	22.928772	25.016893	34.695154
13	17	0.000032	13.460975	22.380135	30.963757
13	18	0.000012	3.071324	21.743977	25.896348
14	1	0	8.231961	143.746162	151.556721
14	2	1.786689	17.456672	139.763642	149.036243
14	3	10.83504	25.746324	135	145.304846
14	4	18.807221	33.1197	129.289407	140.710593
14	5	25.746324	39.493594	122.471192	135
14	6	31.600239	44.683778	114.443955	127.874984

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
14	7	36.241567	48.416946	105.255119	119.054604
14	8	39.493594	50.389365	95.194429	108.434949
14	9	41.177386	50.641668	83.659808	96.340192
14	10	39.493594	50.389365	71.565051	84.805571
14	11	36.241567	48.416946	60.945396	74.744881
14	12	31.600239	44.683778	52.125016	65.556045
14	13	25.746324	39.493594	45	57.528808
14	14	18.807221	33.1197	39.289407	50.710593
14	15	10.83504	25.746324	34.695154	45
14	16	1.786689	17.456672	30.963757	40.236358
14	17	0	8.231961	28.443279	36.253838
15	1	0.000063	1.786689	142.537736	144.39857
15	2	0.000012	10.83504	135	143.746162
15	3	3.071324	18.807221	130.236358	139.763642
15	4	10.83504	25.746324	124.695154	135
15	5	17.456672	31.600239	118.300756	129.289407
15	6	22.928772	36.241567	111.037511	122.471192
15	7	27.180035	39.493594	102.994617	114.443955
15	8	30.105181	41.177386	94.398705	105.255119
15	9	31.600239	41.390883	84.805571	95.194429
15	10	30.105181	41.177386	74.744881	85.601295
15	11	27.180035	39.493594	65.556045	77.005383
15	12	22.928772	36.241567	57.528808	68.962489
15	13	17.456672	31.600239	50.710593	61.699244
15	14	10.83504	25.746324	45	55.304846
15	15	3.071324	18.807221	40.236358	49.763642
15	16	0.000012	10.83504	36.253838	45
15	17	0.000063	1.786689	35.60143	37.462264
16	2	0.000019	3.071324	133.466826	136.528788
16	3	0.000012	10.83504	126.253838	135
16	4	1.786689	17.456672	120.963757	130.236358
16	5	8.231961	22.928772	115.016893	124.695154
16	6	13.460975	27.180035	108.434949	118.300756
16	7	17.456672	30.105181	101.309932	111.037511
16	8	20.168702	31.600239	93.814075	102.994617
16	9	21.542174	31.788791	85.601295	94.398705

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
16	10	20.168702	31.600239	77.005383	86.185925
16	11	17.456672	30.105181	68.962489	78.690068
16	12	13.460975	27.180035	61.699244	71.565051
16	13	8.231961	22.928772	55.304846	64.983107
16	14	1.786689	17.456672	49.763642	59.036243
16	15	0.000012	10.83504	45	53.746162
16	16	0.000019	3.071324	43.471212	46.533174
17	3	0.000063	1.786689	125.597718	127.457202
17	4	0	8.231961	118.440242	126.253838
17	5	0.000032	13.460975	112.380135	120.963757
17	6	3.071324	17.456672	106.38954	115.016893
17	7	6.937151	20.168702	100.00798	108.434949
17	8	9.531018	21.542174	93.366461	101.309932
17	9	10.83504	21.714757	86.185925	93.814075
17	10	9.531018	21.542174	78.690068	86.633539
17	11	6.937151	20.168702	71.565051	79.99202
17	12	3.071324	17.456672	64.983107	73.61046
17	13	0.000032	13.460975	59.036243	67.619865
17	14	0	8.231961	53.746162	61.559758
17	15	0.000063	1.786689	52.542798	54.402282
18	5	0.000012	3.071324	111.741615	115.884875
18	6	0	6.937151	105.34236	112.380135
18	7	0	9.531018	99.13473	106.38954
18	8	0.000032	10.83504	93.033567	100.00798
18	9	0	10.998429	86.633539	93.366461
18	10	0.000032	10.83504	79.99202	86.966433
18	11	0	9.531018	73.61046	80.86527
18	12	0	6.937151	67.619865	74.65764
18	13	0.000012	3.071324	64.115125	68.258385

# Southern Hemisphere

Table 2. Southern Hemisphere Sea Ice Tile Bounding Coordinates

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
0	25	-3.071324	0.000000	-68.259139	-64.103652
0	26	-6.937151	0.000000	-74.658117	-67.619865
0	27	-9.531018	0.000000	-80.865834	-73.610460
0	28	-10.835040	0.000000	-86.966742	-79.992020
0	29	-10.998429	0.000000	-93.366461	-86.633539
0	30	-10.835040	0.000000	-100.007980	-93.033258
0	31	-9.531018	0.000000	-106.389540	-99.134166
0	32	-6.937151	0.000000	-112.380135	-105.341883
0	33	-3.071324	0.000000	-115.896348	-111.740861
1	23	-1.786689	0.000000	-54.403610	-52.537736
1	24	-8.231961	0.000000	-61.559850	-53.746162
1	25	-13.460975	0.000000	-67.619865	-59.036243
1	26	-17.456672	-3.071324	-73.610460	-64.983107
1	27	-20.168702	-6.937151	-79.992020	-71.565051
1	28	-21.542174	-9.531018	-86.633539	-78.690068
1	29	-21.714757	-10.835040	-93.814075	-86.185925
1	30	-21.542174	-9.531018	-101.309932	-93.366461
1	31	-20.168702	-6.937151	-108.434949	-100.007980
1	32	-17.456672	-3.071324	-115.016893	-106.389540
1	33	-13.460975	0.000000	-120.963757	-112.380135
1	34	-8.231961	0.000000	-126.253838	-118.440150
1	35	-1.786689	0.000000	-127.462264	-125.596390
2	22	-3.071324	0.000000	-46.535662	-43.466826
2	23	-10.835040	0.000000	-53.746162	-45.000000
2	24	-17.456672	-1.786689	-59.036243	-49.763642
2	25	-22.928772	-8.231961	-64.983107	-55.304846
2	26	-27.180035	-13.460975	-71.565051	-61.699244
2	27	-30.105181	-17.456672	-78.690068	-68.962489
2	28	-31.600239	-20.168702	-86.185925	-77.005383
2	29	-31.788791	-21.542174	-94.398705	-85.601295
2	30	-31.600239	-20.168702	-102.994617	-93.814075
2	31	-30.105181	-17.456672	-111.037511	-101.309932
2	32	-27.180035	-13.460975	-118.300756	-108.434949
2	33	-22.928772	-8.231961	-124.695154	-115.016893

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
2	34	-17.456672	-1.786689	-130.236358	-120.963757
2	35	-10.835040	0.000000	-135.000000	-126.253838
2	36	-3.071324	0.000000	-136.533174	-133.464338
3	21	-1.786689	0.000000	-37.464141	-35.597718
3	22	-10.835040	0.000000	-45.000000	-36.253838
3	23	-18.807221	-3.071324	-49.763642	-40.236358
3	24	-25.746324	-10.835040	-55.304846	-45.000000
3	25	-31.600239	-17.456672	-61.699244	-50.710593
3	26	-36.241567	-22.928772	-68.962489	-57.528808
3	27	-39.493594	-27.180035	-77.005383	-65.556045
3	28	-41.177386	-30.105181	-85.601295	-74.744881
3	29	-41.390883	-31.600239	-95.194429	-84.805571
3	30	-41.177386	-30.105181	-105.255119	-94.398705
3	31	-39.493594	-27.180035	-114.443955	-102.994617
3	32	-36.241567	-22.928772	-122.471192	-111.037511
3	33	-31.600239	-17.456672	-129.289407	-118.300756
3	34	-25.746324	-10.835040	-135.000000	-124.695154
3	35	-18.807221	-3.071324	-139.763642	-130.236358
3	36	-10.835040	0.000000	-143.746162	-135.000000
3	37	-1.786689	0.000000	-144.402282	-142.535859
4	21	-8.231961	0.000000	-36.253838	-28.440242
4	22	-17.456672	-1.786689	-40.236358	-30.963757
4	23	-25.746324	-10.835040	-45.000000	-34.695154
4	24	-33.119700	-18.807221	-50.710593	-39.289407
4	25	-39.493594	-25.746324	-57.528808	-45.000000
4	26	-44.683778	-31.600239	-65.556045	-52.125016
4	27	-48.416946	-36.241567	-74.744881	-60.945396
4	28	-50.389365	-39.493594	-84.805571	-71.565051
4	29	-50.641668	-41.177386	-96.340192	-83.659808
4	30	-50.389365	-39.493594	-108.434949	-95.194429
4	31	-48.416946	-36.241567	-119.054604	-105.255119
4	32	-44.683778	-31.600239	-127.874984	-114.443955
4	33	-39.493594	-25.746324	-135.000000	-122.471192
4	34	-33.119700	-18.807221	-140.710593	-129.289407
4	35	-25.746324	-10.835040	-145.304846	-135.000000
4	36	-17.456672	-1.786689	-149.036243	-139.763642

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
4	37	-8.231961	0.000000	-151.559758	-143.746162
5	20	-3.071324	0.000000	-25.898999	-21.741615
5	21	-13.460975	0.000000	-30.963757	-22.380135
5	22	-22.928772	-8.231961	-34.695154	-25.016893
5	23	-31.600239	-17.456672	-39.289407	-28.300756
5	24	-39.493594	-25.746324	-45.000000	-32.471192
5	25	-46.518278	-33.119700	-52.125016	-37.874984
5	26	-52.447520	-39.493594	-60.945396	-45.000000
5	27	-56.887169	-44.683778	-71.565051	-54.462322
5	28	-59.316235	-48.416946	-83.659808	-66.801409
5	29	-59.632091	-50.389365	-98.130102	-81.869898
5	30	-59.316235	-48.416946	-113.198591	-96.340192
5	31	-56.887169	-44.683778	-125.537678	-108.434949
5	32	-52.447520	-39.493594	-135.000000	-119.054604
5	33	-46.518278	-33.119700	-142.125016	-127.874984
5	34	-39.493594	-25.746324	-147.528808	-135.000000
5	35	-31.600239	-17.456672	-151.699244	-140.710593
5	36	-22.928772	-8.231961	-154.983107	-145.304846
5	37	-13.460975	0.000000	-157.619865	-149.036243
5	38	-3.071324	0.000000	-158.258385	-154.101001
6	20	-6.937151	0.000000	-22.380135	-15.342360
6	21	-17.456672	-3.071324	-25.016893	-16.389540
6	22	-27.180035	-13.460975	-28.300756	-18.434949
6	23	-36.241567	-22.928772	-32.471192	-21.037511
6	24	-44.683778	-31.600239	-37.874984	-24.443955
6	25	-52.447520	-39.493594	-45.000000	-29.054604
6	26	-59.316235	-46.518278	-54.462322	-35.537678
6	27	-64.796076	-52.447520	-66.801409	-45.000000
6	28	-68.002223	-56.887169	-81.869898	-59.036243
6	29	-68.434573	-59.316235	-101.309932	-78.690068
6	30	-68.002223	-56.887169	-120.963757	-98.130102
6	31	-64.796076	-52.447520	-135.000000	-113.198591
6	32	-59.316235	-46.518278	-144.462322	-125.537678
6	33	-52.447520	-39.493594	-150.945396	-135.000000
6	34	-44.683778	-31.600239	-155.556045	-142.125016
6	35	-36.241567	-22.928772	-158.962489	-147.528808

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
6	36	-27.180035	-13.460975	-161.565051	-151.699244
6	37	-17.456672	-3.071324	-163.610460	-154.983107
6	38	-6.937151	0.000000	-164.657640	-157.619865
7	20	-9.531018	0.000000	-16.389540	-9.134730
7	21	-20.168702	-6.937151	-18.434949	-10.007980
7	22	-30.105181	-17.456672	-21.037511	-11.309932
7	23	-39.493594	-27.180035	-24.443955	-12.994617
7	24	-48.416946	-36.241567	-29.054604	-15.255119
7	25	-56.887169	-44.683778	-35.537678	-18.434949
7	26	-64.796076	-52.447520	-45.000000	-23.198591
7	27	-71.731669	-59.316235	-59.036243	-30.963757
7	28	-76.409355	-64.796076	-78.690068	-45.000000
7	29	-77.109819	-68.002223	-108.434949	-71.565051
7	30	-76.409355	-64.796076	-135.000000	-101.309932
7	31	-71.731669	-59.316235	-149.036243	-120.963757
7	32	-64.796076	-52.447520	-156.801409	-135.000000
7	33	-56.887169	-44.683778	-161.565051	-144.462322
7	34	-48.416946	-36.241567	-164.744881	-150.945396
7	35	-39.493594	-27.180035	-167.005383	-155.556045
7	36	-30.105181	-17.456672	-168.690068	-158.962489
7	37	-20.168702	-6.937151	-169.992020	-161.565051
7	38	-9.531018	0.000000	-170.865270	-163.610460
8	20	-10.835040	0.000000	-10.007980	-3.033567
8	21	-21.542174	-9.531018	-11.309932	-3.366461
8	22	-31.600239	-20.168702	-12.994617	-3.814075
8	23	-41.177386	-30.105181	-15.255119	-4.398705
8	24	-50.389365	-39.493594	-18.434949	-5.194429
8	25	-59.316235	-48.416946	-23.198591	-6.340192
8	26	-68.002223	-56.887169	-30.963757	-8.130102
8	27	-76.409355	-64.796076	-45.000000	-11.309932
8	28	-83.933484	-71.731669	-71.565051	-18.434949
8	29	-85.711326	-76.409355	-135.000000	-45.000000
8	30	-83.933484	-71.731669	-161.565051	-108.434949
8	31	-76.409355	-64.796076	-168.690068	-135.000000
8	32	-68.002223	-56.887169	-171.869898	-149.036243
8	33	-59.316235	-48.416946	-173.659808	-156.801409



Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
8	34	-50.389365	-39.493594	-174.805571	-161.565051
8	35	-41.177386	-30.105181	-175.601295	-164.744881
8	36	-31.600239	-20.168702	-176.185925	-167.005383
8	37	-21.542174	-9.531018	-176.633539	-168.690068
8	38	-10.835040	0.000000	-176.966433	-169.992020
9	20	-10.998429	0.000000	-3.366461	3.366461
9	21	-21.714757	-10.835040	-3.814075	3.814075
9	22	-31.788791	-21.542174	-4.398705	4.398705
9	23	-41.390883	-31.600239	-5.194429	5.194429
9	24	-50.641668	-41.177386	-6.340192	6.340192
9	25	-59.632091	-50.389365	-8.130102	8.130102
9	26	-68.434573	-59.316235	-11.309932	11.309932
9	27	-77.109819	-68.002223	-18.434949	18.434949
9	28	-85.711326	-76.409355	-45.000000	45.000000
9	29	-90.000000	-83.933484	-180.000000	180.000000
9	30	-85.711326	-76.409355	135.000000	-135.000000
9	31	-77.109819	-68.002223	161.565051	-161.565051
9	32	-68.434573	-59.316235	168.690068	-168.690068
9	33	-59.632091	-50.389365	171.869898	-171.869898
9	34	-50.641668	-41.177386	173.659808	-173.659808
9	35	-41.390883	-31.600239	174.805571	-174.805571
9	36	-31.788791	-21.542174	175.601295	-175.601295
9	37	-21.714757	-10.835040	176.185925	-176.185925
9	38	-10.998429	0.000000	176.633539	-176.633539
10	20	-10.835040	-0.000032	3.033567	10.007980
10	21	-21.542174	-9.531018	3.366461	11.309932
10	22	-31.600239	-20.168702	3.814075	12.994617
10	23	-41.177386	-30.105181	4.398705	15.255119
10	24	-50.389365	-39.493594	5.194429	18.434949
10	25	-59.316235	-48.416946	6.340192	23.198591
10	26	-68.002223	-56.887169	8.130102	30.963757
10	27	-76.409355	-64.796076	11.309932	45.000000
10	28	-83.933484	-71.731669	18.434949	71.565051
10	29	-85.711326	-76.409355	45.000000	135.000000
10	30	-83.933484	-71.731669	108.434949	161.565051
10	31	-76.409355	-64.796076	135.000000	168.690068

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
10	32	-68.002223	-56.887169	149.036243	171.869898
10	33	-59.316235	-48.416946	156.801409	173.659808
10	34	-50.389365	-39.493594	161.565051	174.805571
10	35	-41.177386	-30.105181	164.744881	175.601295
10	36	-31.600239	-20.168702	167.005383	176.185925
10	37	-21.542174	-9.531018	168.690068	176.633539
10	38	-10.835040	-0.000032	169.992020	176.966433
11	20	-9.531018	0.000000	9.134730	16.389540
11	21	-20.168702	-6.937151	10.007980	18.434949
11	22	-30.105181	-17.456672	11.309932	21.037511
11	23	-39.493594	-27.180035	12.994617	24.443955
11	24	-48.416946	-36.241567	15.255119	29.054604
11	25	-56.887169	-44.683778	18.434949	35.537678
11	26	-64.796076	-52.447520	23.198591	45.000000
11	27	-71.731669	-59.316235	30.963757	59.036243
11	28	-76.409355	-64.796076	45.000000	78.690068
11	29	-77.109819	-68.002223	71.565051	108.434949
11	30	-76.409355	-64.796076	101.309932	135.000000
11	31	-71.731669	-59.316235	120.963757	149.036243
11	32	-64.796076	-52.447520	135.000000	156.801409
11	33	-56.887169	-44.683778	144.462322	161.565051
11	34	-48.416946	-36.241567	150.945396	164.744881
11	35	-39.493594	-27.180035	155.556045	167.005383
11	36	-30.105181	-17.456672	158.962489	168.690068
11	37	-20.168702	-6.937151	161.565051	169.992020
11	38	-9.531018	0.000000	163.610460	170.865270
12	20	-6.937151	0.000000	15.342360	22.380135
12	21	-17.456672	-3.071324	16.389540	25.016893
12	22	-27.180035	-13.460975	18.434949	28.300756
12	23	-36.241567	-22.928772	21.037511	32.471192
12	24	-44.683778	-31.600239	24.443955	37.874984
12	25	-52.447520	-39.493594	29.054604	45.000000
12	26	-59.316235	-46.518278	35.537678	54.462322
12	27	-64.796076	-52.447520	45.000000	66.801409
12	28	-68.002223	-56.887169	59.036243	81.869898
12	29	-68.434573	-59.316235	78.690068	101.309932

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
12	30	-68.002223	-56.887169	98.130102	120.963757
12	31	-64.796076	-52.447520	113.198591	135.000000
12	32	-59.316235	-46.518278	125.537678	144.462322
12	33	-52.447520	-39.493594	135.000000	150.945396
12	34	-44.683778	-31.600239	142.125016	155.556045
12	35	-36.241567	-22.928772	147.528808	158.962489
12	36	-27.180035	-13.460975	151.699244	161.565051
12	37	-17.456672	-3.071324	154.983107	163.610460
12	38	-6.937151	0.000000	157.619865	164.657640
13	20	-3.071324	-0.000012	21.743977	25.896348
13	21	-13.460975	-0.000032	22.380135	30.963757
13	22	-22.928772	-8.231961	25.016893	34.695154
13	23	-31.600239	-17.456672	28.300756	39.289407
13	24	-39.493594	-25.746324	32.471192	45.000000
13	25	-46.518278	-33.119700	37.874984	52.125016
13	26	-52.447520	-39.493594	45.000000	60.945396
13	27	-56.887169	-44.683778	54.462322	71.565051
13	28	-59.316235	-48.416946	66.801409	83.659808
13	29	-59.632091	-50.389365	81.869898	98.130102
13	30	-59.316235	-48.416946	96.340192	113.198591
13	31	-56.887169	-44.683778	108.434949	125.537678
13	32	-52.447520	-39.493594	119.054604	135.000000
13	33	-46.518278	-33.119700	127.874984	142.125016
13	34	-39.493594	-25.746324	135.000000	147.528808
13	35	-31.600239	-17.456672	140.710593	151.699244
13	36	-22.928772	-8.231961	145.304846	154.983107
13	37	-13.460975	-0.000032	149.036243	157.619865
13	38	-3.071324	-0.000012	154.103652	158.256023
14	21	-8.231961	0.000000	28.443279	36.253838
14	22	-17.456672	-1.786689	30.963757	40.236358
14	23	-25.746324	-10.835040	34.695154	45.000000
14	24	-33.119700	-18.807221	39.289407	50.710593
14	25	-39.493594	-25.746324	45.000000	57.528808
14	26	-44.683778	-31.600239	52.125016	65.556045
14	27	-48.416946	-36.241567	60.945396	74.744881
14	28	-50.389365	-39.493594	71.565051	84.805571

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
14	29	-50.641668	-41.177386	83.659808	96.340192
14	30	-50.389365	-39.493594	95.194429	108.434949
14	31	-48.416946	-36.241567	105.255119	119.054604
14	32	-44.683778	-31.600239	114.443955	127.874984
14	33	-39.493594	-25.746324	122.471192	135.000000
14	34	-33.119700	-18.807221	129.289407	140.710593
14	35	-25.746324	-10.835040	135.000000	145.304846
14	36	-17.456672	-1.786689	139.763642	149.036243
14	37	-8.231961	0.000000	143.746162	151.556721
15	21	-1.786689	-0.000063	35.601430	37.462264
15	22	-10.835040	-0.000012	36.253838	45.000000
15	23	-18.807221	-3.071324	40.236358	49.763642
15	24	-25.746324	-10.835040	45.000000	55.304846
15	25	-31.600239	-17.456672	50.710593	61.699244
15	26	-36.241567	-22.928772	57.528808	68.962489
15	27	-39.493594	-27.180035	65.556045	77.005383
15	28	-41.177386	-30.105181	74.744881	85.601295
15	29	-41.390883	-31.600239	84.805571	95.194429
15	30	-41.177386	-30.105181	94.398705	105.255119
15	31	-39.493594	-27.180035	102.994617	114.443955
15	32	-36.241567	-22.928772	111.037511	122.471192
15	33	-31.600239	-17.456672	118.300756	129.289407
15	34	-25.746324	-10.835040	124.695154	135.000000
15	35	-18.807221	-3.071324	130.236358	139.763642
15	36	-10.835040	-0.000012	135.000000	143.746162
15	37	-1.786689	-0.000063	142.537736	144.398570
16	22	-3.071324	-0.000019	43.471212	46.533174
16	23	-10.835040	-0.000012	45.000000	53.746162
16	24	-17.456672	-1.786689	49.763642	59.036243
16	25	-22.928772	-8.231961	55.304846	64.983107
16	26	-27.180035	-13.460975	61.699244	71.565051
16	27	-30.105181	-17.456672	68.962489	78.690068
16	28	-31.600239	-20.168702	77.005383	86.185925
16	29	-31.788791	-21.542174	85.601295	94.398705
16	30	-31.600239	-20.168702	93.814075	102.994617
16	31	-30.105181	-17.456672	101.309932	111.037511

Horizontal Tile #	Vertical Tile #	Min Latitude	Max Latitude	Min Longitude	Max Longitude
16	32	-27.180035	-13.460975	108.434949	118.300756
16	33	-22.928772	-8.231961	115.016893	124.695154
16	34	-17.456672	-1.786689	120.963757	130.236358
16	35	-10.835040	-0.000012	126.253838	135.000000
16	36	-3.071324	-0.000019	133.466826	136.528788
17	23	-1.786689	-0.000063	52.542798	54.402282
17	24	-8.231961	0.000000	53.746162	61.559758
17	25	-13.460975	-0.000032	59.036243	67.619865
17	26	-17.456672	-3.071324	64.983107	73.610460
17	27	-20.168702	-6.937151	71.565051	79.992020
17	28	-21.542174	-9.531018	78.690068	86.633539
17	29	-21.714757	-10.835040	86.185925	93.814075
17	30	-21.542174	-9.531018	93.366461	101.309932
17	31	-20.168702	-6.937151	100.007980	108.434949
17	32	-17.456672	-3.071324	106.389540	115.016893
17	33	-13.460975	-0.000032	112.380135	120.963757
17	34	-8.231961	0.000000	118.440242	126.253838
17	35	-1.786689	-0.000063	125.597718	127.457202
18	25	-3.071324	-0.000012	64.115125	68.258385
18	26	-6.937151	0.000000	67.619865	74.657640
18	27	-9.531018	0.000000	73.610460	80.865270
18	28	-10.835040	-0.000032	79.992020	86.966433
18	29	-10.998429	0.000000	86.633539	93.366461
18	30	-10.835040	-0.000032	93.033567	100.007980
18	31	-9.531018	0.000000	99.134730	106.389540
18	32	-6.937151	0.000000	105.342360	112.380135
18	33	-3.071324	-0.000012	111.741615	115.884875